

zehnder

always the
best climate

Zehnder Charleston

Technology 2022 - Sales International



ALWAYS THE BEST CLIMATE

“We strive to improve the quality of life by providing the finest indoor climate solutions.”



Excellent team

Every day we combine passion, expert knowledge and commitment to give you the best results.



Great solutions, products and services

Great products and unique service for an energy-efficient, healthy and comfortable indoor climate.

WE ARE THE SPECIALISTS FOR A HEALTHY, COMFORTABLE AND ENERGY-EFFICIENT

The broad and clearly structured portfolio from the Zehnder Group is split into five product lines. Consequently, we can provide our customers with the right product, perfect system and matching service for all types of projects – from new build to renovations, single or multi-occupancy homes, as well as commercial projects. This variety ensures that our wealth of experience is continuously expanding, providing tangible added value to our customers on a daily basis.



Comfortable indoor ventilation

Our comfortable indoor ventilation is energy-efficient and provides a healthy indoor climate. It promotes the wellbeing of the occupants and increases the value of the property.

OUR BRAND REPRESENTS INNOVATION, QUALITY AND DESIGN

zehnder

The Zehnder brand offers excellent indoor climate solutions within the product lines of decorative radiators, comfortable indoor ventilation, heating and cooling ceiling and clean air solutions.

INNOVATION OVER 5 GENERATIONS



First choice for customers

Always close to the needs of our customers, to grow with you and overcome all challenges together.

MANUFACTURER OF THE WORLD'S

1st

STEEL AND BATHROOM RADIATORS

REPRESENTED IN MORE THAN

70 COUNTRIES

AROUND

3,500

EMPLOYEES

17 OF OUR OWN PRODUCTION PLANTS IN EUROPE, NORTH AMERICA AND CHINA

INNOVATION SINCE

1895

900 PATENTS AND DESIGN RIGHTS THROUGHOUT THE WORLD

AROUND

40,000

TRAINED CUSTOMERS PER YEAR

INDOOR CLIMATE



Decorative radiators

Our individual decorative radiators make every room – whether at home or in commercial or public buildings – not only warmer, but also more attractive. They combine iconic design with outstanding comfort experience.



Heating and cooling ceiling

The ceiling is the perfect place to supply a room with convenient heating and cooling. Energy-efficient climate via radiant panels work perfectly with our suite of solutions from office to manufacturing spaces.



Clean air solutions

Air cleaning systems from Zehnder effectively reduce the amount of dust and other particles in the air. The result: clean working environments, significantly improved employee health and enhanced business performance.

BEST QUALITY CERTIFICATES

Zehnder Group products are frequently awarded prizes for design and innovative technology.



General Sales and Delivery Conditions:

Our General Sales and Delivery Conditions apply. You can find these under “Legal notice” on our homepage at www.international.zehnder-systems.com.

About	Zehnder Charleston - discover the original		4
Zehnder	Zehnder Charleston Benefits		8
Charleston	Zehnder Charleston Individual Solutions		10
	Zehnder Charleston Variety		12
<hr/>			
Zehnder	Zehnder Charleston		17
Charleston radia-	Zehnder Charleston Clinic		57
tors	Zehnder Charleston Retrofit		93
	Zehnder Charleston Turned		115
	Zehnder Charleston Bench		121
	Zehnder Radiator Bench		129
	Zehnder Charleston Electric		137
<hr/>			
Accessories	Mounting Sets		144
	Valves		153
	Rail		159
	Miscellaneous		159
<hr/>			
General	Keyword list		162
	Pressure loss graph		167
	Conversion table		168
	Packaging		170
	Coloursystem		172

A radiator with tradition. The Zehnder Charleston.

Discover the original. Zehnder applied for the patent for Europe's first tube radiator as early as 1930 – marking the birth of Zehnder Charleston.

