

Zehnder Charleston Retrofit



Φ_s = Standard thermal output according to EN 442 (ΔT 50K: 75/65/20 °C)

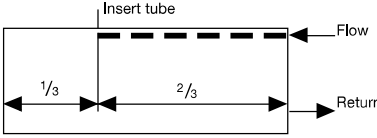

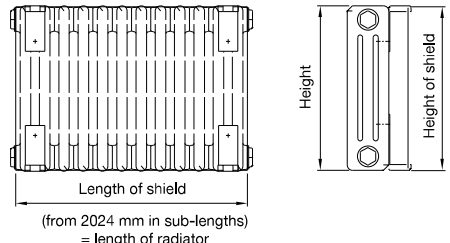
Height		mm		416		566		666		966		1066	
Model		6042		6057		6067		6097		6107			
Depth		mm		210		210		210		210		210	
Exponent		n		1,27		1,28		1,30		1,31		1,32	
Max. number of elements		64		64		55		42		22			
Price/element		€		40,70		45,36		51,71		62,68		73,88	
Length		Φ_s		Price		Φ_s		Price		Φ_s		Price	
Elements	mm	W	€	W	€	W	€	W	€	W	€	W	€
4	184	334	162,80	444	181,44	512	206,84	708	250,72	772	295,52		
5	230	418	203,50	555	226,80	640	258,55	885	313,40	965	369,40		
6	276	501	244,20	666	272,16	768	310,26	1062	376,08	1158	443,28		
7	322	585	284,90	777	317,52	896	361,97	1239	438,76	1351	517,16		
8	368	668	325,60	888	362,88	1024	413,68	1416	501,44	1544	591,04		
9	414	752	366,30	999	408,24	1152	465,39	1593	564,12	1737	664,92		
10	460	835	407,00	1110	453,60	1280	517,10	1770	626,80	1930	738,80		
11	506	919	447,70	1221	498,96	1408	568,81	1947	689,48	2123	812,68		
12	552	1002	488,40	1332	544,32	1536	620,52	2124	752,16	2316	886,56		
13	598	1086	529,10	1443	589,68	1664	672,23	2301	814,84	2509	960,44		
14	644	1169	569,80	1554	635,04	1792	723,94	2478	877,52	2702	1034,32		
15	690	1253	610,50	1665	680,40	1920	775,65	2655	940,20	2895	1108,20		
16	736	1336	651,20	1776	725,76	2048	827,36	2832	1002,88	3088	1182,08		
17	782	1420	691,90	1887	771,12	2176	879,07	3009	1065,56	3281	1255,96		
18	828	1503	732,60	1998	816,48	2304	930,78	3186	1128,24	3474	1329,84		
19	874	1587	773,30	2109	861,84	2432	982,49	3363	1190,92	3667	1403,72		
20	920	1670	814,00	2220	907,20	2560	1034,20	3540	1253,60	3860	1477,60		
21	966	1754	854,70	2331	952,56	2688	1085,91	3717	1316,28	4053	1551,48		
22	1012	1837	895,40	2442	997,92	2816	1137,62	3894	1378,96	4246	1625,36		
23	1058	1921	936,10	2553	1043,28	2944	1189,33	4071	1441,64	4439	1699,24		
24	1104	2004	976,80	2664	1088,64	3072	1241,04	4248	1504,32	4632	1773,12		
25	1150	2088	1017,50	2775	1134,00	3200	1292,75	4425	1567,00	4825	1847,00		
26	1196	2171	1058,20	2886	1179,36	3328	1344,46	4602	1629,68	5018	1920,88		
27	1242	2255	1098,90	2997	1224,72	3456	1396,17	4779	1692,36	5211	1994,76		
28	1288	2338	1139,60	3108	1270,08	3584	1447,88	4956	1755,04	5404	2068,64		
29	1334	2422	1180,30	3219	1315,44	3712	1499,59	5133	1817,72	5597	2142,52		
30	1380	2505	1221,00	3330	1360,80	3840	1551,30	5310	1880,40	5790	2216,40		
31	1426	2589	1261,70	3441	1406,16	3968	1603,01	5487	1943,08	5983	2290,28		
32	1472	2672	1302,40	3552	1451,52	4096	1654,72	5664	2005,76	6176	2364,16		
33	1518	2756	1343,10	3663	1496,88	4224	1706,43	5841	2068,44	6369	2438,04		
34	1564	2839	1383,80	3774	1542,24	4352	1758,14	6018	2131,12	6562	2511,92		
35	1610	2923	1424,50	3885	1587,60	4480	1809,85	6195	2193,80	6755	2585,80		
36	1656	3006	1465,20	3996	1632,96	4608	1861,56	6372	2256,48	6948	2659,68		
37	1702	3090	1505,90	4107	1678,32	4736	1913,27	6549	2319,16	7141	2733,56		
38	1748	3173	1546,60	4218	1723,68	4864	1964,98	6726	2381,84	7334	2807,44		
39	1794	3257	1587,30	4329	1769,04	4992	2016,69	6903	2444,52	7527	2881,32		
40	1840	3340	1628,00	4440	1814,40	5120	2068,40	7080	2507,20	7720	2955,20		

Warning: Weight over 100 kg

Surcharge for special colours, category 1 = 20%, category 2 = 30%

Factor f_1 for converting the thermal output to operating temperatures 70/55/20 °C = 0,80, to 70/50/20 °C = 0,73, to 55/45/20 °C = 0,51

