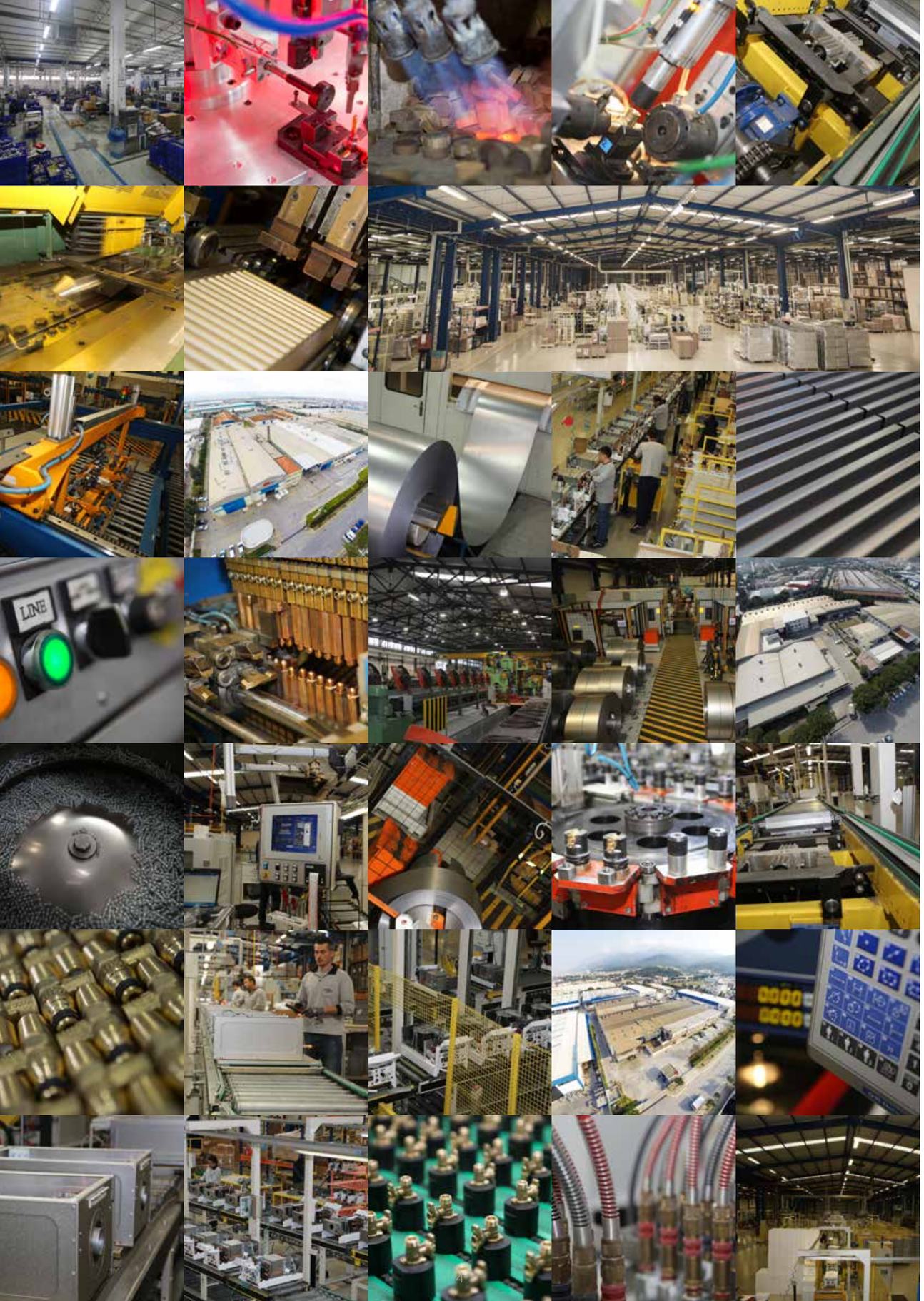


# RADIATORS

E.C.A®

TOGETHER FOR YEARS

TOGETHER FOR YEARS



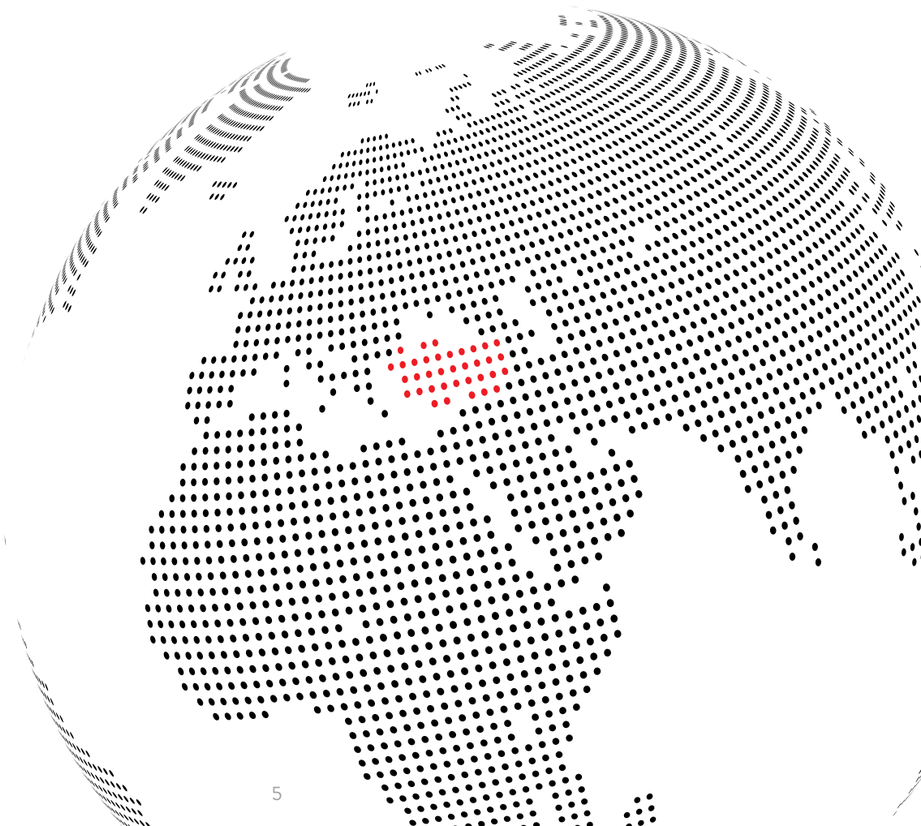

# We are E.C.A.

The Elginkan Group started production under trademark of E.C.A. in 1957.

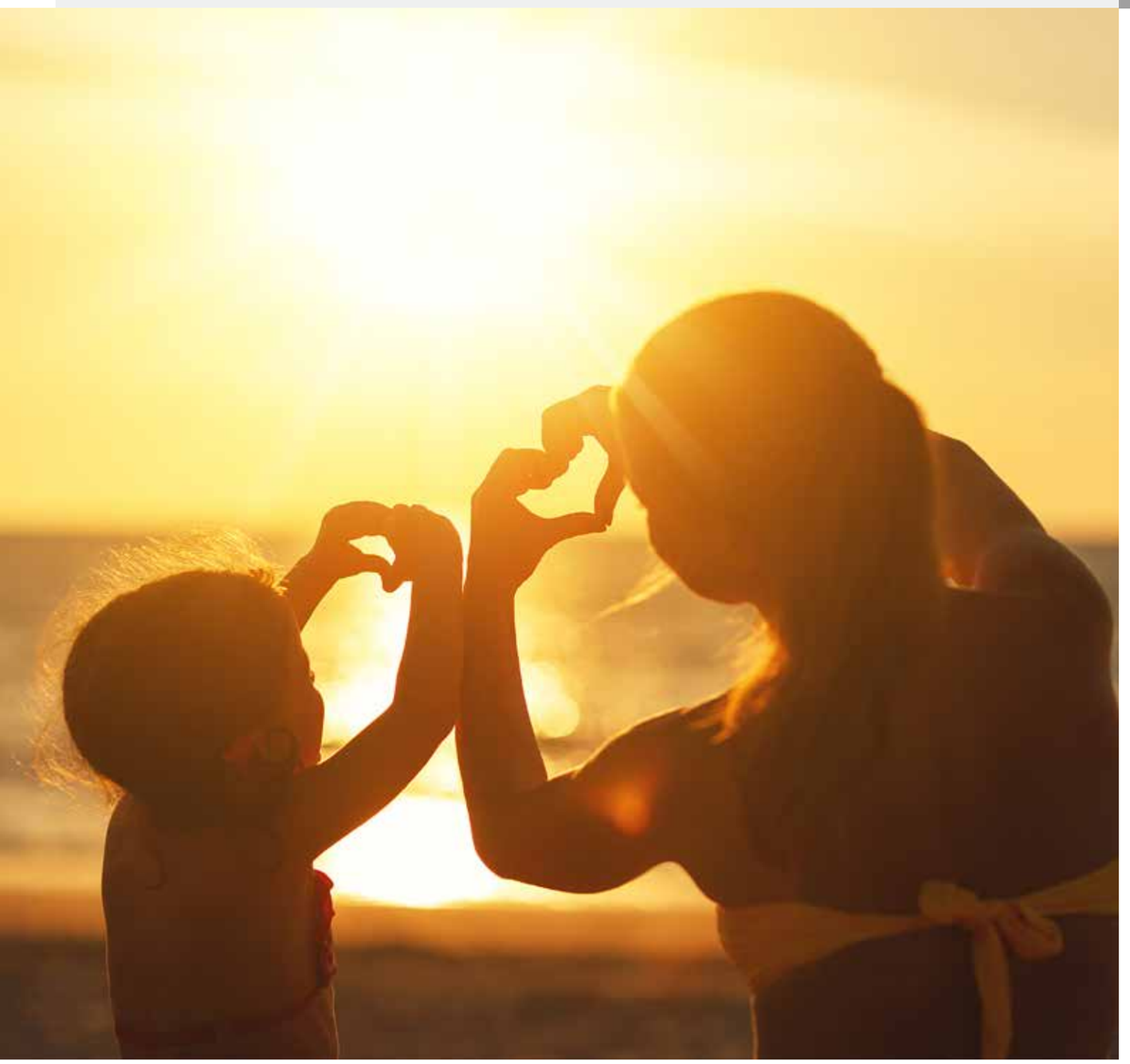
The Group has reached its present product range by including in its activity matters, production and marketing of valves and sanitary fittings, ceramic sanitary wares central and individual heating and cooling equipment, gas and electrical water heaters, household appliances, cast iron products, molds, food and catering, construction, industrial raw materials, from the day it was founded.

While the Elginkan Group runs its activities with integrity from raw material to sales, the planning and execution of this chain is realized continuously and mainly with information dealing and managing within the company and among companies.

Today this group operates 14 factories and 21 companies in the heating and building industries. It is already presenting quality products to the consumer with trademarks such as E.C.A., SEREL, EMAS, ODÖKSAN, ELBA, AR and YAK. Eleks Dış Ticaret A.Ş. is the Elginkan Group's export company.



# A brand new future with E.C.A.



E.C.A. is aware of the fact that the sustainability of life depends on the sustainability of natural resources. With an awareness of the environment and the future since 1953, it has been designing products encouraging economy in energy and resources by minimising its consumption of non-renewable natural resources, beginning at the production process. Especially in the products that have been developed during the last twenty years, water and heat saving has been adopted as a standard application, and the technologies and designs that are developed are shaped accordingly.

In all products it develops, from radiators to combi boilers and valves, it introduces the consumer to environment-friendly technologies that aim at preserving non-renewable natural resources, mainly thermal energy.

Having stood by the consumer with its quality for many years, E.C.A. aims for an ecologically unchanged future through its environment-friendly products.

## “To be together for years...”

# RADIATORS



# High Heat Output Maximum Efficiency

It can be adjusted to the needs of the Every radiator features two convector fins welded directly to each waterway to ensure the highest possible heat output. All radiators are pressure tested at 13 bar.

# Comfort, Economy & Elegance

# Residences, Schools Hospitals, Hotels... In short, everywhere





# High Quality Paint Finish

All radiators are finished in white epoxy polyester powder paint(RAL9010). Additionally, special colours are available for big demands. Every radiator undergoes a multi stage pre-treatment nanoceramic zirconium coating followed by an epoxy polyester powder coating.



# Wide Range

There is a wide range of panel radiators-heights range from 300 mm to 900 mm and lengths range from 400 mm to 3000 mm.

# Factory Fitted Top Grill & Side Panels

All our panel radiators come complete with factory fitted top grills and side panels except Type P.



# High Durability

All E.C.A. radiators are manufactured under the ISO 9001 quality system, ISO 14001 Environmental Management System, OHSAS 18001 Health and Safety Management System and ISO 50001 Energy Management System. Each durable radiator is fully guaranteed against all defects caused by faulty materials or manufacture.

# Packaging & Easy Installation

All radiators are supplied in strong protective packaging with reinforced cardboard edges. Each radiator is bubble wrapped and then shrink wrapped with strong polystyrene. The pack is clearly marked with type and size and the installation kit is sealed inside with protective packaging. The installation kit includes all wall mounting brackets, plugs, vents and wall plugs and a vent key. Everything for easy installation is included in the pack.