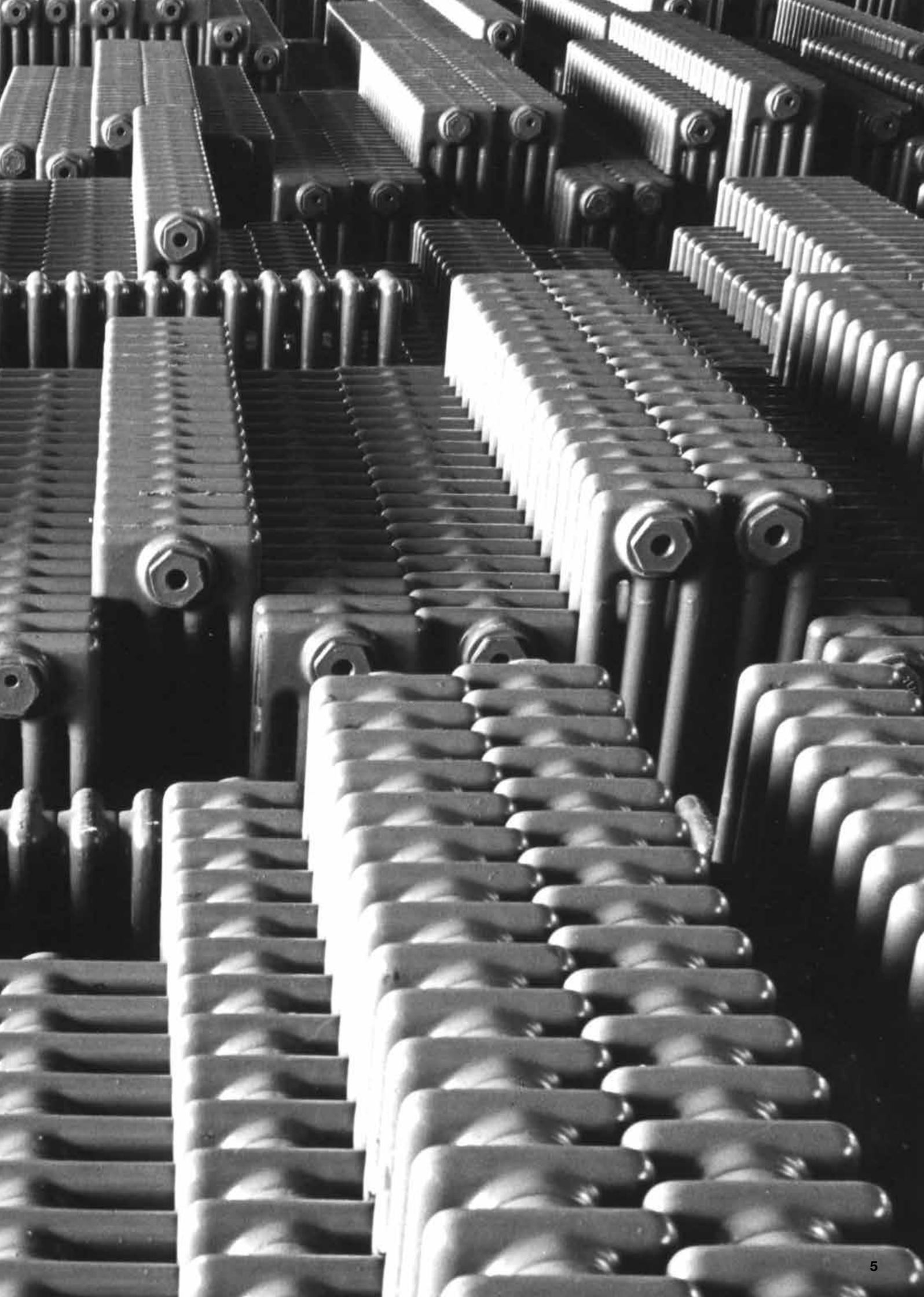
This began a success story that continues to the present day. Maybe it's due to the high quality "Made in Germany", maybe it's the timeless contemporary designs, maybe it's the countless customized solutions – or maybe it's all these things: Zehnder Charleston is and remains the classic, or better put, the original tube radiator.

Today, with an over 100 year company history, Zehnder is the specialist in heating, cooling, and fresh clean air. In addition to radiators for the bathroom, living room and buildings, our product portfolio also includes heating and cooling radiators, climate-controlling systems and Clean Air Solutions to filter dust.