Zehnder Charleston

		Price €																											
High pressure version max. 18 bar (not for Completo version) with welded plug: with welded plugs and tied rod for radiators comprising several blocks additionally per welded joint	2- to 3-column 4- to 6-column (at top and bottom)	169,29 per RAD 249,32 per RAD 84,75																											
Operating temperature 120 °C		On request																											
Further connections		On request																											
Insert tube For Zehnder Charleston radiators with same-side connections, a flow insert tube is factory-installed in $\frac{2}{3}$ of the radiator length from the following element numbers or lengths, in order to guarantee the thermal outputs shown in the catalogue.		188,17 per RAD																											
2-column from 87 elements = length 4002 mm 3-column from 85 elements = length 3910 mm 4-column from 81 elements = length 3726 mm 5-column from 71 elements = length 3266 mm 6-column from 55 elements = length 2530 mm																													
Intermediate heights Calculated on next-higher catalogue height		Surcharge 25%																											
Angled or curved design (see page 58)		On request																											
Radiator designs over height 3000 mm		On request																											
Welded lugs , price per lug	Charleston Charleston Clinic	19,82 25,70																											
Galvanising (see also explanations on galvanising in section "General") Galvanising with subsequent standard finish (RAL 9016) Maximum dimensions: 3000 x 850 x 450 mm		On request																											
Completo version with valve inserts for clip seal (Danfoss thermostat) instead of M 30 x 1,5 threaded connection		No surcharge																											
Thermal radiation shield Heights from 260 mm to 750 mm and a maximum length of the thermal radiation shield of up to 2024 mm; for large lengths, the thermal radiation shields are supplied in 2 or more pieces. The thermal radiation shield consists of special 6 mm safety glass with thermal coating, rounded corners, finely polished edges, including holders for on-site attachment to the last row of columns. Bracket painted with powder-coating in the colour of the radiator.		  <p>Length of shield (from 2024 mm in sub-lengths) = length of radiator</p> <p>Height Height of shield</p>																											
<table border="1"> <thead> <tr> <th>Number of elements Zehnder Charleston</th> <th>Number of elements Zehnder Charleston Clinic</th> <th>Number of shields</th> <th>Number of brackets</th> </tr> </thead> <tbody> <tr> <td>1 to 30</td> <td>1 to 21</td> <td>1</td> <td>4</td> </tr> <tr> <td>31 to 44</td> <td>22 to 31</td> <td>1</td> <td>6</td> </tr> <tr> <td>45 to 60</td> <td>32 to 42</td> <td>2</td> <td>8</td> </tr> <tr> <td>61 to 88</td> <td>43 to 61</td> <td>2</td> <td>12</td> </tr> <tr> <td>89 to 114</td> <td>62 to 84</td> <td>3</td> <td>18</td> </tr> <tr> <td>115 to 130</td> <td>85 to 92</td> <td>3</td> <td>18</td> </tr> </tbody> </table>	Number of elements Zehnder Charleston		Number of elements Zehnder Charleston Clinic	Number of shields	Number of brackets	1 to 30	1 to 21	1	4	31 to 44	22 to 31	1	6	45 to 60	32 to 42	2	8	61 to 88	43 to 61	2	12	89 to 114	62 to 84	3	18	115 to 130	85 to 92	3	18
Number of elements Zehnder Charleston	Number of elements Zehnder Charleston Clinic	Number of shields	Number of brackets																										
1 to 30	1 to 21	1	4																										
31 to 44	22 to 31	1	6																										
45 to 60	32 to 42	2	8																										
61 to 88	43 to 61	2	12																										
89 to 114	62 to 84	3	18																										
115 to 130	85 to 92	3	18																										
		148,45 71,96 109,58																											

Basis for calculating the surcharge is the standard finish

Zehnder Charleston



Curved version		
Version	Sketch/template	Prices €
<p>Zehnder Charleston radiators are available with the following minimum external curve radii:</p> <p>2-column: 400 mm 3-column: 650 mm 4-column: 750 mm 5-column: 900 mm 6-column: 1000 mm</p> <p>The first three elements are not curved for the Zehnder Charleston Completo.</p>		On request
		On request

Angled version		
Version	Sketch/template	Prices €
<p>Special version angled, available from 90° to 179°.</p> <p>When making a price enquiry, please provide the following dimensions on the dimensional drawing: L₁, L₂, L₃ in mm, angle α₁, α₂ in degrees.</p> <p>Please provide sturdy templates when placing your order.</p>		On request
		On request
		On request

When ordering or requesting prices of curved and angled radiators, please enclose a template or dimensional drawing with all dimensions indicated.

- HK = Radiator
- WA = Wall clearance
- R = Radius
- α₁, α₂ = Angle [°]
- L₁, L₂, L₃ = Lengths

Dimensions in mm

Connection type	Price €	Dimensional drawings: Front view, side view and top view (bottom)
Connection 2-tube with external valve		
<p>Same-side or opposite end</p>	<p>No additional charge</p>	
<p>From bottom to bottom</p> <p>Please note: For Completo, see p. 61</p>	<p>88,20</p>	
<p>from top to top</p>	<p>109,16</p>	
<p>From bottom to bottom, at side 50 mm</p> <p>Please note: For Completo, see p. 61</p>	<p>88,20</p>	
<p>From top to top, at side 50 mm</p>	<p>109,19</p>	
<p>From bottom to bottom, central 50 mm</p>	<p>129,44</p>	
<p>Please note: For Completo, see page 61</p>		<p>Use Zehnder Varío connection fitting, see page 640. Central arrangement of connection fitting only with even number of elements²⁾</p>

When orders are placed without indication of the connection type, the standard connection 4 x 1/2" (S001) will be delivered. Possible connections: 1270/7610 and 1670/7210.

- H = Height
 - L = Length
 - N = Boss spacing
 - L₂ = Excess length thread, 1/2" = 6; 3/4" = 15
 - * = Venting
 - Δ = Draining
 - = Internal installations
- Dimensions in mm

- 1) The dimensions shown also apply to Zehnder Charleston Clinic (without graphic illustration), unless noted otherwise.
- 2) With an uneven number of elements: One additional element on the return side

Zehnder Charleston, Zehnder Charleston Clinic¹⁾



Connection type	Price €	Dimensional drawings: Front view, side view and top view (bottom)
Connection 1-tube with external valve		
for horizontal lance valve 	No additional charge	<p>Specify valve unit when placing order</p>
for vertical lance valve 	35,43	<p>Specify valve unit when placing order</p>
Completo connection with integrated valve (prices without thermostat)		
Valve at top, connection on side 50 mm 	148,10	<p>Reduced thermal output of the first element due to insufficient circulation.</p>
Valve at bottom, connection on side 50 mm 	209,48	

When orders are placed without indication of the connection type, the standard connection 4 x 1/2" (S001) will be delivered. Possible connections: 1270/7610 and 1670/7210.

- | | | |
|---|----------------------------|---|
| H = Height | * = Venting | 1) The dimensions shown also apply to Zehnder Charleston Clinic (without graphic illustration), unless noted otherwise. |
| L = Length | Δ = Draining | 2) For Zehnder Charleston Clinic 88 mm |
| N = Boss spacing | • = Internal installations | 3) Only valid for Zehnder thermostat LH2 |
| L ₂ = Excess length thread,
1/2" = 6; 3/4" = 15 | Dimensions in mm | 4) For Zehnder Charleston Clinic 31 mm |

Connection type	Price €	Dimensional drawings: Front view, side view and top view (bottom)
Completo connection with integrated valve (prices without thermostat)		
Valve at top, connection central 50 mm 	196,80	<p style="text-align: center;">Central arrangement of the connections only with even number of elements⁴⁾</p>
Valve at top, opposite end connection 	148,10	
Valve at top, connection from top to top on side 50 mm 	269,83	
Valve at bottom, connection from top to top on side 50 mm 	306,81	

When orders are placed without indication of the connection type, the standard connection 4 x 1/2" (S001) will be delivered. Possible connections: 1270/7610 and 1670/7210.