# E.C.A. Integrity Panel Radiators

E.C.A. Integrity is a brand new central heating panel radiator thanks to its shape providing visual integrity and its easy to open covers.

E.C.A. Integrity panel radiators facilitates your life in ‘new’ ways thanks to its ‘brand new properties’. The trendsetting properties of the E.C.A. Integrity panel radiators provide you with a more aesthetical living space, more freedom, more economy, and perfect hygiene.

E.C.A. Integrity panel radiators can be easily cleaned thanks to their detachable covers, so that they are an ideal solution for such places as kindergartens, schools, hospitals, consulting rooms, polyclinics and restaurants where hygiene is important.



## Liberty

Easy to open cover system



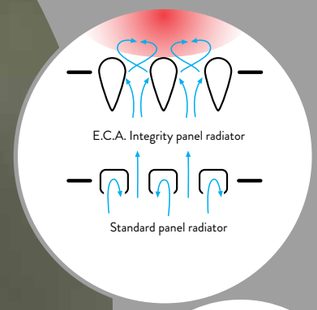
## Integrity

Aesthetical shape providing integrity



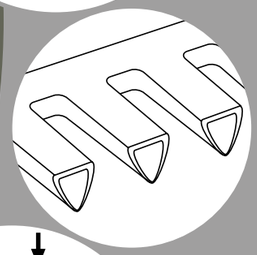
## Healthy

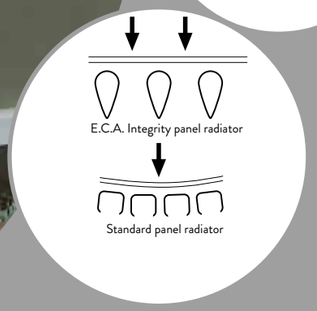
Advantage of cleaning thanks to its easy to open covers




## Thriftily

Its drop-shaped grill increases the air circulation and facilitates the heat transfer to save from energy costs.






## Solidity

Its drop-shaped grill ensures its body to be more endurable.



# Ventil Compact (6 Hole) Panel Radiators

Provide bottom entry connection to the radiators for underground pipe installations. It is proper to use with thermostatic radiator valves. Thermostatic radiator valve is used to regularise the heat level in the radiators for convenient temperature with regard to the room heating, with help of the thermostatic head they give more economic and efficient result of heating. Ventil Compact (6 Hole) radiators are produced suitable for ventils to be placed on right or left side of the radiators.





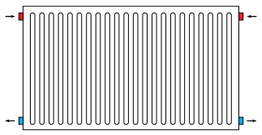
# Multi Compact (8 Hole) Radiators

Connect this radiator through the lower fitting located on the right side, left side or center axis of its panel. If you use the central fitting, the panel will center the connection point. The central axis fitting will also allow you to install a thermostat core for 8 hole (middle compact) panel radiators which increase the heating capacity by 2 to 3%, so that the radiators will be able to keep the ambient temperature at a comfortable level.

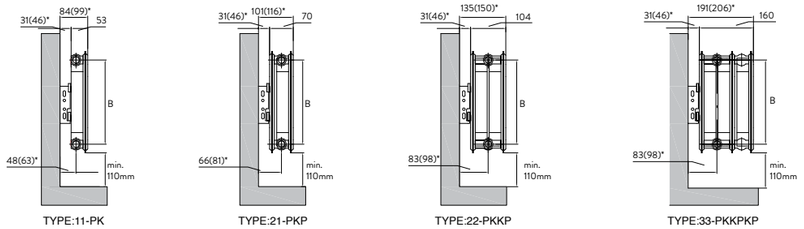
# Standard Panel Radiator

KM 95430

| TYPE | 300 | | 400 | | 500 | | 550 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 11(PK) | 8.65 | 1.80 | 11.40 | 2.23 | 14.14 | 2.65 | 15.45 | 3.08 | 16.90 | 3.50 | 19.64 | 3.87 | 22.39 | 4.23 | 25.14 | 4.60 |
| 21(PKP) | 14.11 | 3.40 | 18.83 | 4.15 | 23.39 | 4.90 | 25.28 | 5.65 | 27.95 | 6.40 | 32.51 | 7.07 | 37.07 | 7.73 | 41.63 | 8.40 |
| 22(PKKP) | 16.03 | 3.40 | 21.38 | 4.33 | 26.72 | 5.25 | 28.64 | 6.18 | 31.98 | 7.10 | 37.24 | 7.67 | 42.49 | 8.23 | 47.75 | 8.80 |
| 33(PKKPKP) | 23.97 | 5.30 | 32.06 | 6.35 | 39.93 | 7.40 | 42.80 | 8.45 | 47.80 | 9.50 | 55.67 | 10.80 | 63.54 | 12.10 | 71.41 | 13.40 |



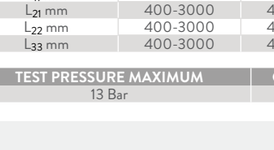
* This is valid for installation on the 45 mm side of the console



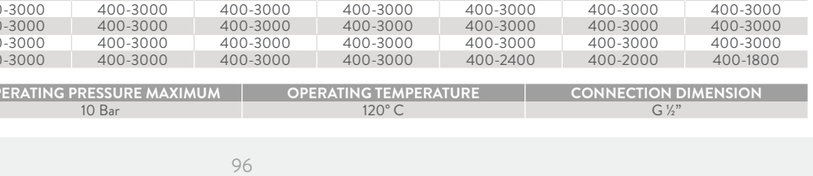

| Height mm | 300 | 400 | 500 | 550 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 500 | 549 | 649 | 749 | 849 |
| $L_{11}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{21}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{22}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{33}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-2400 | 400-2000 | 400-1800 |

# Compact Panel Radiator

| TYPE | 300 | | 400 | | 500 | | 550 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 11(PK) | 8.91 | 1.83 | 11.66 | 2.28 | 14.26 | 2.72 | 15.71 | 3.17 | 17.16 | 3.60 | 19.91 | 3.99 | 22.65 | 4.38 | 25.40 | 4.77 |
| 21(PKP) | 14.37 | 3.42 | 19.08 | 4.20 | 23.52 | 4.97 | 25.54 | 5.74 | 28.20 | 6.50 | 32.76 | 7.14 | 37.32 | 7.88 | 41.88 | 8.40 |
| 22(PKKP) | 16.28 | 3.42 | 21.63 | 4.38 | 26.72 | 5.32 | 28.89 | 6.27 | 32.23 | 7.20 | 37.49 | 7.74 | 42.74 | 8.38 | 48.00 | 8.80 |
| 33(PKKPKP) | 24.22 | 5.32 | 32.31 | 6.40 | 39.94 | 7.47 | 43.05 | 8.54 | 48.05 | 9.60 | 55.92 | 11.46 | 63.79 | 12.25 | 71.66 | 13.40 |



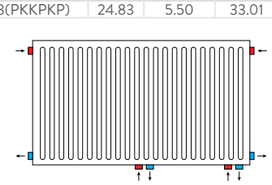
* This is valid for installation on the 45 mm side of the console



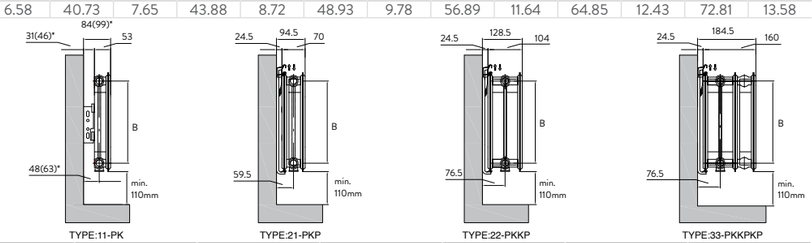

| Height mm | 300 | 400 | 500 | 550 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 500 | 549 | 649 | 749 | 849 |
| $L_{11}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{21}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{22}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{33}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-2400 | 400-2000 | 400-1800 |

# Multi Compact Panel Radiator

| TYPE | 300 | | 400 | | 500 | | 550 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 11(PK) | 9.62 | 2.01 | 12.45 | 2.46 | 15.14 | 2.90 | 16.64 | 3.35 | 18.13 | 3.78 | 20.97 | 4.12 | 23.81 | 4.56 | 26.65 | 4.95 |
| 21(PKP) | 15.07 | 3.60 | 19.87 | 4.38 | 24.40 | 5.15 | 26.46 | 5.92 | 29.17 | 6.68 | 33.82 | 7.32 | 38.47 | 8.06 | 43.12 | 8.58 |
| 22(PKKP) | 16.89 | 3.60 | 22.33 | 4.56 | 27.51 | 5.50 | 29.73 | 6.45 | 33.11 | 7.38 | 38.46 | 7.92 | 43.80 | 8.56 | 49.15 | 8.98 |
| 33(PKKPKP) | 24.83 | 5.50 | 33.01 | 6.58 | 40.73 | 7.65 | 43.88 | 8.72 | 48.93 | 9.78 | 56.89 | 11.64 | 64.85 | 12.43 | 72.81 | 13.58 |



* This is valid for installation on the 45 mm side of the console




| Height mm | 300 | 400 | 500 | 550 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 500 | 549 | 649 | 749 | 849 |
| $L_{11}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{21}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{22}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{33}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-2400 | 400-2000 | 400-1800 |

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½” |



# TYPE11

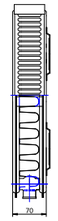





| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 279 | 240 | 520 | 447 | 649 | 558 | 1,21758 | 4,44099 |
| 400 | 358 | 308 | 671 | 577 | 840 | 722 | 1,22896 | 5,48255 |
| 500 | 432 | 371 | 814 | 700 | 1020 | 877 | 1,24034 | 6,35657 |
| 550 | 467 | 401 | 882 | 758 | 1107 | 952 | 1,24603 | 6,73715 |
| 600 | 500 | 430 | 948 | 815 | 1191 | 1024 | 1,25172 | 7,08304 |
| 700 | 566 | 486 | 1075 | 924 | 1351 | 1162 | 1,25688 | 7,86839 |
| 800 | 627 | 539 | 1194 | 1027 | 1503 | 1292 | 1,26203 | 8,56755 |
| 900 | 684 | 588 | 1306 | 1123 | 1646 | 1415 | 1,26719 | 9,18675 |

# TYPE21

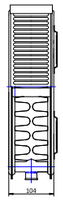





| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 402 | 345 | 762 | 655 | 957 | 823 | 1,25232 | 5,67640 |
| 400 | 504 | 433 | 961 | 826 | 1209 | 1040 | 1,26236 | 6,88463 |
| 500 | 600 | 516 | 1150 | 989 | 1450 | 1247 | 1,27239 | 7,92471 |
| 550 | 647 | 556 | 1242 | 1068 | 1568 | 1348 | 1,27741 | 8,39077 |
| 600 | 692 | 595 | 1332 | 1145 | 1683 | 1447 | 1,28243 | 8,82465 |
| 700 | 781 | 672 | 1508 | 1296 | 1907 | 1639 | 1,28682 | 9,81970 |
| 800 | 868 | 746 | 1679 | 1443 | 2124 | 1826 | 1,29122 | 10,74537 |
| 900 | 952 | 818 | 1845 | 1586 | 2337 | 2009 | 1,29561 | 11,60967 |

# TYPE22

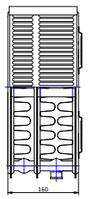





| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 510 | 438 | 966 | 831 | 1214 | 1043 | 1,25122 | 7,23082 |
| 400 | 653 | 561 | 1242 | 1068 | 1563 | 1344 | 1,25976 | 8,99494 |
| 500 | 788 | 678 | 1507 | 1295 | 1899 | 1633 | 1,26830 | 10,54957 |
| 550 | 853 | 734 | 1635 | 1406 | 2062 | 1773 | 1,27257 | 11,25665 |
| 600 | 917 | 788 | 1760 | 1514 | 2222 | 1910 | 1,27684 | 11,92048 |
| 700 | 1041 | 895 | 2005 | 1723 | 2532 | 2177 | 1,28178 | 13,31395 |
| 800 | 1161 | 998 | 2240 | 1926 | 2832 | 2435 | 1,28671 | 14,59373 |
| 900 | 1276 | 1097 | 2467 | 2121 | 3123 | 2685 | 1,29165 | 15,76764 |

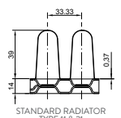
# TYPE33

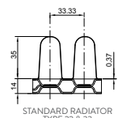





| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 678 | 583 | 1339 | 1151 | 1707 | 1468 | 1,33116 | 7,33176 |
| 400 | 875 | 752 | 1719 | 1478 | 2188 | 1881 | 1,32231 | 9,74497 |
| 500 | 1059 | 910 | 2071 | 1781 | 2631 | 2262 | 1,31346 | 12,15151 |
| 550 | 1146 | 985 | 2237 | 1923 | 2839 | 2441 | 1,30903 | 13,35274 |
| 600 | 1230 | 1058 | 2396 | 2060 | 3039 | 2613 | 1,30460 | 14,55277 |
| 700 | 1390 | 1195 | 2695 | 2317 | 3414 | 2935 | 1,29575 | 16,94963 |
| 800 | 1540 | 1324 | 2971 | 2555 | 3757 | 3230 | 1,28690 | 19,34273 |
| 900 | 1679 | 1443 | 3225 | 2772 | 4071 | 3500 | 1,27805 | 21,73256 |

*550mm height obtained through calculation and do not have NF quality mark.
*Compact panel radiators do not have quality certificate.
*Multi compact panel radiators do not have quality certificate.
The ϕ values given in the table are for 1000 mm products.




