



Technical catalogue

05/2022

column radiators **Delta**



PURMO

GROUP

THE POWER OF A WORLD RANKING COMPANY

Purmo Group markets a variety of top brands, well-known to professionals in the heating business at national, European and international level. Beyond the continent of Europe, we must also mention our growing operations in Asia and America. With annual sales of approximately EUR 640 million, the Purmo Group can justly claim to be Europe's biggest radiator and underfloor heating company.

The values that the company brings to its customers are based on the creation, maintenance and development of win-win commercial relationships. Today, the Purmo Group has the contribution of more than 3300 experienced and enthusiastic employees behind it. Purmo Group's products consist of steel panels, convectors, design and bathroom radiators and underfloor heating systems.

Table of contents

column radiators

features	4
----------------	---

Delta Laserline



product info	8
technical data	9
mounting distances	11
how to connect	12
heat output	13

Delta Laserline Ventil



product info	40
technical data	41
hydraulic characteristics	42
mounting distances	43
how to connect	44

additional info

brackets quantity selection guide (for Delta Laserline & Delta Laserline Ventil)	46
general tips for delivery & mounting	48
mounting of block radiators (for Delta Laserline & Delta Laserline Ventil)	49

column radiators

Delta Twin M



product info	50
heat output	51

Delta Bar



product info	52
heat output	53

Delta Column Bench

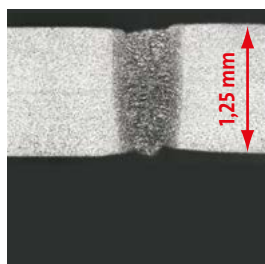
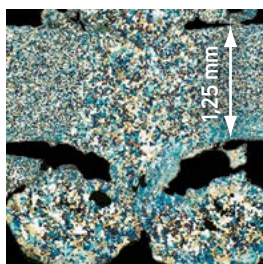
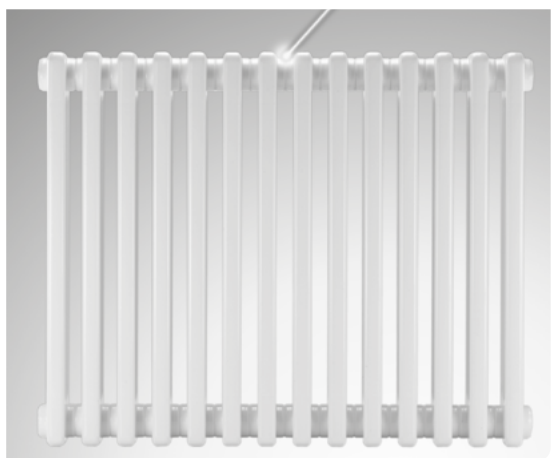


product info	54
heat output	55

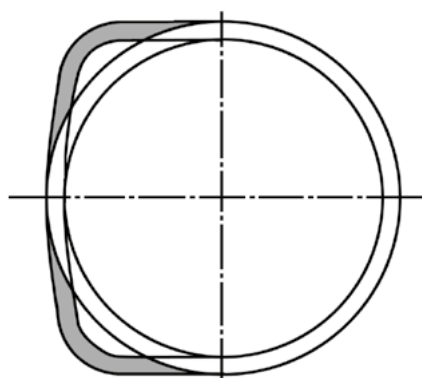
additional info

correction factors	56
thermostatic heads	57
accessories	58
order codes	61
about our company	66
colours	67

Product info



The comparison of joints welded traditionally (butt welding, enlarged on the left) with the perfect Delta Laserline radiator joint welded with state of the art laser technology (enlarged on the right).



"D"-profiled Delta Laserline radiator's columns, as compared with the traditional round column. The cross section shows the significantly larger column's diameter. Increased total surface area (marked gray) provides higher heat output of Delta Laserline radiators

Thanks to the innovative technology combined with high-level esthetics of execution, DELTA radiators will fulfill expectations of the most demanding Clients. One-of-its-kind laser welding method enables achievement of the perfect precision of execution, making the interconnections of individual DELTA segments virtually invisible.

The composition and shaping of DELTA radiators were especially intended to facilitate maintaining them spotlessly clean, which is a vital feature when considering health care facilities application. High suitability of DELTA radiators for the rooms of elevated sanitary requirements is documented with the dedicated certificate, issued by the University of Kiel, Germany.

Remarkable precision of laser welding

Exceptional advantages of DELTA radiators originate in the production process – a world-unique laser welding technique.

This truly futuristic technology, invented by the researchers of the University of Stuttgart in cooperation with their colleagues of the Fraunhofer Institute, both in Germany, enables a highly precise processing of details, as well as total elimination of welding residue inside radiators, with no negative effect on perfect radiator's shaping. In contrast to traditionally welded radiators, a significantly more subtle joint on DELTA radiator's surface, together with the mentioned lack of welding residue, reduce to a large extent the risk of corrosion, as well as considerably prolong the radiators' life-span. At Purmo, we are so very much convinced of the highest quality and durability of the DELTA radiators that we do not hesitate to make them a subject of a 10-year-long warranty. Still, there is one more thing which makes DELTAs so unique: our assembly line in German production plant has been awarded a special federal Innovation Award of Thüringen.

It is a beautiful – but to tell the truth well-deserved – confirmation of how readily we in our company dedicate ourselves to develop modern technologies.

Review of features

- total laser welding ensures perfect appearance of the ready radiator, as well as outstanding quality, prolonged life-span (no welding joints disturbing the heating agent's flow, no welding residue inflicting corrosion)
- characteristic "D"-profiled columns, increasing heat output
- slender stub of the diameter of 1", connecting individual segments, common for all types
- connecting stub covers, welded as standard, for highly esthetic look and long-lasting safety
- 25 mm distancing between segments – with the length of each segment equal to 50 mm – facilitates cleaning and provides outstanding hygienic qualities
- wide choice of the radiator height, offered as standard
- at Client's wish, the possibility to offer any height of the radiator, in the range between 300 mm and 3000 mm, with 1 mm precision

Technical data

	Delta Laserline	Delta Laserline Ventil	Delta Twin M	Delta Bar	Delta Column Bench
max. operating pressure [bar]	10	10	10	10	10
max. test pressure [bar]	13	13	13	13	13
max. temperature [°C]	110	110	110	110	110
side connection: G ½" - internal thread	x	–	–	–	–
bottom connection: G ½" - internal thread	x	x	x	x	x
brackets included with the radiator	–	–	x	x	x
built-in thermostatic valve	–	x	–	x	x

thermal output of the radiators

Thermal output of the radiators was determined in accordance with EN 442 based on laboratory measurements.

The temperatures of 75/65/20 °C were accepted as reference values.

Thermal output of the radiators for other values can be calculated with the following formula:

$$\Phi = \Phi_n \left[\frac{\Delta t}{\Delta t_n} \right]^n$$

where:

Φ - thermal output of the radiator [W]

Φ_n - thermal output of the radiator determined based on measurements in accordance with EN 442 [W]

Δt - arithmetic or logarithmic difference of temperatures [K]

Δt_n - arithmetic difference of temperatures 50 [K] calculated for reference temperatures 75/65/20 °C

n - exponent characteristic for a given type of radiator

Notice

If the condition $c = \frac{t_p - t_i}{t_z - t_i} < 0.7$ is met,

Then the temperature difference Δt should be calculated according to formula: $\Delta t_{\text{logarithmic}} = \frac{t_z - t_p}{\ln((t_z - t_i) / (t_p - t_i))}$

Isn't met, then Δt value should be calculated according to formula: $\Delta t_{\text{arithmetic}} = \frac{t_z + t_p}{2} - t_i$

where:

t_z - supply water temperature [°C];

t_p - return water temperature [°C];

t_i - room temperature [°C]

Type overview



Delta Laserline

height [mm]: 155, 300, 350, 365, 400, 415, 450, 500, 550, 565, 600, 665, 750, 900, 965, 1000, 1065, 1100, 1200, 1500, 1800, 2000, 2200, 2500, 2800, 3000 (at Client's wish, each requested height of the radiator, in the range between 300 mm and 3000 mm, with 1 mm precision)

length [mm]: from 200 up to 2500 mm (from 4 up to 50 segments)

number of columns: from 2 up to 6



Delta Laserline Ventil

height [mm]: 155, 300, 350, 365, 400, 415, 450, 500, 550, 565, 600, 665, 750, 900, 965, 1000, 1065, 1100, 1200, 1500, 1800, 2000, 2200, 2500, 2800, 3000 (at Client's wish, each requested height of the radiator, in the range between 300 mm and 3000 mm, with 1 mm precision)

length [mm]: from 200 up to 2500 mm (from 4 up to 50 segments)

number of columns: from 2 up to 6



Delta Twin M

height [mm]: 1000, 1200, 1500, 1800, 2000

length [mm]: 500 (10 segments), 600 (12 segments)

number of columns: 2

Type overview



Delta Bar

height [mm]: 940 (750)*, 1090 (900)*
length [mm]: 720 (700)*, 920 (900)*, 1120 (1100)*
number of columns: 4 or 5
number of segments: 14, 18, 22

Note:
The dimensions given above do not include top boards.
* - dimension of the radiator only



Delta Column Bench

height [mm]: 387 (200)*, 437 (250)*, 487 (300)*, 537 (350)*
length [mm]: 1535 (1500)*, 1835 (1800)*, 2035 (2000)*, 2535 (2500)*, 2835 (2800)*
number of columns: 6
number of segments: 4, 5, 6, 7

Note:
The dimensions given above do not include top boards.
* - dimension of the radiator only



DELTA LASERLINE

product info

Delta Laserline column radiators integrate the state of the art technology with remarkable design, providing their Users with highest qualities of climate comfort and functionality. The world-unique laser welding method enables achievement of the perfect quality of execution combined with outstanding visual appearance. The characteristic feature – which inspired the radiators' name – is the external shape of the columns, of the profile resembling the letter "D", designed especially to maximize the heating surface area in comparison with analogical columns of the round shape.

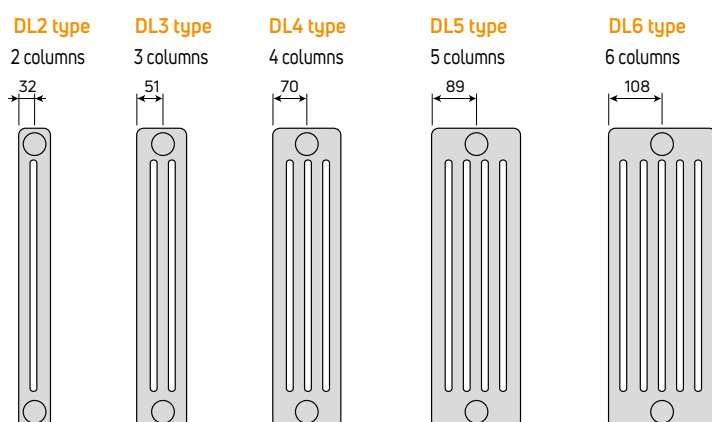
The construction and shape of the Delta radiators have been so designed as to facilitate maintaining them spotlessly clean, which is a vital feature when considering health care facilities application. High suitability of DELTA radiators for the rooms of elevated sanitary requirements is documented with the dedicated certificate, issued by the University in Heidelberg, Germany.

Except for 27 radiator heights available as standard, at Clients' wish any height can be manufactured in the range between 300 mm and 3000 mm, with the precision of 1 mm. Thanks to five types of the radiator's segments (from 2 up to 6 columns), and a wide palette of RAL colours, the Delta Laserline radiators can be easily suited to any room, independently on the heat requirements or the Users' preferences.

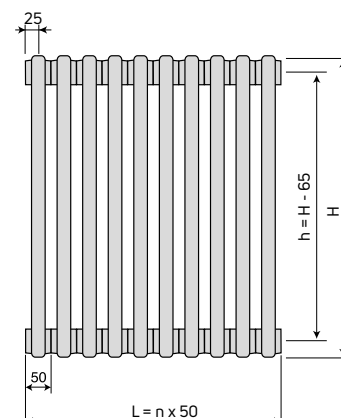


DELTA LASERLINE

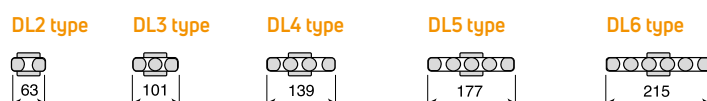
side views



front view



cross section views



H - overall height
h - connectors' spacing
L - overall length
n - number of segments

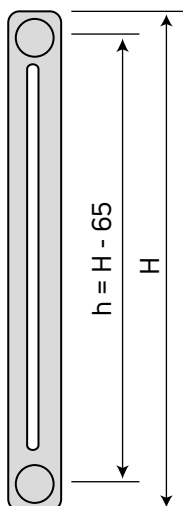
technical data

- Description : decorative column radiator, totally laser-welded. Delta-profiled cross section of the external columns for the maximized heat output;
- Height : from 155 mm up to 3000 mm, the height of the selected models matches the connecting stubs' spacing of the old-fashioned cast-iron radiators. At Clients' wish, each requested height of the radiator can be delivered, in the range between 300 mm and 3000 mm, with 1 mm precision.
- Length : from 200 up to 2500 mm (from 4 up to 50 segments). Depending on the radiators' types and sizes, possible integration on one side up to the length of 2000 mm (according to the relevant table). In other cases, the radiators are delivered in separate blocks – plugs, connecting nipples and gaskets inclusive – for self-assembly on the building site; length tolerance: from 0% up to +1%.
- Depth :

2-columned:	63 mm
3-columned:	101 mm
4-columned:	139 mm
5-columned:	177 mm
6-columned:	215 mm
- Connection : when ordering, please provide the information on the connection variant, conforming to the relevant option (**see page 12**)
- Delivery range : radiator delivered without brackets – to be ordered separately, depending on the radiator's type and size
- Brackets : see: accessories, plug and air vent included with brackets
- Colour : as standard snow-white RAL 9016 varnish, other RAL colours at request
- Operating pressure : 10 bars
- Test pressure : 13 bars
- Max. temperature : 110°C
- Packaging : packed for transport in environmental friendly, edge-protecting packaging, welded in foil.

spacing of the connecting stubs h

e.g. DL2 type



H [mm]	h [mm]
155	90
300	235
350	285
365	300
400	335
415	350
450	385
500	435
550	485
565	500
600	535
665	600
750	685

H [mm]	h [mm]
900	835
965	900
1000	935
1065	1000
1100	1035
1200	1135
1500	1435
1800	1735
2000	1935
2200	2135
2500	2435
2800	2735
3000	2935

H - overall height

max. number of segments in one block

	number of columns				
H [mm]	2	3	4	5	6
155	54	54	54	54	54
300	42	42	42	42	42
350	42	42	42	42	42
365	-	42	42	42	42
400	42	42	42	42	42
415	-	42	42	-	42
450	42	42	42	42	42
500	42	42	42	42	42
550	42	42	42	42	35
565	42	42	42	42	35
600	42	42	42	42	35
665	42	42	42	42	32
750	42	42	42	37	28

	number of columns				
H [mm]	2	3	4	5	6
900	42	42	32	26	24
965	42	42	32	-	22
1000	42	42	32	26	22
1065	-	19	19	19	19
1100	19	19	19	19	19
1200	19	19	19	19	19
1500	19	19	19	18	15
1800	19	19	19	16	13
2000	19	19	18	14	11
2200	19	19	16	12	10
2500	16	16	14	11	9
2800	16	16	12	10	8
3000	16	16	11	9	8

NOTE

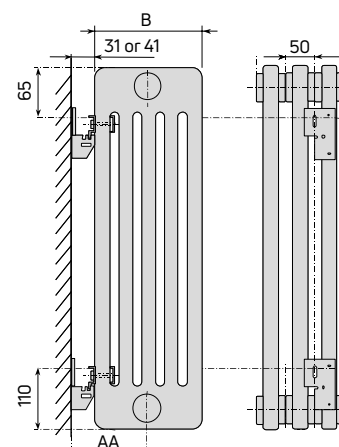
When ordering the Delta Laserline or Delta Laserline Ventil radiators of the higher number of segments in one block than given in the table above, the delivery will be divided into 2 or more blocks, to be integrated on the Client's building site. Connectors and gaskets are included with the blocks at no extra cost. Assembling the blocks together requires the application of the dedicated nipple wrench, **see page 59**, to be ordered separately!

DELTA LASERLINE

mounting distances

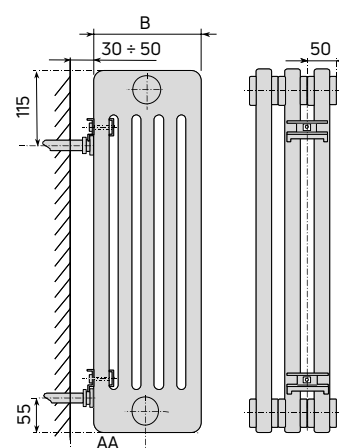
for the wall bracket set, angle type

type	radiator's depth B [mm]	wall distancing WA [mm]	connectors' wall distancing AA [mm]
2 columns	63	31 or 41	63 or 73
3 columns	101	31 or 41	82 or 92
4 columns	139	31 or 41	101 or 111
5 columns	177	31 or 41	120 or 130
6 columns	215	31 or 41	139 or 149



for the wall bracket set, drilled-in type

type	radiator's depth B [mm]	wall distancing WA [mm]	connectors' wall distancing AA [mm]
2 columns	63	30 ÷ 50	62 ÷ 82
3 columns	101	30 ÷ 50	81 ÷ 101
4 columns	139	30 ÷ 50	100 ÷ 120
5 columns	177	30 ÷ 50	119 ÷ 139
6 columns	215	30 ÷ 50	138 ÷ 158



Brackets

Brackets are not included as standard in the radiator's set.

In the standard version, the Delta Laserline and Delta Laserline Ventil radiators are not equipped with welded-on hanging lugs. Depending on the type and size of the radiator, select the proper quantity and type of the brackets, and order them separately. As standard solution for the radiators without welded-on hanging lugs, the mounting sets are available with angle brackets or drilled-in brackets. The sets consist of the adequate number and type of floor stands or wall brackets (4- or 6 element sets), necessary bolts and wall plugs (each time they must be checked whether suitable, directly on the Client's building site!), air vent, plug and mounting instructions.*

It is recommended to mount the upper brackets directly below the upper connecting stub.

At special orders, the delivery of in-drilled brackets is possible, as well as the wall brackets manufactured in non-standard variants, for mounting the radiators which are factory equipped with welded-on hanging lugs.

When selecting the required number of brackets (as based on the nomograms), it is necessary to keep to the quantity of obligatory points of suspension. Each upper point of suspension (recommended positioning – directly below the connecting stub) and each bottom point of suspension create the vertical suspension axis.

It is necessary to check every time the load and stability of the walls for the added weight resulting from mounting the selected type of the radiator.

Floor-level mounting of the 300 mm up to 1000 mm high radiators can be performed with SK2 floor stands with adjustable mounting height from the floor level. For each existing suspension axis one floor stand is recommended.

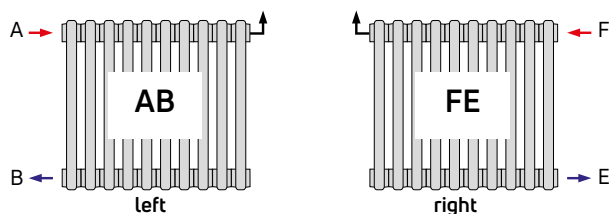
As standard, Delta Laserline radiators are delivered **without** welded-on hanging lugs, which contributes to their versatility, as they can be rotated. Radiators **without** welded-on hanging lugs, regardless of the "right" or "left"-hand side mounting, can then always be ordered in the left-hand side supply variant.

* Note: the 155 mm high radiator can only be mounted with floor stands with FK5 ring anchor or WK155 wall brackets.

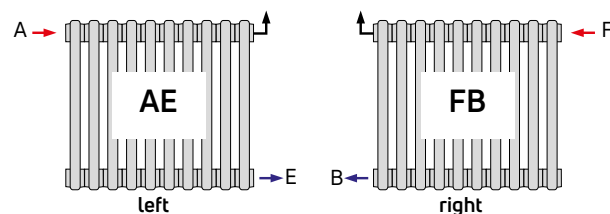
How to connect

As standard, Delta Laserline radiators are equipped with connectors with internal thread G 1/2":

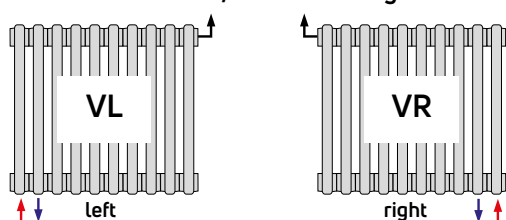
single-sided side connection



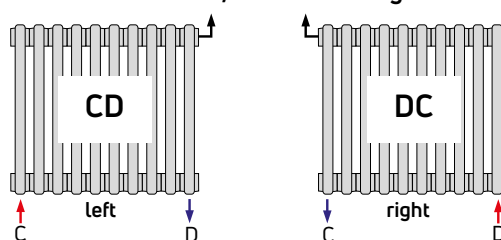
side crossed connection



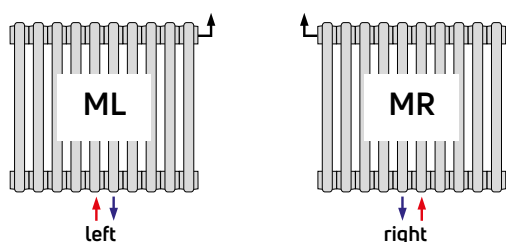
bottom connection, 1st and 2nd segment



bottom connection, 1st and last segment



**bottom connection, middle
only even number of segments!**

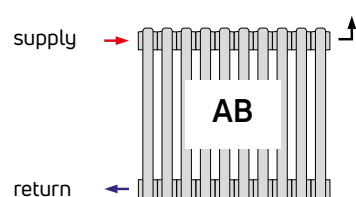


Tip

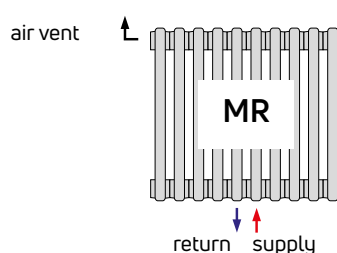
Always provide the information about the connection variant, when ordering!

example

**AB connection variant
(single-sided, left)**



**MR connection variant
(middle, right)**



height 155 mm*

* mounting only with FK5 ring anchor stands or WK155 wall brackets.

H [mm]	155*				
number of columns B [mm] type	2 63 DL2016..	3 101 DL3016..	4 139 DL4016..	5 177 DL5016..	6 215 DL6016..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	51 27	70 38	91 49	115 61	139 74
5 250	63 34	88 47	114 61	144 76	174 93
6 300	76 41	105 56	137 73	172 91	209 111
7 350	89 48	123 66	160 86	201 107	244 130
8 400	101 55	140 75	183 98	230 122	278 148
9 450	114 61	158 84	205 110	258 137	313 167
10 500	127 68	175 94	228 122	287 152	348 185
11 550	139 75	193 103	251 135	316 168	383 204
12 600	152 82	210 113	274 147	345 183	418 222
13 650	165 89	228 122	297 159	373 198	452 241
14 700	177 95	245 131	320 171	402 213	487 259
15 750	190 102	263 141	342 183	431 228	522 278
16 800	203 109	280 150	365 196	459 244	557 296
17 850	215 116	298 159	388 208	488 259	592 315
18 900	228 123	315 169	411 220	517 274	626 333
19 950	241 130	333 178	434 232	545 289	661 352
20 1000	253 136	350 188	457 245	574 305	696 370
21 1050	266 143	368 197	479 257	603 320	731 389
22 1100	279 150	385 206	502 269	632 335	766 407
23 1150	291 157	403 216	525 281	660 350	800 426
24 1200	304 164	420 225	548 293	689 365	835 444
25 1250	317 170	438 234	571 306	718 381	870 463
26 1300	329 177	455 244	594 318	746 396	905 481
27 1350	342 184	473 253	616 330	775 411	940 500

	155*				
	2 63 DL2016..	3 101 DL3016..	4 139 DL4016..	5 177 DL5016..	6 215 DL6016..
	[W]	[W]	[W]	[W]	[W]
28 1400	354 191	490 263	639 342	804 426	974 518
29 1450	367 198	508 272	662 355	833 442	1009 537
30 1500	380 204	525 281	685 367	861 457	1044 555
31 1550	392 211	543 291	708 379	890 472	1079 574
32 1600	405 218	560 300	731 391	919 487	1114 592
33 1650	418 225	578 309	753 404	947 503	1148 611
34 1700	430 232	595 319	776 416	976 518	1183 629
35 1750	443 239	613 328	799 428	1005 533	1218 648
36 1800	456 245	630 338	822 440	1034 548	1253 666
37 1850	468 252	648 347	845 452	1062 563	1288 685
38 1900	481 259	665 356	868 465	1091 579	1322 703
39 1950	494 266	683 366	890 477	1120 594	1357 722
40 2000	506 273	700 375	913 489	1148 609	1392 740
41 2050	519 279	718 384	936 501	1177 624	1427 759
42 2100	532 286	735 394	959 514	1206 640	1462 777
43 2150	544 293	753 403	982 526	1235 655	1496 796
44 2200	557 300	770 413	1005 538	1263 670	1531 814
45 2250	570 307	788 422	1027 550	1292 685	1566 833
46 2300	582 314	805 431	1050 562	1321 701	1601 851
47 2350	595 320	823 441	1073 575	1349 716	1636 870
48 2400	608 327	840 450	1096 587	1378 731	1670 888
49 2450	620 334	858 459	1119 599	1407 746	1705 907
50 2500	633 341	876 469	1142 611	1436 761	1740 925

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2120	1.2227	1.2222	1.2413	1.2359
weight [kg/segment]	0.30	0.45	0.61	0.76	0.93
cap. [l/segment]	0.27	0.39	0.51	0.63	0.75