Valve parameters: Special control valve OV 1" (for 2-column) or OV 5/4" (for 3- to 6-column) is installed at the factory. Max. recommended flow rate 250 kg/h. Data for special control valve on page 653.

- H = Height
- L = Length
- N = Boss spacing
- * = Venting
- Δ = Draining

- 1) The dimensions shown also apply to Zehnder Charleston Clinic (without graphic illustration), unless noted otherwise.
- 2) Only applies to Zehnder thermostat LH2
- 3) For Zehnder Charleston Clinic 31 mm
- 4) With an uneven number of elements: One additional element on the return side

Dimensions in mm

Price List, Zehnder Group Sales International 2018 - prices plus statutory VAT.

Zehnder Charleston with EasyFix

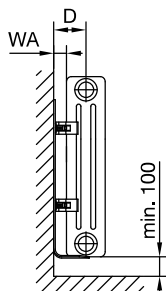


Recommended for requirements classes 1 and 2 according to VDI 6036

Illustration	Sketch side view	Model				
		Application	Wall clearance WA mm	Brackets in set	Article no. ³⁾ Set white	€/Set White Colour

Fixing details for accessory set SMB (arrangement for Zehnder Charleston Clinic, see page 65)

Set SMB 30-75



Distance D:

2-column	66 mm
3-column	85 mm
4-column	103 mm
5-column	122 mm
6-column	140 mm

H = 300-369

All models					
L = 4-22 el.	35	2 x SMB30	173521	16,94	25,44
L = 23-39 el.		3 x SMB30	173621	25,43	38,15
L = 40-50 el.		4 x SMB30	173721	33,90	50,86
L = 51-60 el.		5 x SMB30	173821	42,36	63,58

H = 370-484

All models					
L = 4-22 el.	35	2 x SMB40	173531	16,94	25,44
L = 23-39 el.		3 x SMB40	173631	25,43	38,15
L = 40-50 el.		4 x SMB40	173731	33,90	50,86
L = 51-60 el.		5 x SMB40	173831	42,36	63,58

H = 485-679

All models					
L = 4-22 el.	35	2 x SMB50	173541	16,94	25,44
L = 23-39 el.		3 x SMB50	173641	25,43	38,15
L = 40-50 el.		4 x SMB50	173741	33,90	50,86
L = 51-60 el.		5 x SMB50	173841	42,36	63,58

H = 680-1000

2- to 4-column					
L = 4-22 el.	35	2 x SMB75	173551	16,94	25,44
L = 23-39 el.		3 x SMB75	173651	25,43	38,15
L = 40-55 el.		4 x SMB75	173751	33,90	50,86
L = 56-65 el.		5 x SMB75	173851	42,36	63,58

5- to 6-column					
L = 4-15 el.	35	2 x SMB75	173551	16,94	25,44
L = 16-29 el.		3 x SMB75	173651	25,43	38,15
L = 30-42 el.		4 x SMB75	173751	33,90	50,86
L = 43-55 el.		5 x SMB75	173851	42,36	63,58

H = 1001-1500

2- to 4-column					
L = 4-15 el.	35	2 x SMB2T	173511	16,94	25,44
L = 16-30 el.		3 x SMB2T	173611	25,43	38,15
L = 31-45 el.		4 x SMB2T	173711	33,90	50,86
L = 46-60 el.		5 x SMB2T	173811	42,36	63,58

5- to 6-column					
L = 4-10 el.	35	2 x SMB2T	173511	16,94	25,44
L = 11-20 el.		3 x SMB2T	173611	25,43	38,15
L = 21-30 el.		4 x SMB2T	173711	33,90	50,86
L = 31-40 el.		5 x SMB2T	173811	42,36	63,58

H = 1501-2200

2- to 4-column					
L = 4-11 el.	35	2 x SMB2T	173511	16,94	25,44
L = 12-21 el.		3 x SMB2T	173611	25,43	38,15
L = 22-31 el.		4 x SMB2T	173711	33,90	50,86
L = 32-41 el.		5 x SMB2T	173811	42,36	63,58

5- to 6-column					
L = 4-10 el.	35	2 x SMB2T	173511	16,94	25,44
L = 11-16 el.		3 x SMB2T	173611	25,43	38,15
L = 17-21 el.		4 x SMB2T	173711	33,90	50,86
L = 22-27 el.		5 x SMB2T	173811	42,36	63,58

H = Height of radiator in mm

L = Length of radiator in elements

D = Dimension from wall to middle of connection

WA = Wall clearance

²⁾ Further allocations of the bracket SMB 2T for heights from 245 mm and up to 3000 mm on request.

³⁾ The Article no. of the set in colour is produced by replacing the end digit 1 by the end digit 9.


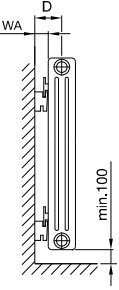

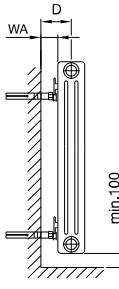
Zehnder Charleston



Recommended for requirements classes 1 and 2 according to VDI 6036

Illustration	Sketch side view	Model			
		Application	Wall clearance WA mm	Brackets in set	Article no. ³⁾ Set white

Fixing details for accessory sets CVD, BKE (arrangement for Zehnder Charleston Clinic, see page 66)

Set CVD		All models						
		Height 260 - 1000 mm		with retaining spring				
		L = 4-20 el.	28	4 x BH + CVD 0	774401	17,11	45,03	
		L = 21-40 el.		6 x BH + CVD 0	774601	24,89	66,77	
		L = 41-60 el.		8 x BH + CVD 0	774801	32,68	88,51	
		Height 1001 - 1500 mm		with retaining spring				
		L = 4-20 el.	28	4 x BH + CVD 0	774401	17,11	45,03	
		L = 21-40 el.		8 x BH + CVD 0	774801	32,68	88,81	
		L = 41-60 el.		10 x BH + CVD 0	774901	40,46	110,25	
		2- to 5-column						
		Height 1501 - 2200 mm		with retaining spring				
		L = 4-10 el.	28	4 x BH + CVD 0	774401	17,11	45,03	
		L = 11-20 el.		6 x BH + CVD 0	774601	24,89	66,77	
L = 21-30 el.	8 x BH + CVD 0	774801		32,68	88,51			
L = 31-40 el.	10 x BH + CVD 0	774901		40,46	110,25			
6-column								
Height 1501 - 2200 mm		with retaining spring						
L = 4-10 el.	28	4 x BH + CVD 0	774401	17,11	45,03			
L = 11-20 el.		8 x BH + CVD 0	774801	32,68	88,51			
L = 21-30 el.		10 x BH + CVD 0	774901	40,46	110,25			
L = 31-40 el.				-	-	-		
Set BKE²⁾		All models						
		Height 260 - 1000 mm		with retaining spring				
		L = 4-20 el.	46	4 x BH + BKE160	774461	27,47	43,28	
		L = 21-40 el.		6 x BH + BKE160	774661	38,47	62,05	
		L = 41-60 el.		8 x BH + BKE160	774861	49,47	80,82	
		Height 1001 - 1500 mm		with retaining spring				
		L = 4-20 el.	46	4 x BH + BKE160	774461	27,47	43,28	
		L = 21-40 el.		8 x BH + BKE160	774711	49,47	80,82	
		L = 41-60 el.		10 x BH + BKE160	774961	60,45	99,60	
		2- to 5-column						
		Height 1501 - 2200 mm		with retaining spring				
		L = 4-10 el.	46	4 x BH + BKE160	774461	27,47	43,28	
		L = 11-20 el.		6 x BH + BKE160	774661	38,47	62,05	
L = 21-30 el.	8 x BH + BKE160	774861		49,47	80,82			
L = 31-40 el.	10 x BH + BKE160	774961		60,45	99,60			
6-column								
Height 1501 - 2200 mm		with retaining spring						
L = 4-10 el.	46	4 x BH + BKE160	774461	27,47	43,28			
L = 11-20 el.		8 x BH + BKE160	774861	49,47	80,82			
L = 21-30 el.		10 x BH + BKE160	774961	60,45	99,60			
L = 31-40 el.				-	-	-		