As you can see: With Zehnder, you are choosing experience and know-how, a product portfolio that has something for everyone – and an expert service, that is tailored to your requirements and needs.

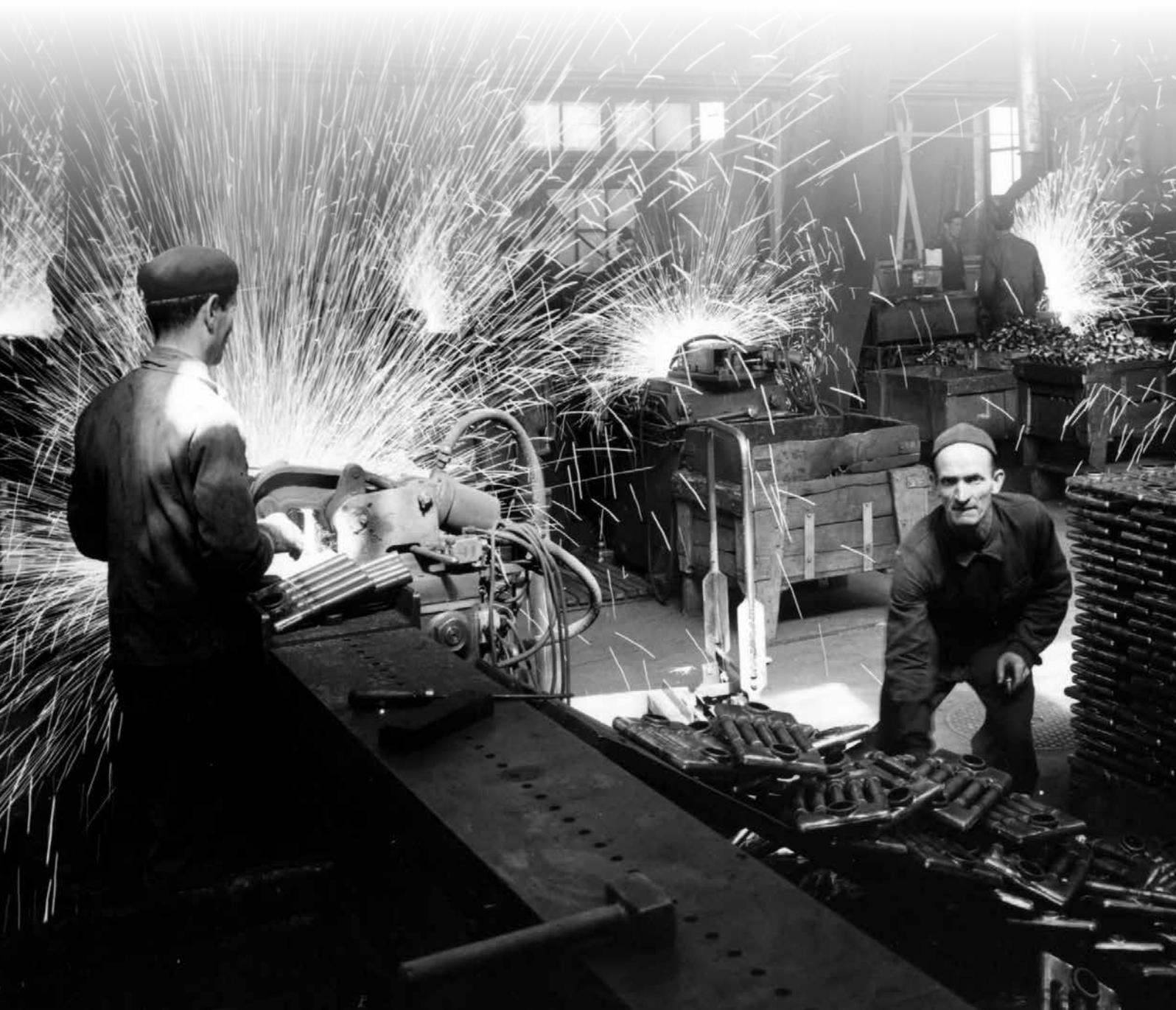
What's your project? The original Zehnder Charleston helps you realize your goals.