	1.2120	1.2227	1.2222	1.2413	1.2359
	0.30	0.45	0.61	0.76	0.93
	0.27	0.39	0.51	0.63	0.75

max. number of segments in one block

H [mm]	300				
number of columns B [mm] type	2 63 DL2030..	3 101 DL3030..	4 139 DL4030..	5 177 DL5030..	6 215 DL6030..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	101 54	142 76	182 97	224 119	266 140
5 250	126 68	177 95	228 122	280 148	332 175
6 300	151 81	212 113	273 146	336 178	398 210
7 350	177 95	248 132	319 170	392 208	465 245
8 400	202 108	283 151	364 194	448 238	531 280
9 450	227 122	319 170	410 219	504 267	598 315
10 500	252 135	354 189	456 243	560 297	664 350
11 550	278 149	389 208	501 267	616 327	730 385
12 600	303 162	425 227	547 292	672 356	797 420
13 650	328 176	460 246	592 316	728 386	863 455
14 700	353 189	496 265	638 340	784 416	929 490
15 750	379 203	531 284	683 365	840 445	996 525
16 800	404 216	566 303	729 389	896 475	1062 560
17 850	429 230	602 322	775 413	952 505	1129 595
18 900	454 243	637 340	820 438	1008 535	1195 630
19 950	480 257	673 359	866 462	1064 564	1261 665
20 1000	505 270	708 378	911 486	1120 594	1328 700
21 1050	530 284	743 397	957 510	1176 624	1394 735
22 1100	555 297	779 416	1002 535	1232 653	1461 770
23 1150	581 311	814 435	1048 559	1288 683	1527 805
24 1200	606 324	850 454	1093 583	1344 713	1593 840
25 1250	631 338	885 473	1139 608	1400 742	1660 875
26 1300	656 351	920 492	1185 632	1455 772	1726 910
27 1350	681 365	956 511	1230 656	1511 802	1793 945

	300				
	2 63 DL2030..	3 101 DL3030..	4 139 DL4030..	5 177 DL5030..	6 215 DL6030..
	[W]	[W]	[W]	[W]	[W]
28 1400	707 378	991 530	1276 681	1567 832	1859 980
29 1450	732 392	1027 549	1321 705	1623 861	1925 1015
30 1500	757 405	1062 567	1367 729	1679 891	1992 1051
31 1550	782 419	1097 586	1412 754	1735 921	2058 1086
32 1600	808 432	1133 605	1458 778	1791 950	2124 1121
33 1650	833 446	1168 624	1503 802	1847 980	2191 1156
34 1700	858 459	1204 643	1549 827	1903 1010	2257 1191
35 1750	883 473	1239 662	1595 851	1959 1039	2324 1226
36 1800	909 486	1274 681	1640 875	2015 1069	2390 1261
37 1850	934 500	1310 700	1686 899	2071 1099	2456 1296
38 1900	959 513	1345 719	1731 924	2127 1129	2523 1331
39 1950	984 527	1381 738	1777 948	2183 1158	2589 1366
40 2000	1010 540	1416 757	1822 972	2239 1188	2656 1401
41 2050	1035 554	1451 775	1868 997	2295 1218	2722 1436
42 2100	1060 567	1487 794	1914 1021	2351 1247	2788 1471
43 2150	1085 581	1522 813	1959 1045	2407 1277	2855 1506
44 2200	1111 594	1558 832	2005 1070	2463 1307	2921 1541
45 2250	1136 608	1593 851	2050 1094	2519 1336	2988 1576
46 2300	1161 621	1628 870	2096 1118	2575 1366	3054 1611
47 2350	1186 635	1664 889	2141 1143	2631 1396	3120 1646
48 2400	1212 648	1699 908	2187 1167	2687 1425	3187 1681
49 2450	1237 662	1735 927	2232 1191	2743 1455	3253 1716
50 2500	1262 675	1770 946	2278 1215	2799 1485	3320 1751

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2243	1.2270	1.2297	1.2410	1.2523
weight [kg/segment]	0.52	0.78	1.05	1.30	1.57
cap. [l/segment]	0.40	0.57	0.75	0.93	1.11

	1.2243	1.2270	1.2297	1.2410	1.2523
	0.52	0.78	1.05	1.30	1.57
	0.40	0.57	0.75	0.93	1.11

max. number of segments in one block

H [mm]	350				
number of columns B [mm] type	2 63 DL2035..	3 101 DL3035..	4 139 DL4035..	5 177 DL5035..	6 215 DL6035..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	116 62	162 86	208 111	256 135	304 160
5 250	145 77	203 108	260 138	320 169	380 200
6 300	174 93	243 129	312 166	384 203	456 240
7 350	203 108	284 151	364 193	448 237	532 279
8 400	232 124	324 173	416 221	512 270	607 319
9 450	261 139	365 194	468 249	576 304	683 359
10 500	290 155	405 216	520 276	640 338	759 399
11 550	319 170	446 237	572 304	704 372	835 439
12 600	348 186	486 259	624 332	768 406	911 479
13 650	376 201	527 280	677 359	832 440	987 519
14 700	405 217	567 302	729 387	896 473	1063 559
15 750	434 232	608 324	781 415	960 507	1139 599
16 800	463 248	648 345	833 442	1024 541	1215 639
17 850	492 263	689 367	885 470	1088 575	1291 679
18 900	521 279	729 388	937 497	1152 609	1367 719
19 950	550 294	770 410	989 525	1216 642	1443 759
20 1000	579 309	810 431	1041 553	1280 676	1519 798
21 1050	608 325	851 453	1093 580	1344 710	1595 838
22 1100	637 340	891 475	1145 608	1408 744	1670 878
23 1150	666 356	932 496	1197 636	1472 778	1746 918
24 1200	695 371	972 518	1249 663	1536 811	1822 958
25 1250	724 387	1013 539	1301 691	1600 845	1898 998
26 1300	753 402	1053 561	1353 719	1664 879	1974 1038
27 1350	782 418	1094 582	1405 746	1728 913	2050 1078

	350				
	2 63 DL2035..	3 101 DL3035..	4 139 DL4035..	5 177 DL5035..	6 215 DL6035..
	[W]	[W]	[W]	[W]	[W]
28 1400	811 433	1134 604	1457 774	1792 947	2126 1118
29 1450	840 449	1175 626	1509 801	1856 981	2202 1158
30 1500	869 464	1215 647	1561 829	1920 1014	2278 1198
31 1550	898 480	1256 669	1613 857	1984 1048	2354 1238
32 1600	927 495	1296 690	1665 884	2048 1082	2430 1278
33 1650	956 511	1337 712	1717 912	2112 1116	2506 1317
34 1700	985 526	1377 733	1769 940	2176 1150	2582 1357
35 1750	1014 542	1418 755	1821 967	2240 1183	2658 1397
36 1800	1043 557	1458 777	1873 995	2304 1217	2733 1437
37 1850	1072 573	1499 798	1925 1023	2368 1251	2809 1477
38 1900	1100 588	1539 820	1978 1050	2432 1285	2885 1517
39 1950	1129 603	1580 841	2030 1078	2496 1319	2961 1557
40 2000	1158 619	1620 863	2082 1105	2560 1352	3037 1597
41 2050	1187 634	1661 885	2134 1133	2624 1386	3113 1637
42 2100	1216 650	1701 906	2186 1161	2688 1420	3189 1677
43 2150	1245 665	1742 928	2238 1188	2752 1454	3265 1717
44 2200	1274 681	1782 949	2290 1216	2816 1488	3341 1757
45 2250	1303 696	1823 971	2342 1244	2880 1522	3417 1797
46 2300	1332 712	1863 992	2394 1271	2944 1555	3493 1836
47 2350	1361 727	1904 1014	2446 1299	3008 1589	3569 1876
48 2400	1390 743	1944 1036	2498 1327	3072 1623	3645 1916
49 2450	1419 758	1985 1057	2550 1354	3136 1657	3721 1956
50 2500	1448 774	2025 1079	2602 1382	3200 1691	3797 1996

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2269	1.2330	1.2390	1.2488	1.2585
weight [kg/segment]	0.60	0.89	1.20	1.49	1.86
cap. [l/segment]	0.44	0.64	0.84	1.03	1.23

	1.2269	1.2330	1.2390	1.2488	1.2585
	0.60	0.89	1.20	1.49	1.86
	0.44	0.64	0.84	1.03	1.23

max. number of segments in one block

H [mm]	365				
number of columns B [mm] type	2 63 DL2037..	3 101 DL3037..	4 139 DL4037..	5 177 DL5037..	6 215 DL6037..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200		168 89	216 114	265 140	315 165
5 250		210 112	270 143	332 175	394 207
6 300		252 134	324 172	398 210	473 248
7 350		294 157	378 200	465 245	551 290
8 400		336 179	432 229	531 280	630 331
9 450		378 201	486 258	597 315	709 372
10 500		420 224	540 286	664 350	788 414
11 550		462 246	594 315	730 385	866 455
12 600		504 268	648 343	796 420	945 496
13 650		546 291	701 372	863 455	1024 538
14 700		588 313	755 401	929 490	1103 579
15 750		630 335	809 429	995 525	1181 621
16 800		672 358	863 458	1062 560	1260 662
17 850		714 380	917 486	1128 595	1339 703
18 900		756 402	971 515	1194 630	1418 745
19 950		798 425	1025 544	1261 665	1496 786
20 1000		840 447	1079 572	1327 700	1575 827
21 1050		882 470	1133 601	1394 736	1654 869
22 1100		924 492	1187 630	1460 771	1733 910
23 1150		966 514	1241 658	1526 806	1811 952
24 1200		1008 537	1295 687	1593 841	1890 993
25 1250		1050 559	1349 715	1659 876	1969 1034
26 1300		1092 581	1403 744	1725 911	2048 1076
27 1350		1134 604	1457 773	1792 946	2127 1117

	365				
	2 63 DL2037..	3 101 DL3037..	4 139 DL4037..	5 177 DL5037..	6 215 DL6037..
	[W]	[W]	[W]	[W]	[W]
28 1400		1176 626	1511 801	1858 981	2205 1158
29 1450		1218 648	1565 830	1924 1016	2284 1200
30 1500		1260 671	1619 858	1991 1051	2363 1241
31 1550		1302 693	1673 887	2057 1086	2442 1283
32 1600		1344 715	1727 916	2124 1121	2520 1324
33 1650		1386 738	1781 944	2190 1156	2599 1365
34 1700		1428 760	1835 973	2256 1191	2678 1407
35 1750		1470 783	1889 1002	2323 1226	2757 1448
36 1800		1512 805	1943 1030	2389 1261	2835 1489
37 1850		1554 827	1997 1059	2455 1296	2914 1531
38 1900		1596 850	2050 1087	2522 1331	2993 1572
39 1950		1638 872	2104 1116	2588 1366	3072 1614
40 2000		1680 894	2158 1145	2654 1401	3150 1655
41 2050		1722 917	2212 1173	2721 1436	3229 1696
42 2100		1764 939	2266 1202	2787 1471	3308 1738
43 2150		1806 961	2320 1230	2853 1506	3387 1779
44 2200		1848 984	2374 1259	2920 1541	3465 1820
45 2250		1890 1006	2428 1288	2986 1576	3544 1862
46 2300		1932 1028	2482 1316	3053 1611	3623 1903
47 2350		1974 1051	2536 1345	3119 1646	3702 1944
48 2400		2016 1073	2590 1374	3185 1681	3780 1986
49 2450		2058 1096	2644 1402	3252 1716	3859 2027
50 2500		2101 1118	2698 1431	3318 1751	3938 2069

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value		1.2347	1.2417	1.2510	1.2603
weight [kg/segment]		0.91	1.22	1.54	1.86
cap. [l/segment]		0.66	0.86	1.06	1.27

		1.2347	1.2417	1.2510	1.2603
		0.91	1.22	1.54	1.86
		0.66	0.86	1.06	1.27

max. number of segments in one block

H [mm]	400				
number of columns B [mm] type	2 63 DL2040..	3 101 DL3040..	4 139 DL4040..	5 177 DL5040..	6 215 DL6040..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	131 70	182 97	234 123	287 151	341 179
5 250	163 87	228 121	292 154	359 189	427 224
6 300	196 104	273 145	350 185	431 227	512 268
7 350	228 122	319 169	409 216	503 265	597 313
8 400	261 139	364 193	467 247	575 303	683 358
9 450	294 157	410 218	526 278	647 340	768 403
10 500	326 174	455 242	584 309	719 378	853 447
11 550	359 192	501 266	642 340	791 416	939 492
12 600	392 209	546 290	701 370	862 454	1024 537
13 650	424 226	592 314	759 401	934 492	1109 581
14 700	457 244	637 338	818 432	1006 530	1195 626
15 750	489 261	683 363	876 463	1078 567	1280 671
16 800	522 279	728 387	934 494	1150 605	1365 716
17 850	555 296	774 411	993 525	1222 643	1451 760
18 900	587 313	819 435	1051 556	1294 681	1536 805
19 950	620 331	865 459	1110 587	1366 719	1621 850
20 1000	653 348	910 484	1168 617	1437 757	1707 895
21 1050	685 366	956 508	1226 648	1509 794	1792 939
22 1100	718 383	1001 532	1285 679	1581 832	1877 984
23 1150	750 400	1047 556	1343 710	1653 870	1963 1029
24 1200	783 418	1092 580	1402 741	1725 908	2048 1073
25 1250	816 435	1138 604	1460 772	1797 946	2133 1118
26 1300	848 453	1184 629	1518 803	1869 984	2219 1163
27 1350	881 470	1229 653	1577 834	1940 1021	2304 1208

	400				
	2 63 DL2040..	3 101 DL3040..	4 139 DL4040..	5 177 DL5040..	6 215 DL6040..
	[W]	[W]	[W]	[W]	[W]
28 1400	914 488	1275 677	1635 864	2012 1059	2389 1252
29 1450	946 505	1320 701	1694 895	2084 1097	2475 1297
30 1500	979 522	1366 725	1752 926	2156 1135	2560 1342
31 1550	1012 540	1411 749	1810 957	2228 1173	2645 1387
32 1600	1044 557	1457 774	1869 988	2300 1211	2731 1431
33 1650	1077 575	1502 798	1927 1019	2372 1248	2816 1476
34 1700	1109 592	1548 822	1986 1050	2444 1286	2901 1521
35 1750	1142 609	1593 846	2044 1081	2515 1324	2987 1565
36 1800	1175 627	1639 870	2102 1111	2587 1362	3072 1610
37 1850	1207 644	1684 894	2161 1142	2659 1400	3157 1655
38 1900	1240 662	1730 919	2219 1173	2731 1438	3243 1700
39 1950	1273 679	1775 943	2278 1204	2803 1475	3328 1744
40 2000	1305 696	1821 967	2336 1235	2875 1513	3413 1789
41 2050	1338 714	1866 991	2394 1266	2947 1551	3499 1834
42 2100	1370 731	1912 1015	2453 1297	3019 1589	3584 1879
43 2150	1403 749	1957 1040	2511 1328	3090 1627	3669 1923
44 2200	1436 766	2003 1064	2570 1358	3162 1665	3755 1968
45 2250	1468 784	2048 1088	2628 1389	3234 1702	3840 2013
46 2300	1501 801	2094 1112	2686 1420	3306 1740	3925 2057
47 2350	1534 818	2139 1136	2745 1451	3378 1778	4011 2102
48 2400	1566 836	2185 1160	2803 1482	3450 1816	4096 2147
49 2450	1599 853	2230 1185	2862 1513	3522 1854	4181 2192
50 2500	1632 871	2276 1209	2920 1544	3594 1892	4267 2236

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2296	1.2388	1.2479	1.2562	1.2645
weight [kg/segment]	0.68	1.00	1.35	1.67	2.02
cap. [l/segment]	0.49	0.70	0.92	1.14	1.35

	1.2296	1.2388	1.2479	1.2562	1.2645
	0.68	1.00	1.35	1.67	2.02
	0.49	0.70	0.92	1.14	1.35

max. number of segments in one block

H [mm]	415				
number of columns B [mm] type		3 101 DL3042..	4 139 DL4042..		6 215 DL6042..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200		188 100	241 127		352 185
5 250		235 125	301 159		441 231
6 300		282 150	362 191		529 277
7 350		329 175	422 223		617 323
8 400		376 200	482 255		705 369
9 450		423 225	543 286		793 415
10 500		470 249	603 318		881 461
11 550		517 274	663 350		969 508
12 600		564 299	723 382		1057 554
13 650		611 324	784 414		1146 600
14 700		658 349	844 446		1234 646
15 750		705 374	904 477		1322 692
16 800		752 399	965 509		1410 738
17 850		799 424	1025 541		1498 785
18 900		846 449	1085 573		1586 831
19 950		893 474	1146 605		1674 877
20 1000		940 499	1206 637		1762 923
21 1050		987 524	1266 668		1851 969
22 1100		1034 549	1326 700		1939 1015
23 1150		1081 574	1387 732		2027 1061
24 1200		1128 599	1447 764		2115 1108
25 1250		1175 624	1507 796		2203 1154
26 1300		1222 649	1568 828		2291 1200
27 1350		1269 674	1628 859		2379 1246

	415				
		3 101 DL3042..	4 139 DL4042..		6 215 DL6042..
	[W]	[W]	[W]	[W]	[W]
28 1400		1316 698	1688 891		2467 1292
29 1450		1363 723	1748 923		2555 1338
30 1500		1410 748	1809 955		2644 1384
31 1550		1457 773	1869 987		2732 1431
32 1600		1504 798	1929 1019		2820 1477
33 1650		1551 823	1990 1050		2908 1523
34 1700		1598 848	2050 1082		2996 1569
35 1750		1645 873	2110 1114		3084 1615
36 1800		1692 898	2170 1146		3172 1661
37 1850		1739 923	2231 1178		3260 1707
38 1900		1786 948	2291 1210		3349 1754
39 1950		1833 973	2351 1241		3437 1800
40 2000		1880 998	2412 1273		3525 1846
41 2050		1927 1023	2472 1305		3613 1892
42 2100		1974 1048	2532 1337		3701 1938
43 2150		2021 1073	2592 1369		3789 1984
44 2200		2068 1098	2653 1400		3877 2030
45 2250		2115 1123	2713 1432		3965 2077
46 2300		2162 1147	2773 1464		4054 2123
47 2350		2209 1172	2834 1496		4142 2169
48 2400		2256 1197	2894 1528		4230 2215
49 2450		2303 1222	2954 1560		4318 2261
50 2500		2351 1247	3015 1591		4406 2307

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value		1.2405	1.2505		1.2663
weight [kg/segment]		1.03	1.37		2.08
cap. [l/segment]		0.72	0.95		1.39

		1.2405	1.2505		1.2663
		1.03	1.37		2.08
		0.72	0.95		1.39

max. number of segments in one block

H [mm]	450				
number of columns B [mm] type	2 63 DL2045..	3 101 DL3045..	4 139 DL4045..	5 177 DL5045..	6 215 DL6045..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	145 77	202 107	259 136	319 167	378 198
5 250	181 97	252 134	323 170	398 209	473 247
6 300	218 116	303 160	388 204	478 251	568 297
7 350	254 135	353 187	453 238	557 292	662 346
8 400	290 155	404 214	517 272	637 334	757 396
9 450	326 174	454 241	582 306	717 376	851 445
10 500	363 193	505 267	647 340	796 418	946 494
11 550	399 213	555 294	711 374	876 459	1041 544
12 600	435 232	606 321	776 409	956 501	1135 593
13 650	471 251	656 347	841 443	1035 543	1230 643
14 700	508 270	707 374	906 477	1115 585	1324 692
15 750	544 290	757 401	970 511	1195 627	1419 742
16 800	580 309	808 428	1035 545	1274 668	1514 791
17 850	616 328	858 454	1100 579	1354 710	1608 840
18 900	653 348	908 481	1164 613	1434 752	1703 890
19 950	689 367	959 508	1229 647	1513 794	1797 939
20 1000	725 386	1009 535	1294 681	1593 835	1892 989
21 1050	761 406	1060 561	1358 715	1672 877	1987 1038
22 1100	798 425	1110 588	1423 749	1752 919	2081 1088
23 1150	834 444	1161 615	1488 783	1832 961	2176 1137
24 1200	870 464	1211 641	1552 817	1911 1002	2270 1187
25 1250	907 483	1262 668	1617 851	1991 1044	2365 1236
26 1300	943 502	1312 695	1682 885	2071 1086	2460 1285
27 1350	979 522	1363 722	1746 919	2150 1128	2554 1335

	450				
	2 63 DL2045..	3 101 DL3045..	4 139 DL4045..	5 177 DL5045..	6 215 DL6045..
	[W]	[W]	[W]	[W]	[W]
28 1400	1015 541	1413 748	1811 953	2230 1170	2649 1384
29 1450	1052 560	1464 775	1876 987	2310 1211	2743 1434
30 1500	1088 580	1514 802	1940 1021	2389 1253	2838 1483
31 1550	1124 599	1565 829	2005 1055	2469 1295	2933 1533
32 1600	1160 618	1615 855	2070 1089	2548 1337	3027 1582
33 1650	1197 638	1666 882	2134 1123	2628 1378	3122 1632
34 1700	1233 657	1716 909	2199 1157	2708 1420	3216 1681
35 1750	1269 676	1766 935	2264 1192	2787 1462	3311 1730
36 1800	1305 696	1817 962	2328 1226	2867 1504	3406 1780
37 1850	1342 715	1867 989	2393 1260	2947 1545	3500 1829
38 1900	1378 734	1918 1016	2458 1294	3026 1587	3595 1879
39 1950	1414 753	1968 1042	2523 1328	3106 1629	3689 1928
40 2000	1450 773	2019 1069	2587 1362	3186 1671	3784 1978
41 2050	1487 792	2069 1096	2652 1396	3265 1713	3879 2027
42 2100	1523 811	2120 1123	2717 1430	3345 1754	3973 2076
43 2150	1559 831	2170 1149	2781 1464	3425 1796	4068 2126
44 2200	1595 850	2221 1176	2846 1498	3504 1838	4162 2175
45 2250	1632 869	2271 1203	2911 1532	3584 1880	4257 2225
46 2300	1668 889	2322 1229	2975 1566	3663 1921	4352 2274
47 2350	1704 908	2372 1256	3040 1600	3743 1963	4446 2324
48 2400	1740 927	2423 1283	3105 1634	3823 2005	4541 2373
49 2450	1777 947	2473 1310	3169 1668	3902 2047	4635 2423
50 2500	1813 966	2524 1336	3234 1702	3982 2088	4730 2472

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2325	1.2445	1.2564	1.2634	1.2703
weight [kg/segment]	0.75	1.12	1.49	1.86	2.24
cap. [l/segment]	0.53	0.76	1.01	1.24	1.48

	1.2325	1.2445	1.2564	1.2634	1.2703
	0.75	1.12	1.49	1.86	2.24
	0.53	0.76	1.01	1.24	1.48

max. number of segments in one block

H [mm]	500				
number of columns B [mm] type	2 63 DL2050..	3 101 DL3050..	4 139 DL4050..	5 177 DL5050..	6 215 DL6050..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	159 85	222 117	284 149	349 183	415 216
5 250	199 106	277 146	354 186	437 228	519 270
6 300	239 127	332 175	425 223	524 274	623 324
7 350	279 148	388 205	496 260	611 319	726 379
8 400	319 170	443 234	567 297	699 365	830 433
9 450	359 191	498 263	638 334	786 411	934 487
10 500	399 212	554 292	709 372	873 456	1038 541
11 550	439 233	609 322	780 409	961 502	1141 595
12 600	478 255	665 351	851 446	1048 548	1245 649
13 650	518 276	720 380	921 483	1135 593	1349 703
14 700	558 297	775 409	992 520	1222 639	1453 757
15 750	598 318	831 439	1063 557	1310 685	1556 811
16 800	638 339	886 468	1134 594	1397 730	1660 865
17 850	678 361	941 497	1205 632	1484 776	1764 919
18 900	718 382	997 526	1276 669	1572 821	1868 973
19 950	758 403	1052 556	1347 706	1659 867	1971 1027
20 1000	797 424	1108 585	1418 743	1746 913	2075 1081
21 1050	837 445	1163 614	1488 780	1834 958	2179 1136
22 1100	877 467	1218 643	1559 817	1921 1004	2283 1190
23 1150	917 488	1274 673	1630 855	2008 1050	2386 1244
24 1200	957 509	1329 702	1701 892	2096 1095	2490 1298
25 1250	997 530	1385 731	1772 929	2183 1141	2594 1352
26 1300	1037 552	1440 760	1843 966	2270 1187	2698 1406
27 1350	1076 573	1495 790	1914 1003	2358 1232	2802 1460

	500				
	2 63 DL2050..	3 101 DL3050..	4 139 DL4050..	5 177 DL5050..	6 215 DL6050..
	[W]	[W]	[W]	[W]	[W]
28 1400	1116 594	1551 819	1985 1040	2445 1278	2905 1514
29 1450	1156 615	1606 848	2056 1077	2532 1323	3009 1568
30 1500	1196 636	1661 877	2126 1115	2620 1369	3113 1622
31 1550	1236 658	1717 907	2197 1152	2707 1415	3217 1676
32 1600	1276 679	1772 936	2268 1189	2794 1460	3320 1730
33 1650	1316 700	1828 965	2339 1226	2882 1506	3424 1784
34 1700	1356 721	1883 994	2410 1263	2969 1552	3528 1838
35 1750	1395 742	1938 1024	2481 1300	3056 1597	3632 1893
36 1800	1435 764	1994 1053	2552 1338	3144 1643	3735 1947
37 1850	1475 785	2049 1082	2623 1375	3231 1689	3839 2001
38 1900	1515 806	2104 1111	2693 1412	3318 1734	3943 2055
39 1950	1555 827	2160 1141	2764 1449	3405 1780	4047 2109
40 2000	1595 848	2215 1170	2835 1486	3493 1825	4150 2163
41 2050	1635 870	2271 1199	2906 1523	3580 1871	4254 2217
42 2100	1675 891	2326 1228	2977 1561	3667 1917	4358 2271
43 2150	1714 912	2381 1258	3048 1598	3755 1962	4462 2325
44 2200	1754 933	2437 1287	3119 1635	3842 2008	4565 2379
45 2250	1794 955	2492 1316	3190 1672	3929 2054	4669 2433
46 2300	1834 976	2547 1345	3260 1709	4017 2099	4773 2487
47 2350	1874 997	2603 1375	3331 1746	4104 2145	4877 2541
48 2400	1914 1018	2658 1404	3402 1783	4191 2191	4980 2595
49 2450	1954 1039	2714 1433	3473 1821	4279 2236	5084 2650
50 2500	1994 1061	2769 1462	3544 1858	4366 2282	5188 2704

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2354	1.2499	1.2644	1.2702	1.2759
weight [kg/segment]	0.83	1.23	1.64	2.04	2.46
cap. [l/segment]	0.57	0.83	1.09	1.34	1.60