STANDARD RADIATOR




| HEIGHT | Type 11 | | | Type 21 | | | Type 22 | | | Type 33 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | Km | n | ϕ W/m | Km | n | ϕ W/m | Km | n | ϕ W/m | Km | n | ϕ W/m |
| 300 | 4,44099 | 1,21758 | 520 | 5,67640 | 1,25232 | 762 | 7,23082 | 1,25122 | 966 | 7,33176 | 1,33116 | 1339 |
| 400 | 5,48255 | 1,22896 | 671 | 6,88463 | 1,26236 | 961 | 8,99494 | 1,25976 | 1242 | 9,74497 | 1,32231 | 1719 |
| 500 | 6,35657 | 1,24034 | 814 | 7,92471 | 1,27239 | 1150 | 10,54957 | 1,26830 | 1507 | 12,15151 | 1,31346 | 2071 |
| 550 | 6,73715 | 1,24603 | 882 | 8,39077 | 1,27741 | 1242 | 11,25665 | 1,27257 | 1635 | 13,35274 | 1,30903 | 2237 |
| 600 | 7,08304 | 1,25172 | 948 | 8,82465 | 1,28243 | 1332 | 11,92048 | 1,27684 | 1760 | 14,55277 | 1,30460 | 2396 |
| 700 | 7,86839 | 1,25688 | 1075 | 9,81970 | 1,28682 | 1508 | 13,31395 | 1,28178 | 2005 | 16,94963 | 1,29575 | 2695 |
| 800 | 8,56755 | 1,26203 | 1194 | 10,74537 | 1,29122 | 1679 | 14,59373 | 1,28671 | 2240 | 19,34273 | 1,28690 | 2971 |
| 900 | 9,18675 | 1,26719 | 1306 | 11,60967 | 1,29561 | 1845 | 15,76764 | 1,29165 | 2467 | 21,73256 | 1,27805 | 3225 |

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½” |

To calculate heat capacities at various extreme temperatures in accordance with EN 442 standard:
Standard heat capacity of a model is calculated using the following formula:

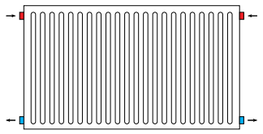
$\phi = K_m . \Delta T^n$

The KM and n values shown in the table are used for calculating the capacity at various input/output water and ambient temperature.

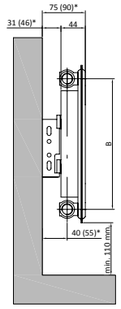
Example:
Calculation of capacity of Type 22 600x1000 product at water temperature 80/50°C and ambient temperature 22°C:
$t_g$, Input water temperature = 80 °C
$t_r$, Output water temperature = 50 °C
$t_o$, Ambient temperature to = 22 °C
$t_m$, Average temperature= $(t_g+t_r) / 2 = (80 +50) / 2 = 65$ °C
ΔT, Extreme temperature = $t_m - t_o = 65-22 = 43$ °C
Using the formula; $\phi = 11,92048 \times 43^{1,277} = 1452$ W/m

# Smart Panel Radiator

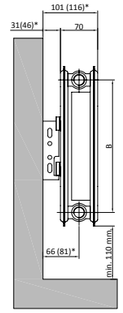
| TYPE | 300 | | 400 | | 500 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 11(PK) | 7,79 | 1,80 | 10,29 | 2,23 | 12,79 | 2,65 | 15,30 | 3,50 | 17,80 | 3,87 | 20,30 | 4,23 | 22,81 | 4,60 |
| 21(PKP) | 13,16 | 3,40 | 17,35 | 4,15 | 21,54 | 4,90 | 25,72 | 6,40 | 29,91 | 7,07 | 34,10 | 7,73 | 38,29 | 8,40 |
| 22(PKKP) | 14,60 | 3,40 | 19,28 | 4,33 | 23,96 | 5,25 | 28,63 | 7,10 | 33,31 | 7,67 | 37,99 | 8,23 | 42,67 | 8,80 |
| 33(PKKPKP) | 21,68 | 5,30 | 28,68 | 6,35 | 35,52 | 7,40 | 42,49 | 9,50 | 49,47 | 10,80 | 56,44 | 12,10 | 63,41 | 13,40 |



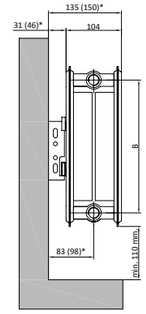
* This is valid for installation on the 45 mm side of the console



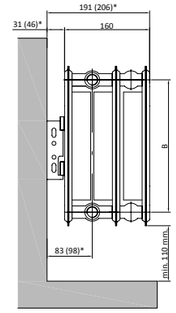

TYPE:11-PK




TYPE:21-PKP




TYPE:22-PKKP

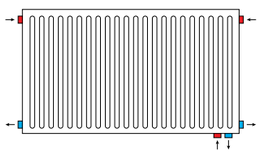



TYPE:33-PKKPKP

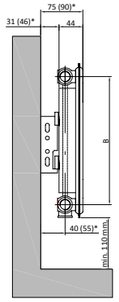
| Height mm | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 549 | 649 | 749 | 849 |
| $L_{11}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{21}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{22}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{33}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-2400 | 400-2000 | 400-1800 |

# Smart Compact Panel Radiator

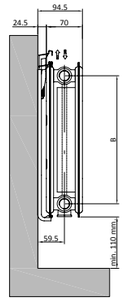
| TYPE | 300 | | 400 | | 500 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 11(PK) | 8,10 | 1,83 | 10,62 | 2,28 | 13,14 | 2,72 | 15,66 | 3,60 | 18,18 | 3,99 | 20,70 | 4,38 | 23,23 | 4,77 |
| 21(PKP) | 13,49 | 3,42 | 17,69 | 4,20 | 21,90 | 4,97 | 26,10 | 6,50 | 30,31 | 7,14 | 34,52 | 7,88 | 38,72 | 8,40 |
| 22(PKKP) | 14,93 | 3,42 | 19,63 | 4,38 | 24,32 | 5,32 | 29,02 | 7,20 | 33,71 | 7,74 | 38,41 | 8,38 | 43,10 | 8,80 |
| 33(PKKPKP) | 22,01 | 5,32 | 29,03 | 6,40 | 35,89 | 7,47 | 42,88 | 9,60 | 49,87 | 11,46 | 56,86 | 12,25 | 63,85 | 13,40 |



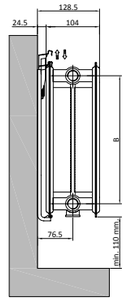
* This is valid for installation on the 45 mm side of the console



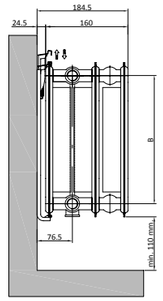

TYPE:11-PK




TYPE:21-PKP




TYPE:22-PKKP




TYPE:33-PKKPKP

| Height mm | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 549 | 649 | 749 | 849 |
| $L_{11}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{21}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{22}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{33}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-2400 | 400-2000 | 400-1800 |

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½” |



## TYPE11






| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 245 | 211 | 476 | 410 | 604 | 519 | 1,3009 | 2,93617 |
| 400 | 321 | 276 | 625 | 537 | 793 | 682 | 1,3066 | 3,76649 |
| 500 | 392 | 337 | 767 | 659 | 974 | 837 | 1,3122 | 4,51985 |
| 600 | 460 | 395 | 901 | 775 | 1146 | 986 | 1,3179 | 5,19753 |
| 700 | 525 | 451 | 1029 | 885 | 1309 | 1126 | 1,3195 | 5,89863 |
| 800 | 586 | 504 | 1151 | 990 | 1464 | 1259 | 1,3211 | 6,55262 |
| 900 | 644 | 554 | 1265 | 1088 | 1610 | 1385 | 1,3227 | 7,16087 |

## TYPE21

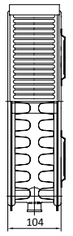





| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 377 | 324 | 732 | 630 | 928 | 798 | 1,2993 | 4,54169 |
| 400 | 480 | 413 | 932 | 801 | 1181 | 1015 | 1,2985 | 5,79647 |
| 500 | 578 | 497 | 1121 | 964 | 1420 | 1221 | 1,2978 | 6,99268 |
| 600 | 671 | 577 | 1302 | 1119 | 1649 | 1418 | 1,2970 | 8,14542 |
| 700 | 757 | 651 | 1475 | 1269 | 1872 | 1610 | 1,3060 | 8,91243 |
| 800 | 839 | 721 | 1642 | 1412 | 2087 | 1795 | 1,3149 | 9,58187 |
| 900 | 917 | 789 | 1803 | 1551 | 2296 | 1974 | 1,3239 | 10,15841 |

## TYPE22

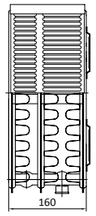





| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 468 | 402 | 923 | 794 | 1177 | 1012 | 1,3301 | 5,07625 |
| 400 | 602 | 517 | 1181 | 1016 | 1502 | 1292 | 1,3203 | 6,74569 |
| 500 | 730 | 627 | 1425 | 1226 | 1810 | 1556 | 1,3106 | 8,45620 |
| 600 | 853 | 734 | 1658 | 1426 | 2102 | 1807 | 1,3008 | 10,22205 |
| 700 | 966 | 831 | 1881 | 1617 | 2385 | 2051 | 1,3033 | 11,48291 |
| 800 | 1075 | 924 | 2094 | 1801 | 2657 | 2285 | 1,3057 | 12,66758 |
| 900 | 1179 | 1014 | 2299 | 1977 | 2919 | 2510 | 1,3082 | 13,77219 |

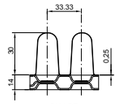
## TYPE33



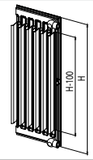



| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 663 | 570 | 1269 | 1092 | 1601 | 1376 | 1,2725 | 8,74023 |
| 400 | 839 | 721 | 1615 | 1388 | 2040 | 1754 | 1,2824 | 10,69625 |
| 500 | 1004 | 863 | 1943 | 1671 | 2459 | 2115 | 1,2923 | 12,38286 |
| 600 | 1161 | 998 | 2257 | 1941 | 2862 | 2461 | 1,3022 | 13,84063 |
| 700 | 1313 | 1129 | 2560 | 2201 | 3248 | 2793 | 1,3069 | 15,41166 |
| 800 | 1459 | 1255 | 2852 | 2452 | 3622 | 3115 | 1,3115 | 16,85921 |
| 900 | 1600 | 1376 | 3134 | 2695 | 3984 | 3426 | 1,3162 | 18,19457 |

The ϕ values given in the table are for 1000 mm products.




SMART RADIATOR




| HEIGHT mm | Type 11 | | | Type 21 | | | Type 22 | | | Type 33 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Km | n | ϕ W/m | Km | n | ϕ W/m | Km | n | ϕ W/m | Km | n | ϕ W/m |
| 300 | 2,93617 | 1,3009 | 476 | 4,54169 | 1,2993 | 732 | 5,07625 | 1,3301 | 923 | 8,74023 | 1,27253 | 1269 |
| 400 | 3,76649 | 1,3066 | 625 | 5,79647 | 1,2985 | 932 | 6,74569 | 1,3203 | 1181 | 10,69625 | 1,28242 | 1615 |
| 500 | 4,51985 | 1,3122 | 767 | 6,99268 | 1,2978 | 1121 | 8,4562 | 1,3106 | 1425 | 12,38286 | 1,29231 | 1943 |
| 600 | 5,19753 | 1,3179 | 901 | 8,14542 | 1,297 | 1302 | 10,22205 | 1,3008 | 1658 | 13,84063 | 1,3022 | 2257 |
| 700 | 5,89863 | 1,3195 | 1029 | 8,91243 | 1,306 | 1475 | 11,48291 | 1,3033 | 1881 | 15,41166 | 1,30686 | 2560 |
| 800 | 6,55262 | 1,3211 | 1151 | 9,58187 | 1,3149 | 1642 | 12,66758 | 1,3057 | 2094 | 16,85921 | 1,31152 | 2852 |
| 900 | 7,16087 | 1,3227 | 1265 | 10,15841 | 1,3239 | 1803 | 13,77219 | 1,3082 | 2299 | 18,19457 | 1,31618 | 3134 |

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½” |

To calculate heat capacities at various extreme temperatures in accordance with EN 442 standard:
Standard heat capacity of a model is calculated using the following formula:

$\phi = K_m . \Delta T^n$

The KM and n values shown in the table are used for calculating the capacity at various input/output water and ambient temperature.