L = Length of radiator in mm

D = Dimension from wall to middle of connection

WA = Wall clearance





²⁾ Average distances are given for D and WA for set BKE, as bracket installation depth is variable.

³⁾ The Article no. of the set in colour is produced by replacing the end digit 1 by the end digit 9.

Recommended for requirements classes 1 and 2 according to VDI 6036

Illustration	Description	Model			
		Application	Number + type of brackets	Article no. piece	Price/white €/piece

For other fixing options using accessories, see page 618 onwards.

Wall bracket AK ³⁾ 	For adjustable wall clearance, short and long version possible, standard: short, RAL 9016, for details see "Accessories"	All models			
		Height 260 - 1000 mm			
		L = 4-20 el. L = 21-40 el. L = 41-60 el.	4 x BH + AK 1 6 x BH + AK 1 8 x BH + AK 1	Bracket BH: 774001	2,08
	For mounting, for adjustable wall clearance, combination with bracket TKK is recommended, standard: RAL 9016, for details, see "Accessories"	All models			
		Height 260 - 500 mm			
		L = 4-20 el. L = 21-30 el. L = 31-40 el. L = 41-50 el. L = 51-60 el.	2 x AKK 3 x AKK 4 x AKK 5 x AKK 6 x AKK	by length	6,80 - 7,44
Free-standing floor support STF 	For mounting on unfinished or finished floor, different lengths possible, standard: RAL 9016, for details, see "Accessories"	All models			
		Height H: 260 to < 600 mm ²⁾			
		L = 4-20 el. L = 21-40 el. L = 41-60 el. L = 61-80 el.	2 x STF 2 / STF 3 3 x STF 2 / STF 3 4 x STF 2 / STF 3 5 x STF 2 / STF 3	by height	STF2: 30,53 - 34,09 STF3: 29,63 - 33,21
Floor support HFK 	for mounting on unfinished or finished floor, standard: RAL 9016, for details see "Accessories"	All models			
		Height H: 190 to < 600 mm ²⁾			
		L = 4-20 el. L = 21-40 el. L = 41-60 el. L = 61-80 el.	2 x HFK 3 x HFK 4 x HFK 5 x HFK	by height	33,44 / 37,27

H = Height of radiator in mm

L = Length of radiator in elements

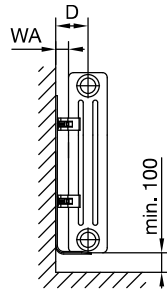
D = Dimension from wall to middle of connection

²⁾ Provided from a height of 600 mm for requirements class 1 and 2 additional brackets³⁾ An on-site locking device may be required depending on the installation and connection situation and net weight of the radiator

Zehnder Charleston Clinic with EasyFix

Illustration	Sketch side view	Model				
		Application	Wall clearance WA mm	Brackets in set	Article no. ³⁾ Set white	€/Set White Colour

Fixing details for accessory set SMB

Set SMB 30-75

Distance D:

2-column	66 mm
3-column	85 mm
4-column	103 mm
5-column	122 mm
6-column	140 mm

H = 300-369

All models

L = 4-16 el.	35	2 x SMB30	173521	16,94	25,44
L = 17-27 el.		3 x SMB30	173621	25,43	38,15
L = 28-40 el.		4 x SMB30	173721	33,90	50,86
L = 41-55 el.		5 x SMB30	173821	42,36	63,58

H = 370-484

All models

L = 4-16 el.	35	2 x SMB40	173531	16,94	25,44
L = 17-27 el.		3 x SMB40	173631	25,43	38,15
L = 28-40 el.		4 x SMB40	173731	33,90	50,86
L = 41-55 el.		5 x SMB40	173831	42,36	63,58

H = 485-679

All models

L = 4-16 el.	35	2 x SMB50	173541	16,94	25,44
L = 17-27 el.		3 x SMB50	173641	25,43	38,15
L = 28-40 el.		4 x SMB50	173741	33,90	50,86
L = 41-55 el.		5 x SMB50	173841	42,36	63,58

H = 680-1000

All models

L = 4-14 el.	35	2 x SMB75	173551	16,94	25,44
L = 15-27 el.		3 x SMB75	173651	25,43	38,15
L = 28-40 el.		4 x SMB75	173751	33,90	50,86
L = 41-55 el.		5 x SMB75	173851	42,36	63,58

H = 1001-1500

2- to 4-column

L = 4-14 el.	35	2 x SMB2T	173511	16,94	25,44
L = 15-27 el.		3 x SMB2T	173611	25,43	38,15
L = 28-40 el.		4 x SMB2T	173711	33,90	50,86
L = 41-55 el.		5 x SMB2T	173811	42,36	63,58

5- to 6-column

L = 4-10 el.	35	2 x SMB2T	173511	16,94	25,44
L = 11-20 el.		3 x SMB2T	173611	25,43	38,15
L = 21-30 el.		4 x SMB2T	173711	33,90	50,86

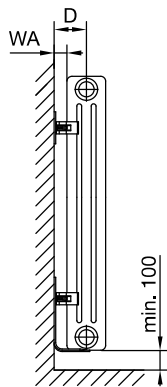
H = 1501-2200

2- to 4-column

L = 4-11 el.	35	2 x SMB2T	173511	16,94	25,44
L = 12-21 el.		3 x SMB2T	173611	25,43	38,15
L = 22-31 el.		4 x SMB2T	173711	33,90	50,86

5- to 6-column

L = 4-8 el.	35	2 x SMB2T	173511	16,94	25,44
L = 9-15 el.		3 x SMB2T	173611	25,43	38,15
L = 16-22 el.		4 x SMB2T	173711	33,90	50,86

Set SMB 2T²⁾

Distance D:

2-column	66 mm
3-column	85 mm
4-column	103 mm
5-column	122 mm
6-column	140 mm

H = Height of radiator in mm
WA = Wall clearance


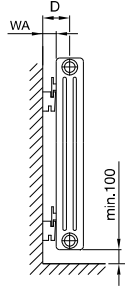

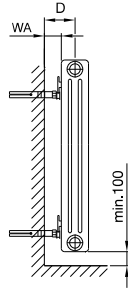
L = Length of radiator in elements

D = Dimension from wall to middle of connection

²⁾ Further allocations of the bracket SMB 2T for heights from 245 mm and up to 3000 mm on request.³⁾ The Article no. of the set in colour is produced by replacing the end digit 1 by the end digit 9.