	1.2354	1.2499	1.2644	1.2702	1.2759
	0.83	1.23	1.64	2.04	2.46
	0.57	0.83	1.09	1.34	1.60

max. number of segments in one block

H [mm]	550				
number of columns B [mm] type	2 63 DL2055..	3 101 DL3055..	4 139 DL4055..	5 177 DL5055..	6 215 DL6055..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	174 92	241 127	308 161	380 198	451 235
5 250	217 115	301 159	385 201	475 247	564 293
6 300	261 139	362 190	462 241	570 297	677 352
7 350	304 162	422 222	539 282	665 346	790 410
8 400	348 185	482 254	616 322	759 396	903 469
9 450	391 208	542 286	693 362	854 445	1015 528
10 500	435 231	603 317	770 402	949 495	1128 586
11 550	478 254	663 349	847 442	1044 544	1241 645
12 600	522 277	723 381	924 483	1139 593	1354 704
13 650	565 300	783 413	1001 523	1234 643	1467 762
14 700	608 323	844 444	1078 563	1329 692	1580 821
15 750	652 346	904 476	1155 603	1424 742	1692 880
16 800	695 369	964 508	1232 644	1519 791	1805 938
17 850	739 392	1024 539	1310 684	1614 841	1918 997
18 900	782 416	1085 571	1387 724	1709 890	2031 1055
19 950	826 439	1145 603	1464 764	1804 940	2144 1114
20 1000	869 462	1205 635	1541 804	1899 989	2257 1173
21 1050	913 485	1265 666	1618 845	1994 1038	2369 1231
22 1100	956 508	1326 698	1695 885	2088 1088	2482 1290
23 1150	1000 531	1386 730	1772 925	2183 1137	2595 1349
24 1200	1043 554	1446 762	1849 965	2278 1187	2708 1407
25 1250	1087 577	1506 793	1926 1006	2373 1236	2821 1466
26 1300	1130 600	1567 825	2003 1046	2468 1286	2934 1525
27 1350	1173 623	1627 857	2080 1086	2563 1335	3046 1583

	550				
	2 63 DL2055..	3 101 DL3055..	4 139 DL4055..	5 177 DL5055..	6 215 DL6055..
	[W]	[W]	[W]	[W]	[W]
28 1400	1217 646	1687 888	2157 1126	2658 1385	3159 1642
29 1450	1260 669	1747 920	2234 1166	2753 1434	3272 1700
30 1500	1304 693	1808 952	2311 1207	2848 1484	3385 1759
31 1550	1347 716	1868 984	2388 1247	2943 1533	3498 1818
32 1600	1391 739	1928 1015	2465 1287	3038 1582	3611 1876
33 1650	1434 762	1988 1047	2542 1327	3133 1632	3723 1935
34 1700	1478 785	2049 1079	2619 1368	3228 1681	3836 1994
35 1750	1521 808	2109 1111	2696 1408	3323 1731	3949 2052
36 1800	1565 831	2169 1142	2773 1448	3417 1780	4062 2111
37 1850	1608 854	2229 1174	2850 1488	3512 1830	4175 2170
38 1900	1651 877	2290 1206	2927 1528	3607 1879	4288 2228
39 1950	1695 900	2350 1238	3004 1569	3702 1929	4400 2287
40 2000	1738 923	2410 1269	3081 1609	3797 1978	4513 2345
41 2050	1782 947	2470 1301	3158 1649	3892 2027	4626 2404
42 2100	1825 970	2531 1333	3235 1689	3987 2077	4739 2463
43 2150	1869 993	2591 1364	3312 1730	4082 2126	4852 2521
44 2200	1912 1016	2651 1396	3389 1770	4177 2176	4965 2580
45 2250	1956 1039	2711 1428	3466 1810	4272 2225	5077 2639
46 2300	1999 1062	2772 1460	3543 1850	4367 2275	5190 2697
47 2350	2043 1085	2832 1491	3620 1890	4462 2324	5303 2756
48 2400	2086 1108	2892 1523	3697 1931	4557 2374	5416 2815
49 2450	2130 1131	2952 1555	3774 1971	4652 2423	5529 2873
50 2500	2173 1154	3013 1587	3852 2011	4747 2473	5642 2932

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2384	1.2552	1.2720	1.2767	1.2813
weight [kg/segment]	0.91	1.34	1.79	2.23	2.68
cap. [l/segment]	0.62	0.89	1.17	1.45	1.73

	1.2384	1.2552	1.2720	1.2767	1.2813
	0.91	1.34	1.79	2.23	2.68
	0.62	0.89	1.17	1.45	1.73

max. number of segments in one block

H [mm]	565				
	2 63 DL2057..	3 101 DL3057..	4 139 DL4057..	5 177 DL5057..	6 215 DL6057..
number of columns B [mm] type					
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	178 95	247 130	315 165	389 202	462 240
5 250	223 118	309 162	394 206	486 253	578 300
6 300	267 142	370 195	473 247	583 304	693 360
7 350	312 166	432 227	552 288	680 354	809 420
8 400	356 189	494 260	631 329	778 405	924 480
9 450	401 213	555 292	710 370	875 455	1040 540
10 500	445 236	617 325	789 411	972 506	1155 600
11 550	490 260	679 357	867 452	1069 556	1271 660
12 600	534 284	740 390	946 494	1166 607	1386 720
13 650	579 307	802 422	1025 535	1264 658	1502 780
14 700	623 331	864 455	1104 576	1361 708	1618 840
15 750	668 355	926 487	1183 617	1458 759	1733 900
16 800	712 378	987 520	1262 658	1555 809	1849 960
17 850	757 402	1049 552	1341 699	1652 860	1964 1020
18 900	802 426	1111 584	1419 740	1750 911	2080 1080
19 950	846 449	1172 617	1498 782	1847 961	2195 1140
20 1000	891 473	1234 649	1577 823	1944 1012	2311 1200
21 1050	935 497	1296 682	1656 864	2041 1062	2426 1260
22 1100	980 520	1357 714	1735 905	2138 1113	2542 1320
23 1150	1024 544	1419 747	1814 946	2236 1163	2657 1380
24 1200	1069 567	1481 779	1893 987	2333 1214	2773 1440
25 1250	1113 591	1543 812	1972 1028	2430 1265	2889 1500
26 1300	1158 615	1604 844	2050 1069	2527 1315	3004 1560
27 1350	1202 638	1666 877	2129 1111	2624 1366	3120 1620

	565				
	2 63 DL2057..	3 101 DL3057..	4 139 DL4057..	5 177 DL5057..	6 215 DL6057..
	[W]	[W]	[W]	[W]	[W]
28 1400	1247 662	1728 909	2208 1152	2722 1416	3235 1680
29 1450	1291 686	1789 942	2287 1193	2819 1467	3351 1740
30 1500	1336 709	1851 974	2366 1234	2916 1518	3466 1800
31 1550	1380 733	1913 1007	2445 1275	3013 1568	3582 1860
32 1600	1425 757	1974 1039	2524 1316	3110 1619	3697 1920
33 1650	1469 780	2036 1071	2602 1357	3208 1669	3813 1980
34 1700	1514 804	2098 1104	2681 1398	3305 1720	3928 2040
35 1750	1559 828	2160 1136	2760 1440	3402 1770	4044 2100
36 1800	1603 851	2221 1169	2839 1481	3499 1821	4159 2160
37 1850	1648 875	2283 1201	2918 1522	3596 1872	4275 2220
38 1900	1692 898	2345 1234	2997 1563	3694 1922	4391 2280
39 1950	1737 922	2406 1266	3076 1604	3791 1973	4506 2340
40 2000	1781 946	2468 1299	3154 1645	3888 2023	4622 2400
41 2050	1826 969	2530 1331	3233 1686	3985 2074	4737 2460
42 2100	1870 993	2591 1364	3312 1728	4082 2125	4853 2520
43 2150	1915 1017	2653 1396	3391 1769	4180 2175	4968 2580
44 2200	1959 1040	2715 1429	3470 1810	4277 2226	5084 2640
45 2250	2004 1064	2777 1461	3549 1851	4374 2276	5199 2700
46 2300	2048 1088	2838 1494	3628 1892	4471 2327	5315 2760
47 2350	2093 1111	2900 1526	3706 1933	4568 2377	5430 2820
48 2400	2137 1135	2962 1559	3785 1974	4666 2428	5546 2880
49 2450	2182 1159	3023 1591	3864 2015	4763 2479	5661 2940
50 2500	2227 1182	3085 1623	3943 2057	4860 2529	5777 3000

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2393	1.2568	1.2742	1.2786	1.2829
weight [kg/segment]	0.93	1.38	1.84	2.29	2.75
cap. [l/segment]	0.63	0.91	1.20	1.48	1.76

	1.2393	1.2568	1.2742	1.2786	1.2829
	0.93	1.38	1.84	2.29	2.75
	0.63	0.91	1.20	1.48	1.76

max. number of segments in one block

H [mm]	600				
number of columns B [mm] type	2 63 DL2060..	3 101 DL3060..	4 139 DL4060..	5 177 DL5060..	6 215 DL6060..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	188 100	260 137	332 173	410 213	487 253
5 250	235 125	325 171	416 216	512 266	609 316
6 300	282 150	390 205	499 259	615 319	731 379
7 350	329 175	455 239	582 303	717 373	853 442
8 400	376 200	521 273	665 346	820 426	975 505
9 450	423 224	586 308	748 389	922 479	1096 568
10 500	470 249	651 342	831 432	1025 532	1218 631
11 550	517 274	716 376	914 476	1127 585	1340 695
12 600	564 299	781 410	997 519	1230 639	1462 758
13 650	611 324	846 444	1081 562	1332 692	1584 821
14 700	658 349	911 479	1164 605	1435 745	1706 884
15 750	705 374	976 513	1247 649	1537 798	1827 947
16 800	752 399	1041 547	1330 692	1640 851	1949 1010
17 850	799 424	1106 581	1413 735	1742 905	2071 1073
18 900	846 449	1171 615	1496 778	1845 958	2193 1137
19 950	893 474	1236 649	1579 822	1947 1011	2315 1200
20 1000	940 499	1301 684	1662 865	2050 1064	2437 1263
21 1050	987 524	1366 718	1746 908	2152 1118	2558 1326
22 1100	1034 549	1432 752	1829 951	2255 1171	2680 1389
23 1150	1081 574	1497 786	1912 995	2357 1224	2802 1452
24 1200	1128 599	1562 820	1995 1038	2460 1277	2924 1516
25 1250	1176 623	1627 854	2078 1081	2562 1330	3046 1579
26 1300	1223 648	1692 889	2161 1124	2664 1384	3168 1642
27 1350	1270 673	1757 923	2244 1168	2767 1437	3289 1705

	600				
	2 63 DL2060..	3 101 DL3060..	4 139 DL4060..	5 177 DL5060..	6 215 DL6060..
	[W]	[W]	[W]	[W]	[W]
28 1400	1317 698	1822 957	2327 1211	2869 1490	3411 1768
29 1450	1364 723	1887 991	2410 1254	2972 1543	3533 1831
30 1500	1411 748	1952 1025	2494 1297	3074 1596	3655 1894
31 1550	1458 773	2017 1060	2577 1340	3177 1650	3777 1958
32 1600	1505 798	2082 1094	2660 1384	3279 1703	3899 2021
33 1650	1552 823	2147 1128	2743 1427	3382 1756	4020 2084
34 1700	1599 848	2212 1162	2826 1470	3484 1809	4142 2147
35 1750	1646 873	2277 1196	2909 1513	3587 1863	4264 2210
36 1800	1693 898	2343 1230	2992 1557	3689 1916	4386 2273
37 1850	1740 923	2408 1265	3075 1600	3792 1969	4508 2336
38 1900	1787 948	2473 1299	3159 1643	3894 2022	4630 2400
39 1950	1834 973	2538 1333	3242 1686	3997 2075	4751 2463
40 2000	1881 998	2603 1367	3325 1730	4099 2129	4873 2526
41 2050	1928 1022	2668 1401	3408 1773	4202 2182	4995 2589
42 2100	1975 1047	2733 1436	3491 1816	4304 2235	5117 2652
43 2150	2022 1072	2798 1470	3574 1859	4407 2288	5239 2715
44 2200	2069 1097	2863 1504	3657 1903	4509 2341	5361 2778
45 2250	2116 1122	2928 1538	3740 1946	4612 2395	5482 2842
46 2300	2163 1147	2993 1572	3824 1989	4714 2448	5604 2905
47 2350	2210 1172	3058 1606	3907 2032	4817 2501	5726 2968
48 2400	2257 1197	3123 1641	3990 2076	4919 2554	5848 3031
49 2450	2304 1222	3188 1675	4073 2119	5022 2608	5970 3094
50 2500	2351 1247	3254 1709	4156 2162	5124 2661	6092 3157

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2415	1.2604	1.2793	1.2829	1.2865
weight [kg/segment]	0.98	1.46	1.94	2.42	2.91
cap. [l/segment]	0.66	0.96	1.26	1.55	1.85

	1.2415	1.2604	1.2793	1.2829	1.2865
	0.98	1.46	1.94	2.42	2.91
	0.66	0.96	1.26	1.55	1.85

max. number of segments in one block

H [mm]	665				
number of columns B [mm] type	2 63 DL2067..	3 101 DL3067..	4 139 DL4067..	5 177 DL5067..	6 215 DL6067..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	207 109	285 149	364 188	449 232	534 276
5 250	258 137	357 187	455 236	561 290	667 345
6 300	310 164	428 224	546 283	673 348	801 414
7 350	361 191	499 261	637 330	785 406	934 482
8 400	413 219	570 299	728 377	898 464	1067 551
9 450	465 246	642 336	819 424	1010 522	1201 620
10 500	516 273	713 373	910 471	1122 580	1334 689
11 550	568 301	784 411	1001 518	1234 638	1468 758
12 600	620 328	856 448	1092 565	1346 696	1601 827
13 650	671 355	927 485	1183 612	1459 754	1734 896
14 700	723 383	998 523	1274 660	1571 813	1868 965
15 750	775 410	1070 560	1365 707	1683 871	2001 1034
16 800	826 437	1141 597	1456 754	1795 929	2135 1103
17 850	878 465	1212 635	1546 801	1907 987	2268 1172
18 900	930 492	1284 672	1637 848	2020 1045	2402 1241
19 950	981 519	1355 709	1728 895	2132 1103	2535 1310
20 1000	1033 547	1426 747	1819 942	2244 1161	2668 1379
21 1050	1084 574	1498 784	1910 989	2356 1219	2802 1447
22 1100	1136 601	1569 821	2001 1036	2468 1277	2935 1516
23 1150	1188 629	1640 859	2092 1084	2581 1335	3069 1585
24 1200	1239 656	1711 896	2183 1131	2693 1393	3202 1654
25 1250	1291 683	1783 933	2274 1178	2805 1451	3336 1723
26 1300	1343 711	1854 971	2365 1225	2917 1509	3469 1792
27 1350	1394 738	1925 1008	2456 1272	3029 1567	3602 1861

	665				
	2 63 DL2067..	3 101 DL3067..	4 139 DL4067..	5 177 DL5067..	6 215 DL6067..
	[W]	[W]	[W]	[W]	[W]
28 1400	1446 765	1997 1045	2547 1319	3142 1625	3736 1930
29 1450	1498 793	2068 1083	2638 1366	3254 1683	3869 1999
30 1500	1549 820	2139 1120	2729 1413	3366 1741	4003 2068
31 1550	1601 847	2211 1157	2820 1460	3478 1799	4136 2137
32 1600	1652 875	2282 1195	2911 1508	3590 1857	4269 2206
33 1650	1704 902	2353 1232	3002 1555	3703 1915	4403 2275
34 1700	1756 929	2425 1269	3093 1602	3815 1973	4536 2344
35 1750	1807 957	2496 1307	3184 1649	3927 2031	4670 2412
36 1800	1859 984	2567 1344	3275 1696	4039 2089	4803 2481
37 1850	1911 1011	2638 1381	3366 1743	4151 2147	4937 2550
38 1900	1962 1039	2710 1419	3457 1790	4264 2205	5070 2619
39 1950	2014 1066	2781 1456	3548 1837	4376 2263	5203 2688
40 2000	2066 1093	2852 1493	3639 1884	4488 2321	5337 2757
41 2050	2117 1121	2924 1531	3730 1932	4600 2379	5470 2826
42 2100	2169 1148	2995 1568	3821 1979	4712 2438	5604 2895
43 2150	2221 1175	3066 1605	3912 2026	4825 2496	5737 2964
44 2200	2272 1202	3138 1643	4003 2073	4937 2554	5870 3033
45 2250	2324 1230	3209 1680	4094 2120	5049 2612	6004 3102
46 2300	2375 1257	3280 1717	4185 2167	5161 2670	6137 3171
47 2350	2427 1284	3352 1755	4276 2214	5273 2728	6271 3240
48 2400	2479 1312	3423 1792	4367 2261	5386 2786	6404 3309
49 2450	2530 1339	3494 1829	4458 2309	5498 2844	6538 3377
50 2500	2582 1366	3566 1867	4549 2356	5610 2902	6671 3446

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2457	1.2669	1.2881	1.2905	1.2929
weight [kg/segment]	1.08	1.60	2.14	2.66	3.20
cap. [l/segment]	0.72	1.04	1.37	1.69	2.01

	1.2457	1.2669	1.2881	1.2905	1.2929
	1.08	1.60	2.14	2.66	3.20
	0.72	1.04	1.37	1.69	2.01

max. number of segments in one block

H [mm]	750				
number of columns B [mm] type	2 63 DL2075..	3 101 DL3075..	4 139 DL4075..	5 177 DL5075..	6 215 DL6075..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	231 122	318 166	405 208	499 257	594 306
5 250	288 152	397 207	506 261	624 321	742 382
6 300	346 183	476 248	607 313	749 386	891 458
7 350	404 213	556 290	708 365	874 450	1039 535
8 400	461 243	635 331	809 417	998 514	1188 611
9 450	519 274	715 373	910 469	1123 578	1336 687
10 500	577 304	794 414	1012 521	1248 643	1485 764
11 550	634 335	873 455	1113 573	1373 707	1633 840
12 600	692 365	953 497	1214 625	1498 771	1781 917
13 650	749 395	1032 538	1315 677	1622 835	1930 993
14 700	807 426	1112 580	1416 729	1747 900	2078 1069
15 750	865 456	1191 621	1517 782	1872 964	2227 1146
16 800	922 487	1270 662	1618 834	1997 1028	2375 1222
17 850	980 517	1350 704	1720 886	2122 1092	2524 1299
18 900	1038 548	1429 745	1821 938	2246 1157	2672 1375
19 950	1095 578	1509 787	1922 990	2371 1221	2821 1451
20 1000	1153 608	1588 828	2023 1042	2496 1285	2969 1528
21 1050	1211 639	1667 869	2124 1094	2621 1349	3117 1604
22 1100	1268 669	1747 911	2225 1146	2746 1414	3266 1680
23 1150	1326 700	1826 952	2326 1198	2870 1478	3414 1757
24 1200	1384 730	1906 994	2428 1251	2995 1542	3563 1833
25 1250	1441 761	1985 1035	2529 1303	3120 1606	3711 1910
26 1300	1499 791	2064 1076	2630 1355	3245 1671	3860 1986
27 1350	1557 821	2144 1118	2731 1407	3370 1735	4008 2062

	750				
	2 63 DL2075..	3 101 DL3075..	4 139 DL4075..	5 177 DL5075..	6 215 DL6075..
	[W]	[W]	[W]	[W]	[W]
28 1400	1614 852	2223 1159	2832 1459	3494 1799	4157 2139
29 1450	1672 882	2303 1200	2933 1511	3619 1863	4305 2215
30 1500	1730 913	2382 1242	3035 1563	3744 1928	4454 2292
31 1550	1787 943	2461 1283	3136 1615	3869 1992	4602 2368
32 1600	1845 974	2541 1325	3237 1667	3994 2056	4750 2444
33 1650	1902 1004	2620 1366	3338 1719	4118 2120	4899 2521
34 1700	1960 1034	2700 1407	3439 1772	4243 2185	5047 2597
35 1750	2018 1065	2779 1449	3540 1824	4368 2249	5196 2673
36 1800	2075 1095	2858 1490	3641 1876	4493 2313	5344 2750
37 1850	2133 1126	2938 1532	3743 1928	4618 2377	5493 2826
38 1900	2191 1156	3017 1573	3844 1980	4742 2442	5641 2903
39 1950	2248 1186	3097 1614	3945 2032	4867 2506	5790 2979
40 2000	2306 1217	3176 1656	4046 2084	4992 2570	5938 3055
41 2050	2364 1247	3255 1697	4147 2136	5117 2634	6086 3132
42 2100	2421 1278	3335 1739	4248 2188	5242 2699	6235 3208
43 2150	2479 1308	3414 1780	4349 2240	5366 2763	6383 3284
44 2200	2537 1339	3494 1821	4451 2293	5491 2827	6532 3361
45 2250	2594 1369	3573 1863	4552 2345	5616 2891	6680 3437
46 2300	2652 1399	3652 1904	4653 2397	5741 2956	6829 3514
47 2350	2710 1430	3732 1946	4754 2449	5866 3020	6977 3590
48 2400	2767 1460	3811 1987	4855 2501	5990 3084	7126 3666
49 2450	2825 1491	3891 2028	4956 2553	6115 3148	7274 3743
50 2500	2883 1521	3970 2070	5058 2605	6240 3213	7423 3819

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2513	1.2750	1.2986	1.2997	1.3008
weight [kg/segment]	1.21	1.79	2.39	2.97	3.58
cap. [l/segment]	0.80	1.15	1.51	1.86	2.22

	1.2513	1.2750	1.2986	1.2997	1.3008
	1.21	1.79	2.39	2.97	3.58
	0.80	1.15	1.51	1.86	2.22

max. number of segments in one block

H [mm]	900				
number of columns B [mm] type	2 63 DL2090..	3 101 DL3090..	4 139 DL4090..	5 177 DL5090..	6 215 DL6090..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	273 143	374 194	476 243	587 300	699 357
5 250	341 179	468 242	595 304	734 375	873 447
6 300	409 215	561 291	714 365	881 450	1048 536
7 350	478 251	655 339	832 425	1028 525	1223 625
8 400	546 287	749 388	951 486	1174 600	1397 714
9 450	614 322	842 436	1070 547	1321 675	1572 804
10 500	682 358	936 485	1189 608	1468 750	1747 893
11 550	750 394	1029 533	1308 668	1615 825	1921 982
12 600	819 430	1123 582	1427 729	1761 900	2096 1072
13 650	887 466	1216 630	1546 790	1908 975	2270 1161
14 700	955 501	1310 678	1665 851	2055 1050	2445 1250
15 750	1023 537	1404 727	1784 911	2202 1125	2620 1340
16 800	1092 573	1497 775	1903 972	2349 1200	2794 1429
17 850	1160 609	1591 824	2022 1033	2495 1275	2969 1518
18 900	1228 645	1684 872	2141 1094	2642 1350	3144 1607
19 950	1296 680	1778 921	2259 1154	2789 1425	3318 1697
20 1000	1364 716	1871 969	2378 1215	2936 1501	3493 1786
21 1050	1433 752	1965 1018	2497 1276	3083 1576	3668 1875
22 1100	1501 788	2059 1066	2616 1337	3229 1651	3842 1965
23 1150	1569 824	2152 1115	2735 1397	3376 1726	4017 2054
24 1200	1637 860	2246 1163	2854 1458	3523 1801	4192 2143
25 1250	1706 895	2339 1211	2973 1519	3670 1876	4366 2233
26 1300	1774 931	2433 1260	3092 1580	3817 1951	4541 2322
27 1350	1842 967	2526 1308	3211 1640	3963 2026	4716 2411

	900				
	2 63 DL2090..	3 101 DL3090..	4 139 DL4090..	5 177 DL5090..	6 215 DL6090..
	[W]	[W]	[W]	[W]	[W]
28 1400	1910 1003	2620 1357	3330 1701	4110 2101	4890 2500
29 1450	1978 1039	2714 1405	3449 1762	4257 2176	5065 2590
30 1500	2047 1074	2807 1454	3568 1823	4404 2251	5240 2679
31 1550	2115 1110	2901 1502	3687 1883	4550 2326	5414 2768
32 1600	2183 1146	2994 1551	3805 1944	4697 2401	5589 2858
33 1650	2251 1182	3088 1599	3924 2005	4844 2476	5763 2947
34 1700	2319 1218	3181 1648	4043 2066	4991 2551	5938 3036
35 1750	2388 1253	3275 1696	4162 2126	5138 2626	6113 3126
36 1800	2456 1289	3369 1745	4281 2187	5284 2701	6287 3215
37 1850	2524 1325	3462 1793	4400 2248	5431 2776	6462 3304
38 1900	2592 1361	3556 1841	4519 2309	5578 2851	6637 3393
39 1950	2661 1397	3649 1890	4638 2369	5725 2926	6811 3483
40 2000	2729 1433	3743 1938	4757 2430	5872 3001	6986 3572
41 2050	2797 1468	3836 1987	4876 2491	6018 3076	7161 3661
42 2100	2865 1504	3930 2035	4995 2552	6165 3151	7335 3751
43 2150	2933 1540	4024 2084	5114 2613	6312 3226	7510 3840
44 2200	3002 1576	4117 2132	5232 2673	6459 3301	7685 3929
45 2250	3070 1612	4211 2181	5351 2734	6606 3376	7859 4019
46 2300	3138 1647	4304 2229	5470 2795	6752 3451	8034 4108
47 2350	3206 1683	4398 2278	5589 2856	6899 3526	8209 4197
48 2400	3275 1719	4491 2326	5708 2916	7046 3601	8383 4286
49 2450	3343 1755	4585 2374	5827 2977	7193 3676	8558 4376
50 2500	3411 1791	4679 2423	5946 3038	7340 3751	8733 4465

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2615	1.2881	1.3147	1.3139	1.3131
weight [kg/segment]	1.44	2.13	2.84	3.53	4.24
cap. [l/segment]	0.93	1.34	1.76	2.17	2.59