Example:
Calculation of capacity of Type 22 600x1000 product at water temperature 80/50°C and ambient temperature 22°C:
$t_g$, Input water temperature = 80 °C
$t_ç$, Output water temperature = 50 °C
$t_o$, Ambient temperature to = 22 °C
$t_m$, Average temperature= $(t_g + t_ç) / 2 = (80 + 50) / 2 = 65$ °C
ΔT, Extreme temperature = $t_m - t_o = 65-22 = 43$ °C
Using the formula; $\phi = 10,22205 \times 43^{1,3008} = 1363$ W/m

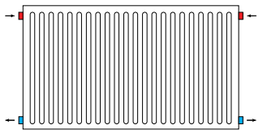


# Hygienic Radiators

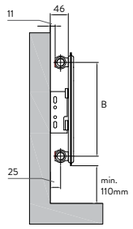
Hygienic radiators can be produced by all dimensions of the standard product. It doesn't nestle any convector. Thereby this product can be cleaned very easily since it does not nestle the convection. This feature of the product makes it preferable in hospitals, pharmacies, health institutions, schools, kindergartens and food factories.

# Hygienic Panel Radiator

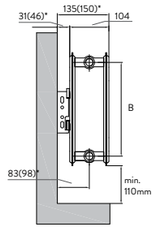
| TYPE | 300 | | 400 | | 500 | | 550 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 10 (P) | 6.32 | 1,80 | 8.19 | 2,23 | 10.06 | 2,65 | 10.98 | 3,08 | 11.93 | 3,50 | 13.80 | 3,87 | 15.67 | 4,23 | 17.54 | 4,60 |
| 20W(PP) | 12.24 | 3,40 | 16.07 | 4,33 | 19.78 | 5,25 | 21.63 | 6,18 | 23.49 | 7,10 | 27.20 | 7,67 | 30.90 | 8,23 | 34.61 | 8,80 |
| 30(PPP) | 18.26 | 5,30 | 23.94 | 6,35 | 29.48 | 7,40 | 32.26 | 8,45 | 35.03 | 9,50 | 40.58 | 10,80 | 46.13 | 12,10 | 51.68 | 13,40 |



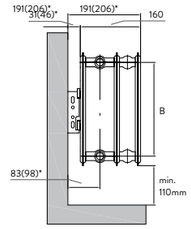
* This is valid for installation on the 45 mm side of the console




TYPE:10-P




TYPE:20W-PP

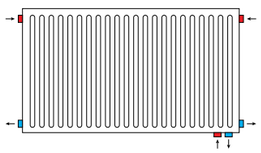



TYPE:30-PPP

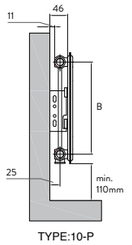
| Height mm | 300 | 400 | 500 | 550 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 500 | 549 | 649 | 749 | 849 |
| $L_{10}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{20}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{30}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-2400 | 400-2000 | 400-1800 |

# Hygienic Compact Panel Radiator

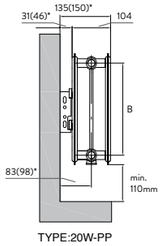
| TYPE | 300 | | 400 | | 500 | | 550 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 10 (P) | 6.58 | 1,83 | 8.45 | 2,28 | 10.29 | 2,72 | 11.24 | 3,17 | 12.19 | 3,60 | 14.06 | 3,99 | 15.93 | 4,38 | 17.80 | 4,77 |
| 20W(PP) | 12.49 | 3,42 | 16.32 | 4,38 | 19.99 | 5,32 | 21.88 | 6,27 | 23.74 | 7,20 | 27.45 | 7,74 | 31.16 | 8,38 | 34.86 | 8,80 |
| 30(PPP) | 18.51 | 5,32 | 24.19 | 6,40 | 29.69 | 7,47 | 32.51 | 8,54 | 35.28 | 9,60 | 40.83 | 11,46 | 46.38 | 12,25 | 51.93 | 13,40 |



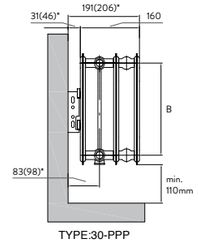
* This is valid for installation on the 45 mm side of the console




TYPE:10-P




TYPE:20W-PP

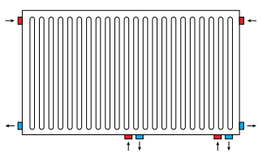


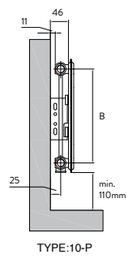

TYPE:30-PPP

| Height mm | 300 | 400 | 500 | 550 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 500 | 549 | 649 | 749 | 849 |
| $L_{10}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{20}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{30}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-2400 | 400-2000 | 400-1800 |

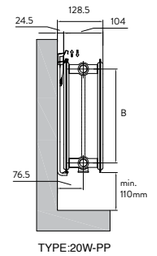
# Hygienic Multi Compact Panel Radiator

| TYPE | 300 | | 400 | | 500 | | 550 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 10 (P) | 7.28 | 2,01 | 9.25 | 2,46 | 11.17 | 2,90 | 12.17 | 3,35 | 13.17 | 3,78 | 15.13 | 4,12 | 17.09 | 4,56 | 19.05 | 4,95 |
| 20W(PP) | 13.10 | 3,60 | 17.02 | 4,56 | 20.78 | 5,50 | 22.72 | 6,45 | 24.62 | 7,38 | 28.42 | 7,92 | 32.22 | 8,56 | 36.01 | 8,98 |
| 30(PPP) | 19.12 | 5,50 | 24.89 | 6,58 | 30.48 | 7,65 | 33.34 | 8,72 | 36.16 | 9,78 | 41.80 | 11,64 | 47.44 | 12,43 | 53.08 | 13,58 |

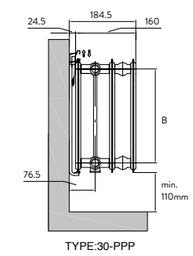





TYPE:10-P




TYPE:20W-PP




TYPE:30-PPP

| Height mm | 300 | 400 | 500 | 550 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 500 | 549 | 649 | 749 | 849 |
| $L_{10}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{20}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 |
| $L_{30}$ mm | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-3000 | 400-2400 | 400-2000 | 400-1800 |

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½" |



# TYPE10

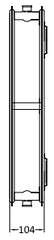





| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 169 | 145 | 332 | 286 | 423 | 364 | 1,3255 | 1,85850 |
| 400 | 223 | 192 | 436 | 375 | 554 | 476 | 1,3121 | 2,57200 |
| 500 | 277 | 238 | 537 | 462 | 680 | 585 | 1,2987 | 3,33830 |
| 550 | 303 | 261 | 586,5 | 504 | 742 | 638 | 1,2920 | 3,74260 |
| 600 | 328 | 282 | 633 | 544 | 800 | 688 | 1,2853 | 4,14680 |
| 700 | 375 | 322 | 725 | 624 | 917 | 789 | 1,2907 | 4,65030 |
| 800 | 419 | 361 | 813 | 699 | 1030 | 886 | 1,2961 | 5,10570 |
| 900 | 461 | 396 | 896 | 771 | 1136 | 977 | 1,3015 | 5,50930 |

# TYPE20W






| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 320 | 275 | 619 | 532 | 783 | 674 | 1,2913 | 3,96110 |
| 400 | 403 | 347 | 780 | 671 | 987 | 849 | 1,2904 | 5,00900 |
| 500 | 482 | 415 | 932 | 802 | 1179 | 1014 | 1,2895 | 6,00610 |
| 550 | 520 | 447 | 1004 | 863 | 1270 | 1092 | 1,2891 | 6,47910 |
| 600 | 557 | 479 | 1075 | 925 | 1360 | 1169 | 1,2886 | 6,95210 |
| 700 | 626 | 538 | 1212 | 1042 | 1535 | 1320 | 1,2946 | 7,65620 |
| 800 | 692 | 595 | 1344 | 1156 | 1704 | 1465 | 1,3006 | 8,29310 |
| 900 | 754 | 649 | 1470 | 1264 | 1865 | 1604 | 1,3066 | 8,86020 |

# TYPE30






| HEIGHT | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | n | $K_M$ |
|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | | |
| 300 | 442 | 380 | 864 | 743 | 1097 | 944 | 1,3103 | 5,13280 |
| 400 | 551 | 474 | 1077 | 926 | 1368 | 1176 | 1,3118 | 6,36070 |
| 500 | 655 | 563 | 1281 | 1102 | 1628 | 1400 | 1,3133 | 7,52130 |
| 550 | 705 | 607 | 1380 | 1187 | 1754 | 1508 | 1,3141 | 8,07720 |
| 600 | 756 | 650 | 1479 | 1272 | 1880 | 1617 | 1,3148 | 8,63310 |
| 700 | 853 | 734 | 1671 | 1437 | 2124 | 1827 | 1,3162 | 9,70050 |
| 800 | 947 | 815 | 1857 | 1597 | 2361 | 2031 | 1,3177 | 10,71720 |
| 900 | 1040 | 894 | 2040 | 1754 | 2595 | 2231 | 1,3192 | 11,70440 |

* 550 mm height obtained through calculation.
*Hygienic panel radiators do not have quality certificate.
The ϕ values given in the table are for 1000 mm products.

| HEIGHT | Type 10 | | | Type 20 | | | Type 30 | | |
|---|---|---|---|---|---|---|---|---|---|
| mm | Km | n | ϕ W/m | Km | n | ϕ W/m | Km | n | ϕ W/m |
| 300 | 1.8585 | 1.3255 | 332 | 3.9611 | 1.2913 | 619 | 5.1328 | 1.3103 | 864 |
| 400 | 2.5720 | 1.3121 | 436 | 5.0089 | 1.2904 | 780 | 6.3607 | 1.3118 | 1077 |
| 500 | 3.3383 | 1.2987 | 537 | 6.0061 | 1.2895 | 932 | 7.5213 | 1.3133 | 1281 |
| 550 | 3.7425 | 1.2920 | 586 | 6.4791 | 1.2891 | 1004 | 8.0771 | 1.3141 | 1380 |
| 600 | 4.1468 | 1.2853 | 633 | 6.9521 | 1.2886 | 1075 | 8.6330 | 1.3148 | 1479 |
| 700 | 4.6503 | 1.2907 | 725 | 7.6562 | 1.2946 | 1212 | 9.7005 | 1.3162 | 1671 |
| 800 | 5.1057 | 1.2961 | 813 | 8.2931 | 1.3006 | 1344 | 10.7171 | 1.3177 | 1857 |
| 900 | 5.5093 | 1.3015 | 896 | 8.8602 | 1.3066 | 1470 | 11.7044 | 1.3192 | 2040 |

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½" |

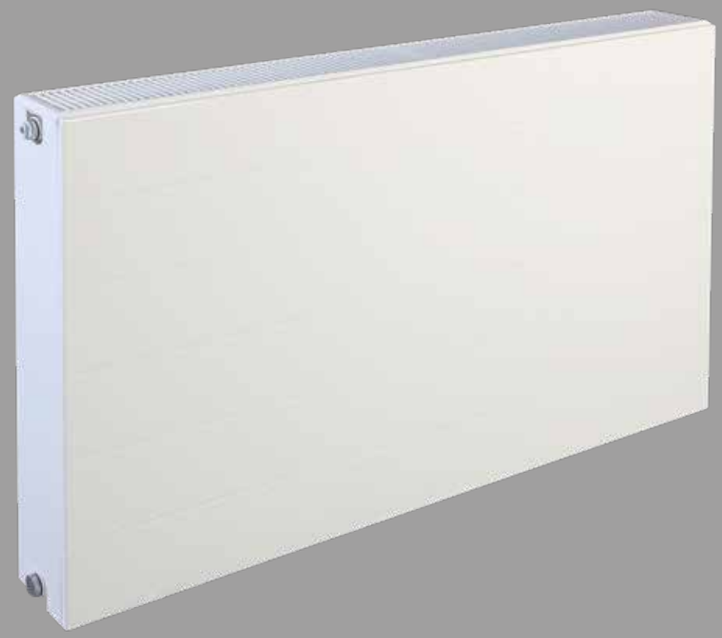
To calculate heat capacities at various extreme temperatures in accordance with EN 442 standard:
Standard heat capacity of a model is calculated using the following formula:

$\phi = K_m . \Delta T^n$

The KM and n values shown in the table are used for calculating the capacity at various input/output water and ambient temperature.

Example:
Calculation of capacity of Type 20W 600x1000 product at water temperature 80/50°C and ambient temperature 22°C:
$t_g$, Input water temperature = 80 °C
$t_g'$, Output water temperature = 50 °C
$t_o$, Ambient temperature to = 22 °C
$t_m$,Average temperature= $(t_g + t_g') / 2 = (80 + 50) / 2 = 65$ °C
ΔT, Extreme temperature = $t_m - t_o = 65-22 = 43$ °C
Using the formula; $\phi = 6{,}9521 . 43^{1{,}2886} = 885$ W/m



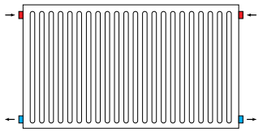
# Flat Surface Panel Radiators

Flat surface panel radiators are produced with heights 300-400-500-600-700-800-900 and lengths varying from 400 mm to 2000 mm. Flat surface panel radiators get comfort and style together. Flat surfaces could be dismounted upon request and the radiator can be used as a standard radiator. One can also mount the flat surface easily to a standard radiator.