Illustration	Sketch side view	Model ¹⁾				
		Application	Wall clearance WA mm	Brackets in set	Article no. ³⁾ set white	€/Set White Colour

Accessory sets CVD, BKE

Set CVD		All models						
	 <p>Distance D: 2-column 57 mm 3-column 76 mm 4-column 94 mm 5-column 112 mm 6-column 131 mm</p>	Height 260 - 1500 mm with retaining spring						
		L = 4-15 el.	24	4 x BHK + CVD 0	775421	31,09	58,88	
		L = 16-30 el.		6 x BHK + CVD 0	775621	45,86	87,54	
		L = 31-44 el.		8 x BHK + CVD 0	775821	60,64	116,21	
				2- to 5-column				
				Height 1501 - 2200 mm with retaining spring				
		L = 4-15 el.	24	4 x BHK + CVD 0	775421	31,09	58,88	
		L = 16-23 el.		6 x BHK + CVD 0	775621	45,86	87,54	
		L = 24-30 el.		8 x BHK + CVD 0	775821	60,64	116,21	
		L = 31-36 el.		10 x BHK + CVD 0	775921	75,41	144,87	
		6-column						
		Height 1501 - 2200 mm with retaining spring						
L = 4-7 el.	24	4 x BHK + CVD 0	775421	31,09	58,88			
L = 8-15 el.		6 x BHK + CVD 0	775621	45,86	87,54			
L = 16-23 el.		8 x BHK + CVD 0	775821	60,64	116,21			
L = 24-30 el.		10 x BHK + CVD 0	775921	75,41	144,87			
L = 31-36 el.		12 x BHK + CVD 0	-	-	-			
Set BKE ²⁾		All models						
	 <p>Distance D: 2-column 77 mm 3-column 96 mm 4-column 114 mm 5-column 133 mm 6-column 151 mm</p>	Height 260 - 1500 mm with retaining spring						
		L = 4-15 el.	46	4 x BHK+BKE160	775461	41,45	57,71	
		L = 16-30 el.		6 x BHK+BKE160	775661	59,43	83,69	
		L = 31-44 el.		8 x BHK+BKE160	775861	77,43	109,70	
				2- to 5-column				
				Height 1501 - 2200 mm with retaining spring				
		L = 4-15 el.	46	4 x BHK+BKE160	775461	41,45	57,71	
		L = 16-23 el.		6 x BHK+BKE160	775661	59,43	83,69	
		L = 24-30 el.		8 x BHK+BKE160	775861	77,43	109,70	
		L = 31-36 el.		10 x BHK+BKE160	775961	95,42	135,69	
		6-column						
		Height 1501 - 2200 mm with retaining spring						
L = 4-7 el.	46	4 x BHK+BKE160	775461	41,45	57,71			
L = 8-15 el.		6 x BHK+BKE160	775661	59,43	83,69			
L = 16-23 el.		8 x BHK+BKE160	775861	77,43	109,70			
L = 24-30 el.		10 x BHK+BKE160	775961	95,42	135,69			
L = 31-36 el.		12 x BHK+BKE160	-	-	-			





H = Height of radiator in elements

D = Dimension from wall to middle of connection

WA = Wall clearance

²⁾ Average distances are given for D and WA for set BKE, as bracket installation depth is variable.

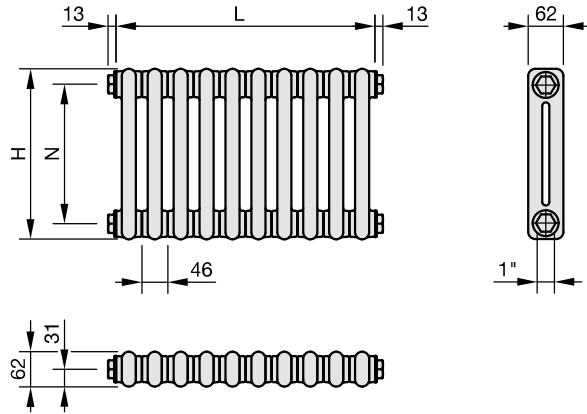
³⁾ The Article no. of the set in colour is produced by replacing the end digit 1 by the end digit 9.

Illustration	Description	Model			
		Application	Number + type of brackets	Article no. piece	Price/piece €
For other fixing options using accessories, see page 618 onwards.					
Wall bracket AK ³⁾					
	For adjustable wall clearance, short and long version possible, standard: short, RAL 9016, for details see "Accessories"	All models			
		Height 260 - 1500 mm			
		L = 4-15 el. L = 16-30 el. L = 31-44 el.	4 x BHK + AK 1 6 x BHK + AK 1 8 x BHK + AK 1	Bracket BHK: 775011	5,58
		2- to 5-column			
Height 1501 - 2200 mm					
L = 4-15 el. L = 16-23 el. L = 24-30 el. L = 31-36 el.	4 x BHK + AK 1 6 x BHK + AK 1 8 x BHK + AK 1 10 x BHK + AK 1	Bracket AK 1: 796011	9,38		
T-bracket AKK					
	For mounting, for adjustable wall clearance, combination with bracket TKK is recommended, standard: RAL 9016 For details, see "Accessories"	All models			
		Height 260 - 600 mm			
		L = 4-15 el. L = 16-23 el. L = 24-30 el. L = 31-36 el.	2 x AKK 3 x AKK 4 x AKK 5 x AKK	by length	6,80 - 7,44
		All models			
Height H: 260 to < 600 mm ²⁾					
L = 4-15 el. L = 16-23 el. L = 24-30 el. L = 31-36 el.	2 x STF2K / STF3K 3 x STF2K / STF3K 4 x STF2K / STF3K 5 x STF2K / STF3K	By height	STF2K: 28,46 / 32,02 STF3K: 28,58 / 32,19		
Free-standing floor support STF					
	For mounting on unfinished or finished floor, different lengths possible, standard: RAL 9016 For details, see "Accessories"	All models			
		Height H: 260 to < 600 mm ²⁾			
		L = 4-15 el. L = 16-23 el. L = 24-30 el. L = 31-36 el.	2 x STF2K / STF3K 3 x STF2K / STF3K 4 x STF2K / STF3K 5 x STF2K / STF3K	By height	STF2K: 28,46 / 32,02 STF3K: 28,58 / 32,19
		All models			
Height H: 190 to < 600 mm ²⁾					
L = 4-15 el. L = 16-23 el. L = 24-30 el. L = 31-36 el.	2 x HFK2 / HFK3 3 x HFK2 / HFK3 4 x HFK2 / HFK3 5 x HFK2 / HFK3	By height	33,44 / 37,27		
Floor support HFK					
	For mounting on unfinished or finished floor, with attenuator, standard: RAL 9016, for details, see "Accessories"	All models			
		Height H: 190 to < 600 mm ²⁾			
		L = 4-15 el. L = 16-23 el. L = 24-30 el. L = 31-36 el.	2 x HFK2 / HFK3 3 x HFK2 / HFK3 4 x HFK2 / HFK3 5 x HFK2 / HFK3	By height	33,44 / 37,27
		All models			
Height H: 190 to < 600 mm ²⁾					
L = 4-15 el. L = 16-23 el. L = 24-30 el. L = 31-36 el.	2 x HFK2 / HFK3 3 x HFK2 / HFK3 4 x HFK2 / HFK3 5 x HFK2 / HFK3	By height	33,44 / 37,27		