	1.2615	1.2881	1.3147	1.3139	1.3131
	1.44	2.13	2.84	3.53	4.24
	0.93	1.34	1.76	2.17	2.59

max. number of segments in one block

H [mm]	965				
number of columns B [mm] type	2 63 DL2097..	3 101 DL3097..	4 139 DL4097..		6 215 DL6097..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	291 153	399 206	506 258		744 379
5 250	364 191	498 257	633 322		930 474
6 300	437 229	598 309	759 387		1115 569
7 350	510 267	698 360	886 451		1301 664
8 400	582 305	798 412	1013 516		1487 759
9 450	655 343	897 463	1139 580		1673 853
10 500	728 381	997 515	1266 645		1859 948
11 550	801 419	1097 566	1392 709		2045 1043
12 600	874 458	1196 618	1519 774		2231 1138
13 650	946 496	1296 669	1645 838		2417 1233
14 700	1019 534	1396 721	1772 903		2603 1328
15 750	1092 572	1495 772	1899 967		2789 1422
16 800	1165 610	1595 824	2025 1031		2975 1517
17 850	1238 648	1695 875	2152 1096		3160 1612
18 900	1310 686	1794 927	2278 1160		3346 1707
19 950	1383 724	1894 978	2405 1225		3532 1802
20 1000	1456 763	1994 1030	2531 1289		3718 1897
21 1050	1529 801	2093 1081	2658 1354		3904 1991
22 1100	1602 839	2193 1133	2785 1418		4090 2086
23 1150	1674 877	2293 1184	2911 1483		4276 2181
24 1200	1747 915	2393 1236	3038 1547		4462 2276
25 1250	1820 953	2492 1287	3164 1612		4648 2371
26 1300	1893 991	2592 1339	3291 1676		4834 2465
27 1350	1966 1030	2692 1390	3417 1741		5020 2560

	965				
	2 63 DL2097..	3 101 DL3097..	4 139 DL4097..		6 215 DL6097..
	[W]	[W]	[W]	[W]	[W]
28 1400	2038 1068	2791 1442	3544 1805		5205 2655
29 1450	2111 1106	2891 1493	3671 1870		5391 2750
30 1500	2184 1144	2991 1545	3797 1934		5577 2845
31 1550	2257 1182	3090 1596	3924 1998		5763 2940
32 1600	2330 1220	3190 1648	4050 2063		5949 3034
33 1650	2402 1258	3290 1699	4177 2127		6135 3129
34 1700	2475 1296	3389 1751	4303 2192		6321 3224
35 1750	2548 1335	3489 1802	4430 2256		6507 3319
36 1800	2621 1373	3589 1854	4557 2321		6693 3414
37 1850	2694 1411	3689 1905	4683 2385		6879 3509
38 1900	2766 1449	3788 1957	4810 2450		7065 3603
39 1950	2839 1487	3888 2008	4936 2514		7250 3698
40 2000	2912 1525	3988 2060	5063 2579		7436 3793
41 2050	2985 1563	4087 2111	5189 2643		7622 3888
42 2100	3058 1601	4187 2163	5316 2708		7808 3983
43 2150	3130 1640	4287 2214	5443 2772		7994 4078
44 2200	3203 1678	4386 2266	5569 2837		8180 4172
45 2250	3276 1716	4486 2317	5696 2901		8366 4267
46 2300	3349 1754	4586 2368	5822 2965		8552 4362
47 2350	3422 1792	4685 2420	5949 3030		8738 4457
48 2400	3494 1830	4785 2471	6075 3094		8924 4552
49 2450	3567 1868	4885 2523	6202 3159		9110 4646
50 2500	3640 1907	4985 2574	6329 3223		9296 4741

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2660	1.2934	1.3207		1.3179
weight [kg/segment]	1.54	2.28	3.04		4.53
cap. [l/segment]	0.99	1.42	1.87		2.75

	1.2660	1.2934	1.3207		1.3179
	1.54	2.28	3.04		4.53
	0.99	1.42	1.87		2.75

max. number of segments in one block

H [mm]	1000				
number of columns B [mm] type	2 63 DL2100..	3 101 DL3100..	4 139 DL4100..	5 177 DL5100..	6 215 DL6100..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	301 157	412 212	523 266	645 328	768 391
5 250	376 197	515 266	653 332	807 411	960 489
6 300	452 236	618 319	784 399	968 493	1152 587
7 350	527 276	721 372	915 465	1129 575	1344 685
8 400	602 315	824 425	1045 532	1290 657	1536 782
9 450	677 354	927 478	1176 598	1452 739	1728 880
10 500	753 394	1030 531	1307 665	1613 821	1920 978
11 550	828 433	1133 584	1437 731	1774 903	2111 1076
12 600	903 472	1236 637	1568 797	1936 985	2303 1173
13 650	978 512	1339 690	1699 864	2097 1067	2495 1271
14 700	1054 551	1442 744	1829 930	2258 1149	2687 1369
15 750	1129 591	1545 797	1960 997	2420 1232	2879 1467
16 800	1204 630	1648 850	2091 1063	2581 1314	3071 1565
17 850	1279 669	1750 903	2221 1130	2742 1396	3263 1662
18 900	1355 709	1853 956	2352 1196	2904 1478	3455 1760
19 950	1430 748	1956 1009	2483 1263	3065 1560	3647 1858
20 1000	1505 787	2059 1062	2613 1329	3226 1642	3839 1956
21 1050	1580 827	2162 1115	2744 1396	3388 1724	4031 2054
22 1100	1656 866	2265 1168	2875 1462	3549 1806	4223 2151
23 1150	1731 906	2368 1222	3005 1528	3710 1888	4415 2249
24 1200	1806 945	2471 1275	3136 1595	3871 1971	4607 2347
25 1250	1882 984	2574 1328	3267 1661	4033 2053	4799 2445
26 1300	1957 1024	2677 1381	3397 1728	4194 2135	4991 2542
27 1350	2032 1063	2780 1434	3528 1794	4355 2217	5183 2640

	1000				
	2 63 DL2100..	3 101 DL3100..	4 139 DL4100..	5 177 DL5100..	6 215 DL6100..
	[W]	[W]	[W]	[W]	[W]
28 1400	2107 1102	2883 1487	3659 1861	4517 2299	5375 2738
29 1450	2183 1142	2986 1540	3789 1927	4678 2381	5567 2836
30 1500	2258 1181	3089 1593	3920 1994	4839 2463	5759 2934
31 1550	2333 1220	3192 1646	4051 2060	5001 2545	5950 3031
32 1600	2408 1260	3295 1700	4181 2126	5162 2627	6142 3129
33 1650	2484 1299	3398 1753	4312 2193	5323 2710	6334 3227
34 1700	2559 1339	3501 1806	4443 2259	5485 2792	6526 3325
35 1750	2634 1378	3604 1859	4573 2326	5646 2874	6718 3423
36 1800	2709 1417	3707 1912	4704 2392	5807 2956	6910 3520
37 1850	2785 1457	3810 1965	4835 2459	5968 3038	7102 3618
38 1900	2860 1496	3913 2018	4965 2525	6130 3120	7294 3716
39 1950	2935 1535	4016 2071	5096 2592	6291 3202	7486 3814
40 2000	3010 1575	4119 2124	5227 2658	6452 3284	7678 3911
41 2050	3086 1614	4222 2177	5357 2725	6614 3366	7870 4009
42 2100	3161 1654	4325 2231	5488 2791	6775 3448	8062 4107
43 2150	3236 1693	4428 2284	5619 2857	6936 3531	8254 4205
44 2200	3311 1732	4531 2337	5749 2924	7098 3613	8446 4303
45 2250	3387 1772	4634 2390	5880 2990	7259 3695	8638 4400
46 2300	3462 1811	4737 2443	6011 3057	7420 3777	8830 4498
47 2350	3537 1850	4840 2496	6141 3123	7582 3859	9022 4596
48 2400	3612 1890	4943 2549	6272 3190	7743 3941	9214 4694
49 2450	3688 1929	5046 2602	6403 3256	7904 4023	9406 4792
50 2500	3763 1969	5149 2655	6534 3323	8066 4105	9598 4889

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2684	1.2961	1.3237	1.3220	1.3203
weight [kg/segment]	1.59	2.36	3.14	3.91	4.69
cap. [l/segment]	1.02	1.47	1.93	2.38	2.84

	1.2684	1.2961	1.3237	1.3220	1.3203
	1.59	2.36	3.14	3.91	4.69
	1.02	1.47	1.93	2.38	2.84

max. number of segments in one block

H [mm]	1065				
number of columns B [mm] type		3 101 DL3107..	4 139 DL4107..	5 177 DL5107..	6 215 DL6107..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200		436 224	553 281	683 347	813 413
5 250		545 281	691 351	854 433	1016 516
6 300		654 337	830 421	1024 520	1219 620
7 350		763 393	968 491	1195 607	1422 723
8 400		873 449	1106 561	1366 694	1625 826
9 450		982 505	1245 631	1536 780	1828 929
10 500		1091 561	1383 701	1707 867	2032 1033
11 550		1200 617	1521 772	1878 954	2235 1136
12 600		1309 673	1659 842	2049 1040	2438 1239
13 650		1418 730	1798 912	2219 1127	2641 1343
14 700		1527 786	1936 982	2390 1214	2844 1446
15 750		1636 842	2074 1052	2561 1300	3047 1549
16 800		1745 898	2213 1122	2732 1387	3250 1652
17 850		1854 954	2351 1192	2902 1474	3454 1756
18 900		1963 1010	2489 1263	3073 1560	3657 1859
19 950		2072 1066	2628 1333	3244 1647	3860 1962
20 1000		2181 1122	2766 1403	3414 1734	4063 2065
21 1050		2290 1178	2904 1473	3585 1820	4266 2169
22 1100		2400 1235	3042 1543	3756 1907	4469 2272
23 1150		2509 1291	3181 1613	3927 1994	4672 2375
24 1200		2618 1347	3319 1683	4097 2081	4876 2479
25 1250		2727 1403	3457 1754	4268 2167	5079 2582
26 1300		2836 1459	3596 1824	4439 2254	5282 2685
27 1350		2945 1515	3734 1894	4609 2341	5485 2788

	1065				
		3 101 DL3107..	4 139 DL4107..	5 177 DL5107..	6 215 DL6107..
	[W]	[W]	[W]	[W]	[W]
28 1400		3054 1571	3872 1964	4780 2427	5688 2892
29 1450		3163 1627	4010 2034	4951 2514	5891 2995
30 1500		3272 1684	4149 2104	5122 2601	6095 3098
31 1550		3381 1740	4287 2175	5292 2687	6298 3201
32 1600		3490 1796	4425 2245	5463 2774	6501 3305
33 1650		3599 1852	4564 2315	5634 2861	6704 3408
34 1700		3708 1908	4702 2385	5804 2947	6907 3511
35 1750		3817 1964	4840 2455	5975 3034	7110 3614
36 1800		3927 2020	4978 2525	6146 3121	7313 3718
37 1850		4036 2076	5117 2595	6317 3207	7517 3821
38 1900		4145 2132	5255 2666	6487 3294	7720 3924
39 1950		4254 2189	5393 2736	6658 3381	7923 4028
40 2000		4363 2245	5532 2806	6829 3468	8126 4131
41 2050		4472 2301	5670 2876	7000 3554	8329 4234
42 2100		4581 2357	5808 2946	7170 3641	8532 4337
43 2150		4690 2413	5946 3016	7341 3728	8735 4441
44 2200		4799 2469	6085 3086	7512 3814	8939 4544
45 2250		4908 2525	6223 3157	7682 3901	9142 4647
46 2300		5017 2581	6361 3227	7853 3988	9345 4750
47 2350		5126 2638	6500 3297	8024 4074	9548 4854
48 2400		5235 2694	6638 3367	8195 4161	9751 4957
49 2450		5344 2750	6776 3437	8365 4248	9954 5060
50 2500		5454 2806	6915 3507	8536 4334	10158 5164

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value		1.3009	1.3288	1.3267	1.3245
weight [kg/segment]		2.46	3.24	4.15	4.98
cap. [l/segment]		1.55	2.04	2.52	3.00

		1.3009	1.3288	1.3267	1.3245
		2.46	3.24	4.15	4.98
		1.55	2.04	2.52	3.00

max. number of segments in one block

H [mm]	1100				
number of columns B [mm] type	2 63 DL2110..	3 101 DL3110..	4 139 DL4110..	5 177 DL5110..	6 215 DL6110..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	329 172	449 231	570 288	703 357	837 425
5 250	412 214	562 289	712 361	879 446	1046 531
6 300	494 257	674 346	854 433	1055 535	1255 637
7 350	576 300	786 404	997 505	1230 624	1464 743
8 400	658 343	899 462	1139 577	1406 713	1673 850
9 450	741 386	1011 520	1281 649	1582 802	1882 956
10 500	823 429	1123 577	1424 721	1758 891	2092 1062
11 550	905 472	1236 635	1566 793	1933 981	2301 1168
12 600	988 515	1348 693	1709 865	2109 1070	2510 1275
13 650	1070 558	1460 750	1851 938	2285 1159	2719 1381
14 700	1152 601	1573 808	1993 1010	2461 1248	2928 1487
15 750	1235 643	1685 866	2136 1082	2637 1337	3137 1593
16 800	1317 686	1797 924	2278 1154	2812 1426	3347 1699
17 850	1399 729	1910 981	2420 1226	2988 1516	3556 1806
18 900	1481 772	2022 1039	2563 1298	3164 1605	3765 1912
19 950	1564 815	2134 1097	2705 1370	3340 1694	3974 2018
20 1000	1646 858	2247 1155	2848 1442	3515 1783	4183 2124
21 1050	1728 901	2359 1212	2990 1515	3691 1872	4392 2230
22 1100	1811 944	2471 1270	3132 1587	3867 1961	4602 2337
23 1150	1893 987	2584 1328	3275 1659	4043 2050	4811 2443
24 1200	1975 1030	2696 1385	3417 1731	4218 2140	5020 2549
25 1250	2058 1072	2809 1443	3560 1803	4394 2229	5229 2655
26 1300	2140 1115	2921 1501	3702 1875	4570 2318	5438 2762
27 1350	2222 1158	3033 1559	3844 1947	4746 2407	5647 2868

	1100				
	2 63 DL2110..	3 101 DL3110..	4 139 DL4110..	5 177 DL5110..	6 215 DL6110..
	[W]	[W]	[W]	[W]	[W]
28 1400	2304 1201	3146 1616	3987 2019	4922 2496	5856 2974
29 1450	2387 1244	3258 1674	4129 2092	5097 2585	6066 3080
30 1500	2469 1287	3370 1732	4271 2164	5273 2674	6275 3186
31 1550	2551 1330	3483 1790	4414 2236	5449 2764	6484 3293
32 1600	2634 1373	3595 1847	4556 2308	5625 2853	6693 3399
33 1650	2716 1416	3707 1905	4699 2380	5800 2942	6902 3505
34 1700	2798 1459	3820 1963	4841 2452	5976 3031	7111 3611
35 1750	2881 1501	3932 2020	4983 2524	6152 3120	7321 3717
36 1800	2963 1544	4044 2078	5126 2596	6328 3209	7530 3824
37 1850	3045 1587	4157 2136	5268 2669	6503 3298	7739 3930
38 1900	3127 1630	4269 2194	5410 2741	6679 3388	7948 4036
39 1950	3210 1673	4381 2251	5553 2813	6855 3477	8157 4142
40 2000	3292 1716	4494 2309	5695 2885	7031 3566	8366 4248
41 2050	3374 1759	4606 2367	5838 2957	7207 3655	8576 4355
42 2100	3457 1802	4718 2425	5980 3029	7382 3744	8785 4461
43 2150	3539 1845	4831 2482	6122 3101	7558 3833	8994 4567
44 2200	3621 1888	4943 2540	6265 3173	7734 3922	9203 4673
45 2250	3704 1930	5055 2598	6407 3246	7910 4012	9412 4780
46 2300	3786 1973	5168 2655	6549 3318	8085 4101	9621 4886
47 2350	3868 2016	5280 2713	6692 3390	8261 4190	9831 4992
48 2400	3950 2059	5392 2771	6834 3462	8437 4279	10040 5098
49 2450	4033 2102	5505 2829	6977 3534	8613 4368	10249 5204
50 2500	4115 2145	5617 2886	7119 3606	8789 4457	10458 5311

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2754	1.3034	1.3314	1.3290	1.3266
weight [kg/segment]	1.75	2.59	3.44	4.28	5.14
cap. [l/segment]	1.11	1.60	2.10	2.59	3.10

	1.2754	1.3034	1.3314	1.3290	1.3266
	1.75	2.59	3.44	4.28	5.14
	1.11	1.60	2.10	2.59	3.10

max. number of segments in one block

H [mm]	1200				
number of columns B [mm] type	2 63 DL2120..	3 101 DL3120..	4 139 DL4120..	5 177 DL5120..	6 215 DL6120..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	357 186	487 249	616 311	761 385	905 458
5 250	447 232	609 312	770 389	951 481	1131 573
6 300	536 278	730 374	924 467	1141 577	1358 688
7 350	625 325	852 436	1078 544	1331 673	1584 802
8 400	715 371	974 499	1232 622	1521 769	1810 917
9 450	804 418	1095 561	1386 700	1712 865	2037 1031
10 500	894 464	1217 623	1540 778	1902 962	2263 1146
11 550	983 511	1339 686	1694 856	2092 1058	2489 1260
12 600	1072 557	1460 748	1848 933	2282 1154	2715 1375
13 650	1162 603	1582 810	2003 1011	2472 1250	2942 1490
14 700	1251 650	1704 873	2157 1089	2662 1346	3168 1604
15 750	1340 696	1826 935	2311 1167	2853 1442	3394 1719
16 800	1430 743	1947 997	2465 1244	3043 1538	3621 1833
17 850	1519 789	2069 1059	2619 1322	3233 1635	3847 1948
18 900	1608 835	2191 1122	2773 1400	3423 1731	4073 2063
19 950	1698 882	2312 1184	2927 1478	3613 1827	4300 2177
20 1000	1787 928	2434 1246	3081 1556	3803 1923	4526 2292
21 1050	1876 975	2556 1309	3235 1633	3994 2019	4752 2406
22 1100	1966 1021	2677 1371	3389 1711	4184 2115	4978 2521
23 1150	2055 1067	2799 1433	3543 1789	4374 2212	5205 2636
24 1200	2144 1114	2921 1496	3697 1867	4564 2308	5431 2750
25 1250	2234 1160	3043 1558	3851 1944	4754 2404	5657 2865
26 1300	2323 1207	3164 1620	4005 2022	4944 2500	5884 2979
27 1350	2412 1253	3286 1683	4159 2100	5135 2596	6110 3094

	1200				
	2 63 DL2120..	3 101 DL3120..	4 139 DL4120..	5 177 DL5120..	6 215 DL6120..
	[W]	[W]	[W]	[W]	[W]
28 1400	2502 1299	3408 1745	4313 2178	5325 2692	6336 3208
29 1450	2591 1346	3529 1807	4467 2255	5515 2789	6562 3323
30 1500	2681 1392	3651 1870	4621 2333	5705 2885	6789 3438
31 1550	2770 1439	3773 1932	4775 2411	5895 2981	7015 3552
32 1600	2859 1485	3894 1994	4929 2489	6085 3077	7241 3667
33 1650	2949 1532	4016 2057	5083 2567	6276 3173	7468 3781
34 1700	3038 1578	4138 2119	5237 2644	6466 3269	7694 3896
35 1750	3127 1624	4260 2181	5391 2722	6656 3365	7920 4011
36 1800	3217 1671	4381 2244	5545 2800	6846 3462	8146 4125
37 1850	3306 1717	4503 2306	5699 2878	7036 3558	8373 4240
38 1900	3395 1764	4625 2368	5854 2955	7226 3654	8599 4354
39 1950	3485 1810	4746 2431	6008 3033	7417 3750	8825 4469
40 2000	3574 1856	4868 2493	6162 3111	7607 3846	9052 4584
41 2050	3663 1903	4990 2555	6316 3189	7797 3942	9278 4698
42 2100	3753 1949	5111 2618	6470 3267	7987 4039	9504 4813
43 2150	3842 1996	5233 2680	6624 3344	8177 4135	9730 4927
44 2200	3931 2042	5355 2742	6778 3422	8367 4231	9957 5042
45 2250	4021 2088	5477 2805	6932 3500	8558 4327	10183 5156
46 2300	4110 2135	5598 2867	7086 3578	8748 4423	10409 5271
47 2350	4199 2181	5720 2929	7240 3655	8938 4519	10636 5386
48 2400	4289 2228	5842 2991	7394 3733	9128 4615	10862 5500
49 2450	4378 2274	5963 3054	7548 3811	9318 4712	11088 5615
50 2500	4468 2321	6085 3116	7702 3889	9509 4808	11315 5729

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.2823	1.3101	1.3378	1.3350	1.3321
weight [kg/segment]	1.90	2.81	3.74	4.65	5.58
cap. [l/segment]	1.19	1.73	2.27	2.80	3.33

	1.2823	1.3101	1.3378	1.3350	1.3321
	1.90	2.81	3.74	4.65	5.58
	1.19	1.73	2.27	2.80	3.33

max. number of segments in one block

H [mm]	1500				
number of columns B [mm] type	2 63 DL2150..	3 101 DL3150..	4 139 DL4150..	5 177 DL5150..	6 215 DL6150..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	443 228	599 304	756 379	933 469	1110 559
5 250	553 284	749 380	945 474	1166 586	1387 698
6 300	664 341	899 456	1134 569	1399 703	1664 838
7 350	774 398	1049 533	1323 664	1632 820	1942 978
8 400	885 455	1198 609	1512 758	1865 938	2219 1117
9 450	996 512	1348 685	1701 853	2099 1055	2497 1257
10 500	1106 569	1498 761	1890 948	2332 1172	2774 1397
11 550	1217 626	1648 837	2078 1043	2565 1289	3052 1536
12 600	1328 683	1798 913	2267 1137	2798 1406	3329 1676
13 650	1438 740	1947 989	2456 1232	3031 1523	3606 1816
14 700	1549 796	2097 1065	2645 1327	3265 1641	3884 1955
15 750	1660 853	2247 1141	2834 1422	3498 1758	4161 2095
16 800	1770 910	2397 1217	3023 1517	3731 1875	4439 2235
17 850	1881 967	2547 1293	3212 1611	3964 1992	4716 2374
18 900	1992 1024	2696 1369	3401 1706	4197 2109	4993 2514
19 950	2102 1081	2846 1445	3590 1801	4430 2227	5271 2654
20 1000	2213 1138	2996 1522	3779 1896	4664 2344	5548 2793
21 1050	2323 1195	3146 1598	3968 1991	4897 2461	5826 2933
22 1100	2434 1251	3296 1674	4157 2085	5130 2578	6103 3073
23 1150	2545 1308	3445 1750	4346 2180	5363 2695	6380 3212
24 1200	2655 1365	3595 1826	4535 2275	5596 2813	6658 3352
25 1250	2766 1422	3745 1902	4724 2370	5830 2930	6935 3492
26 1300	2877 1479	3895 1978	4913 2465	6063 3047	7213 3631
27 1350	2987 1536	4045 2054	5102 2559	6296 3164	7490 3771

	1500				
	2 63 DL2150..	3 101 DL3150..	4 139 DL4150..	5 177 DL5150..	6 215 DL6150..
	[W]	[W]	[W]	[W]	[W]
28 1400	3098 1593	4194 2130	5291 2654	6529 3281	7767 3911
29 1450	3209 1650	4344 2206	5480 2749	6762 3398	8045 4051
30 1500	3319 1707	4494 2282	5669 2844	6995 3516	8322 4190
31 1550	3430 1763	4644 2358	5857 2938	7229 3633	8600 4330
32 1600	3540 1820	4794 2434	6046 3033	7462 3750	8877 4470
33 1650	3651 1877	4943 2511	6235 3128	7695 3867	9155 4609
34 1700	3762 1934	5093 2587	6424 3223	7928 3984	9432 4749
35 1750	3872 1991	5243 2663	6613 3318	8161 4102	9709 4889
36 1800	3983 2048	5393 2739	6802 3412	8394 4219	9987 5028
37 1850	4094 2105	5543 2815	6991 3507	8628 4336	10264 5168
38 1900	4204 2162	5692 2891	7180 3602	8861 4453	10542 5308
39 1950	4315 2219	5842 2967	7369 3697	9094 4570	10819 5447
40 2000	4426 2275	5992 3043	7558 3792	9327 4688	11096 5587
41 2050	4536 2332	6142 3119	7747 3886	9560 4805	11374 5727
42 2100	4647 2389	6292 3195	7936 3981	9794 4922	11651 5866
43 2150	4758 2446	6441 3271	8125 4076	10027 5039	11929 6006
44 2200	4868 2503	6591 3347	8314 4171	10260 5156	12206 6146
45 2250	4979 2560	6741 3423	8503 4266	10493 5273	12483 6285
46 2300	5089 2617	6891 3500	8692 4360	10726 5391	12761 6425
47 2350	5200 2674	7041 3576	8881 4455	10959 5508	13038 6565
48 2400	5311 2730	7190 3652	9070 4550	11193 5625	13316 6704
49 2450	5421 2787	7340 3728	9259 4645	11426 5742	13593 6844
50 2500	5532 2844	7490 3804	9448 4739	11659 5859	13871 6984

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.3023	1.3264	1.3504	1.3469	1.3433
weight [kg/segment]	2.36	3.49	4.64	5.77	6.92
cap. [l/segment]	1.46	2.11	2.77	3.42	4.08

	1.3023	1.3264	1.3504	1.3469	1.3433
	2.36	3.49	4.64	5.77	6.92
	1.46	2.11	2.77	3.42	4.08

max. number of segments in one block

H [mm]	1800				
number of columns B [mm] type	2 63 DL2180..	3 101 DL3180..	4 139 DL4180..	5 177 DL5180..	6 215 DL6180..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	529 270	712 360	896 448	1105 554	1313 660
5 250	661 337	890 450	1120 561	1381 693	1642 825
6 300	793 404	1068 540	1344 673	1657 831	1970 990
7 350	926 472	1247 630	1567 785	1933 970	2298 1155
8 400	1058 539	1425 720	1791 897	2209 1108	2627 1320
9 450	1190 606	1603 810	2015 1009	2485 1247	2955 1485
10 500	1322 674	1781 900	2239 1121	2761 1385	3284 1650
11 550	1455 741	1959 990	2463 1233	3038 1524	3612 1815
12 600	1587 809	2137 1079	2687 1345	3314 1662	3940 1980
13 650	1719 876	2315 1169	2911 1458	3590 1801	4269 2145
14 700	1851 943	2493 1259	3135 1570	3866 1939	4597 2310
15 750	1983 1011	2671 1349	3359 1682	4142 2078	4925 2476
16 800	2116 1078	2849 1439	3583 1794	4418 2216	5254 2641
17 850	2248 1146	3027 1529	3807 1906	4694 2355	5582 2806
18 900	2380 1213	3205 1619	4031 2018	4971 2494	5910 2971
19 950	2512 1280	3384 1709	4254 2130	5247 2632	6239 3136
20 1000	2645 1348	3562 1799	4478 2242	5523 2771	6567 3301
21 1050	2777 1415	3740 1889	4702 2355	5799 2909	6895 3466
22 1100	2909 1482	3918 1979	4926 2467	6075 3048	7224 3631
23 1150	3041 1550	4096 2069	5150 2579	6351 3186	7552 3796
24 1200	3174 1617	4274 2159	5374 2691	6627 3325	7880 3961
25 1250	3306 1685	4452 2249	5598 2803	6904 3463	8209 4126
26 1300	3438 1752	4630 2339	5822 2915	7180 3602	8537 4291
27 1350	3570 1819	4808 2429	6046 3027	7456 3740	8865 4456