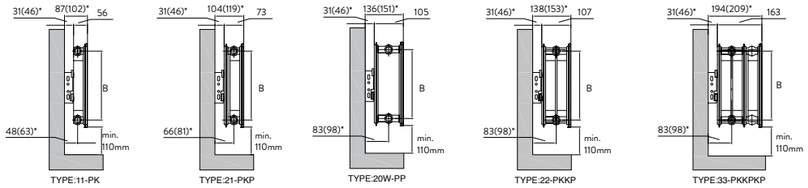
# Flat Surface Standard Panel Radiator

NF quality certification is only for type 21 and type 22 products.

| TYPE | 300 | | 400 | | 500 | | 550 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 11(PK) | 11.24 | 1,80 | 14.82 | 2,23 | 18.41 | 2,65 | 20.42 | 3,08 | 22.00 | 3,50 | 25.59 | 3,87 | 29.18 | 4,23 | 37.77 | 4,60 |
| 21(PKP) | 16.70 | 3,40 | 22.25 | 4,15 | 27.65 | 4,90 | 30.26 | 5,65 | 33.06 | 6,40 | 38.46 | 7,07 | 43.86 | 7,73 | 49.26 | 8,40 |
| 20W(PP) | 14.83 | 3,40 | 19.50 | 4,33 | 24.05 | 5,25 | 26.61 | 6,18 | 28.60 | 7,10 | 33.15 | 7,67 | 37.69 | 8,23 | 42.24 | 8,80 |
| 22(PKKP) | 18.62 | 3,40 | 24.81 | 4,33 | 30.99 | 5,25 | 33.62 | 6,18 | 37.09 | 7,10 | 43.18 | 7,67 | 49.28 | 8,23 | 55.38 | 8,80 |
| 33(PKKPKP) | 26.55 | 5,30 | 35.49 | 6,35 | 44.19 | 7,40 | 47.72 | 8,45 | 52.91 | 9,50 | 61.62 | 10,80 | 70.33 | 12,10 | 79.04 | 13,40 |



* This is valid for installation on the 45 mm side of the console



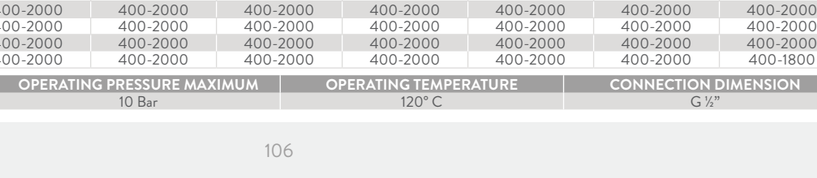

| Height mm | 300 | 400 | 500 | 550 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 500 | 549 | 649 | 749 | 849 |
| $L_{11}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{21}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{20}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{22}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{33}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-1800 |

# Flat Surface Compact Panel Radiator

| TYPE | 300 | | 400 | | 500 | | 550 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 11(PK) | 11.50 | 1,83 | 15.09 | 2,28 | 18.53 | 2,72 | 20.69 | 3,17 | 22.27 | 3,60 | 25.85 | 3,99 | 29.44 | 4,38 | 33.03 | 4,77 |
| 21(PK) | 16.96 | 3,42 | 22.51 | 4,20 | 27.79 | 4,97 | 30.51 | 5,74 | 33.31 | 6,50 | 38.71 | 7,14 | 44.11 | 7,88 | 49.51 | 8,40 |
| 20W(PP) | 15.08 | 3,42 | 19.75 | 4,38 | 24.26 | 5,32 | 26.86 | 6,27 | 28.85 | 7,20 | 33.40 | 7,74 | 37.95 | 8,38 | 42.49 | 8,80 |
| 22(PKKP) | 18.87 | 3,42 | 25.06 | 4,38 | 30.99 | 5,32 | 33.87 | 6,27 | 37.34 | 7,20 | 43.43 | 7,74 | 49.53 | 8,38 | 55.63 | 8,80 |
| 33(PKKPKP) | 26.81 | 5,32 | 35.74 | 6,40 | 44.21 | 7,47 | 48.03 | 8,54 | 53.16 | 9,60 | 61.87 | 11,46 | 70.58 | 12,25 | 79.29 | 13,40 |



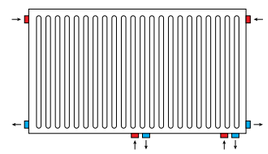
* This is valid for installation on the 45 mm side of the console



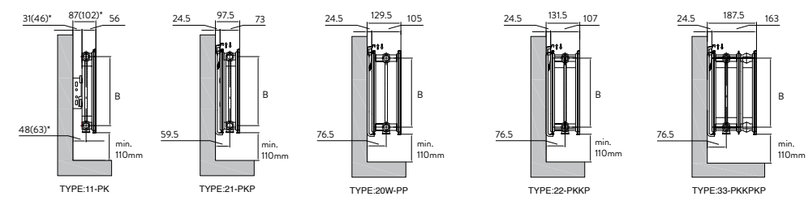

| Height mm | 300 | 400 | 500 | 550 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 500 | 549 | 649 | 749 | 849 |
| $L_{11}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{21}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{20}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{22}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{33}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-1800 |

# Flat Surface Multi Compact Panel Radiator

| TYPE | 300 | | 400 | | 500 | | 550 | | 600 | | 700 | | 800 | | 900 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m | Weight kg/m | Water Volume l/m |
| 11(PK) | 12.20 | 2,01 | 15.88 | 2,46 | 19.41 | 2,90 | 21.62 | 3,35 | 23.24 | 3,78 | 26.92 | 4,12 | 30.60 | 4,56 | 34.28 | 4,95 |
| 21(PKP) | 17.66 | 3,60 | 23.30 | 4,38 | 28.67 | 5,15 | 31.44 | 5,92 | 34.28 | 6,68 | 39.77 | 7,32 | 45.26 | 8,06 | 50.75 | 8,58 |
| 20W(PP) | 15.69 | 3,60 | 20.45 | 4,56 | 25.05 | 5,50 | 27.70 | 6,45 | 29.73 | 7,38 | 34.57 | 7,92 | 39.01 | 8,56 | 43.64 | 8,98 |
| 22(PKKP) | 19.48 | 3,60 | 25.76 | 4,56 | 31.78 | 5,50 | 34.70 | 6,45 | 38.22 | 7,38 | 44.40 | 7,92 | 50.59 | 8,56 | 56.78 | 8,98 |
| 33(PKKPKP) | 27.42 | 5,50 | 36.44 | 6,58 | 45.00 | 7,65 | 48.86 | 8,72 | 54.04 | 9,78 | 62.84 | 11,64 | 71.64 | 12,43 | 80.44 | 13,58 |



* This is valid for installation on the 45 mm side of the console




| Height mm | 300 | 400 | 500 | 550 | 600 | 700 | 800 | 900 |
|---|---|---|---|---|---|---|---|---|
| B mm | 249 | 349 | 449 | 500 | 549 | 649 | 749 | 849 |
| $L_{11}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{21}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{20}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{22}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 |
| $L_{33}$ mm | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-2000 | 400-1800 |

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½” |



# TYPE11

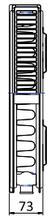





| HEIGHT | ΔT 30° C | | | ΔT 50° C | | | ΔT 60° C | | |
|---|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm |
| 300 | 252 | 217 | 860 | 480 | 413 | 1640 | 603 | 519 | 2059 |
| 400 | 321 | 276 | 1095 | 618 | 531 | 2109 | 776 | 667 | 2649 |
| 500 | 386 | 332 | 1317 | 752 | 647 | 2569 | 946 | 813 | 3228 |
| 550 | 417 | 359 | 1423 | 817 | 703 | 2790 | 1027 | 883 | 3507 |
| 600 | 448 | 385 | 1528 | 882 | 758 | 3011 | 1109 | 953 | 3785 |
| 700 | 512 | 440 | 1746 | 1006 | 865 | 3434 | 1267 | 1090 | 4326 |
| 800 | 574 | 494 | 1960 | 1127 | 969 | 3849 | 1422 | 1223 | 4856 |
| 900 | 636 | 547 | 2171 | 1246 | 1072 | 4254 | 1575 | 1355 | 5378 |

# TYPE21

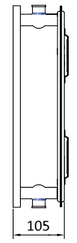





| HEIGHT | ΔT 30° C | | | ΔT 50° C | | | ΔT 60° C | | |
|---|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm |
| 300 | 377 | 324 | 1285 | 711 | 611 | 2426 | 892 | 767 | 3045 |
| 400 | 460 | 395 | 1569 | 880 | 756 | 3001 | 1109 | 954 | 3786 |
| 500 | 536 | 461 | 1829 | 1040 | 894 | 3547 | 1317 | 1132 | 4496 |
| 550 | 572 | 492 | 1952 | 1117 | 961 | 3812 | 1419 | 1220 | 4843 |
| 600 | 607 | 522 | 2072 | 1194 | 1026 | 4072 | 1519 | 1307 | 5187 |
| 700 | 682 | 587 | 2328 | 1343 | 1155 | 4583 | 1711 | 1471 | 5840 |
| 800 | 756 | 650 | 2578 | 1490 | 1281 | 5083 | 1898 | 1632 | 6480 |
| 900 | 828 | 712 | 2824 | 1634 | 1405 | 5574 | 2082 | 1791 | 7110 |

# TYPE20W

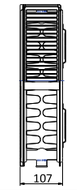





| HEIGHT | ΔT 30° C | | | ΔT 50° C | | | ΔT 60° C | | |
|---|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm |
| 300 | 307 | 264 | 1048 | 585 | 503 | 1996 | 740 | 636 | 2526 |
| 400 | 383 | 329 | 1306 | 737 | 634 | 2515 | 933 | 802 | 3184 |
| 500 | 452 | 389 | 1543 | 881 | 758 | 3006 | 1114 | 958 | 3804 |
| 550 | 484 | 417 | 1653 | 949 | 816 | 3238 | 1200 | 1032 | 4098 |
| 600 | 516 | 443 | 1760 | 1016 | 874 | 3467 | 1285 | 1105 | 4388 |
| 700 | 582 | 501 | 1987 | 1145 | 985 | 3907 | 1451 | 1247 | 4953 |
| 800 | 647 | 557 | 2208 | 1270 | 1092 | 4333 | 1610 | 1385 | 5498 |
| 900 | 709 | 610 | 2420 | 1389 | 1195 | 4739 | 1762 | 1516 | 6017 |

# TYPE22

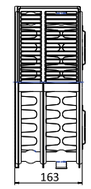





| HEIGHT | ΔT 30° C | | | ΔT 50° C | | | ΔT 60° C | | |
|---|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm |
| 300 | 489 | 420 | 1668 | 931 | 801 | 3176 | 1171 | 1007 | 4000 |
| 400 | 613 | 527 | 2091 | 1180 | 1015 | 4027 | 1491 | 1282 | 5091 |
| 500 | 727 | 625 | 2481 | 1416 | 1218 | 4833 | 1797 | 1545 | 6136 |
| 550 | 781 | 672 | 2666 | 1531 | 1316 | 5223 | 1946 | 1673 | 6644 |
| 600 | 834 | 717 | 2845 | 1642 | 1413 | 5604 | 2092 | 1799 | 7143 |
| 700 | 946 | 813 | 3227 | 1860 | 1599 | 6345 | 2367 | 2036 | 8082 |
| 800 | 1054 | 907 | 3598 | 2069 | 1779 | 7060 | 2632 | 2264 | 8986 |
| 900 | 1160 | 997 | 3958 | 2272 | 1954 | 7751 | 2888 | 2483 | 9859 |

# TYPE33






| HEIGHT | ΔT 30° C | | | ΔT 50° C | | | ΔT 60° C | | |
|---|---|---|---|---|---|---|---|---|---|
| | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm | Watt/m | Kcal/hm | Kcal/hm |
| 300 | 670 | 576 | 2284 | 1275 | 1097 | 4350 | 1612 | 1387 | 5505 |
| 400 | 841 | 723 | 2870 | 1620 | 1393 | 5528 | 2052 | 1765 | 7007 |
| 500 | 1001 | 860 | 3414 | 1949 | 1676 | 6650 | 2473 | 2127 | 8444 |
| 550 | 1074 | 924 | 3666 | 2105 | 1810 | 7182 | 2674 | 2299 | 9129 |
| 600 | 1147 | 987 | 3914 | 2260 | 1944 | 7711 | 2874 | 2472 | 9812 |
| 700 | 1301 | 1119 | 4441 | 2559 | 2201 | 8732 | 3259 | 2803 | 11126 |
| 800 | 1449 | 1246 | 4943 | 2843 | 2445 | 9701 | 3627 | 3119 | 12383 |
| 900 | 1593 | 1370 | 5434 | 3119 | 2682 | 10642 | 3986 | 3428 | 13610 |

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½” |

The ϕ values given in the table are for 1000 mm products.
* 550 mm height obtained through calculation.
* Thermal capacity data have not been certified. * Flat surface radiator have NF quality certificate except Type 11&Type 20W & Type 33

# 4D
# Panel Radiators

There are 4 different height options from 400 mm to 700 mm and 5 different length options from 600 mm to 1400 mm. 4D panel radiators will bring aesthetics and elegance to your home and office with its plane surface on all 4 sides.