An idea generates sparks.

A classic is born.





TODAY AS ALWAYS, A FIRM FAVOURITE.

Even an original has to move with the times. For Zehnder Charleston, this meant having to switch over to modern industrial production methods: the manufacturing of Zehnder Charleston with LaZer made. This innovative laser welding method for the production of sectional radiators is setting new standards for quality and technology in terms of precision, quality and functionality.



MASTERFUL. THE ZEHNDER FACTORY.

For all the technological progress, there are some things that only “good old-fashioned handicraft” can accomplish: In the Zehnder factory, special productions are made to individual requirements and wishes – masterfully.



MADE IN GERMANY. PUT THROUGH ITS PACES.

You can rightly expect that Zehnder Charleston is made – and tested – in Germany. For example, all radiators are fully tested for leaks. And delivery is also done with care: Sturdy cardboard packaging carries the radiator safely to its destination and a further packaging of stretch film protects it during and after installation.

Zehnder Charleston.

Benefits of the classic radiator.



THE ORIGINAL

Often copied, but never bettered: When Zehnder registered its patent for Europe's first steel tubular radiator on March 18, 1930, no-one could have known that this invention would still be at the cutting edge over almost 90 years later. Zehnder Charleston was, is and remains without doubt a truly timeless classic.

1



MADE IN GERMANY

Innovation, design, quality – you should expect nothing but the best from Zehnder. All radiators are 100 % approved against leaks and can even be delivered galvanized for humid rooms. The specially developed primer and powder coating process guarantees a smooth and durable surface.

2



COSY WARMTH - EVERYWHERE

Zehnder Charleston ensures a balanced and pleasant room climate. Its large heating surface enables the Zehnder Charleston to powerful radiant heat and rapid warm-up period ensure cosy warmth straight away. And all this with the minimum of dust movement, which is good news for people with allergies.

3



CLEAN, HYGIENIC AND HEALTH

The distance between the elements enables easy cleaning of the radiator. Zehnder Charleston meets the highest hygiene standards (Certified by Düsseldorf University), and can also be delivered with the TopCare anti-microbe surface (in RAL 9016). The paint contains no solvents.

4

5

WARMTH AS YOU WANT IT

Curved, single or multi-angle or as a room divider: Thanks to its countless special designs, Zehnder Charleston can fit in all buildings. Even the building heights of 30 - 600 cm can be undercut or exceeded as required.



6

MORE THAN JUST WHITE

Zehnder Charleston is available in over 700 colours and surfaces, from classic tones, contemporary and metallic colours through to metal surfaces, such as Technoline – this means you have to make no compromises when it comes to aesthetics. All these lacquers are free of solvents and heavy metals, and therefore do not release any toxic fumes.



7

QUICK AND SIMPLE

Thanks to the Zehnder EasyFix assembly system, all radiators can be installed simply, safely and quickly. This saves installation time, and money. The location of the mounting points behind the tubes can barely be seen – another aesthetic benefit.



8

DELIVERED AS ORDERED

A bar code-based logistics system ensures reliable, punctual delivery. A robust fully cardboard packaging prevents any kind of transport damages, and an extra film covering protects the radiator during and after installation. It is only removed during the move-in.



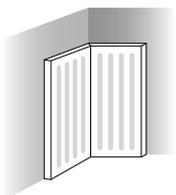
Individual solutions

Homes, studios, offices, banks, hospitals...Buildings have highly varied uses, and their architecture can be just as varied. So it's good when top plans even work out for warmth: Zehnder's radiators allow you to realise your ideas in the most diverse of architectural designs.



Curved





Angled

Zehnder Radiator Bench

Enjoy total relaxation:

The Zehnder radiator bench offers a warm and comfortable seating area.

Heating and a seat - a space-saving alternative, for example for the hall. In addition: You can choose the bench type yourself.



Zehnder Charleston Bench

Warmth through the bench:
Thanks to Zehnder Charleston
Bench, you can turn your
radiator into an additional
storage option or a bench
upon which you can sit and
enjoy the glowing warmth.
In addition: You can choose
the bench type yourself.