	1800				
	2 63 DL2180..	3 101 DL3180..	4 139 DL4180..	5 177 DL5180..	6 215 DL6180..
	[W]	[W]	[W]	[W]	[W]
28 1400	3702 1887	4986 2519	6270 3139	7732 3879	9194 4621
29 1450	3835 1954	5164 2609	6494 3252	8008 4017	9522 4786
30 1500	3967 2022	5342 2699	6718 3364	8284 4156	9851 4951
31 1550	4099 2089	5520 2789	6942 3476	8560 4294	10179 5116
32 1600	4231 2156	5699 2879	7165 3588	8836 4433	10507 5281
33 1650	4364 2224	5877 2969	7389 3700	9113 4571	10836 5446
34 1700	4496 2291	6055 3058	7613 3812	9389 4710	11164 5611
35 1750	4628 2358	6233 3148	7837 3924	9665 4849	11492 5776
36 1800	4760 2426	6411 3238	8061 4036	9941 4987	11821 5941
37 1850	4893 2493	6589 3328	8285 4148	10217 5126	12149 6106
38 1900	5025 2561	6767 3418	8509 4261	10493 5264	12477 6271
39 1950	5157 2628	6945 3508	8733 4373	10769 5403	12806 6436
40 2000	5289 2695	7123 3598	8957 4485	11046 5541	13134 6601
41 2050	5421 2763	7301 3688	9181 4597	11322 5680	13462 6766
42 2100	5554 2830	7479 3778	9405 4709	11598 5818	13791 6931
43 2150	5686 2898	7657 3868	9629 4821	11874 5957	14119 7096
44 2200	5818 2965	7836 3958	9852 4933	12150 6095	14447 7261
45 2250	5950 3032	8014 4048	10076 5045	12426 6234	14776 7427
46 2300	6083 3100	8192 4138	10300 5158	12702 6372	15104 7592
47 2350	6215 3167	8370 4228	10524 5270	12979 6511	15432 7757
48 2400	6347 3234	8548 4318	10748 5382	13255 6649	15761 7922
49 2450	6479 3302	8726 4408	10972 5494	13531 6788	16089 8087
50 2500	6612 3369	8904 4498	11196 5606	13807 6927	16418 8252

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.3197	1.3369	1.3541	1.3504	1.3467
weight [kg/segment]	2.82	4.17	5.53	6.88	8.25
cap. [l/segment]	1.72	2.49	3.27	4.04	4.82

	1.3197	1.3369	1.3541	1.3504	1.3467
	2.82	4.17	5.53	6.88	8.25
	1.72	2.49	3.27	4.04	4.82

max. number of segments in one block

H [mm]	2000				
number of columns B [mm] type	2 63 DL2200..	3 101 DL3200..	4 139 DL4200..	5 177 DL5200..	6 215 DL6200..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	587 298	788 397	989 496	1219 612	1449 729
5 250	734 372	986 497	1237 620	1524 765	1812 912
6 300	881 447	1183 596	1484 744	1829 918	2174 1094
7 350	1028 521	1380 696	1732 868	2134 1072	2536 1276
8 400	1175 596	1577 795	1979 992	2439 1225	2899 1459
9 450	1321 670	1774 894	2226 1116	2744 1378	3261 1641
10 500	1468 745	1971 994	2474 1240	3049 1531	3623 1823
11 550	1615 819	2168 1093	2721 1363	3353 1684	3986 2005
12 600	1762 894	2365 1192	2968 1487	3658 1837	4348 2188
13 650	1909 968	2562 1292	3216 1611	3963 1990	4710 2370
14 700	2056 1043	2759 1391	3463 1735	4268 2143	5073 2552
15 750	2202 1117	2957 1490	3710 1859	4573 2296	5435 2735
16 800	2349 1192	3154 1590	3958 1983	4878 2449	5797 2917
17 850	2496 1266	3351 1689	4205 2107	5182 2602	6160 3099
18 900	2643 1341	3548 1789	4452 2231	5487 2755	6522 3282
19 950	2790 1415	3745 1888	4700 2355	5792 2908	6884 3464
20 1000	2937 1489	3942 1987	4947 2479	6097 3061	7247 3646
21 1050	3083 1564	4139 2087	5195 2603	6402 3215	7609 3829
22 1100	3230 1638	4336 2186	5442 2727	6707 3368	7971 4011
23 1150	3377 1713	4533 2285	5689 2851	7012 3521	8334 4193
24 1200	3524 1787	4730 2385	5937 2975	7316 3674	8696 4376
25 1250	3671 1862	4928 2484	6184 3099	7621 3827	9059 4558
26 1300	3818 1936	5125 2583	6431 3223	7926 3980	9421 4740
27 1350	3964 2011	5322 2683	6679 3347	8231 4133	9783 4922

	2000				
	2 63 DL2200..	3 101 DL3200..	4 139 DL4200..	5 177 DL5200..	6 215 DL6200..
	[W]	[W]	[W]	[W]	[W]
28 1400	4111 2085	5519 2782	6926 3471	8536 4286	10146 5105
29 1450	4258 2160	5716 2882	7173 3595	8841 4439	10508 5287
30 1500	4405 2234	5913 2981	7421 3719	9146 4592	10870 5469
31 1550	4552 2309	6110 3080	7668 3843	9450 4745	11233 5652
32 1600	4699 2383	6307 3180	7916 3966	9755 4898	11595 5834
33 1650	4845 2458	6504 3279	8163 4090	10060 5051	11957 6016
34 1700	4992 2532	6701 3378	8410 4214	10365 5205	12320 6199
35 1750	5139 2607	6899 3478	8658 4338	10670 5358	12682 6381
36 1800	5286 2681	7096 3577	8905 4462	10975 5511	13044 6563
37 1850	5433 2756	7293 3676	9152 4586	11279 5664	13407 6746
38 1900	5580 2830	7490 3776	9400 4710	11584 5817	13769 6928
39 1950	5726 2904	7687 3875	9647 4834	11889 5970	14131 7110
40 2000	5873 2979	7884 3975	9894 4958	12194 6123	14494 7293
41 2050	6020 3053	8081 4074	10142 5082	12499 6276	14856 7475
42 2100	6167 3128	8278 4173	10389 5206	12804 6429	15218 7657
43 2150	6314 3202	8475 4273	10636 5330	13109 6582	15581 7839
44 2200	6461 3277	8672 4372	10884 5454	13413 6735	15943 8022
45 2250	6607 3351	8870 4471	11131 5578	13718 6888	16305 8204
46 2300	6754 3426	9067 4571	11379 5702	14023 7041	16668 8386
47 2350	6901 3500	9264 4670	11626 5826	14328 7194	17030 8569
48 2400	7048 3575	9461 4770	11873 5950	14633 7348	17392 8751
49 2450	7195 3649	9658 4869	12121 6074	14938 7501	17755 8933
50 2500	7342 3724	9855 4968	12368 6198	15243 7654	18117 9116

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.3289	1.3408	1.3526	1.3486	1.3446
weight [kg/segment]	3.12	4.62	6.13	7.63	9.15
cap. [l/segment]	1.90	2.75	3.61	4.46	5.31

	1.3289	1.3408	1.3526	1.3486	1.3446
	3.12	4.62	6.13	7.63	9.15
	1.90	2.75	3.61	4.46	5.31

max. number of segments in one block

H [mm]	2200				
number of columns B [mm] type	2 63 DL2220..	3 101 DL3220..	4 139 DL4220..	5 177 DL5220..	6 215 DL6220..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	647 327	865 436	1084 544	1335 672	1586 800
5 250	808 408	1081 545	1355 680	1668 840	1982 1000
6 300	970 490	1298 654	1626 816	2002 1008	2379 1200
7 350	1131 572	1514 763	1897 952	2336 1176	2775 1400
8 400	1293 654	1730 872	2167 1088	2669 1344	3171 1600
9 450	1455 735	1947 981	2438 1224	3003 1512	3568 1800
10 500	1616 817	2163 1090	2709 1360	3337 1680	3964 2000
11 550	1778 899	2379 1199	2980 1497	3670 1848	4361 2200
12 600	1940 980	2595 1308	3251 1633	4004 2016	4757 2401
13 650	2101 1062	2812 1416	3522 1769	4338 2184	5153 2601
14 700	2263 1144	3028 1525	3793 1905	4672 2352	5550 2801

	2200				
	2 63 DL2220..	3 101 DL3220..	4 139 DL4220..	5 177 DL5220..	6 215 DL6220..
	[W]	[W]	[W]	[W]	[W]
15 750	2424 1225	3244 1634	4064 2041	5005 2520	5946 3001
16 800	2586 1307	3460 1743	4335 2177	5339 2688	6343 3201
17 850	2748 1389	3677 1852	4606 2313	5673 2855	6739 3401
18 900	2909 1471	3893 1961	4877 2449	6006 3023	7136 3601
19 950	3071 1552	4109 2070	5148 2585	6340 3191	7532 3801
20 1000	3233 1634	4326 2179	5419 2721	6674 3359	7928 4001
21 1050	3394 1716	4542 2288	5690 2857	7007 3527	8325 4201
22 1100	3556 1797	4758 2397	5960 2993	7341 3695	8721 4401
23 1150	3717 1879	4974 2506	6231 3129	7675 3863	9118 4601
24 1200	3879 1961	5191 2615	6502 3265	8008 4031	9514 4801
25 1250	4041 2042	5407 2724	6773 3401	8342 4199	9911 5001

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.3356	1.3421	1.3485	1.3437	1.3389
weight [kg/segment]	3.43	5.07	6.73	8.38	10.04
cap. [l/segment]	2.08	3.01	3.94	4.87	5.81

	1.3356	1.3421	1.3485	1.3437	1.3389
	3.43	5.07	6.73	8.38	10.04
	2.08	3.01	3.94	4.87	5.81

max. number of segments in one block

H [mm]	2500				
number of columns B [mm] type	2 63 DL2250..	3 101 DL3250..	4 139 DL4250..	5 177 DL5250..	6 215 DL6250..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	737 372	982 495	1227 619	1509 764	1791 911
5 250	921 465	1227 619	1533 774	1886 955	2239 1139
6 300	1105 558	1473 743	1840 929	2263 1147	2687 1366
7 350	1290 650	1718 867	2146 1083	2640 1338	3134 1594
8 400	1474 743	1964 991	2453 1238	3018 1529	3582 1822
9 450	1658 836	2209 1114	2760 1393	3395 1720	4030 2050
10 500	1842 929	2454 1238	3066 1548	3772 1911	4478 2277
11 550	2027 1022	2700 1362	3373 1702	4149 2102	4926 2505
12 600	2211 1115	2945 1486	3680 1857	4527 2293	5373 2733
13 650	2395 1208	3191 1610	3986 2012	4904 2484	5821 2961
14 700	2579 1301	3436 1734	4293 2167	5281 2675	6269 3188

	2500				
	2 63 DL2250..	3 101 DL3250..	4 139 DL4250..	5 177 DL5250..	6 215 DL6250..
	[W]	[W]	[W]	[W]	[W]
15 750	2763 1394	3682 1857	4600 2321	5658 2866	6717 3416
16 800	2948 1487	3927 1981	4906 2476	6035 3058	7164 3644
17 850	3132 1580	4172 2105	5213 2631	6413 3249	7612 3871
18 900	3316 1673	4418 2229	5520 2786	6790 3440	8060 4099
19 950	3500 1766	4663 2353	5826 2940	7167 3631	8508 4327
20 1000	3685 1858	4909 2477	6133 3095	7544 3822	8956 4555
21 1050	3869 1951	5154 2600	6439 3250	7921 4013	9403 4782
22 1100	4053 2044	5400 2724	6746 3405	8299 4204	9851 5010
23 1150	4237 2137	5645 2848	7053 3559	8676 4395	10299 5238
24 1200	4422 2230	5891 2972	7359 3714	9053 4586	10747 5466
25 1250	4606 2323	6136 3096	7666 3869	9430 4777	11195 5693

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.3398	1.3393	1.3387	1.3312	1.3236
weight [kg/segment]	3.89	5.75	7.63	9.49	11.37
cap. [l/segment]	2.34	3.39	4.45	5.50	6.55

	1.3398	1.3393	1.3387	1.3312	1.3236
	3.89	5.75	7.63	9.49	11.37
	2.34	3.39	4.45	5.50	6.55

max. number of segments in one block

H [mm]	2800				
number of columns B [mm] type	2 63 DL2280..	3 101 DL3280..	4 139 DL4280..	5 177 DL5280..	6 215 DL6280..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	829 419	1100 558	1371 697	1685 861	1998 1028
5 250	1037 524	1375 697	1714 871	2106 1077	2498 1286
6 300	1244 629	1651 836	2057 1045	2527 1292	2997 1543
7 350	1452 734	1926 976	2400 1219	2948 1507	3497 1800
8 400	1659 839	2201 1115	2743 1393	3369 1723	3996 2057
9 450	1866 943	2476 1255	3085 1567	3791 1938	4496 2314
10 500	2074 1048	2751 1394	3428 1741	4212 2154	4995 2571
11 550	2281 1153	3026 1533	3771 1916	4633 2369	5495 2828
12 600	2488 1258	3301 1673	4114 2090	5054 2584	5994 3085
13 650	2696 1363	3576 1812	4457 2264	5475 2800	6494 3342
14 700	2903 1468	3851 1952	4799 2438	5897 3015	6993 3599

	2800				
	2 63 DL2280..	3 101 DL3280..	4 139 DL4280..	5 177 DL5280..	6 215 DL6280..
	[W]	[W]	[W]	[W]	[W]
15 750	3110 1572	4126 2091	5142 2612	6318 3230	7493 3857
16 800	3318 1677	4401 2230	5485 2786	6739 3446	7992 4114
17 850	3525 1782	4677 2370	5828 2960	7160 3661	8492 4371
18 900	3732 1887	4952 2509	6171 3134	7581 3876	8992 4628
19 950	3940 1992	5227 2649	6514 3309	8002 4092	9491 4885
20 1000	4147 2097	5502 2788	6856 3483	8424 4307	9991 5142
21 1050	4355 2201	5777 2927	7199 3657	8845 4522	10490 5399
22 1100	4562 2306	6052 3067	7542 3831	9266 4738	10990 5656
23 1150	4769 2411	6327 3206	7885 4005	9687 4953	11489 5913
24 1200	4977 2516	6602 3346	8228 4179	10108 5169	11989 6171
25 1250	5184 2621	6877 3485	8571 4353	10530 5384	12488 6428

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.3354	1.3307	1.3260	1.3131	1.3002
weight [kg/segment]	4.34	6.43	8.53	10.61	12.71
cap. [l/segment]	2.61	3.78	4.95	6.12	7.29

	1.3354	1.3307	1.3260	1.3131	1.3002
	4.34	6.43	8.53	10.61	12.71
	2.61	3.78	4.95	6.12	7.29

max. number of segments in one block

H [mm]	3000				
number of columns B [mm] type	2 63 DL2300..	3 101 DL3300..	4 139 DL4300..	5 177 DL5300..	6 215 DL6300..
number of segments L [mm]	[W]	[W]	[W]	[W]	[W]
4 200	892 453	1181 601	1469 750	1803 929	2137 1111
5 250	1116 566	1476 751	1836 937	2254 1161	2672 1389
6 300	1339 680	1771 902	2204 1125	2705 1393	3206 1667
7 350	1562 793	2066 1052	2571 1312	3155 1626	3740 1945
8 400	1785 906	2361 1202	2938 1499	3606 1858	4274 2223
9 450	2008 1020	2657 1352	3305 1687	4057 2090	4809 2501
10 500	2231 1133	2952 1503	3673 1874	4508 2322	5343 2779
11 550	2454 1246	3247 1653	4040 2062	4959 2554	5877 3056
12 600	2677 1359	3542 1803	4407 2249	5409 2787	6412 3334
13 650	2900 1473	3837 1953	4774 2436	5860 3019	6946 3612
14 700	3123 1586	4133 2104	5142 2624	6311 3251	7480 3890

	3000				
	2 63 DL2300..	3 101 DL3300..	4 139 DL4300..	5 177 DL5300..	6 215 DL6300..
	[W]	[W]	[W]	[W]	[W]
15 750	3347 1699	4428 2254	5509 2811	6762 3483	8015 4168
16 800	3570 1813	4723 2404	5876 2999	7212 3715	8549 4446
17 850	3793 1926	5018 2554	6243 3186	7663 3948	9083 4724
18 900	4016 2039	5313 2705	6611 3374	8114 4180	9617 5001
19 950	4239 2152	5608 2855	6978 3561	8565 4412	10152 5279
20 1000	4462 2266	5904 3005	7345 3748	9016 4644	10686 5557
21 1050	4685 2379	6199 3155	7712 3936	9466 4877	11220 5835
22 1100	4908 2492	6494 3306	8080 4123	9917 5109	11755 6113
23 1150	5131 2606	6789 3456	8447 4311	10368 5341	12289 6391
24 1200	5354 2719	7084 3606	8814 4498	10819 5573	12823 6669
25 1250	5578 2832	7380 3757	9181 4685	11270 5805	13358 6946

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C and 55/45/20°C.

n value	1.3267	1.3218	1.3169	1.2985	1.2800
weight [kg/segment]	4.65	6.88	9.12	11.35	13.60
cap. [l/segment]	2.79	4.03	5.29	6.53	7.79

	1.3267	1.3218	1.3169	1.2985	1.2800
	4.65	6.88	9.12	11.35	13.60
	2.79	4.03	5.29	6.53	7.79

max. number of segments in one block

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



DELTA LASERLINE VENTIL

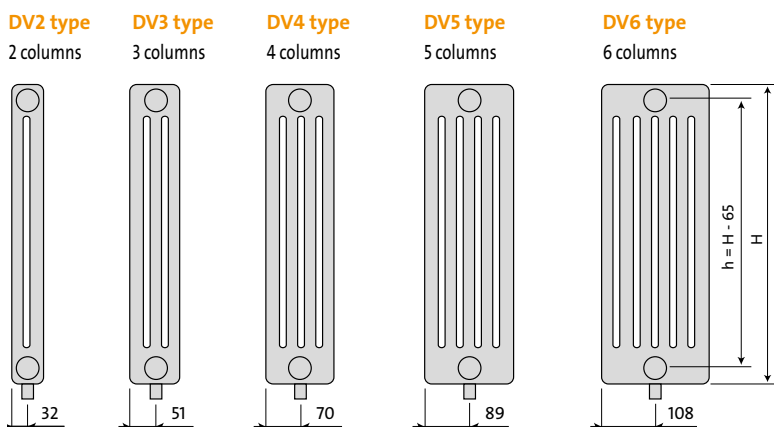
Delta Laserline Ventil column radiators are manufactured in the same types and sizes, and represent the same features as the Delta Laserline radiators. The basic difference is that – contrary to the Delta Laserline radiators – Delta Laserline Ventil are factory equipped with the valve insert with pre-setting. The radiators are to be connected to the hydronic domestic heating system from the bottom, with two connecting stubs with internal diameter G ½" and 50 mm spacing (not applicable to the radiators connected via the edge segments).

As standard, opposite the valve insert the welded-on cover is positioned, with internal thread G ½", for the comfortable G ½" air vent mounting, and below – the same cover also with G ½" internal thread, for blind plug mounting.

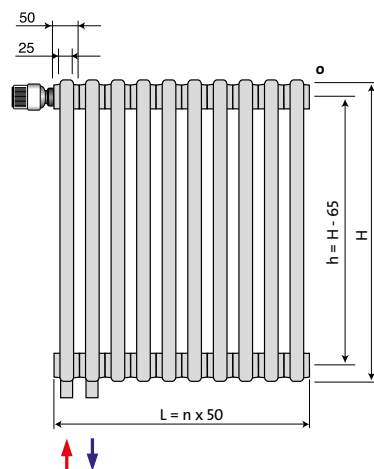


DELTA LASERLINE VENTIL

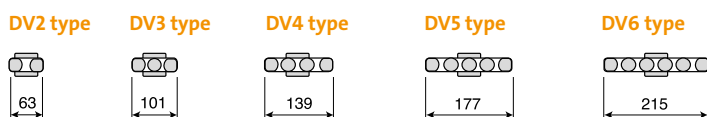
side views



front view



cross section views



H - overall height
h - connectors' spacing
L - overall length
n - number of segments
o - air vent

technical data

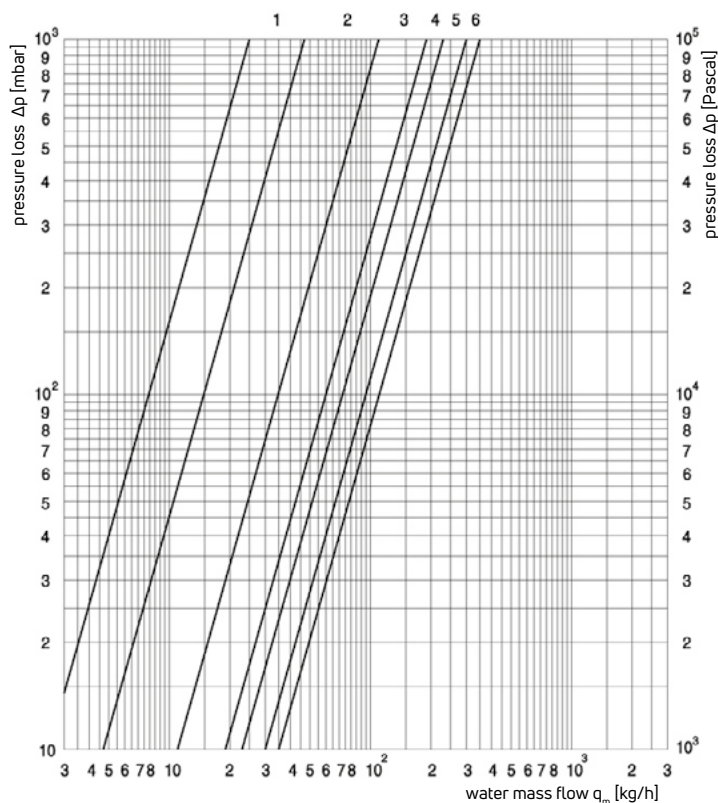
- **Description :** decorative column radiator, totally laser-welded. Delta-profiled cross section of the external columns for the maximized heat output.
- **Height :** from 155 mm up to 3000 mm, the height of the selected models matches the connecting stubs' spacing of the old-fashioned cast-iron radiators. At Clients' wish, each requested height of the radiator can be delivered, in the range between 300 mm and 3000 mm, with 1 mm precision.
- **Length :** from 200 mm up to 2500 mm (from 4 up to 50 segments). Depending on the radiators' types and sizes, possible integration on one side up to the length of 2000 mm (according to the relevant table). In other cases, the radiators are delivered in separate blocks – plugs, connecting nipples and gaskets inclusive – for self-assembly on the building site; length tolerance: from 0% up to +1%.
- **Depth :**

2-columned:	63 mm	5-columned:	177 mm
3-columned:	101 mm	6-columned:	215 mm
4-columned:	139 mm		
- **Connection :** bottom 2 x G 1/2" (note: middle connection possible only for radiators with even number of segments and overall length up to 30 segments). With order, please provide the information on the connection variant, conforming to the relevant option **(see page 44)**
- **Delivery range :** radiator delivered without brackets – to be ordered separately, depending on the radiator's type and size; factory mounted valve insert with connecting thread M30x1.5 mm.
- **Brackets :** see: accessories, plug and air vent included with brackets
- **Colour :** as standard snow-white RAL 9016 varnish, other RAL colours at request
- **Operating pressure :** 10 bars
- **Test pressure :** 13 bars
- **Max. temperature :** 110°C
- **Packaging :** packed for transport in environmental friendly, edge-protecting packaging, welded in foil.

NOTE: Heat outputs for the Delta Laserline Ventil radiators are identical as for analogous Delta Laserline models. Please use the tables on the previous pages.

Hydraulic characteristics

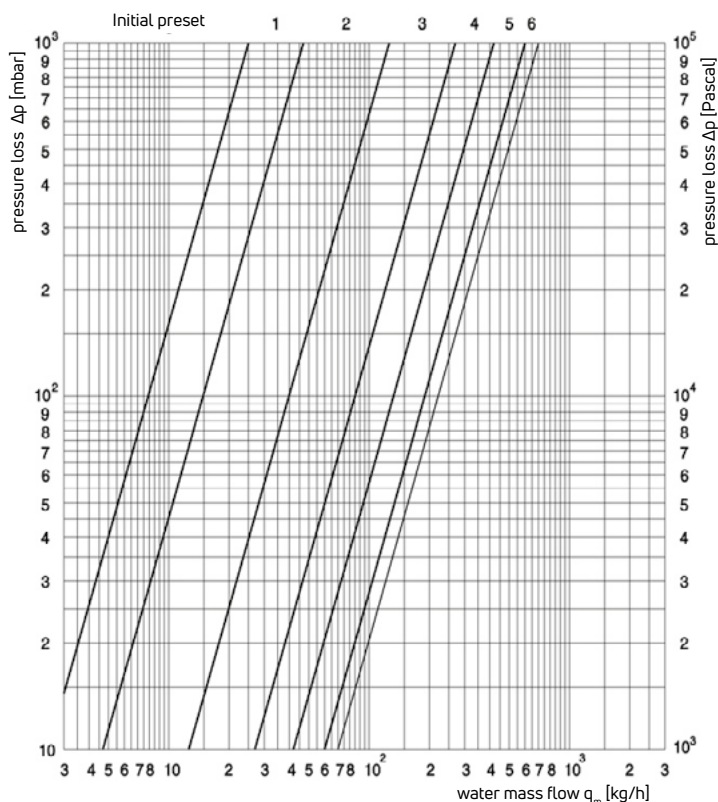
Valve insert setting



Initial preset	K_v
1	0,047
2	0,11
3	0,19
4	0,23
5	0,3
6	0,35

Proportional band 1K

Hydraulic characteristics of the bottom-supplied radiator with the Oventrop valve insert, for the proportional band 1K



Initial preset	K_v
1	0,047
2	0,126
3	0,269
4	0,417
5	0,6
6	0,7

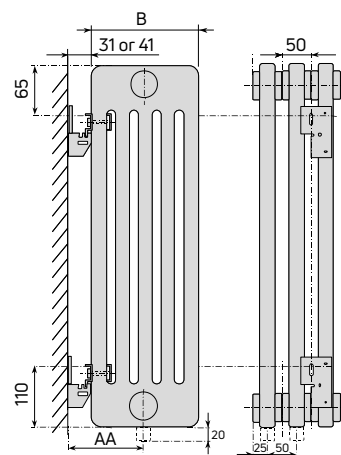
Proportional band 2K

Hydraulic characteristics of the bottom-supplied radiator with the Oventrop valve insert, for the proportional band 2K

Mounting distances

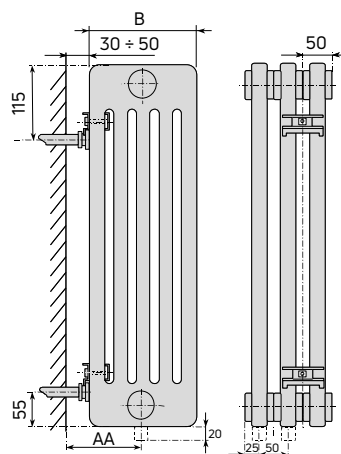
for the wall bracket set, angle type

type	radiator's depth B [mm]	wall distancing WA [mm]	connectors' wall distancing AA [mm]
2 columns	63	31 or 41	63 or 73
3 columns	101	31 or 41	82 or 92
4 columns	139	31 or 41	101 or 111
5 columns	177	31 or 41	120 or 130
6 columns	215	31 or 41	139 or 149



for the wall bracket set, drilled-in type

type	radiator's depth B [mm]	wall distancing WA [mm]	connectors' wall distancing AA [mm]
2 columns	63	30 ÷ 50	62 ÷ 82
3 columns	101	30 ÷ 50	81 ÷ 101
4 columns	139	30 ÷ 50	100 ÷ 120
5 columns	177	30 ÷ 50	119 ÷ 139
6 columns	215	30 ÷ 50	138 ÷ 158



Brackets

Brackets are not included as standard in the radiator's set.