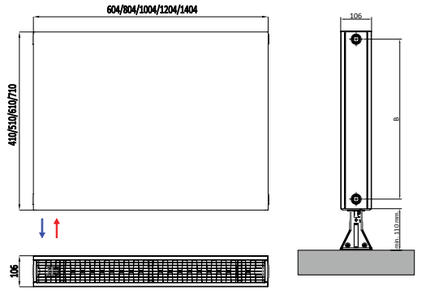


## 4D Panel Radiator

| Height (mm) | TYPE | Width (mm) | Heat Output | | | | | | | | | Length (mm) | Manifold Gauge/B (mm) | Water Volume (lt/m) | Weight (kg/m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ΔT 30° C | | | ΔT 50° C | | | ΔT 60° C | | | | | | |
| | | | Kcal/hm | Watt/m | Btu/m | Kcal/hm | Watt/m | Btu/m | Kcal/hm | Watt/m | Btu/m | | | | |
| 400 | T22 | 106 | 437 | 508 | 1735 | 849 | 987 | 3369 | 1075 | 1250 | 4269 | 604-1404 | 50 & 349 | 4,38 | 25 |
| 500 | | | 525 | 610 | 2083 | 1019 | 1185 | 4044 | 1291 | 1501 | 5125 | 604-1404 | 50 & 449 | 5,32 | 38 |
| 600 | | | 647 | 752 | 2568 | 1256 | 1461 | 4986 | 1592 | 1851 | 6319 | 604-1404 | 50 & 549 | 7,20 | 45 |
| 700 | | | 690 | 802 | 2738 | 1339 | 1557 | 5316 | 1697 | 1973 | 6736 | 604-1404 | 50 & 649 | 7,74 | 52 |

H 600mm is derived according to thermal capacity test results.

4D panel radiators do not have quality certificate.




| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½" |



# Cover
# Panel Radiators

There are  3 different height options from 500 mm to 700 mm and 5 different length options from 600 mm to 1400 mm.
It's compatible with thermostatic core.



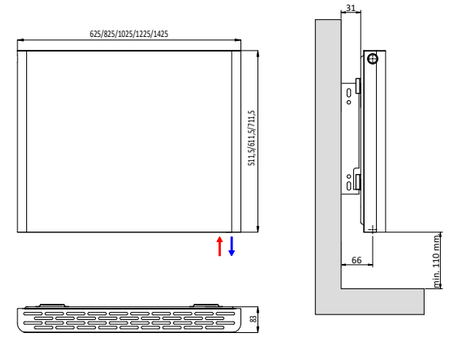


## Cover Panel Radiator

| Height (mm) | TYPE | Width (mm) | Heat Output | | | | | | | | | Length (mm) | Manifold Gauge (mm) | Water Volume (lt/m) | Weight (kg/m) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ΔT 30° C | | | ΔT 50° C | | | ΔT 60° C | | | | | | |
| | | | Kcal/hm | Watt/m | Btu/m | Kcal/hm | Watt/m | Btu/m | Kcal/hm | Watt/m | Btu/m | | | | |
| 500 | T21 | 83 | 403 | 469 | 1600 | 800 | 931 | 3177 | 1022 | 1189 | 4059 | 625-1425 | 50 | 4,97 | 28 |
| 600 | | | 490 | 570 | 1945 | 973 | 1131 | 3861 | 1242 | 1445 | 4932 | 625-1425 | 50 | 6,50 | 33 |
| 700 | | | 521 | 605 | 2067 | 1034 | 1202 | 4104 | 1320 | 1535 | 5241 | 625-1425 | 50 | 7,14 | 39 |

H 600mm is derived according to thermal capacity test results.

Cover panel radiators do not have quality certificate.

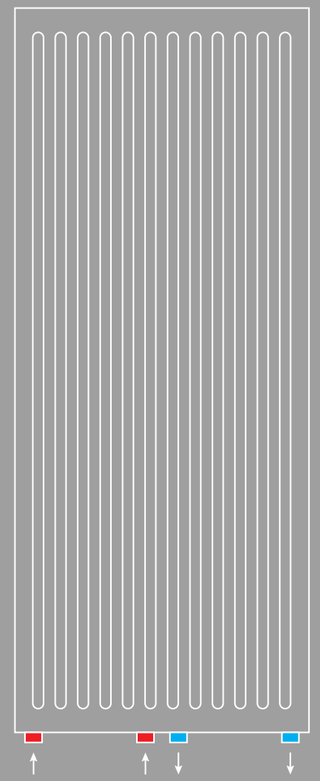



| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½" |

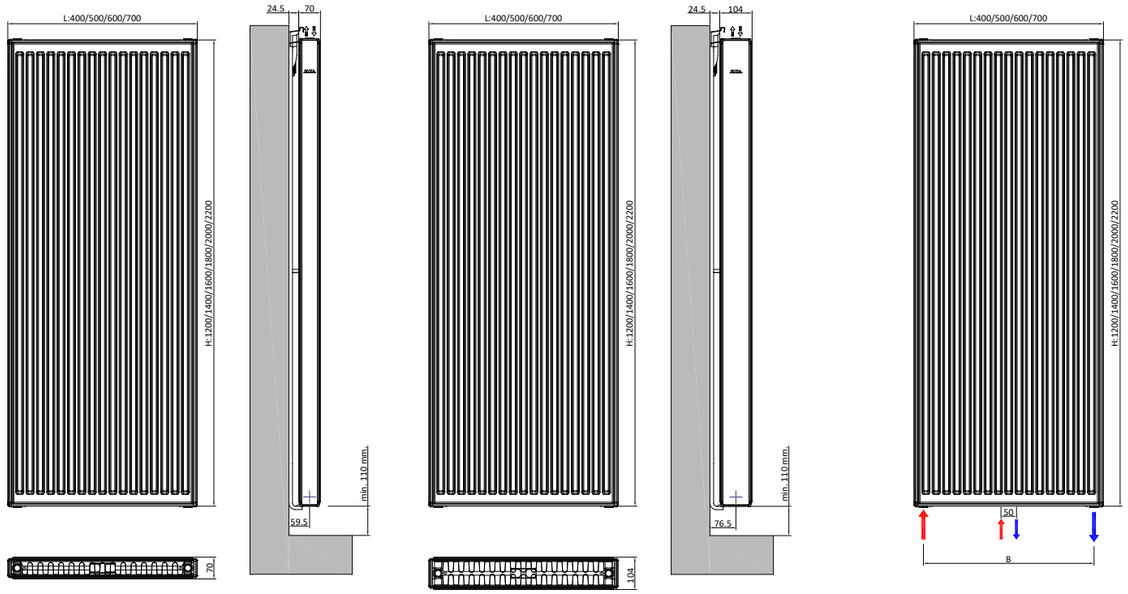
# Vertical
# Panel Radiators

E.C.A. panel radiators which bring new good looks to our homes with its elegant design which combines technology and aesthetics bring living areas heating and aesthetics together with its vertical water channel model which has recently been added to the product range. It will make your home look elegant with the options of vertical plane surface with or without a mirror. It offers 6 height options from 1200 mm up to 2200 mm and 4 different length options from 400 mm to 700 mm. In radiators with mirrors,  cracking and shattering of the mirror is prevented thanks to a special film layer.





# Vertical Standard Panel Radiator




KM 95430

| Height (mm) | TYPE | Width (mm) | Heat Output ΔT 30° C Kcal/hm | ΔT 30° C Watt/m | ΔT 50° C Kcal/hm | ΔT 50° C Watt/m | ΔT 60° C Kcal/hm | ΔT 60° C Watt/m | Km | n | Length (mm) | Manifold Gauge/B (mm) | Water Volume (lt) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1200 | T21 | 70 | 974 | 1132 | 1975 | 2297 | 2543 | 2957 | 10,19790 | 1,38476 | 400 - 700 | 50 & L -51 | 12,9 | 54 |
| 1400 | | | 1097 | 1276 | 2237 | 2601 | 2884 | 3353 | 11,13330 | 1,39406 | | 50 & L -51 | 14,7 | 63 |
| 1600 | | | 1213 | 1411 | 2485 | 2889 | 3209 | 3731 | 11,92560 | 1,40336 | | 50 & L -51 | 16,2 | 72 |
| 1800 | | | 1349 | 1569 | 2721 | 3164 | 3495 | 4064 | 14,69820 | 1,37315 | | 50 & L -51 | 18 | 81 |
| 2000 | | | 1478 | 1719 | 2946 | 3425 | 3767 | 4381 | 17,45640 | 1,34948 | | 50 & L -51 | 19,8 | 90 |
| 2200 | | | 1605 | 1866 | 3160 | 3674 | 4024 | 4679 | 20,54280 | 1,32580 | | 50 & L -51 | 21,6 | 96 |

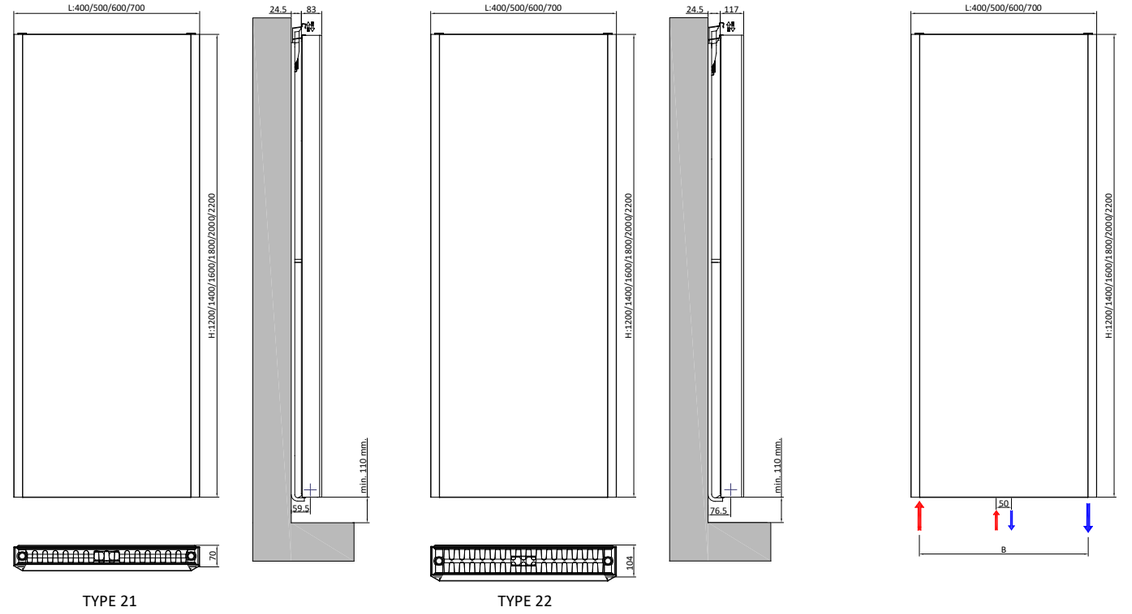
| Height (mm) | TYPE | Width (mm) | Heat Output ΔT 30° C Kcal/hm | ΔT 30° C Watt/m | ΔT 50° C Kcal/hm | ΔT 50° C Watt/m | ΔT 60° C Kcal/hm | ΔT 60° C Watt/m | Km | n | Length (mm) | Manifold Gauge/B (mm) | Water Volume (lt) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1200 | T22 | 104 | 1254 | 1458 | 2490 | 2896 | 3181 | 3699 | 15,13260 | 1,34309 | 400 - 700 | 50 & L -51 | 12,9 | 63 |
| 1400 | | | 1381 | 1605 | 2786 | 3240 | 3580 | 4163 | 14,95290 | 1,37485 | | 50 & L -51 | 14,7 | 72 |
| 1600 | | | 1502 | 1746 | 3081 | 3582 | 3981 | 4629 | 14,60010 | 1,40660 | | 50 & L -51 | 16,5 | 81 |
| 1800 | | | 1716 | 1995 | 3375 | 3924 | 4296 | 4996 | 22,05870 | 1,32442 | | 50 & L -51 | 18 | 90 |
| 2000 | | | 1867 | 2171 | 3671 | 4268 | 4673 | 5433 | 24,06690 | 1,32364 | | 50 & L -51 | 20,1 | 99 |
| 2200 | | | 2019 | 2348 | 3969 | 4615 | 5051 | 5874 | 26,10240 | 1,32285 | | 50 & L -51 | 21,9 | 108 |

The ϕ values given in the table are for 1000 mm products.