L = Length of radiator in sections

²⁾ Provided from a height of 600 mm for requirements class 1 and 2 additional brackets³⁾ An on-site locking device may be required depending on the installation and connection situation and net weight of the radiator

Model 2-column



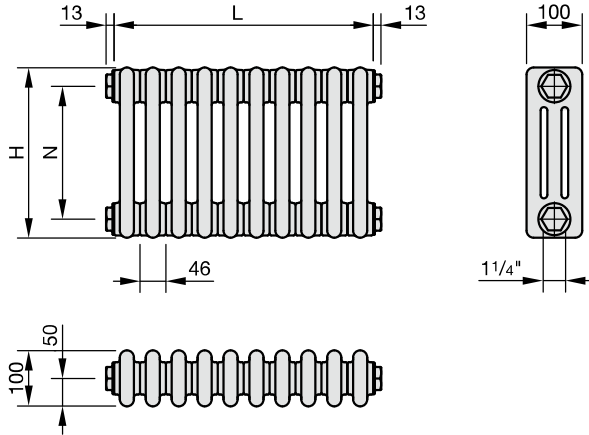
- H = Height
- L = Length = elements x 46 mm
- N = Boss spacing = H - 58 mm
- T = Depth of radiator
- A = Surface
- V = Water content
- M = Weight
- s_k = Proportion of radiation
- q_{ms} = Nominal flow rate
- n = Exponent
- Φ_s = Nominal heat output according to EN 442 (75/65/20 °C)
- Φ = Thermal output at system temperatures

Dimensions in mm

Technical specifications per element

Model	H mm	N mm	T mm	A m ²	V dm ³	M kg	s_k %	q_{ms} kg/h	Exp. n	$\Phi_s = \Delta T 50 K$ EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
2019	177	119	62	0,02	0,3	0,32	30	1,0	1,26	14,5	11,7	7,6
2026	260	202	62	0,04	0,3	0,44	25	2,0	1,25	21,1	17,1	11,1
2030	292	234	62	0,04	0,4	0,49	25	2,0	1,24	23,6	19,1	12,4
2035	342	284	62	0,05	0,4	0,57	24	2,0	1,24	27,5	22,3	14,5
2040	392	334	62	0,06	0,4	0,63	25	3,0	1,24	31,2	25,3	16,4
2045	442	384	62	0,07	0,5	0,70	24	3,0	1,24	34,9	28,3	18,4
2050	492	434	62	0,07	0,5	0,77	23	3,0	1,25	38,4	31,1	20,1
2055	542	484	62	0,08	0,6	0,84	23	4,0	1,25	41,9	33,9	22,0
2060	592	534	62	0,09	0,6	0,90	23	4,0	1,25	45,3	36,6	23,7
2075	742	684	62	0,11	0,7	1,11	22	5,0	1,25	55,0	44,5	28,8
2090	892	834	62	0,14	0,8	1,31	22	5,0	1,25	63,9	51,7	33,5
2100	992	934	62	0,15	0,9	1,44	22	6,0	1,25	69,5	56,2	36,4
2110	1092	1034	62	0,17	1,0	1,58	22	6,0	1,25	74,7	60,4	39,2
2120	1192	1134	62	0,18	1,1	1,72	22	7,0	1,26	82,7	66,8	43,1
2150	1492	1434	62	0,23	1,3	2,12	23	9,0	1,28	104,0	83,7	53,7
2180	1792	1734	62	0,28	1,5	2,53	23	11,0	1,31	124,0	99,3	63,0
2200	1992	1934	62	0,31	1,7	2,80	23	12,0	1,31	138,0	110,5	70,1
2220	2192	2134	62	0,34	1,9	3,07	23	13,0	1,31	151,0	120,9	76,7
2250	2492	2434	62	0,39	2,1	3,47	23	15,0	1,30	171,0	137,2	87,3
2280	2792	2734	62	0,44	2,4	3,88	23	16,0	1,30	189,0	151,6	96,5
2300	2992	2934	62	0,47	2,5	4,15	23	17,0	1,30	201,0	161,2	102,7

Model 3-column



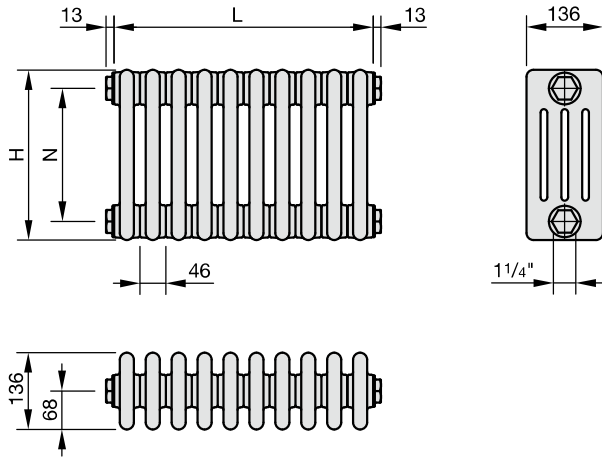
- H = Height
- L = Length = elements x 46 mm
- N = Boss spacing = H - 66 mm
- T = Depth of radiator
- A = Surface
- V = Water content
- M = Weight
- s_k = Proportion of radiation
- q_{ms} = Nominal flow rate
- n = Exponent
- Φ_s = Nominal heat output according to EN 442 (75/65/20 °C)
- Φ = Thermal output at system temperatures