Zehnder Charleston Retrofit

From old to new: Zehnder Charleston Retrofit is the right choice for swapping old for new, and cold for warm. Can be mounted to existing connections without major building work.



Zehnder Charleston Turned

Zehnder Charleston Turned, the original steel tubular radiator with a new look, boasts a fresh design and great performance. The orientation, rotated by 90°, lends the classic radiator a new dimension and gives Zehnder Charleston Turned an exceptionally slim design. Due to its outstanding performance, the steel tubular radiator turns large living spaces into an oasis of well-being. Available in almost any colour and finish from the Zehnder colour chart.



Zehnder Charleston Completo

Top preliminary work:
Zehnder Charleston Completo
is the ideal radiator for new buildings
– pre-installation in the unfinished
structure, and then radiator
installation once the building is
complete.
And thanks to it's integrated valve, not
only the mounting is easier, but also
the operation.



Zehnder Charleston Clinic

Easy cleaning, greater
hygiene: Thanks to the large space
between the tubes, the Charleston
Clinic is quick and easy to clean,
making it ideal for doctor's surgeries,
hospitals and children's bedrooms.





	Overview of models	Product description	Overview detail	Special versions	Connections	Fixings	Technical data	Installation points
Zehnder Charleston								
<ul style="list-style-type: none"> ■ Classic tubular radiator ■ Element length 46 mm ■ Flexible connection options 	18	19	21	41	43	47	50	55

Zehnder Charleston



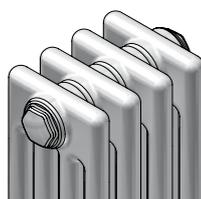
Zehnder Charleston



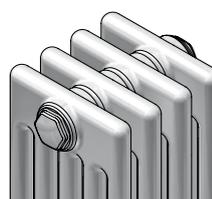
2-column



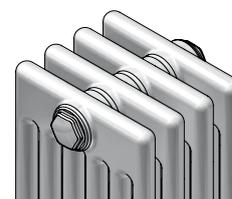
3-column



4-column



5-column



6-column

Height ¹⁾ mm	Depth mm				
	62	100	136	173	210
260	2026	3026	4026	5026	6026
300	2030	3030	4030	5030	6030
350	2035	3035	4035	5035	6035
400	2040	3040	4040	5040	6040
450	2045	3045	4045	5045	6045
500	2050	3050	4050	5050	6050
550	2055	3055	4055	5055	6055
600	2060	3060	4060	5060	6060
750	2075	3075	4075	5075	6075
900	2090	3090	4090	5090	6090
1000	2100	3100	4100	5100	6100
1100	2110	3110	4110	5110	6110
1200	2120	3120	4120	5120	6120
1500	2150	3150	4150	5150	6150
1800	2180	3180	4180	5180	6180
2000	2200	3200	4200	5200	6200
2200	2220	3220	4220	5220	6220
2500	2250	3250	4250	5250	6250
2800	2280	3280	4280	5280	6280
3000	2300	3300	4300	5300	6300

¹⁾The values shown here are the so-called nominal height; the exact height varies by a few mm for 2-column radiators and for some of the 3-column radiators as well, see "Technical specifications"; larger heights over 3000 mm or intermediate heights are available on request.

Maximum radiator lengths on piece (per block)

Zehnder Charleston (also see price tables from page 21 onwards)

Model	Height mm						
	260 - 600	> 600 - 750	> 750 - 900	> 900 - 1000	> 1000 - 2000	> 2000 - 2500	> 2500 - 3000
2-, 3-column	64	64	64	64	22	22	22
4-column	64	64	64	60	22	22	22
5-column	64	64	50	50	22	22	17
6-column	64	55	46	42	22	17	14

Zehnder Charleston



Zehnder Charleston

Product description

Zehnder Charleston – the original tube radiator.

The construction of individual elements gives the multi-column radiator enormous possibilities for adapting to the architectural circumstances found in new and old buildings. Nowadays, Zehnder Charleston generally comes with a custom finish, delivered in a single piece with connections to order. In the case of excess lengths or lengths on request, the radiator can also be delivered to the building site in several parts and assembled on site.