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½" |



# Vertical Plane Surface Panel Radiator




KM 95430

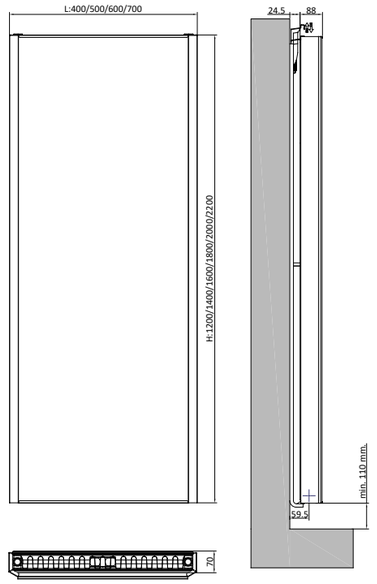
| Height (mm) | TYPE | Width (mm) | Heat Output ΔT 30° C Kcal/hm | ΔT 30° C Watt/m | ΔT 50° C Kcal/hm | ΔT 50° C Watt/m | ΔT 60° C Kcal/hm | ΔT 60° C Watt/m | Km | n | Length (mm) | Manifold Gauge/B (mm) | Water Volume (lt) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1200 | T21 | 83 | 835 | 971 | 1686 | 1960 | 2166 | 2519 | 9,02242 | 1,37550 | 400 - 700 | 50 & L -51 | 12,9 | 66 |
| 1400 | | | 931 | 1082 | 1892 | 2200 | 2437 | 2834 | 9,61376 | 1,38880 | | 50 & L -51 | 14,7 | 77 |
| 1600 | | | 1018 | 1184 | 2083 | 2422 | 2689 | 3127 | 10,08666 | 1,40110 | | 50 & L -51 | 16,2 | 87 |
| 1800 | | | 1113 | 1294 | 2259 | 2627 | 2909 | 3382 | 11,61522 | 1,38580 | | 50 & L -51 | 18 | 96 |
| 2000 | | | 1206 | 1402 | 2422 | 2816 | 3106 | 3612 | 13,49581 | 1,36520 | | 50 & L -51 | 19,8 | 107 |
| 2200 | | | 1294 | 1505 | 2571 | 2990 | 3286 | 3821 | 15,53839 | 1,34450 | | 50 & L -51 | 21,6 | 117 |

| Height (mm) | TYPE | Width (mm) | Heat Output ΔT 30° C Kcal/hm | ΔT 30° C Watt/m | ΔT 50° C Kcal/hm | ΔT 50° C Watt/m | ΔT 60° C Kcal/hm | ΔT 60° C Watt/m | Km | n | Length (mm) | Manifold Gauge/B (mm) | Water Volume (lt) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1200 | T22 | 117 | 1147 | 1333 | 2254 | 2621 | 2869 | 3336 | 14,80437 | 1,32320 | 400 - 700 | 50 & L -51 | 12,9 | 75 |
| 1400 | | | 1266 | 1472 | 2495 | 2901 | 3178 | 3696 | 16,08739 | 1,32790 | | 50 & L -51 | 14,7 | 86 |
| 1600 | | | 1381 | 1606 | 2729 | 3173 | 3479 | 4046 | 17,27518 | 1,33260 | | 50 & L -51 | 16,5 | 96 |
| 1800 | | | 1471 | 1710 | 2958 | 3439 | 3795 | 4413 | 16,31477 | 1,36780 | | 50 & L -51 | 18 | 105 |
| 2000 | | | 1597 | 1857 | 3182 | 3700 | 4070 | 4732 | 18,85566 | 1,34950 | | 50 & L -51 | 20,1 | 117 |
| 2200 | | | 1725 | 2006 | 3405 | 3959 | 4340 | 5047 | 21,67288 | 1,33120 | | 50 & L -51 | 21,9 | 129 |

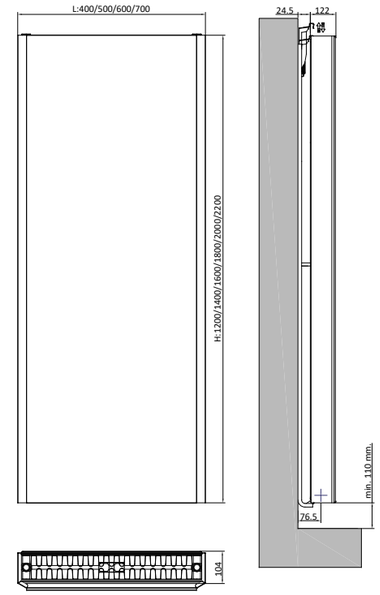
The ϕ values given in the table are for 1000 mm products.

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½" |

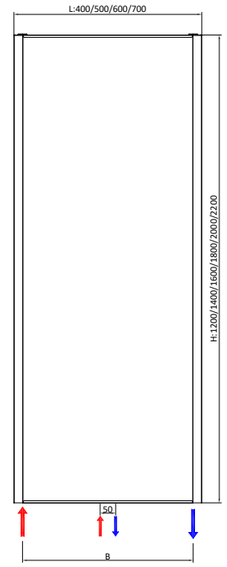
# Vertical Panel Radiator With Mirror




TYPE 21




TYPE 22




| Height (mm) | TYPE | Width (mm) | Heat Output | | | | | | | | Length (mm) | Manifold Gauge/B (mm) | Water Volume (lt) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | Km | n | | | | |
| | | | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | | | | | | |
| 1200 | T21 | 88 | 835 | 971 | 1686 | 1960 | 2166 | 2519 | 9,02242 | 1,37550 | 400 - 700 | 50 & L -51 | 12,9 | 77 |
| 1400 | | | 931 | 1082 | 1892 | 2200 | 2437 | 2834 | 9,61376 | 1,38880 | | 50 & L -51 | 14,7 | 89 |
| 1600 | | | 1018 | 1184 | 2083 | 2422 | 2689 | 3127 | 10,08666 | 1,40110 | | 50 & L -51 | 16,2 | 101 |
| 1800 | | | 1113 | 1294 | 2259 | 2627 | 2909 | 3382 | 11,61522 | 1,38580 | | 50 & L -51 | 18 | 112 |
| 2000 | | | 1206 | 1402 | 2422 | 2816 | 3106 | 3612 | 13,49581 | 1,36520 | | 50 & L -51 | 19,8 | 124 |
| 2200 | | | 1294 | 1505 | 2571 | 2990 | 3286 | 3821 | 15,53839 | 1,34450 | | 50 & L -51 | 21,6 | 137 |

| Height (mm) | TYPE | Width (mm) | Heat Output | | | | | | | | Length (mm) | Manifold Gauge/B (mm) | Water Volume (lt) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | Km | n | | | | |
| | | | Kcal/hm | Watt/m | Kcal/hm | Watt/m | Kcal/hm | Watt/m | | | | | | |
| 1200 | T22 | 122 | 1147 | 1333 | 2254 | 2621 | 2869 | 3336 | 14,80437 | 1,32320 | 400 - 700 | 50 & L -51 | 12,9 | 86 |
| 1400 | | | 1266 | 1472 | 2495 | 2901 | 3178 | 3696 | 16,08739 | 1,32790 | | 50 & L -51 | 14,7 | 98 |
| 1600 | | | 1381 | 1606 | 2729 | 3173 | 3479 | 4046 | 17,27518 | 1,33260 | | 50 & L -51 | 16,5 | 110 |
| 1800 | | | 1471 | 1710 | 2958 | 3439 | 3795 | 4413 | 16,31477 | 1,36780 | | 50 & L -51 | 18 | 121 |
| 2000 | | | 1597 | 1857 | 3182 | 3700 | 4070 | 4732 | 18,85566 | 1,34950 | | 50 & L -51 | 20,1 | 135 |
| 2200 | | | 1725 | 2006 | 3405 | 3959 | 4340 | 5047 | 21,67288 | 1,33120 | | 50 & L -51 | 21,9 | 149 |

The ϕ values given in the table are for 1000 mm products.
Vertical Panel Radiator With Mirror do not have quality certificate.

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½” |




# Icon Design Panel Radiators

Icon Panel Radiators will bring delicacy to your bathroom and kitchen with its various design and colour options.
Smart chrome towel rail will be pleasing to the eye as well as providing easy use.

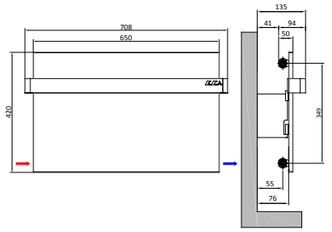


There are different colour options that will bring charm to the place they're in.



## Icon Panel Radiator

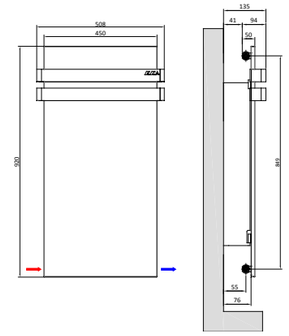
| Icon Panel Radiator (400mmx600mm) | Weight (kg) | Water Volume (lt) | Heat Output ΔT 30° C Kcal/h | ΔT 30° C Watt | ΔT 50° C Kcal/h | ΔT 50° C Watt | ΔT 60° C Kcal/h | ΔT 60° C Watt | Km | n | Manifold Gauge/B (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 9 | 1,3 | 113 | 132 | 212 | 246 | 265 | 308 | 2,04393 | 1,22477 | 349 |




The warranty for chrome towel rail is 3 years.

Icon panel radiators do not have quality certificate.

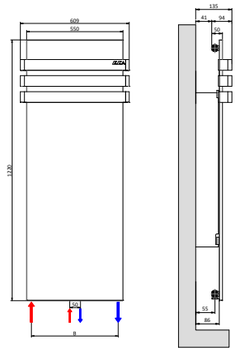
| Icon Panel Radiator (900mmx400mm) | Weight (kg) | Water Volume (lt) | Heat Output ΔT 30° C Kcal/h | ΔT 30° C Watt | ΔT 50° C Kcal/h | ΔT 50° C Watt | ΔT 60° C Kcal/h | ΔT 60° C Watt | Km | n | Manifold Gauge/B (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 14 | 1,7 | 167 | 195 | 314 | 365 | 393 | 457 | 2,93607 | 1,23306 | 849 |




The warranty for chrome towel rail is 3 years.

Icon panel radiators do not have quality certificate.

| Icon Panel Radiator (1200mmx500mm) | Weight (kg) | Water Volume (lt) | Heat Output ΔT 30° C Kcal/h | ΔT 30° C Watt | ΔT 50° C Kcal/h | ΔT 50° C Watt | ΔT 60° C Kcal/h | ΔT 60° C Watt | Km | n | Manifold Gauge/B (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 18 | 3 | 239 | 278 | 464 | 540 | 589 | 685 | 3,37101 | 1,29776 | 50 & 449 |



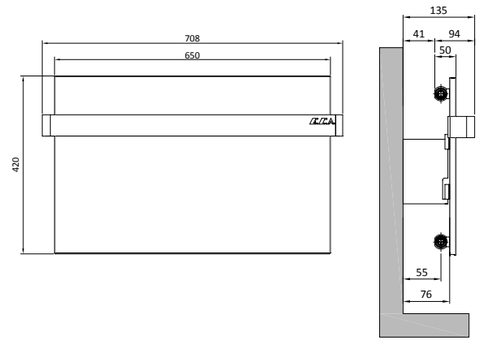

The warranty for chrome towel rail is 3 years.

Icon panel radiators do not have quality certificate.

| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½" |

## Icon Electric Panel Radiator

| Icon Panel Radiator (400 mm x 600 mm) | Weight (kg) | Electrical Power (W) |
|---|---|---|
| | 10 | 300 |



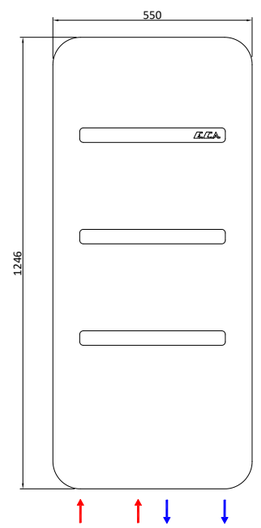

The warranty for chrome towel rail is 3 years.

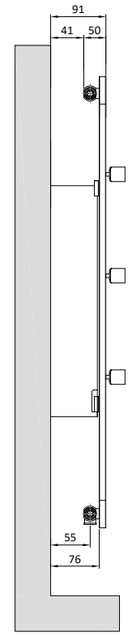
Icon electric panel radiators provide extra comfort for your living areas.

# Smooth

It's slim design  with rounded lines  provide the perfect solution for restricted  spaces such as bathrooms and kitchens.








| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½" |

| Smooth Panel Radiator (1200mmx500mm) | Weight (kg) | Water Volume (lt) | Heat Output | | | | | | Km | n | Manifold Gauge (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ΔT 30° C | | ΔT 50° C | | ΔT 60° C | | | | |
| | | | Kcal/h | Watt | Kcal/h | Watt | Kcal/h | Watt | | | |
| | 20 | 3 | 244 | 284 | 457 | 531 | 571 | 664 | 4,40929 | 1,22465 | 50 & 449 |

The warranty for chrome towel rail is 3 years.

Smooth panel radiators do not have quality certificate.

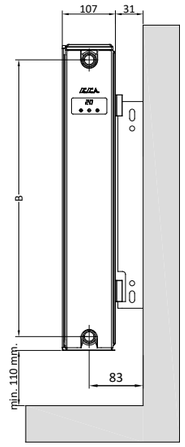
It provides ease of use thanks to the towel rack on the product.