Dimensions in mm

Technical specifications per element

Model	H mm	N mm	T mm	A m ²	V dm ³	M kg	s_k %	q_{ms} kg/h	Exp. n	$\Phi_s = \Delta T 50 K$ EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
3019	185	119	100	0,04	0,4	0,49	23	2,0	1,27	20,1	16,2	10,4
3026	260	194	100	0,06	0,5	0,66	21	2,0	1,25	27,9	22,6	14,6
3030	300	234	100	0,07	0,6	0,74	20	3,0	1,25	32,0	25,9	16,8
3035	350	284	100	0,08	0,6	0,85	20	3,0	1,25	37,0	29,9	19,4
3040	400	334	100	0,09	0,7	0,96	19	4,0	1,25	41,9	33,9	22,0
3045	450	384	100	0,10	0,7	1,07	19	4,0	1,25	46,8	37,9	24,5
3050	500	434	100	0,11	0,8	1,17	18	4,0	1,25	51,6	41,7	27,0
3055	550	484	100	0,12	0,9	1,28	18	5,0	1,26	56,3	45,5	29,4
3060	600	534	100	0,14	0,9	1,38	18	5,0	1,26	60,9	49,2	31,8
3075	750	684	100	0,17	1,1	1,70	18	6,0	1,26	74,3	60,0	38,7
3090	900	834	100	0,21	1,3	2,01	18	7,0	1,27	87,0	70,1	45,1
3100	1000	934	100	0,23	1,4	2,22	18	8,0	1,27	95,1	76,7	49,3
3110	1100	1034	100	0,25	1,5	2,43	18	9,0	1,28	103,0	82,9	53,2
3120	1200	1134	100	0,28	1,6	2,65	18	10,0	1,29	115,0	92,4	59,0
3150	1500	1434	100	0,35	2,0	3,28	18	12,0	1,31	140,0	112,1	71,1
3180	1800	1734	100	0,42	2,4	3,91	18	14,0	1,33	166,0	132,5	83,5
3200	2000	1934	100	0,47	2,6	4,33	18	16,0	1,33	183,0	146,0	92,0
3220	2200	2134	100	0,51	2,9	4,75	18	17,0	1,32	200,0	159,9	101,1
3250	2500	2434	100	0,58	3,2	5,38	18	19,0	1,32	225,0	179,9	113,7
3280	2800	2734	100	0,65	3,6	6,02	18	22,0	1,30	251,0	201,3	128,2
3300	3000	2934	100	0,70	3,9	6,44	18	23,0	1,30	269,0	215,8	137,4

Model 4-column



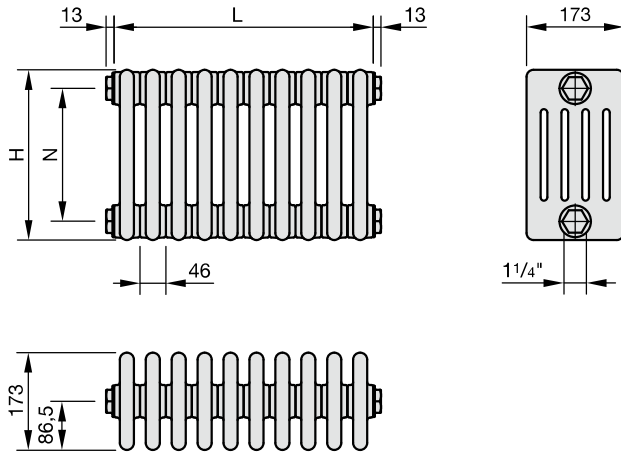
- H = Height
- L = Length = elements x 46 mm
- N = Boss spacing = H - 66 mm
- T = Depth of radiator
- A = Surface
- V = Water content
- M = Weight
- s_k = Proportion of radiation
- q_{ms} = Nominal flow rate
- n = Exponent
- Φ_s = Nominal heat output according to EN 442 (75/65/20 °C)
- Φ = Thermal output at system temperatures

Dimensions in mm

Technical specifications per element

Model	H mm	N mm	T mm	A m ²	V dm ³	M kg	s _k %	q _{ms} kg/h	Exp. n	Φ _s =ΔT 50 K EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
4019	200	134	136	0,06	0,6	0,67	20	2,0	1,26	28,4	22,9	14,8
4026	260	194	136	0,08	0,7	0,84	18	3,0	1,25	36,5	29,5	19,1
4030	300	234	136	0,09	0,7	0,96	18	4,0	1,25	41,9	33,9	22,0
4035	350	284	136	0,11	0,8	1,10	17	4,0	1,25	48,5	39,2	25,4
4040	400	334	136	0,12	0,9	1,24	16	5,0	1,26	54,9	44,3	28,6
4045	450	384	136	0,14	1,0	1,37	16	5,0	1,26	61,3	49,5	32,0
4050	500	434	136	0,15	1,0	1,51	16	6,0	1,26	67,6	54,6	35,2
4055	550	484	136	0,17	1,1	1,65	16	6,0	1,26	73,7	59,5	38,4
4060	600	534	136	0,19	1,2	1,78	15	7,0	1,27	79,8	64,3	41,4
4075	750	684	136	0,23	1,4	2,19	15	8,0	1,27	97,4	78,5	50,5
4090	900	834	136	0,28	1,7	2,61	15	10,0	1,28	114,0	91,7	58,8
4100	1000	934	136	0,31	1,8	2,88	15	11,0	1,29	125,0	100,4	64,2
4110	1100	1034	136	0,34	2,0	3,15	15	12,0	1,29	135,0	108,5	69,3
4120	1200	1134	136	0,37	2,1	3,43	15	13,0	1,30	147,0	117,9	75,1
4150	1500	1434	136	0,47	2,6	4,25	15	15,0	1,31	180,0	144,1	91,5
4180	1800	1734	136	0,56	3,1	5,07	15	18,0	1,33	213,0	170,0	107,1
4200	2000	1934	136	0,63	3,4	5,61	15	20,0	1,32	234,0	187,1	118,3
4220	2200	2134	136	0,69	3,8	6,16	15	22,0	1,32	256,0	204,6	129,4
4250	2500	2434	136	0,78	4,3	6,98	15	25,0	1,31	289,0	231,4	146,9
4280	2800	2734	136	0,88	4,8	7,80	15	28,0	1,30	323,0	259,1	165,0
4300	3000	2934	136	0,94	5,1	8,35	15	30,0	1,30	345,0	276,7	176,2