Zehnder Charleston meets individual expectations for the widest range of applications and has therefore been successfully used in all areas of buildings for decades. From private homes to public buildings, schools, homes, prisons, offices, shops as well as workshops and industrial buildings. Its versatility and variability are what allow the Charleston to create such varied looks, combined with the hygienic suitability (certificate) and cleanability, safety aspects during mounting and installation.

Special versions by agreement supplement the products on offer. No other radiator is as flexible in all regards – and everything is made in Germany.

Technical specifications

- Steel round tubes Ø 25 mm
- Header in sheet steel
- Length of the individual element 46 mm
- Priming and powder coating to DIN 55900
- Thermal output tested to EN 442; with CE marking
- Maximum operating pressure 10 bar
- Maximum operating temperature 110 °C



Completo version

Customisation options

- Large choice of connection types, including integrated valve
- Mounting sets for all applications
- Special colours and antibacterial coating
- Galvanised and painted
- Energy saving thermal radiation shield for installation in front of windows
- Special shapes: angled or curved, etc.
- High pressure version up to max. 18 bar
- Operating temperature at 120 °C on request

Advantages

- Residue-free laser welding technology LaZer made
- Classic elegance
- Accident-safe
- Cleaning with Zehnder lambswool cleaning brush
- Simple and secure with non-lift-out feature: Installation with Zehnder EasyFix
- Radiant heat with feel-good factor
- Energy-efficient for use in low temperature heating systems

Scope of delivery for standard version

- Primed and painted in RAL 9016
- Connections 4 x ½" female thread at front
- Connection S001: 1 blanking plug ½", directional air vent ½"
- Complete packaging in stretch film and carton
- Heights greater than 2200 mm with stabilising brace welded at the factory

Scope of delivery for Completo version

- Primed and painted in RAL 9016
- Valve unit integrated on side, with valve insert AV 9, max. flow rate 250 kg/h
- Connections 2 x ½" female thread from bottom 50 mm
- Integrated baffle
- 1 directional air vent ½"
- Complete packaging in stretch film and carton

Zehnder Charleston



Calculation example of a standard version

Price per element	Amount of elements	Colour	Connection	Accessories
3030	14	RAL 9016	Nº 1270	CVD0 + BH in RAL 9016
18,40 €	257,60 €	0 € (Standard)	0 € (Standard)	18,41 €
2026	32	RAL 3000	Nº V001	SMB
16,67 €	533,40 €	20% = 106,69 €	159,33 €	41,05 €



Zehnder Charleston

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

Height		260				
Model		2026	3026	4026	5026	6026
Depth	mm	62	100	136	173	210
Exponent	n	1,25	1,25	1,25	1,25	1,27
Max. number of elements		64	64	64	64	64
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	85	112	146	181	214
5	230	106	140	183	226	268
6	276	127	168	219	271	321
7	322	148	196	256	316	375
8	368	169	224	292	361	428
9	414	190	252	329	406	482
10	460	211	279	365	451	535
11	506	233	307	402	497	589
12	552	254	335	438	542	642
13	598	275	363	475	587	696
14	644	296	391	511	632	749
15	690	317	419	548	677	803
16	736	338	447	584	722	856
17	782	359	475	621	767	910
18	828	380	503	657	812	963
19	874	401	531	694	857	1017
20	920	422	558	730	902	1070
21	966	444	586	767	948	1124
22	1012	465	614	803	993	1177
23	1058	486	642	840	1038	1231
24	1104	507	670	876	1083	1284
25	1150	528	698	913	1128	1338
26	1196	549	726	949	1173	1391
27	1242	570	754	986	1218	1445
28	1288	591	782	1022	1263	1498
29	1334	612	810	1059	1308	1552
30	1380	633	837	1095	1353	1605
31	1426	655	865	1132	1399	1659
32	1472	676	893	1168	1444	1712
33	1518	697	921	1205	1489	1766
34	1564	718	949	1241	1534	1819
35	1610	739	977	1278	1579	1873
36	1656	760	1005	1314	1624	1926
37	1702	781	1033	1351	1669	1980
38	1748	802	1061	1387	1714	2033