In the standard version, the Delta Laserline and Delta Laserline Ventil radiators are not equipped with welded-on hanging lugs. Depending on the type and size of the radiator, select the proper quantity and type of the brackets, and order them separately. As standard solution for the radiators without welded-on hanging lugs, the mounting sets are available with angle brackets or drilled-in brackets. The sets consist of the adequate number and type of floor stands or wall brackets (4- or 6 element sets), necessary bolts and wall plugs (each time they must be checked whether suitable, directly on the Client's building site!), air vent, plug and mounting instructions.*

It is recommended to mount the upper brackets directly below the upper connecting stub.

At special orders, the delivery of in-drilled brackets is possible, as well as the wall brackets manufactured in non-standard variants, for mounting the radiators which are factory equipped with welded-on hanging lugs.

When selecting the required number of brackets (as based on the nomograms), it is necessary to keep to the quantity of obligatory points of suspension. Each upper point of suspension (recommended positioning – directly below the connecting stub) and each bottom point of suspension create the vertical suspension axis.

It is necessary to check every time the load and stability of the walls for the added weight resulting from mounting the selected type of the radiator.

Floor-level mounting of the 300 mm up to 1000 mm high radiators can be performed with SK2 floor stands with adjustable mounting height from the floor level. For each existing suspension axis one floor stand is recommended.

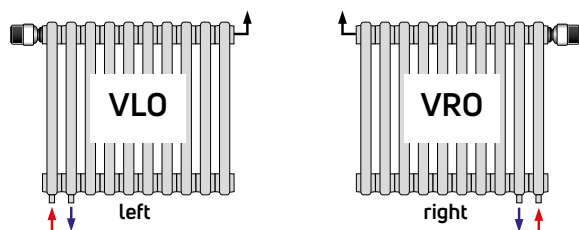
As standard, Delta Laserline radiators are delivered **without** welded-on hanging lugs, which contributes to their versatility, as they can be rotated. Radiators **without** welded-on hanging lugs, regardless of the "right" or "left"-hand side mounting, can then always be ordered in the left-hand side supply variant.

* Note: the 155 mm high radiator can only be mounted with floor stands with FK5 ring anchor or WK155 wall brackets.

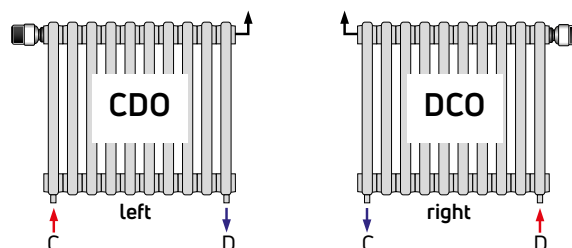
How to connect

As standard, Delta Laserline Ventil radiators are equipped with 2 bottom connectors with internal thread G 1/2":

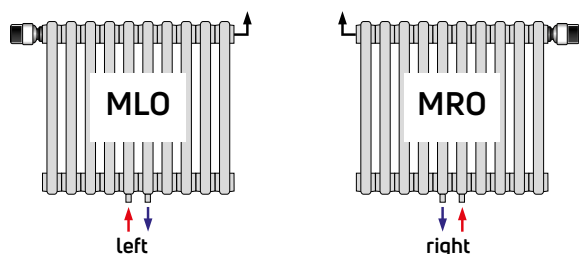
bottom connection, 1st and 2nd segment



bottom connection, 1st and last segment



bottom connection, middle
only even number of segments!

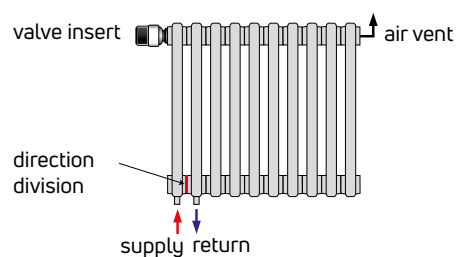


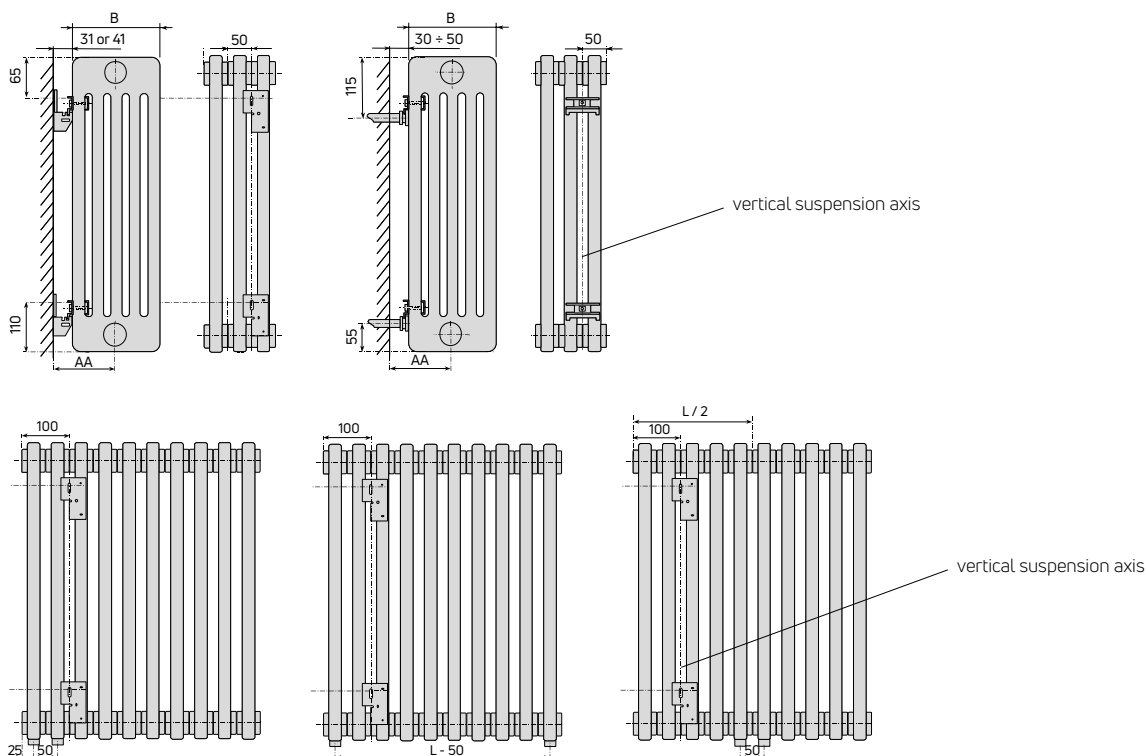
Tip

Always provide the information about the connection variant, when ordering!

example

VLO connection variant
(bottom left, 1st and 2nd segment)





Brackets

Brackets are not included as standard in the radiator's set.

In the standard version, the Delta Laserline and Delta Laserline Ventil radiators are not equipped with welded-on hanging lugs. Depending on the type and size of the radiator, select the proper quantity and type of the brackets, and order them separately. As standard solution for the radiators without welded-on hanging lugs, the mounting sets are available with angle brackets or drilled-in brackets. The sets consist of the adequate number and type of floor stands or wall brackets (4- or 6 element sets), necessary bolts and wall plugs (each time they must be checked whether suitable, directly on the Client's building site!), air vent, plug and mounting instructions.*

It is recommended to mount the upper brackets directly below the upper connecting stub.

At special orders, the delivery of in-drilled brackets is possible, as well as the wall brackets manufactured in non-standard variants, for mounting the radiators which are factory equipped with welded-on hanging lugs.

When selecting the required number of brackets (as based on the nomograms), it is necessary to keep to the quantity of obligatory points of suspension. Each upper point of suspension (recommended positioning – directly below the connecting stub) and each bottom point of suspension create the vertical suspension axis.

It is necessary to check every time the load and stability of the walls for the added weight resulting from mounting the selected type of the radiator.

Floor-level mounting of the 300 mm up to 1000 mm high radiators can be performed with SK2 floor stands with adjustable mounting height from the floor level. For each existing suspension axis one floor stand is recommended.

quantity of FK5 floor stands for the height of 155 mm

number of segments		quantity of FK5 stands
from	up to	
4	20	2
21	36	3
37	52	5
53	68	7

It is necessary to check every time the load and stability of the walls for the added weight. Deliveries do not include mounting elements, bolts, plugs etc.

Brackets should always be mounted on the very top of the radiators.

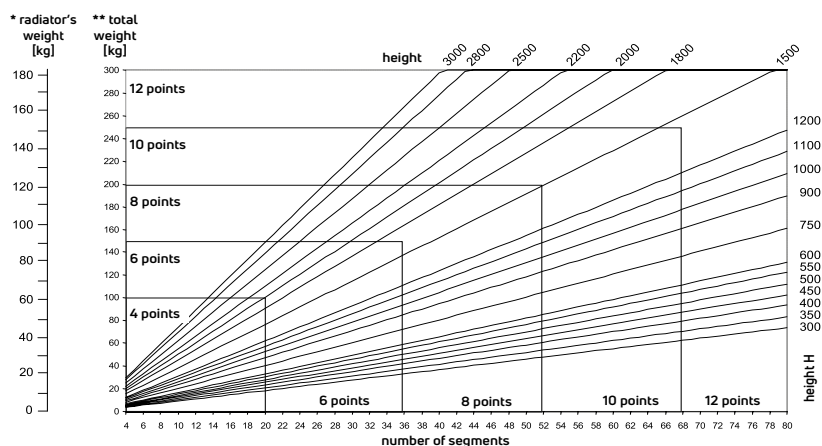
* Note: the 155 mm high radiator can only be mounted with floor stands with FK5 ring anchor or WK155 wall brackets.

Nomograms for assessing the required number of suspension points for 2-, 3- and 4-columned radiators

2-columned radiator

max. block length and required suspension points

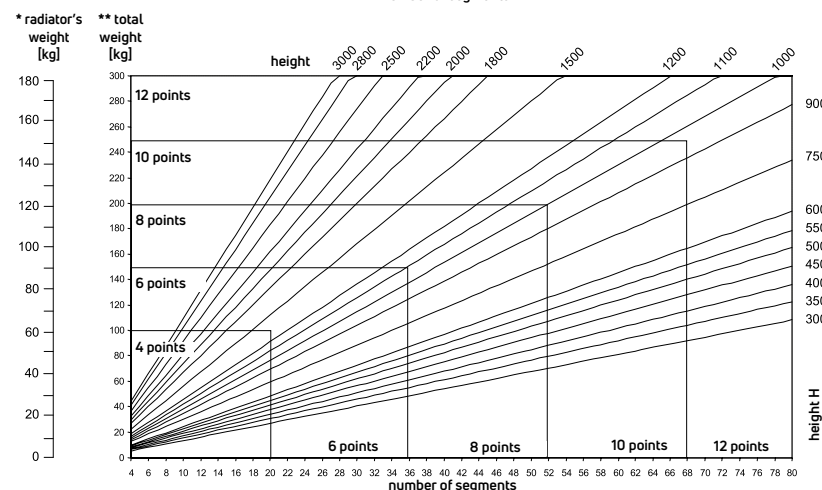
Height H [mm]	max. number of segments in one block
155	54
up to 1000	42
up to 2200	19
up to 3000	16



3-columned radiator

max. block length and required suspension points

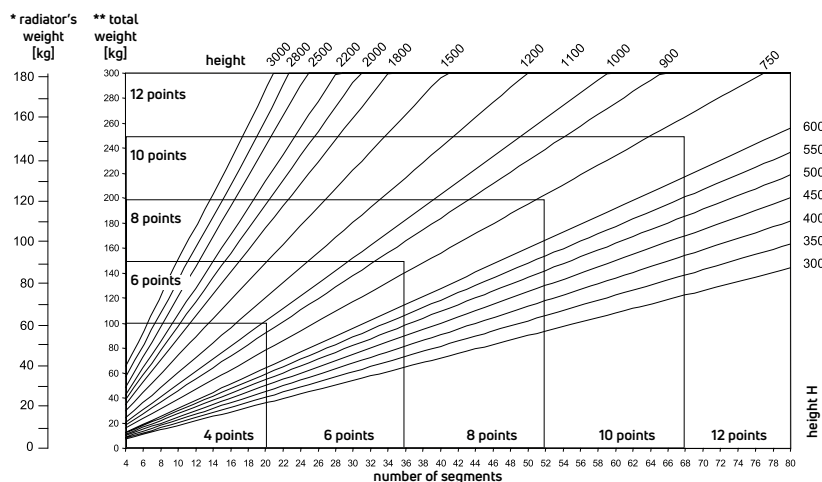
Height H [mm]	max. number of segments in one block
155	54
up to 1000	42
up to 2200	19
up to 3000	16



4-columned radiator

max. block length and required suspension points

Height H [mm]	max. number of segments in one block
155	54
up to 750	42
up to 1000	32
up to 1800	19
up to 2000	18
up to 2200	16
up to 2500	14
up to 2800	12
up to 3000	11



* radiator's weight: radiator drained of water
** total weight: radiator filled with water

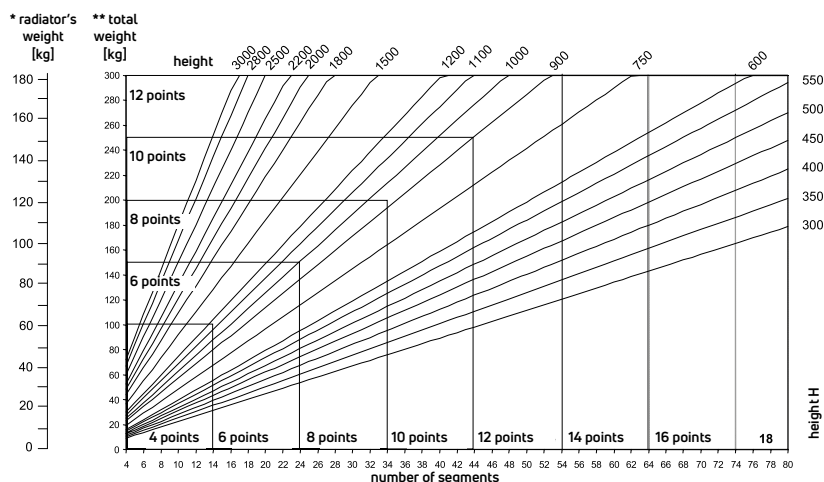
Assessment of required suspension points for 2-, 3- and 4-columned radiators. Each upper point of suspension (recommended positioning – directly below the connecting stub) and each bottom point of suspension create the vertical suspension axis. For each existing suspension axis one floor stand is recommended. The 155 mm high radiator can only be mounted with WK155 wall brackets or FK5 ring anchor stands!

Nomograms for assessing the required number of suspension points for 5- and 6-columned radiators

5-columned radiator

max. block length and required suspension points

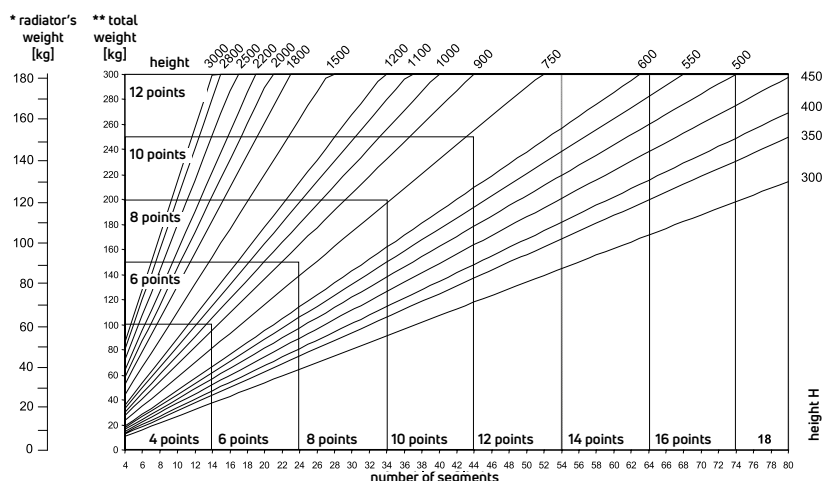
Height H [mm]	max. number of segments in one block
155	54
up to 665	42
up to 750	37
up to 1000	26
up to 1200	19
up to 1500	18
up to 1800	16
up to 2000	14
up to 2200	12
up to 2500	11
up to 2800	10
up to 3000	9



6-columned radiator

max. block length and required suspension points

Height H [mm]	max. number of segments in one block
155	54
up to 500	42
up to 600	35
up to 665	32
up to 750	28
up to 900	24
up to 1000	22
up to 1200	19
up to 1500	15
up to 1800	13
up to 2000	11
up to 2200	10
up to 2500	9
up to 3000	8



Assessment of required suspension points for 5- and 6-columned radiators. Each upper point of suspension (recommended positioning – directly below the connecting stub) and each bottom point of suspension create the vertical suspension axis. For each existing suspension axis one floor stand is recommended. The 155 mm high radiator can only be mounted with WK155 wall brackets or FK5 ring anchor stands!

* radiator's weight: radiator drained of water

** total weight: radiator filled with water

general tips for delivery & mounting

interconnections

Individual Delta radiators' segments are welded with each other to create ready-to-use radiators or the radiator blocks. The number of segments which can be welded to create one radiator block is limited by the type and height of the radiator, which – in turn – influence the max. block lengths. If a radiator is ordered, whose number of segments exceeds the max. number of segments in one block, then the radiator is automatically delivered divided into smaller blocks, including connecting nipples, gaskets and threaded plugs. The execution variant with covers welded-on from all sides is then unavailable. Smaller blocks require the interconnection, which is to be done on the Client's building site with delivered connecting nipples and nipple gaskets, as well as the dedicated nipple wrench (see accessories), to create the complete radiator.

When interconnecting the Delta radiators, it is necessary to take into account the following:

- the delivery option with covers welded-on from all sides is unavailable
- in case of the block delivery, automatically all necessary accessories are delivered too: connecting nipples, gaskets and threaded plugs
- before interconnection, please identify the left- and right-handed threads
- the dedicated wrench for block interconnection is to be ordered separately!

lengths of blocks

To facilitate dispatch and delivery of Delta radiators, longer items are delivered to the Clients' building sites divided into smaller blocks, of sizes depending on the radiator's type and height. Max. number of segments in one block is to be found on page 10.

how to interconnect the radiators

Delta column radiators are delivered in separate blocks and interconnected on the Clients' building sites, with connecting nipples. Sealing of the connection points can be done only with delivered original Delta gaskets. Using materials such as hemp or oakum is not allowed.

Connecting stubs of individual blocks, as well as nipples, have the left- and right-hand 1" thread. On the inside of the nipples, two hollows are located, where – while mounting – the interconnecting wrench's end should be slipped in.

Precise observation of the instructions below is the necessary condition to successfully seal the connection points of the blocks:

- Place the blocks horizontally on the smooth, flat surface; to protect the varnish against damage, lay some cardboard or similar soft material under the blocks.
- Carefully remove the residues of paint or impurities from the sealing points and the surface of the connecting stubs.
- Use only the original Delta connecting nipples, and 1.5 mm Delta gaskets (EPDM, white); using sealing materials such as hemp or oakum is not allowed.
- Drive both connecting nipples as deep as approximately one turn into both connecting stubs of the given block, observe the left- or right-hand threading (left-hand threads are carved on the thread's coils).
- Put one gasket positioned axially in the middle onto each nipple.
- Bring the subsequent block to and put it onto the nipples from the previous block.
- Drive the nipple connecting wrench through the free connector of the previously put-on block, as deep as the connecting nipple itself. To facilitate the process, the depth of the wrench's setting can be measured earlier from the outside, and marked on the wrench before driving it inside. Only use the wrenches which are in perfect condition. Put the turn-facilitating knob onto the quadrangular ending of the wrench.
- Turn alternately both nipples with the knob wrench. This will ensure the steady pressure and secure the sealing of the block connection points. Uneven turning will cause leaks in the sealing.
- Never turn the nipples too forcefully! The torque of the turning movement should amount to 90 +/- 10 Nm.
- Never turn the nipples single-sided, this will cause leaks in the sealing!

how to mount the plugs

After successfully interconnecting the individual blocks of the Delta radiator, threaded plugs are to be driven into free mounting openings in edge segments, and the radiator should be connected to the domestic hydronic heating system. The delivery includes left- and right-hand threaded plugs, as well as gaskets.

- Use only the original Delta connecting nipples, and 1.5 mm Delta gaskets (EPDM, white); using sealing materials such as hemp or oakum is not allowed.
- Carefully check whether the sealing surfaces and threads are damage-free.
- Put the gaskets onto the threaded plugs.
- At first drive the plugs manually minding the left- or right-hand thread. Observe whether the gasket is positioned properly, so that the entire cross section would be effectively sealed, and the gasket stayed undeformed.
- At the last stage, use only adequate tools (wrenches, socket wrenches or box-end wrenches). The torque of the turning movement should amount to 90 +/- 10 Nm. Using pipe monkey wrenches or similar tools is not allowed.
- The 1" thread of the block mounting openings is not suitable for direct connection of the hydronic heating systems' pipes; for the proper connection use driven-in plugs with connecting openings, as well as delivered gaskets.

short instructions on how to connect the blocks

- *Select the smooth, flat surface.*
- *Lay some soft material, e.g. cardboard, under the radiator to protect the varnish against damage.*
- *Carefully place the radiator on the prepared surface.*
- *Carefully clean the impurities and residues of paint from the points where the nipples will be driven into.*
- *Bring the subsequent block to and put it onto the nipples from the previous block.*
- *Be careful with left-hand or right-hand threads (left-hand threads are knurled on the thread turns).*
- *Place the original Delta gasket on both nipples and align it axially in the center of the nipple.*
- *Bring the subsequent block to and put it onto the nipples from the previous block*



- *Drive the connecting nipple wrench through the connector of the last put-on block, until it joins the nipple itself.*



- *Put the knob onto the quadrangular ending of the nipple wrench*
- *Turn alternately both nipples with the knob wrench. This will ensure the steady pressure and secure the sealing of the block connection points. Uneven turning will cause leaks in the sealing*
- *Never turn the nipples too forcefully. The torque of the turning movement should amount to 90 +/- 10 Nm;*





DELTA TWIN M

Delta Twin M decorative radiators integrate the state of the art technology of execution with remarkable design, providing their Users with highest qualities of climate comfort and functionality. The bottom middle connection solution present in all height options of the Twin M radiators, in association with the elegant yet practical tower drying rail offered as standard and the high heat output, make these radiators highly suitable for application in large designer bathrooms or even bathing rooms. Regularly manufactured as a 2-columned version only (in 5 height varieties and 2 length options), in RAL 9016 snow-white coloring, at Clients' request Delta Twin M can be delivered in any other available RAL colour.

technical data

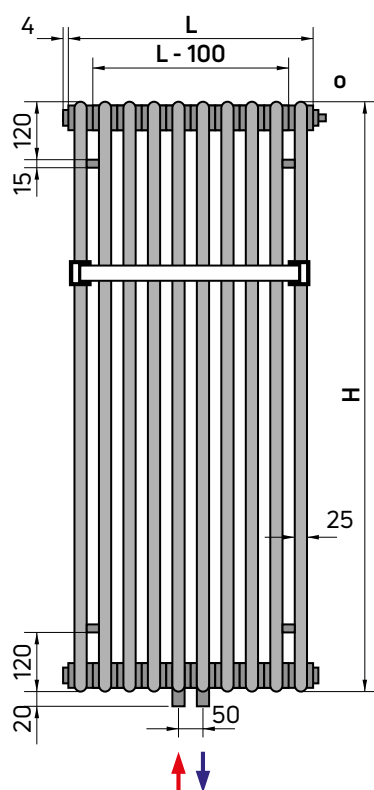
- Description : decorative laser-welded radiator. Vertical columns in the typical Delta profile flattened from the outside. Delta Twin M delivered as standard with a towel rail in the colour option matching the radiator's, with chrome grips.
- Height : 1000, 1200, 1500, 1800, 2000 mm
- Length : 500 mm (10 segments), 600 mm (12 segments)
- Depth : 2-columned - 63 mm
- Connection : bottom middle connection, 2 x G ½" internal threaded connecting stubs (50 mm spacing), air vent on the top right-hand side (air vent included in the radiator's set).
- Brackets : hanging lugs welded on the back, suspending elements included with delivery (4 x RK2 brackets set).