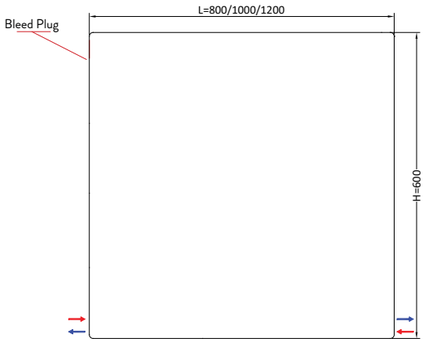
# Hybrid

There are 3 different length options from 800 mm to 1200 mm.
Hybrid panel radiators also operate electrically and conventionally at the same time.



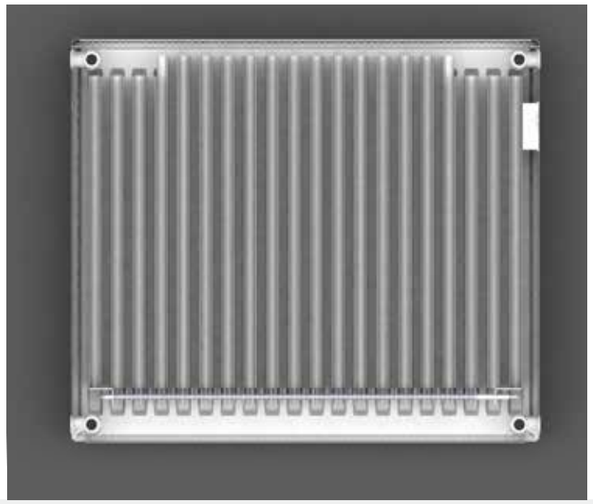

You can set the temperature
with aesthetical digital display.



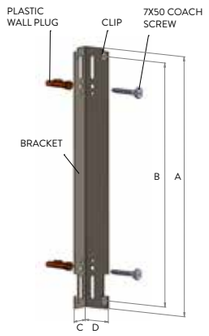

| Height (mm) | Type | Length (mm) | Weight (kg) | Water Volume (lt) | Electrical Power (W) | Manifold Gauge/B (mm) |
|---|---|---|---|---|---|---|
| 600 | T22 | 800 | 30 | 5,7 | 1300 | 549 |
| | | 1000 | 37 | 7,1 | 1700 | |
| | | 1200 | 44 | 8,5 | 2000 | |

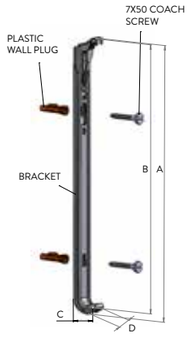
| TEST PRESSURE MAXIMUM | OPERATING PRESSURE MAXIMUM | OPERATING TEMPERATURE | CONNECTION DIMENSION |
|---|---|---|---|
| 13 Bar | 10 Bar | 120° C | G ½” |



# Installation Kit

| Height | 300 mm | 400 mm | 500 mm | 550 mm | 600 mm | 700 mm | 800 mm | 900 mm |
|---|---|---|---|---|---|---|---|---|
| A mm | 110 | 210 | 310 | 360 | 410 | 510 | 610 | 710 |
| B mm | 85 | 185 | 285 | 335 | 385 | 485 | 585 | 685 |
| C mm | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| D mm | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |




| Height | 300 mm | 400 mm | 500 mm | 600 mm | 700 mm | 800 mm | 900 mm |
|---|---|---|---|---|---|---|---|
| A mm | 309 | 409 | 509 | 609 | 709 | 809 | 909 |
| B mm | 298 | 398 | 498 | 598 | 698 | 798 | 898 |
| C mm | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| D mm | 32 | 32 | 32 | 32 | 32 | 32 | 32 |

- Compatible with PKP, PP, PKKP, PPP and PKKPKP types
- Allows radiator mounting in areas with french windows
- High corrosion resistance
- Compliant with European norms
- High durability



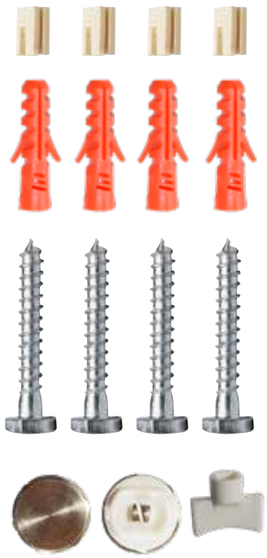
## Consoles



## For Vertical Radiators



## Accessories





# Color Chart

## Standard Colors

RAL 9010

RAL 9016

## Icon Colors

Metallic Red

Metallic Black

## Crocodile Colors

Crocodile 9010

Crocodile 9005

Crocodile 1013

## All Ral Codes





# CAST IRON RADIATORS



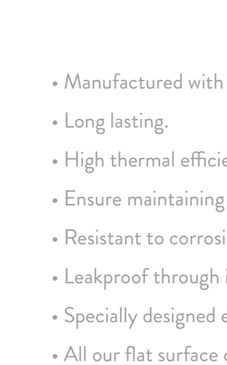
# Cast Iron Radiators



- Manufactured with superior and quality considerations.
- Long lasting.
- High thermal efficiency.
- Ensure maintaining of temperature for longer periods.
- Resistant to corrosion.
- Leakproof through intermediate joints.
- Specially designed edges and corners and resistance to impact.
- All our flat surface cast iron radiators have the NF 137 certification.
- Standard Applicable TS EN 442



Column Cast Iron Radiators



Curtain Column Cast Iron Radiators



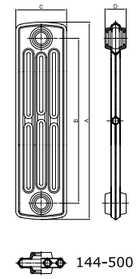
Flat Surface Cast Iron Radiators



# Technical Specifications

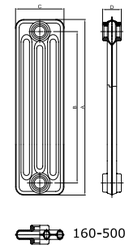
## COLUMN CAST IRON RADIATORS

| Types | Single Section | | | | | | | | Thermal Efficiences | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dimensions | | | | Connection Dimension | Heating Surface | Water Volume | Weight | ΔT=50°C | | ΔT=30°C | | Average Water Temperature (°C) | |
| | A | B | C | D | | | | | | | | | 70°C | 80°C |
| | mm | mm | mm | mm | Inch | $m^2$ | liter | kg | watt | kcal/h | watt | kcal/h | watt | watt |
| 144/200 | 300 | 200 | 144 | 60 | 1 1/4" | 0,101 | 0,52 | 3,43 | 47,3 | 40,7 | 26,1 | 22,4 | 46,42 | 57,56 |
| 144/350 | 447 | 350 | 144 | 60 | 1 1/4" | 0,150 | 0,65 | 4,85 | 67,2 | 57,8 | 34,9 | 30,0 | 66,50 | 84,35 |
| 144/500 | 598 | 500 | 144 | 60 | 1 1/4" | 0,210 | 0,95 | 5,64 | 88,3 | 75,9 | 45,4 | 39,0 | 86,10 | 109,55 |
| 144/600 | 700 | 600 | 144 | 60 | 1 1/4" | 0,251 | 0,95 | 6,25 | 106,5 | 91,6 | 57,4 | 49,4 | 104,47 | 130,69 |
| 144/650 | 748 | 650 | 144 | 60 | 1 1/4" | 0,260 | 1,10 | 7,10 | 104,9 | 90,2 | 52,2 | 44,9 | 104,90 | 134,86 |
| 144/800 | 898 | 800 | 144 | 60 | 1 1/4" | 0,320 | 1,20 | 8,60 | 127,4 | 109,5 | 64,0 | 55,0 | 121,00 | 155,25 |
| 221/350 | 420 | 350 | 221 | 60 | 1 1/4" | 0,230 | 1,00 | 7,11 | 96,5 | 83,0 | 49,4 | 42,5 | 94,20 | 119,49 |
| 221/500 | 598 | 500 | 221 | 60 | 1 1/4" | 0,320 | 1,30 | 8,58 | 126,5 | 108,8 | 64,2 | 55,2 | 123,80 | 157,50 |
| 221/600 | 700 | 600 | 221 | 60 | 1 1/4" | 0,374 | 1,27 | 9,10 | 156,9 | 134,9 | 83,1 | 71,5 | 153,78 | 193,60 |
| 221/800 | 898 | 800 | 221 | 60 | 1 1/4" | 0,480 | 1,80 | 12,69 | 182,4 | 156,8 | 91,8 | 78,9 | 179,70 | 230,26 |



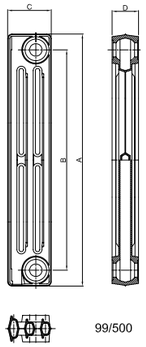

## CURTAIN CAST IRON RADIATORS

| Types | Single Section | | | | | | | | Thermal Efficiences | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dimensions | | | | Connection Dimension | Heating Surface | Water Volume | Weight | ΔT=50°C | | ΔT=30°C | | Average Water Temperature (°C) | |
| | A | B | C | D | | | | | | | | | 70°C | 80°C |
| | mm | mm | mm | mm | Inch | $m^2$ | liter | kg | watt | kcal/h | watt | kcal/h | watt | watt |
| 70/500 | 580 | 500 | 70 | 60 | 1 1/4" | 0,120 | 0,48 | 3,43 | 52,5 | 45,1 | 26,9 | 23,1 | 52,50 | 66,44 |
| 160/350 | 430 | 350 | 160 | 60 | 1 1/4" | 0,185 | 0,80 | 4,81 | 73,3 | 63,0 | 37,7 | 32,4 | 72,30 | 92,23 |
| 160/500 | 580 | 500 | 160 | 60 | 1 1/4" | 0,255 | 1,10 | 5,98 | 94,4 | 81,2 | 48,3 | 41,5 | 95,40 | 121,71 |
| 160/900 | 980 | 900 | 160 | 60 | 1 1/4" | 0,440 | 1,50 | 9,86 | 146,9 | 126,3 | 73,5 | 63,2 | 142,60 | 182,46 |




## FLAT SURFACE CAST IRON RADIATORS

| Types | Single Section | | | | | | | | Thermal Efficiences | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dimensions | | | | Connection Dimension | Heating Surface | Water Volume | Weight | ΔT=50°C | | ΔT=30°C | | Average Water Temperature (°C) | |
| | A | B | C | D | | | | | | | | | 70°C | 80°C |
| | mm | mm | mm | mm | Inch | $m^2$ | liter | kg | watt | kcal/h | watt | kcal/h | watt | watt |
| 99/350 | 420 | 350 | 99 | 60 | 1" | 0,145 | 0,61 | 3,65 | 61,1 | 52,5 | 31,4 | 27,0 | 58,50 | 74,21 |
| 99/500 S | 570 | 500 | 99 | 60 | 1" | 0,200 | 0,75 | 4,84 | 79,1 | 68,0 | 40,7 | 35,0 | 78,20 | 99,25 |
| 99/623 | 693 | 623 | 99 | 60 | 1" | 0,240 | 0,80 | 5,90 | 93,2 | 80,1 | 47,9 | 41,2 | 91,20 | 115,75 |
| 99/623 S | 686 | 623 | 92 | 60 | 1" | 0,238 | 0,82 | 4,97 | 88,3 | 75,9 | 45,69 | 39,3 | 86,56 | 109,86 |
| 99/623 | 694 | 623 | 92 | 60 | 1" | 0,240 | 0,82 | 5,50 | 88,7 | 76,3 | 45,7 | 39,4 | 86,60 | 109,90 |
| 99/813 | 883 | 813 | 99 | 60 | 1" | 0,310 | 1,00 | 8,00 | 114,0 | 98,0 | 58,7 | 50,5 | 111,50 | 142,13 |
| 134/350 | 420 | 350 | 134 | 60 | 1" | 0,185 | 0,78 | 4,60 | 76,5 | 65,8 | 38,8 | 33,4 | 73,20 | 92,95 |
| 134/500 | 570 | 500 | 134 | 60 | 1" | 0,240 | 0,88 | 6,21 | 99,3 | 85,4 | 50,3 | 43,3 | 97,30 | 123,72 |
| 134/623 | 693 | 623 | 134 | 60 | 1" | 0,310 | 1,09 | 6,81 | 118,0 | 101,5 | 59,7 | 51,3 | 115,50 | 147,32 |
| 134/813 | 883 | 813 | 134 | 60 | 1" | 0,400 | 1,32 | 10,66 | 146,0 | 123,7 | 73,7 | 63,4 | 143,90 | 184,85 |




## OPERATING AND TEST CONDITIONS FOR CAST IRON RADIATORS

| Heater Installation Type | Max. Operating Pressure* | | Max. Operating Temperatures C° | Test Pressures (Cold Water) bar |
|---|---|---|---|---|
| | Bar | mSS | | |
| Hot Water or Steam | 9 | 92 | 120 | 12-14 |

*Each section is tested as single and assembled under a pressure of 12-14 bars twice

Elginkan



Eleks Dış Ticaret A.Ş. reserves the right to change the appearance, technical details of their products and price.

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E.C.A.® TOGETHER FOR YEARS

2023


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