Warning: Weight over 100 kg

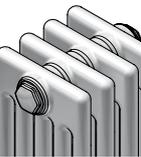
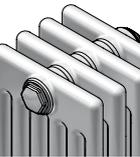
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		300				
						
Model		2030	3030	4030	5030	6030
Depth	mm	62	100	136	173	210
Exponent	n	1,24	1,25	1,25	1,25	1,26
Max. number of elements		64	64	64	64	64
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	95	128	168	207	246
5	230	118	160	210	259	307
6	276	142	192	252	311	368
7	322	166	224	294	362	430
8	368	189	256	336	414	491
9	414	213	288	378	466	552
10	460	236	320	419	517	613
11	506	260	352	461	569	675
12	552	284	384	503	621	736
13	598	307	416	545	673	797
14	644	331	448	587	724	859
15	690	354	480	629	776	920
16	736	378	512	671	828	981
17	782	402	544	713	879	1043
18	828	425	576	755	931	1104
19	874	449	608	797	983	1165
20	920	472	640	838	1034	1226
21	966	496	672	880	1086	1288
22	1012	520	704	922	1138	1349
23	1058	543	736	964	1190	1410
24	1104	567	768	1006	1241	1472
25	1150	590	800	1048	1293	1533
26	1196	614	832	1090	1345	1594
27	1242	638	864	1132	1396	1656
28	1288	661	896	1174	1448	1717
29	1334	685	928	1216	1500	1778
30	1380	708	960	1257	1551	1839
31	1426	732	992	1299	1603	1901
32	1472	756	1024	1341	1655	1962
33	1518	779	1056	1383	1707	2023
34	1564	803	1088	1425	1758	2085
35	1610	826	1120	1467	1810	2146
36	1656	850	1152	1509	1862	2207
37	1702	874	1184	1551	1913	2269
38	1748	897	1216	1593	1965	2330

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

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

Height		350				
Model		2035	3035	4035	5035	6035
Depth	mm	62	100	136	173	210
Exponent	n	1,24	1,25	1,25	1,26	1,26
Max. number of elements		64	64	64	64	64
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	110	148	194	240	284
5	230	138	185	243	300	355
6	276	165	222	291	360	426
7	322	193	259	340	420	497
8	368	220	296	388	480	568
9	414	248	333	437	540	639
10	460	275	370	485	599	710
11	506	303	407	534	659	781
12	552	330	444	582	719	852
13	598	358	481	631	779	923
14	644	385	518	679	839	994
15	690	413	555	728	899	1065
16	736	440	592	776	959	1136
17	782	468	629	825	1019	1207
18	828	495	666	873	1079	1278
19	874	523	703	922	1139	1349
20	920	550	740	970	1198	1420
21	966	578	777	1019	1258	1491
22	1012	605	814	1067	1318	1562
23	1058	633	851	1116	1378	1633
24	1104	660	888	1164	1438	1704
25	1150	688	925	1213	1498	1775
26	1196	715	962	1261	1558	1846
27	1242	743	999	1310	1618	1917
28	1288	770	1036	1358	1678	1988
29	1334	798	1073	1407	1738	2059
30	1380	825	1110	1455	1797	2130
31	1426	853	1147	1504	1857	2201
32	1472	880	1184	1552	1917	2272
33	1518	908	1221	1601	1977	2343
34	1564	935	1258	1649	2037	2414
35	1610	963	1295	1698	2097	2485
36	1656	990	1332	1746	2157	2556
37	1702	1018	1369	1795	2217	2627
38	1748	1045	1406	1843	2277	2698

Warning: Weight over 100 kg

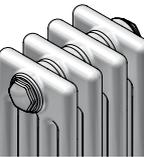
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		400				
						