Model 5-column



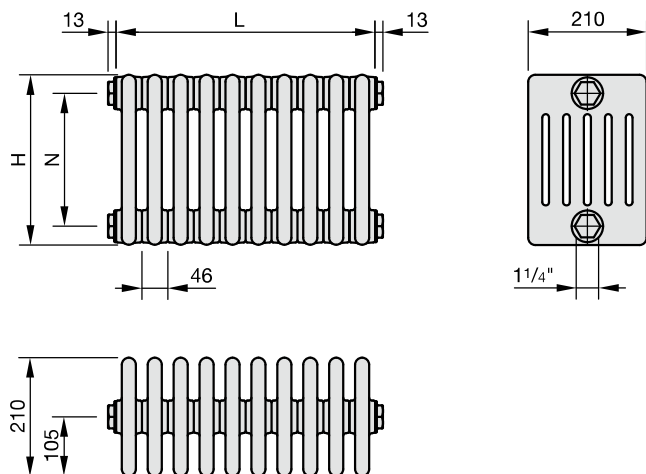
- H = Height
- L = Length = elements x 46 mm
- N = Boss spacing = H - 66 mm
- T = Depth of radiator
- A = Surface
- V = Water content
- M = Weight
- s_k = Proportion of radiation
- q_{ms} = Nominal flow rate
- n = Exponent
- Φ_s = Nominal heat output according to EN 442 (75/65/20 °C)
- Φ = Thermal output at system temperatures

Dimensions in mm

Technical specifications per element

Model	H mm	N mm	T mm	A m ²	V dm ³	M kg	s _k %	q _{ms} kg/h	Exp. n	Φ _s =ΔT 50 K EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
5019	200	134	173	0,08	0,7	0,90	19	3,0	1,25	35,0	28,3	18,3
5026	260	194	173	0,10	0,8	1,11	17	4,0	1,25	45,1	36,5	23,6
5030	300	234	173	0,12	0,9	1,26	16	4,0	1,25	51,7	41,8	27,1
5035	350	284	173	0,13	1,0	1,44	15	5,0	1,26	59,9	48,4	31,2
5040	400	334	173	0,15	1,1	1,61	15	6,0	1,26	67,9	54,8	35,4
5045	450	384	173	0,17	1,2	1,78	14	7,0	1,26	75,8	61,2	39,5
5050	500	434	173	0,19	1,3	1,95	14	7,0	1,27	83,5	67,3	43,3
5055	550	484	173	0,20	1,3	2,12	14	8,0	1,27	91,1	73,4	47,3
5060	600	534	173	0,23	1,5	2,29	13	8,0	1,27	98,6	79,5	51,1
5075	750	684	173	0,29	1,8	2,80	13	10,0	1,29	120,0	96,4	61,6
5090	900	834	173	0,35	2,1	3,32	13	12,0	1,30	141,0	113,1	72,0
5100	1000	934	173	0,39	2,3	3,66	13	13,0	1,30	154,0	123,5	78,7
5110	1100	1034	173	0,43	2,5	4,00	13	14,0	1,31	167,0	133,7	84,9
5120	1200	1134	173	0,47	2,7	4,34	13	15,0	1,31	179,0	143,3	91,0
5150	1500	1434	173	0,59	3,3	5,37	13	19,0	1,32	219,0	175,1	110,7
5180	1800	1734	173	0,70	3,9	6,39	13	22,0	1,32	259,0	207,0	130,9
5200	2000	1934	173	0,78	4,3	7,08	13	25,0	1,32	285,0	227,8	144,1
5220	2200	2134	173	0,86	4,7	7,76	13	27,0	1,32	312,0	249,4	157,7
5250	2500	2434	173	0,98	5,3	8,78	13	30,0	1,31	352,0	281,9	178,9
5280	2800	2734	173	1,10	5,9	9,81	13	34,0	1,30	392,0	314,4	200,2
5300	3000	2934	173	1,18	6,4	10,49	13	36,0	1,30	420,0	336,9	214,5

Model 6-column



- H = Height
- L = Length = elements x 46 mm
- N = Boss spacing = H - 66 mm
- T = Depth of radiator
- A = Surface
- V = Water content
- M = Weight
- s_k = Proportion of radiation
- q_{ms} = Nominal flow rate
- n = Exponent
- Φ_s = Nominal heat output according to EN 442 (75/65/20 °C)
- Φ = Thermal output at system temperatures

Dimensions in mm

Technical specifications per element

Model	H mm	N mm	T mm	A m ²	V dm ³	M kg	s _k %	q _{ms} kg/h	Exp. n	Φ _s =ΔT 50 K EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
6019	200	134	210	0,09	0,8	1,09	19	4,0	1,27	41,5	33,5	21,5
6026	260	194	210	0,12	1,0	1,35	18	5,0	1,27	53,5	43,1	27,8
6030	300	234	210	0,14	1,1	1,52	15	5,0	1,26	61,3	49,5	32,0
6035	350	284	210	0,16	1,2	1,74	14	6,0	1,26	71,0	57,3	37,0
6040	400	334	210	0,19	1,3	1,94	14	7,0	1,27	80,5	64,9	41,8
6045	450	384	210	0,21	1,4	2,15	13	8,0	1,27	89,8	72,4	46,6
6050	500	434	210	0,23	1,5	2,35	13	9,0	1,28	99,0	79,7	51,1
6055	550	484	210	0,26	1,6	2,55	12	9,0	1,28	108,0	86,9	55,7
6060	600	534	210	0,28	1,8	2,76	12	10,0	1,29	117,0	94,0	60,1
6075	750	684	210	0,35	2,1	3,37	12	12,0	1,30	143,0	114,7	73,0
6090	900	834	210	0,42	2,5	3,98	12	14,0	1,31	167,0	133,7	84,9
6100	1000	934	210	0,47	2,7	4,38	12	16,0	1,31	183,0	146,5	93,0
6110	1100	1034	210	0,52	3,0	4,79	12	17,0	1,32	198,0	158,3	100,1
6120	1200	1134	210	0,56	3,2	5,20	12	18,0	1,32	210,0	167,9	106,2
6150	1500	1434	210	0,70	4,0	6,42	12	22,0	1,32	256,0	204,6	129,4
6180	1800	1734	210	0,85	4,7	7,64	12	26,0	1,33	303,0	241,8	152,4
6200	2000	1934	210	0,94	5,2	8,46	12	29,0	1,32	334,0	267,0	168,8
6220	2200	2134	210	1,03	5,6	9,27	12	31,0	1,32	365,0	291,8	184,5
6250	2500	2434	210	1,18	6,3	10,49	12	35,0	1,32	412,0	329,3	208,3
6280	2800	2734	210	1,33	7,0	11,71	12	39,0	1,30	459,0	368,2	234,4
6300	3000	2934	210	1,41	7,5	12,53	12	42,0	1,30	491,0	393,8	250,8