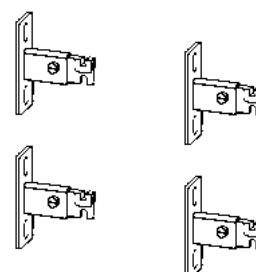
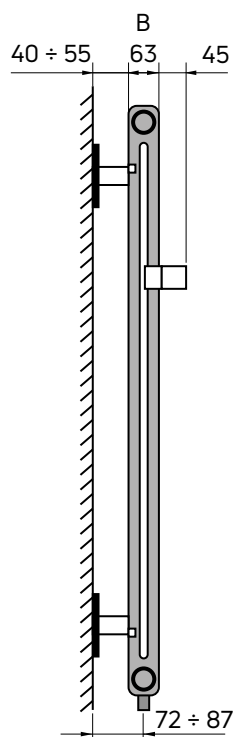
- Colour : as standard snow-white RAL 9016 varnish, other RAL colours at request
- Operating pressure : 10 bars
- Test pressure : 13 bars
- Max. temperature : 110°C
- Packaging : packed for transport in environmental friendly, edge-protecting packaging, welded in foil.

DELTA TWIN M

front view



side view



RK2 brackets for the
Delta Twin M radiator

H - height
L - length
B - depth
o - air vent

H [mm]	1000	1200	1500	1800	2000
number of columns	2	2	2	2	2
B [mm]	63	63	63	63	63
type	DT2100..	DT2120..	DT2150..	DT2180..	DT2200..
number of segments	[W]	[W]	[W]	[W]	[W]
L [mm]					
10	753	894	1106	1322	1468
500	612	725	895	1067	1183
	394	464	569	674	745
12	903	1072	1328	1587	1762
600	735	871	1074	1280	1420
	472	557	683	809	894

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C.

n value	1.2684	1.2823	1.3023	1.3197	1.3289
---------	--------	--------	--------	--------	--------

weight [kg]					
10	15.9	19.0	23.6	28.2	31.2
500					
12	19.1	22.8	28.3	33.8	37.4
600					

capacity [l]					
10	10.2	11.9	14.6	17.2	19.0
500					
12	12.2	14.3	17.5	20.6	22.8
600					

753	— [W]	75/65/20°C
612	— [W]	70/55/20°C
394	— [W]	55/45/20°C



DELTA BAR

Delta Bar radiator ingeniously integrates the heating function with that of furniture, suitable for the requirements of the most demanding Clients. While other Delta radiators discreetly perform their function, this one literally catches everyone's eye! Designed by the renown architects, thanks to both its elegance and functionality, it is at the same time enchanting and one of a kind. The Delta Bar is an upper class decorative radiator, which can serve as a worktop, and – at the same time – create apartment space division, harmoniously merging these two functions. The worktop's upper board is made of e.g. wood or marble and constitutes an additional decorative detail in carefully designed high quality rooms. The ingenious solution of externally invisible hydronic heating system's connection additionally increases high esthetic qualities of the radiator. All other qualities of the Delta Laserline radiators are naturally featured by the Delta Bar, which signifies that whatever your internal arrangement is – you will certainly find a matching solution in our offer. High quality varnishing in RAL colours further enriches the available options. Flexibility in height and length selection facilitates perfect integration with the designed room.

technical data

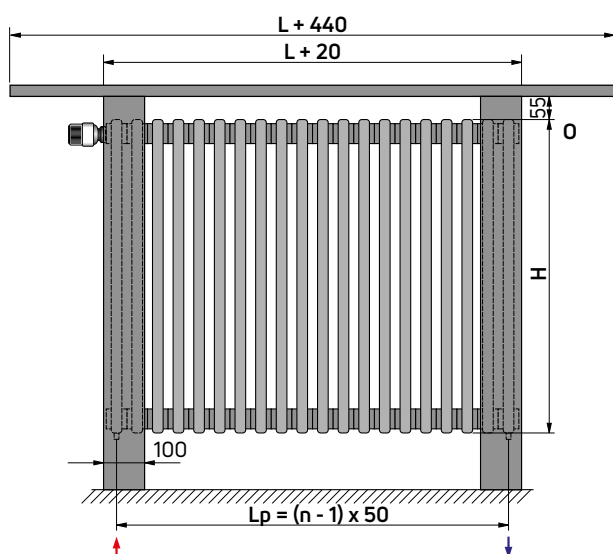
- Description : decorative radiator, totally laser-welded. Flattened cross section of the external Delta-profiled columns for maximal heat output
- Height : 940 (750)* mm, 1090 (900)* mm
- Length : 720 (700)* mm, 920 (900)* mm, 1120 (1100)* mm
- Depth : 4-columned - 224 mm; 5-columned - 262 mm
- Connection : bottom left-hand side supply in the edge segment, internal thread G ½"; bottom right-hand side return in the edge segment G ½"; factory equipped with the valve insert with initial preset together with the thermostatic valve with connecting thread M30x1.5 mm, from the top left-hand side; air vent G ½" from the top right-hand side
- Brackets : decorative set for the on-floor mounting and radiator's connections masking, with possibility to mount the top board on the Client's site;
- Delivery range : delivery with floor stands and decorative set, no top board; plugs and bolts for floor stands mounting and top board mounting are not included.
- Colour : as standard snow-white RAL 9016 varnish, other RAL colours at request; possibility to order radiator in a different RAL colour than decorative masking
- Operating pressure : 10 bars
- Test pressure : 13 bars
- Max. temperature : 110°C
- Packaging : packed for transport in environmental friendly, edge-protecting packaging, welded in foil.

* dimensions given for the set without top board, radiator's dimensions given in brackets

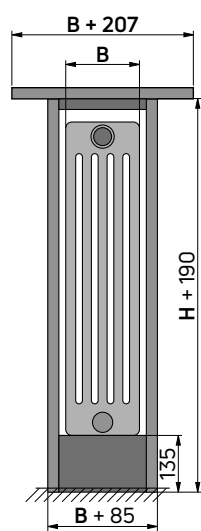


DELTA BAR

front view



side view



H - height
L - length
B - depth
Lp - connectors' spacing
n - number of segments
o - air vent

H [mm]	750		900	
number of columns	4	5	4	5
B [mm]	139	177	139	177
type	DB4075..	DB5075..	DB40900..	DB5090..
number of segments	[W]		[W]	
L [mm]	[W]		[W]	
14	1416	1747	1665	2055
700	1147	1415	1345	1660
	729	900	851	1050
18	1821	2246	2141	2642
900	1474	1819	1729	2134
	938	1157	1094	1350
22	2225	2746	2616	3229
1100	1802	2223	2113	2608
	1146	1414	1337	1651

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C.

n value	1.2986	1.2997	1.3147	1.3139
---------	--------	--------	--------	--------

weight [kg]				
14	50.0	58.0	58.0	68.0
700				
18	59.0	70.0	69.0	82.0
900				
22	69.0	82.0	81.0	97.0
1100				

capacity [l]				
14	21.2	26.1	24.7	30.4
700				
18	27.2	33.5	31.7	39.1
900				
22	33.3	41.0	38.8	47.8
1100				

1416 — [W] 75/65/20°C
1147 — [W] 70/55/20°C
729 — [W] 55/45/20°C



DELTA COLUMN BENCH

Delta Column Bench radiators ingeniously integrate the heating function with that of a sitting bench, suitable for the requirements of the most demanding Clients. While other Delta radiators discreetly perform their function, these ones literally catch everyone's eye! Designed by the renown architects, thanks to both their elegance and functionality, they are at the same time enchanting and one of a kind. The top board is made of e.g. wood or marble and constitutes an additional decorative detail in carefully designed high quality rooms. The ingenious solution of externally invisible hydronic heating system's connections additionally increases high esthetic qualities of the radiators. All other qualities of the Delta Laserline radiators are naturally featured by the Delta Column Bench series, which signifies that whatever your internal arrangement is – you will certainly find a matching solution in our offer. High quality varnishing in RAL colours further enriches the available options. Flexibility in height and length selection facilitates perfect integration with the designed room.

technical data

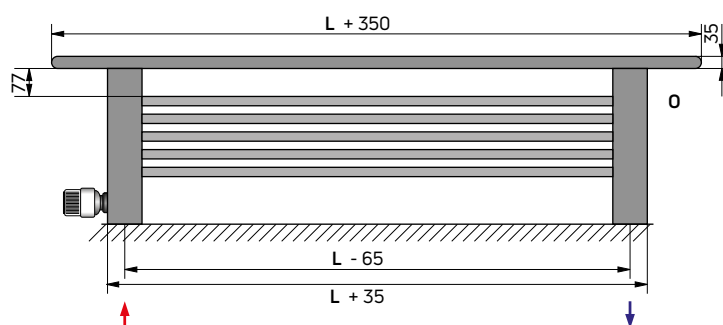
- Description : decorative radiator, totally laser-welded. Flattened cross section of the external Delta-profiled columns for maximal heat output. 4 up to 7 6-columned segments horizontally positioned one on top of another
- Height : 387 (200)*, 437 (250)*, 487 (300)*, 537 (350)* mm
- Length : 1535 up to 2835 mm
- Depth : 300 mm
- Connection : bottom left-hand side supply in the edge segment, internal thread G ½"; bottom right-hand side return in the edge segment G ½"; in Column Bench with the thermostatic valve with pre-setting together with the thermostatic head with connection thread M30x1.5 mm, from the bottom left-hand side; air vent G ½" from the top right-hand side.
- Brackets : decorative set for the on-floor mounting and radiator's connections masking, with possibility to mount the top board on the Client's site;
- Delivery range : 2 element's floor consoles set (3 floor consoles for the radiator lengths exceeding 2000 mm) and decorative set, no top board (delivery at Client's request)
- Colour : as standard snow-white RAL 9016 varnish, other RAL colours at request; possibility to order radiator in a different RAL colour than decorative covers
- Operating pressure : 10 bars
- Test pressure : 13 bars
- Max. temperature : 110°C
- Packaging : packed for transport in environmental friendly, edge-protecting packaging, welded in foil.



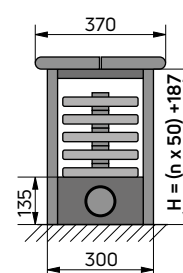
* dimensions given for the set without top board, radiator's dimensions given in brackets

DELTA COLUMN BENCH

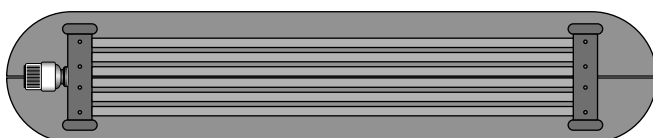
front view



side view



bottom view



H - height
L - length
B - depth
n - number of segments
o - air vent

L [mm]	1500	1800	2000	2500	2800
number of columns B [mm] type	6 215 DBH6150..	6 215 DBH6180..	6 215 DBH6200..	6 215 DBH6250..	6 215 DBH6280..
number of segments H [mm]	[W]	[W]	[W]	[W]	[W]
4 200	1411 1139 721	1696 1371 868	1886 1525 968	2362 1913 1217	2648 2146 1368
5 250	1742 1416 908	2097 1703 1091	2334 1896 1214	2929 2376 1518	3287 2665 1701
6 300	1934 1569 1002	2337 1897 1212	2606 2115 1353	3285 2668 1708	3695 3002 1923
7 350	2204 1788 1142	2670 2164 1379	2982 2414 1536	3770 3046 1929	4247 3427 2164

Radiators' heat output [W] in accordance with EN 442 standard for parameters 75/65/20°C, 70/55/20°C and 55/45/20°C.

	n value				
4 200	1.3156	1.3103	1.3067	1.2978	1.2925
5 250	1.2755	1.2789	1.2801	1.2867	1.2901
6 300	1.2864	1.2847	1.2835	1.2806	1.2789
7 350	1.2863	1.2940	1.2992	1.3121	1.3198

	weight [kg] / capacity [l]				
4 200	37.5 / 16.4	42.8 / 19.3	46.4 / 21.3	55.3 / 26.2	64.2 / 29.2
5 250	45.2 / 20.4	51.9 / 24.1	56.4 / 26.6	67.5 / 32.8	78.6 / 36.5
6 300	52.9 / 24.5	60.9 / 29.0	66.3 / 31.9	79.6 / 39.3	93.0 / 43.8
7 350	60.6 / 28.6	70.0 / 33.8	76.3 / 37.2	91.8 / 45.9	107.4 / 51.1

1411 — [W] 75/65/20°C
1139 — [W] 70/55/20°C
721 — [W] 55/45/20°C

Correction factors

heating agent temperature [°C]		conversion coefficient for the convector's heat output selection at temperatures other than 75/65/20 °C							
		t _a air temperature in the heated room [°C]							
t ₁	t ₂	5	8	12	16	18	20	22	24
95	90	0.48	0.50	0.54	0.57	0.59	0.61	0.64	0.66
	85	0.50	0.52	0.56	0.60	0.62	0.64	0.67	0.70
	80	0.52	0.55	0.59	0.63	0.65	0.68	0.70	0.73
	75	0.54	0.57	0.61	0.66	0.69	0.72	0.75	0.78
	70	0.57	0.60	0.65	0.70	0.73	0.76	0.79	0.83
90	85	0.52	0.55	0.58	0.63	0.65	0.67	0.70	0.73
	80	0.54	0.57	0.61	0.66	0.68	0.71	0.74	0.77
	75	0.57	0.60	0.64	0.69	0.72	0.75	0.78	0.82
	70	0.59	0.63	0.67	0.73	0.76	0.80	0.83	0.87
	65	0.62	0.66	0.71	0.77	0.81	0.85	0.89	0.93
85	80	0.56	0.59	0.64	0.69	0.72	0.75	0.78	0.81
	75	0.59	0.62	0.67	0.72	0.75	0.79	0.82	0.86
	70	0.62	0.65	0.70	0.77	0.80	0.84	0.88	0.92
	65	0.65	0.69	0.75	0.81	0.85	0.89	0.94	0.99
	60	0.68	0.73	0.79	0.87	0.91	0.96	1.01	1.07
80	75	0.61	0.65	0.70	0.76	0.79	0.83	0.87	0.91
	70	0.64	0.68	0.74	0.81	0.84	0.88	0.93	0.97
	65	0.68	0.72	0.78	0.86	0.90	0.94	0.99	1.05
	60	0.72	0.76	0.83	0.91	0.96	1.01	1.07	1.13
	55	0.76	0.81	0.89	0.98	1.04	1.10	1.16	1.24
75	70	0.67	0.72	0.78	0.85	0.89	0.94	0.98	1.04
	65	0.71	0.75	0.82	0.90	0.95	1.00	1.05	1.12
	60	0.75	0.80	0.88	0.97	1.02	1.08	1.14	1.21
	55	0.80	0.85	0.94	1.04	1.10	1.17	1.24	1.32
	50	0.85	0.91	1.01	1.13	1.20	1.28	1.37	1.47
70	65	0.75	0.79	0.87	0.96	1.01	1.07	1.13	1.19
	60	0.79	0.84	0.93	1.03	1.08	1.15	1.22	1.30
	55	0.84	0.90	0.99	1.11	1.17	1.25	1.33	1.42
	50	0.89	0.96	1.07	1.20	1.28	1.37	1.47	1.58
65	60	0.83	0.89	0.98	1.10	1.16	1.23	1.31	1.40
	55	0.88	0.95	1.05	1.18	1.26	1.34	1.43	1.54
	50	0.94	1.02	1.14	1.29	1.37	1.47	1.59	1.71
60	55	0.94	1.01	1.13	1.27	1.36	1.45	1.56	1.68
	50	1.00	1.08	1.22	1.39	1.48	1.60	1.73	1.87
	45	1.08	1.17	1.33	1.53	1.65	1.78	1.94	2.13
55	50	1.07	1.16	1.31	1.50	1.62	1.75	1.90	2.07
	45	1.15	1.26	1.43	1.66	1.80	1.96	2.15	2.37
	40	1.25	1.37	1.59	1.86	2.03	2.24	2.48	2.78
50	45	1.23	1.36	1.56	1.82	1.98	2.17	2.40	2.67
	40	1.34	1.48	1.73	2.05	2.25	2.50	2.79	3.15
	35	1.47	1.65	1.94	2.36	2.63	2.96	3.38	3.92
45	40	1.45	1.62	1.90	2.28	2.53	2.83	3.19	3.66
	35	1.60	1.80	2.15	2.64	2.96	3.37	3.89	4.58
40	35	1.75	1.98	2.40	3.00	3.41	3.93	4.62	5.54
	30	1.96	2.25	2.79	3.61	4.21	5.01	6.14	7.87

The table has been prepared for n = 1.3

example:

The design heat demand of a room is 800 W. The design supply temperature for the convector's water is 55°C, and the return one: 45°C. The design room air temperature is 20°C. For the parameters 55/45/20°C, the conversion coefficient equals 1.96. By multiplying the design heat demand (800 W) by the conversion coefficient (1.96), the

heat output is obtained (1568 W), which is the base for the convector selection at the parameters 75/65/20°C.

This means that the convector selected for the design, would achieve the heat output of 800 W for the parameters 55/45/20°C, and 1568 W for the parameters 75/65/20°C.

Thermostatic heads

Delta Laserline Ventil column radiators are equipped with the Oventrop thermostatic valve with pre-setting. It is suitable for the following heads:

PRODUCER	CATALOGUE NUMBER	PRODUCER	CATALOGUE NUMBER
Purmo Sensor	AZ02HESENSOM3030	Honeywell Thera 2	T9001H(...), T9001W(...), T9001 08, T9001 20, T9001 50
Comap Senso RI	100 100	Honeywell Thera 3	T6001H(...), T6001W(...), T6001 08, T6001 20, T6001 50
Danfoss RAW-K 5135	013G5135	Honeywell Thera 4	T3001, T2001
Heimeier K	6000-00.500, 6020-00.500 6040-00.500	Oventrop UNI XH	101 1365
Heimeier DX	6700-00.500	Oventrop UNI LH	101 1465, 67, 68, 69
Heimeier D	6850-00.500	Oventrop UNI CH	101 1265
Heimeier B	2500-00.500, 2502-00.500	Oventrop UNI DH	101 1065
Heimeier WK	7300-00.500	Oventrop UNI SH	101 2065
Heimeier VD	7400-00.500	Schlosser Diamant	6001 00001
Herz Classic „H“	1 7260 98, 1 9260 98, 1 7330 98, 1 9330 98	Schlosser Brillant	6002 0000 (...)
Herz Mini „H“	1 9200 68, 1 9200 38	Valvex GZ 05A	4440010, 4440410
Herz Herzcules „H“	1 9860 98	Valvex GZ 07A	4445000

Delta Twin M column radiators are not equipped with the thermostatic valve with pre-setting. They can be connected via dedicated compound thermostatic valves of 50 mm spacing. Examples of types and producers are given in the table below. Similarly, the Delta Laserline radiators can be connected for the connection variants VL, VR, ML, MR.

PRODUCER	CATALOGUE NUMBER	
	VALVE	HEAD
Danfoss VHX-DUO + RAX	013G4281 – white RAL 9016 set 013G4279 – chrome set	
Heimeier Multilux	3851-02.000 3850-02.000	as for panel radiators with thermostatic valve insert
Herz	1 3692 91 1 3694 91	1 9260 06, 1 7260 06, 1 9200 60, 1 7260 40
Honeywell Therafix	V2474YE0015 V2474YD0015	as for panel radiators with thermostatic valve insert
Oventrop Multiblock T	118 40 83 118 40 84	as for panel radiators with thermostatic valve insert
Schlosser Duo-plex	6021 00001, 6021 00003, 6021 00005, 6021 00007	as for panel radiators with thermostatic valve insert

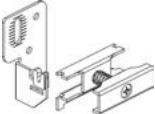
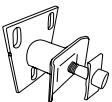
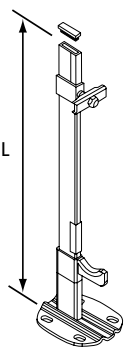


mounting distances

The distance of the radiators from the floor and the window sill should exceed 100 mm. If obtaining the recommended distancing is not possible, 70-100 mm distancing is conditionally permitted, with simultaneous heat output increase with 5-10%. If the available floor and window sill distance is smaller than 70 mm, lower radiators are to be applied. The radiator should be mounted with the factory-provided wrapping on, it should be retained on the radiator even if the central heating system is planned to be run during the finishing works, or for the purpose of drying out the building. If the wrapping is damaged,

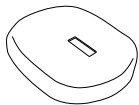
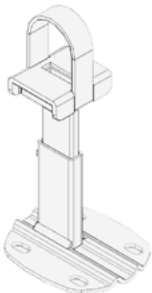
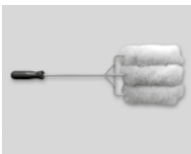
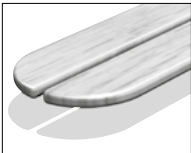
the radiator should be differently protected against smudging. It is recommended that the wrapping be removed only after all finishing works have been concluded. Radiator's pipes should be formed in the way to prevent occurrence of stresses after they are connected with the radiator, and the radiator's connectors are screwed in. Pipe forming by bending – when already connected to the radiator, or heating the radiator with e.g. burner or soldering iron is strictly prohibited, as are other actions which might deform the radiator or damage the layer of varnish.

Accessories

	description	colour	order code
	wall bracket set for column radiators of heights 300 - 3000 mm wall distancing: 31 or 41 mm 4-element set 6-element set Selection of the adequate quantity of the sets see page 46 - 47 The set includes the wall plugs, bolts, plug and air vent	white colour white colour	AZ13DZ9522231000 AZ13DZ952233100....* AZ13DZ9522232000 AZ13DZ952233200....*
	wall bracket set for column radiators of heights 300 - 3000 mm wall distancing: 30 - 50 mm 4-element set 6-element set Selection of the adequate quantity of the sets see page 46 - 47 The set includes the plug and air vent	white white	AZ13DZ9522233000 AZ13DZ9522234000
	WK155 wall bracket for column radiators of height 155 mm wall distancing: 40 mm load: up to 250 kg 2 columns	white colour	AZ13DZ9521662000 AZ13DZ952167200....*
	3 columns	white colour	AZ13DZ9521663000 AZ13DZ952167300....*
	4 columns	white colour	AZ13DZ9521664000 AZ13DZ952167400....*
	5 columns	white colour	AZ13DZ9521665000 AZ13DZ952167500....*
	6 columns	white colour	AZ13DZ9521666000 AZ13DZ952167600....*
	SK2 floor stand for column radiators of heights 300 - 1000 mm for H = 300 mm (L = 460 mm)	white colour	AZ13DZ9522404600 AZ13DZ952250460....*
	for H = 350 mm (L = 510 mm)	white colour	AZ13DZ9522405100 AZ13DZ952250510....*
	for H = 400 mm (L = 560 mm)	white colour	AZ13DZ9522405600 AZ13DZ952250560....*
	for H = 450 mm (L = 610 mm)	white colour	AZ13DZ9522406100 AZ13DZ952250610....*
	for H = 500 mm (L = 660 mm)	white colour	AZ13DZ9522406600 AZ13DZ952250660....*
	for H = 550 mm (L = 710 mm)	white colour	AZ13DZ9522407100 AZ13DZ952250710....*
	for H = 600 mm (L = 760 mm)	white colour	AZ13DZ9522407600 AZ13DZ952250760....*
	for H = 750 mm (L = 910 mm)	white colour	AZ13DZ9522409100 AZ13DZ952250910....*
	for H = 900 mm (L = 1060 mm)	white colour	AZ13DZ9522410600 AZ13DZ952251060....*
	for H = 1000 mm (L = 1160 mm)	white colour	AZ13DZ9522411600 AZ13DZ952251160....*

....* - for colours differ than standard white add colour description at the end of order code. An example: for RAL 9007 write **R9007**

Accessories

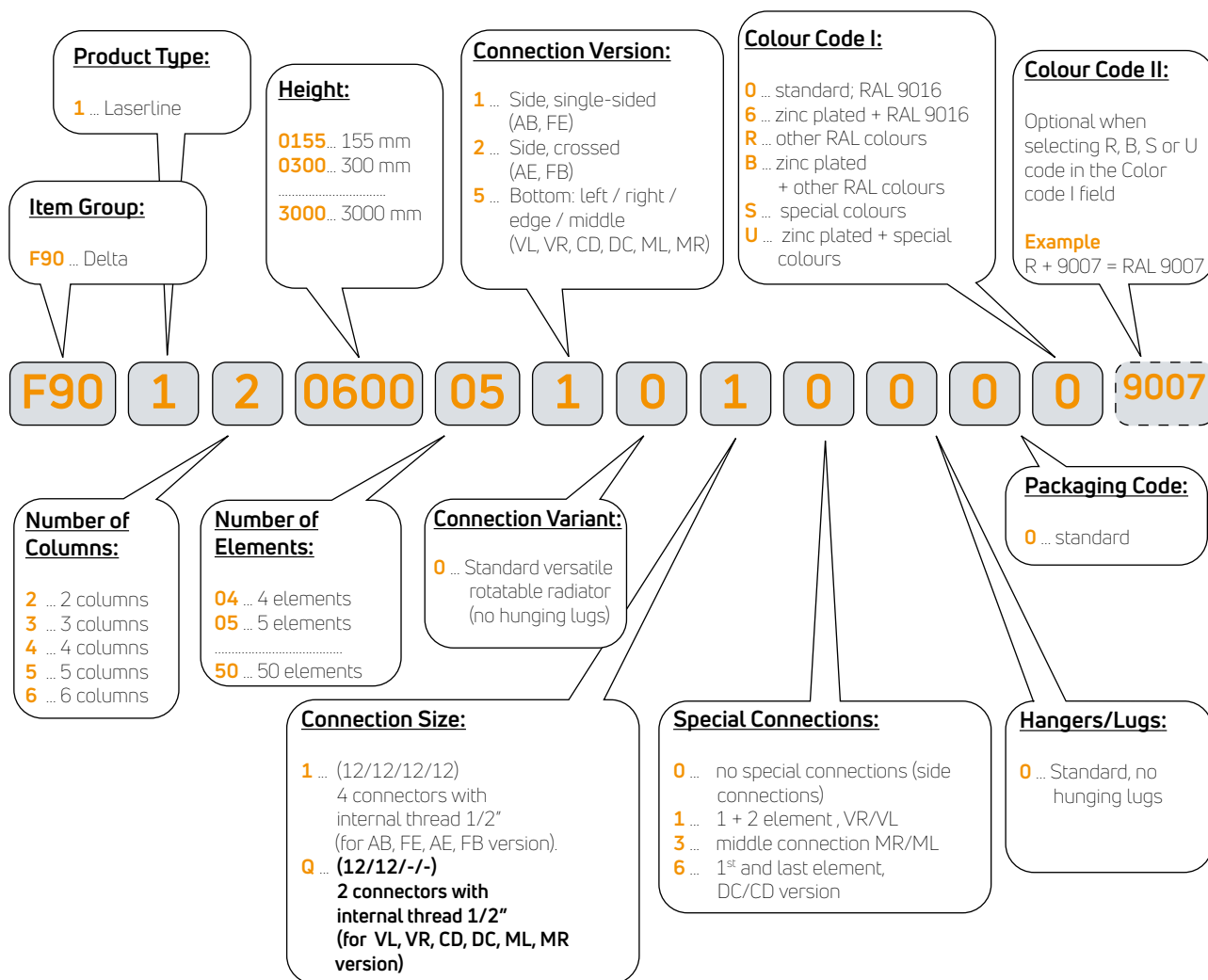
	description	colour	order code
	SK2 and FK5 stand masking cover (for the finished floor) plastic	white	AZ13DZ9522401000
	FK5 floor stand for column radiators of height 155 mm DL • DV for 2 - 6 column radiator, adjustment 80 to 110 mm for 2 - 6 column radiator, adjustment 80 to 110 mm for 2 - 6 column radiator, adjustment 110 to 170 mm for 2 - 6 column radiator, adjustment 110 to 170 mm for 2 - 6 column radiator, adjustment 170 to 290 mm for 2 - 6 column radiator, adjustment 170 to 290 mm	white colour white colour white colour	AZ13DZ9522724000 AZ13DZ952272700....* AZ13DZ9522725000 AZ13DZ952272800....* AZ13DZ9522723000 AZ13DZ952272600....*
	straight rail 2 chrome grips dimensions [mm]: 30 x 10 x (300 - 1000) ** - number of segments, from 06 up to 20 e.g. AZ13DZ8121252000 (rail's length 1000 mm)	white colour	AZ13DZ812125**00 AZ13DZ812115**0....*
	key for blind plug (plastic)		AZ13DZ8820240000
	three-spoke cleaning brush		AZ13DZ8810260000
	nipple wrench length 1000 mm, 1" for blocks of max. 19 segments length 1600 mm, 1" for blocks of max. 30 segments length 2200 mm, 1" for blocks of max. 40 segments		AZ13DZ8810313000 AZ13DZ8810314000 AZ13DZ8810315000
	nipple knob		AZ13DZ8810309000
	decorative top board for Delta Column Bench material: beech for the type DBH6150.. for the type DBH6180.. for the type DBH6200.. for the type DBH6250.. for the type DBH6280..		AZ13DZ8361500000 AZ13DZ8361800000 AZ13DZ8362000000 AZ13DZ8362500000 AZ13DZ8362800000
	decorative top board for Delta Bar material: beech for the type DB407514, DB409014 for the type DB407518, DB409018 for the type DB407522, DB409022 for the type DB507514, DB509014 for the type DB507518, DB509018 for the type DB507522, DB509022		AZ13DZ8340901400 AZ13DZ8340901800 AZ13DZ8340902200 AZ13DZ8350901400 AZ13DZ8350901800 AZ13DZ8350902200

....* - for colours differ than standard white add colour description at the end of order code. An example: for RAL 9007 write **R9007**

Accessories

	description	colour	order code
	nipple 1" gasket 1"		AZ13DZ8820230000 AZ13DZ8820210000
	plug 1/2"	nickel plated	AZ13DZ8810106000
	air vent 1/2"	nickel plated	AZ13DZ8810202000
	the set: plug 1/2"+ air vent 1/2"	white	AZ13DZ8810120000
	valve insert for Delta Laserline Ventil		AZ13DZ8828321000

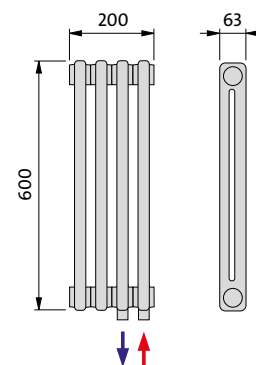
Order codes



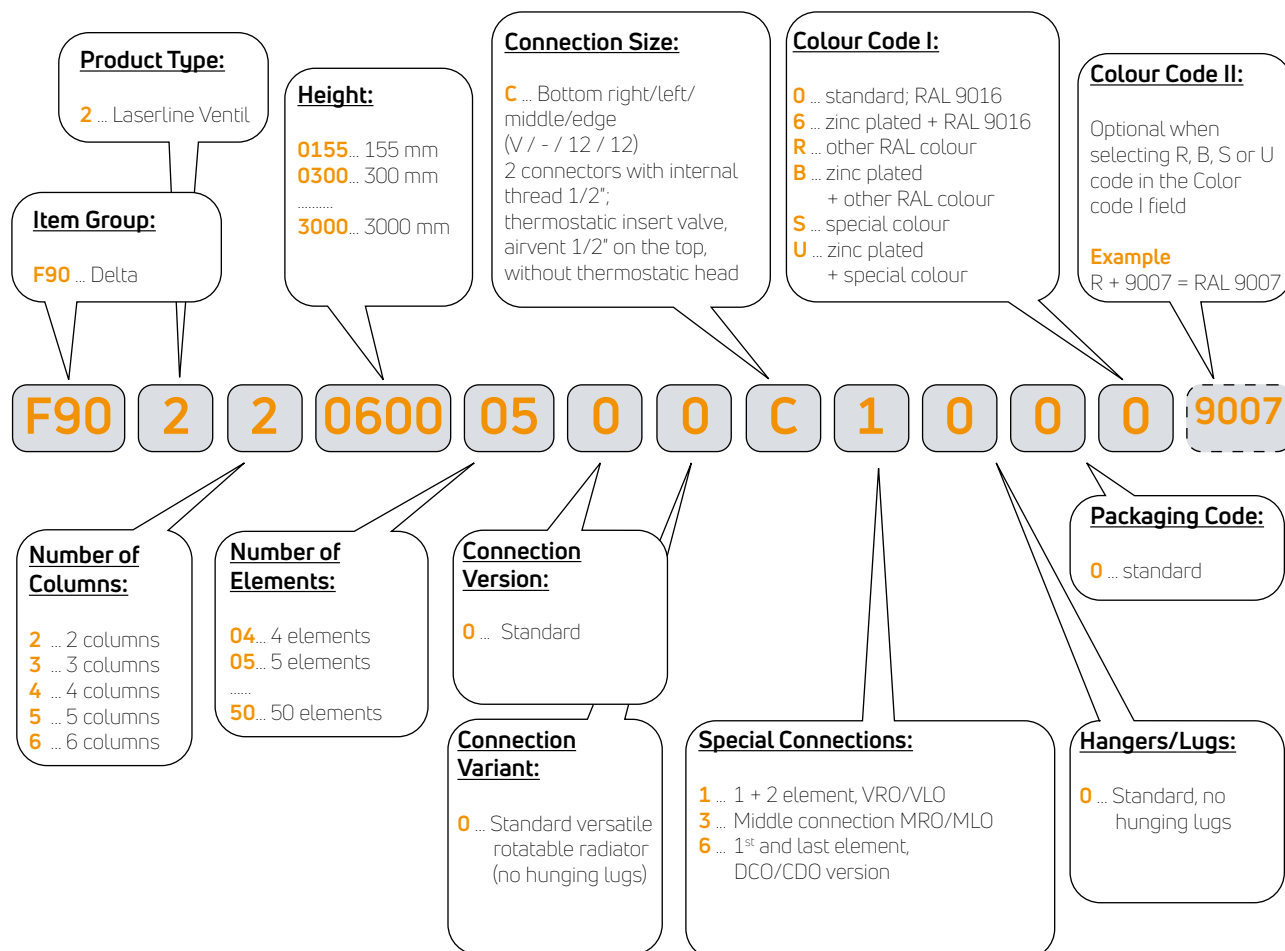
An example of creating a proper order code based on **Delta Laserline** model presented at the drawings on the right:

- product type: Delta Laserline
- number of columns: 2
- height: 600 mm
- number of elements: 4 (length 200 mm)
- connection version: right, bottom
- special connections: right version VR
- connection variant: versatile rotatable radiator (no hanging lugs)
- packaging code: Purmo
- colour: RAL 9016

An example of order code - F901206000450Q1000



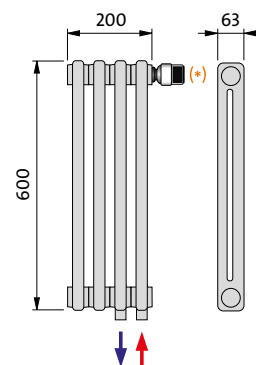
Order codes



An example of creating a proper order code based on **Delta Laserline Ventil** model presented at the drawings on the right:

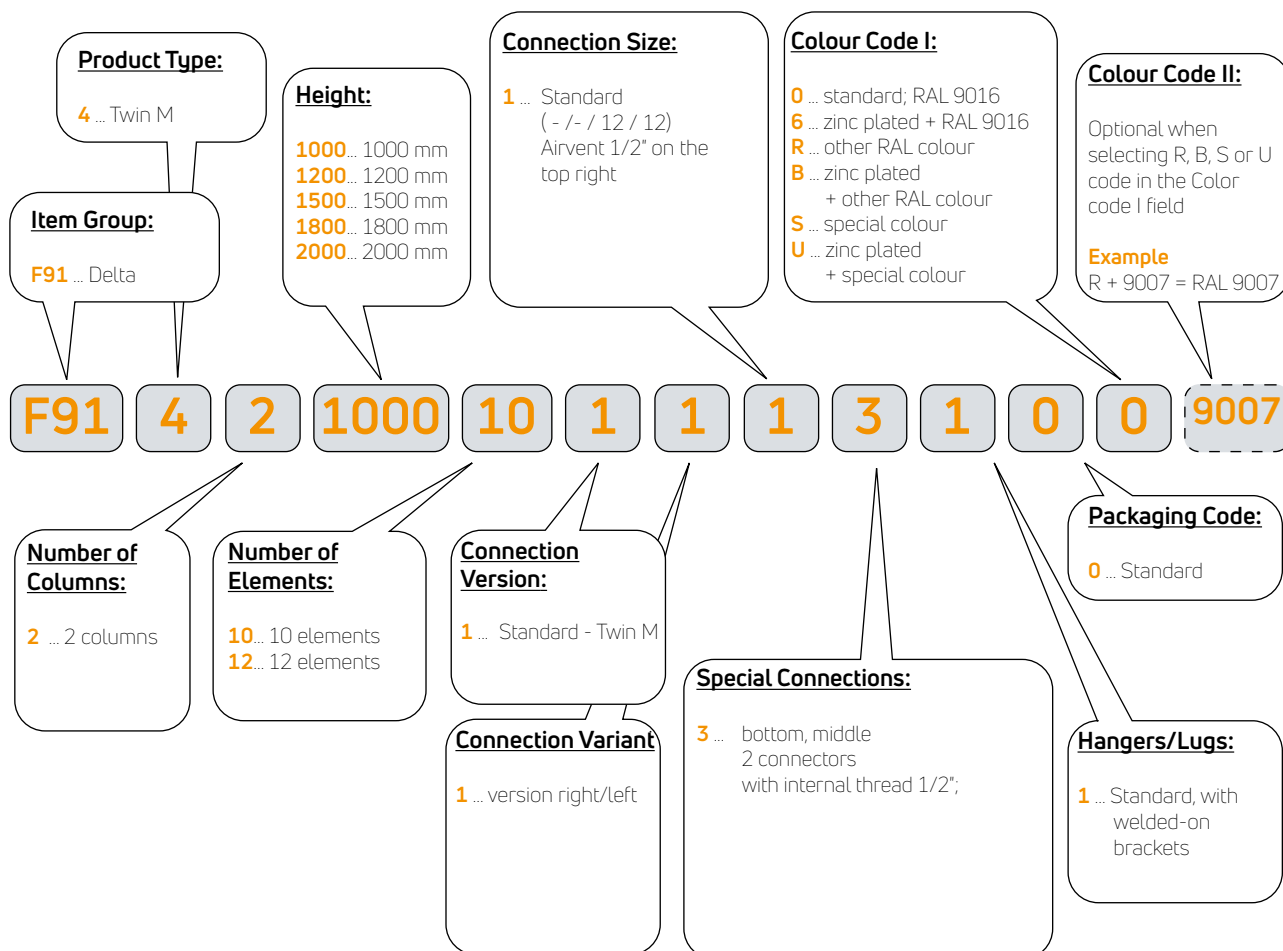
- product type: Delta Laserline Ventil
- number of columns: 2
- height: 600 mm
- number of elements: 4 (length 200 mm)
- connection version: right, bottom
- special connections: right version VRO
- connection variant: versatile rotatable radiator (no hanging lugs)
- packaging code: Purmo
- colour: RAL 9016

An example of order code - F902206000400C1000



(*) Note: Thermostatic head is not included to standard accessories of Delta Laserline Ventil. It must be ordered separately.

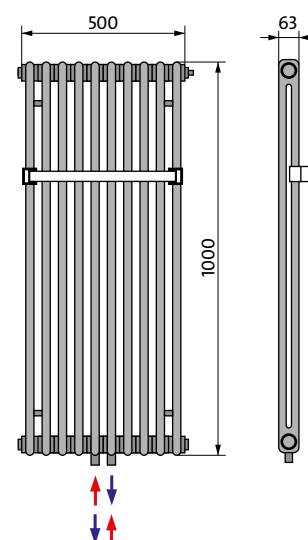
Order codes



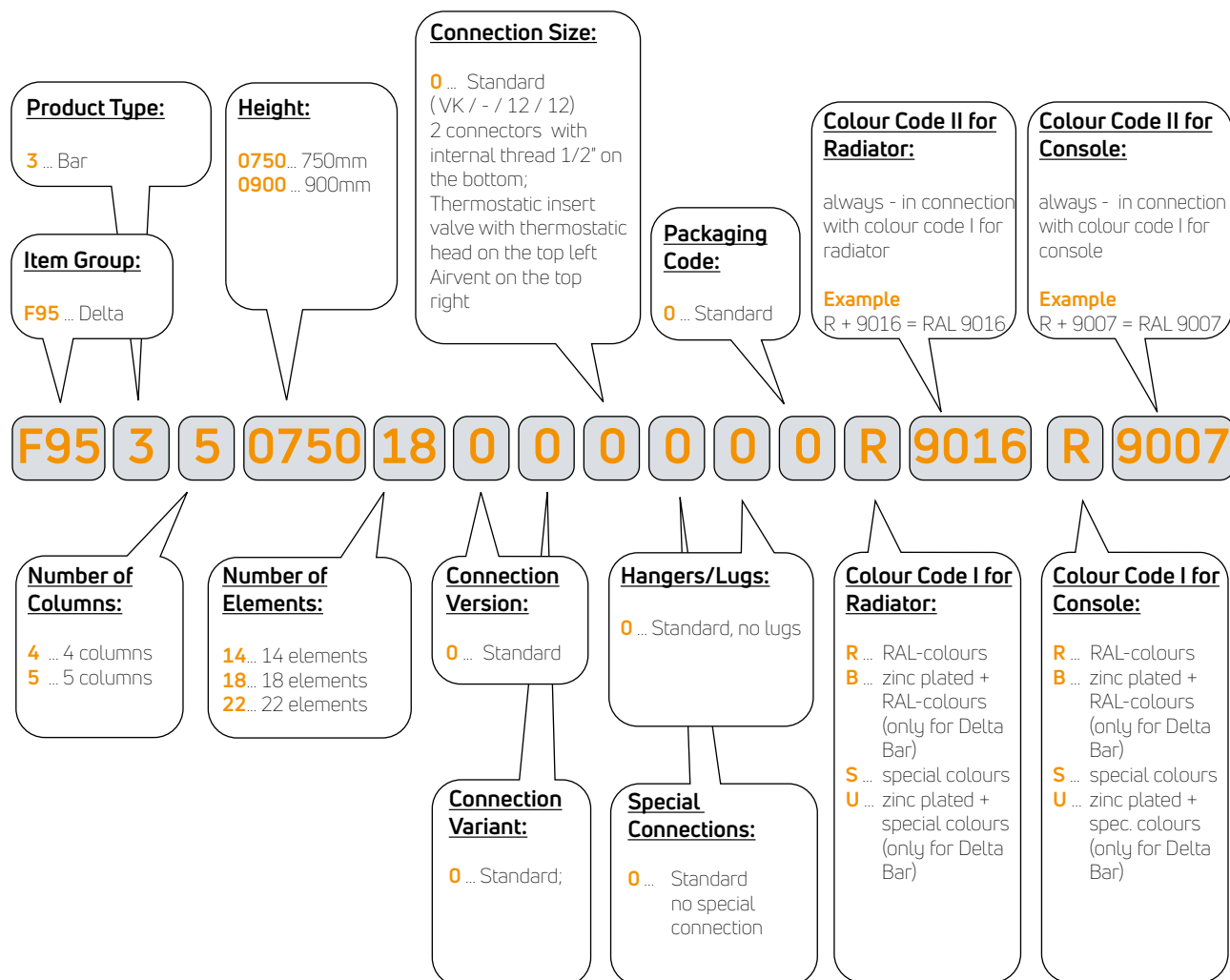
An example of creating a proper order code based on **Delta Twin M** model presented at the drawings on the right:

- product type: Delta Twin M
- number of columns: 2
- height: 1000 mm
- number of elements: 10 (length 500 mm)
- connection version: middle
- connection variant: with hanging lugs
- packaging code: Purmo
- colour: RAL 9016

An example of order code - F91421000101113100

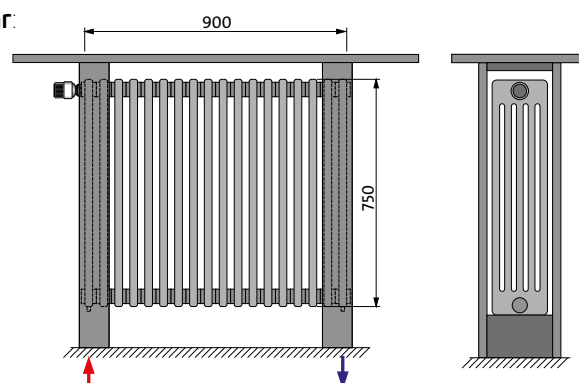


Order codes



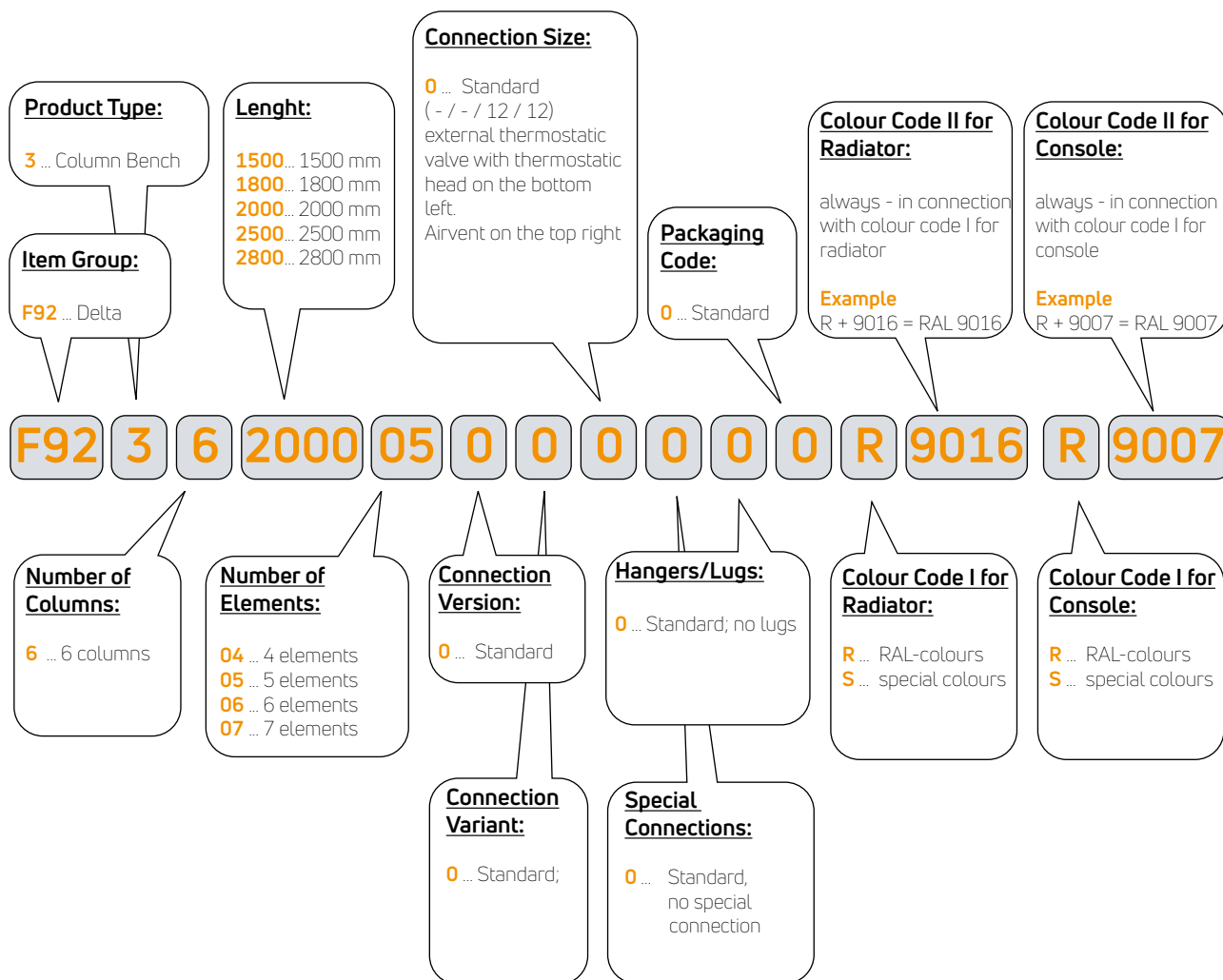
An example of creating a proper order code based on **Delta Bar**:

- product type: Delta Bar
- number of columns: 5
- height: 750 mm
- number of elements: 18 (length 900 mm)
- connection version: standard
- connection size: standard
- connection variant: standard, no hanging lugs
- packaging code: Purmo
- radiator colour: RAL 9016
- console colour: RAL 9007



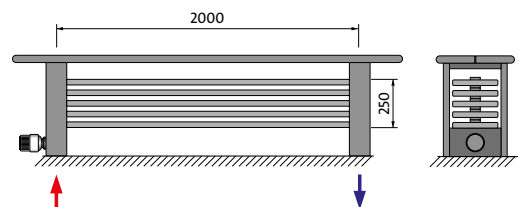
An example of order code - **F9535075018000000R9016R9007**

Order codes



An example of creating a proper order code based on **Delta Column Bench**:

- product type: Delta Column Bench
- number of columns: 6
- length: 2000 mm
- number of elements: 5 (height 250 mm)
- connection version: standard
- connection size: standard
- connection variant: standard, no hanging lugs
- packaging code: Purmo
- radiator colour: RAL 9016
- console colour: RAL 9007



An example of order code - F9236200005000000R9016R9007

About our company

The integrated quality and environmental management system in accordance with ISO 9001 and ISO 14001 implemented in our company are certified by the British Standards Institution.



Purmo Group.

This company of the Finnish origin is the biggest manufacturer of radiators in Poland and Europe. High quality materials and a partnership backed by actions are the key to our company success. Our radiators proved themselves in the tough climate of Northern Scandinavia. Throughout 50 years of our operation we have earned recognition on the European markets as well as in countries on other continents.

This allows us to provide services for small undertakings with commitment as high as for large ones. The Purmo Group

company owes its image to the Polish managers and engineers. Experienced and highly qualified regional managers maintain constant contact with sales units, designers, fitters and investors while caring for the top quality of customer service.

In Poland, we currently employ over 750 employees. We invest in our future staff by cooperating with academic centres in the country. We organize training for designers and fitters. All of this we do, because we care for the satisfaction of our customer who can always count on us.

Purmo colour palette

STANDARD COLOUR

RAL 9016 Traffic white

RAL COLOURS

RAL 1004 Golden yellow	RAL 1012 Lemon yellow	RAL 1023 Traffic yellow	RAL 1027 Curry yellow	RAL 1033 Dahlia yellow	RAL 2003 Pastel orange	RAL 2004 Pure orange	RAL 3000 Flame red
RAL 3005 Wine red	RAL 3014 Antique pink	RAL 3015 Light pink	RAL 4002 Red violet	RAL 4007 Purple violet	RAL 4008 Signal violet	RAL 4009 Pastel violet	RAL 5001 Green blue
RAL 5002 Ultramarine blue	RAL 5009 Azure blue	RAL 5014 Pigeon blue	RAL 5015 Sky blue	RAL 5017 Traffic blue	RAL 5022 Night blue	RAL 6004 Blue green	RAL 6019 Pastel green
RAL 6033 Mint turquoise	RAL 6034 Pastel turquoise	RAL 7001 Silver grey	RAL 7013 Brown grey	RAL 7015 Slate grey	RAL 7016 Anthracite grey	RAL 7021 Black grey	RAL 7024 Graphite grey
RAL 7030 Stone grey	RAL 7035 Light grey	RAL 7037 Dusty grey	RAL 7040 Window grey	RAL 8017 Chocolate brown	RAL 8019 Grey brown	RAL 9001 Cream	RAL 9005 Jet black
RAL 9006 White aluminium	RAL 9007 Grey aluminium	RAL 9010 Pure White	RAL 040 80 05 Caffé Latte (S0222)	RAL 120 70 70 E-Green (S0221)	RAL 120 80 60 Modern green (S0220)	RAL 150 60 60 Green Apple (S0219)	RAL 250-2 Lemon Glow (S0182)
RAL 290 40 45 Mystic Purple (S0185)	RAL 290 70 20 Mauve Haze (S0178)						

SPECIAL COLOURS

S0075 Jasmine	S0077 Magnolia	S0084 Anemone	S0087 Bahama beige	S0088 Manhattan	S0091 Pergamon	S0094 Natura	S0164 Banana
S0102 Metal Grey ²	S0104 Metal Black ²	S0141 Black Textured ¹	S0142 White Textured ¹	S0143 Light Grey	S0144 Brown Grey	S0145 Creme White	S0146 Anodic Bronze
S0147 Anodic Brown	S0148 Anodic Black	S0149 Anodic Natura	S0201 MetalAlu ²				

¹ textured colour² metallic colour

Colours presented here should be considered as demonstrative. Before purchase, the colours should be selected based on the original colour chart only. The manufacturer is not responsible for the selection of colours based on materials printed or displayed on a computer display.

NOTE!!! Different types of radiators can have different shades of the same colour.

www.purmo.com