Model		2040	3040	4040	5040	6040
Depth	mm	62	100	136	173	210
Exponent	n	1,24	1,25	1,26	1,26	1,27
Max. number of elements		64	64	64	64	64
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	125	168	220	272	322
5	230	156	210	275	340	403
6	276	188	252	330	408	483
7	322	219	294	385	476	564
8	368	250	336	440	544	644
9	414	281	378	495	612	725
10	460	312	419	549	679	805
11	506	344	461	604	747	886
12	552	375	503	659	815	966
13	598	406	545	714	883	1047
14	644	437	587	769	951	1127
15	690	468	629	824	1019	1208
16	736	500	671	879	1087	1288
17	782	531	713	934	1155	1369
18	828	562	755	989	1223	1449
19	874	593	797	1044	1291	1530
20	920	624	838	1098	1358	1610
21	966	656	880	1153	1426	1691
22	1012	687	922	1208	1494	1771
23	1058	718	964	1263	1562	1852
24	1104	749	1006	1318	1630	1932
25	1150	780	1048	1373	1698	2013
26	1196	812	1090	1428	1766	2093
27	1242	843	1132	1483	1834	2174
28	1288	874	1174	1538	1902	2254
29	1334	905	1216	1593	1970	2335
30	1380	936	1257	1647	2038	2415
31	1426	968	1299	1702	2105	2496
32	1472	999	1341	1757	2173	2576
33	1518	1030	1383	1812	2241	2657
34	1564	1061	1425	1867	2309	2737
35	1610	1092	1467	1922	2377	2818
36	1656	1124	1509	1977	2445	2898
37	1702	1155	1551	2032	2513	2979
38	1748	1186	1593	2087	2581	3059

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

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

Height		450				
mm						
Model		2045	3045	4045	5045	6045
Depth	mm	62	100	136	173	210
Exponent	n	1,24	1,25	1,26	1,26	1,27
Max. number of elements		64	64	64	64	64
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	140	188	246	304	360
5	230	175	234	307	379	449
6	276	210	281	368	455	539
7	322	245	328	430	531	629
8	368	280	375	491	607	719
9	414	315	422	552	683	809
10	460	349	468	613	758	898
11	506	384	515	675	834	988
12	552	419	562	736	910	1078
13	598	454	609	797	986	1168
14	644	489	656	859	1062	1258
15	690	524	702	920	1137	1347
16	736	559	749	981	1213	1437
17	782	594	796	1043	1289	1527
18	828	629	843	1104	1365	1617
19	874	664	890	1165	1441	1707
20	920	698	936	1226	1516	1796
21	966	733	983	1288	1592	1886
22	1012	768	1030	1349	1668	1976
23	1058	803	1077	1410	1744	2066
24	1104	838	1124	1472	1820	2156
25	1150	873	1170	1533	1895	2245
26	1196	908	1217	1594	1971	2335
27	1242	943	1264	1656	2047	2425
28	1288	978	1311	1717	2123	2515
29	1334	1013	1358	1778	2199	2605
30	1380	1047	1404	1839	2274	2694
31	1426	1082	1451	1901	2350	2784
32	1472	1117	1498	1962	2426	2874
33	1518	1152	1545	2023	2502	2964
34	1564	1187	1592	2085	2578	3054
35	1610	1222	1638	2146	2653	3143
36	1656	1257	1685	2207	2729	3233
37	1702	1292	1732	2269	2805	3323
38	1748	1327	1779	2330	2881	3413

Warning: Weight over 100 kg

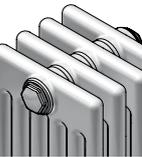
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		500				
						
Model		2050	3050	4050	5050	6050
Depth	mm	62	100	136	173	210
Exponent	n	1,25	1,25	1,26	1,27	1,28
Max. number of elements		64	64	64	64	64
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	154	207	271	334	396
5	230	192	258	338	418	495
6	276	231	310	406	501	594
7	322	269	362	474	585	693
8	368	308	413	541	668	792
9	414	346	465	609	752	891
10	460	384	516	676	835	990
11	506	423	568	744	919	1089
12	552	461	620	812	1002	1188
13	598	500	671	879	1086	1287
14	644	538	723	947	1169	1386
15	690	576	774	1014	1253	1485
16	736	615	826	1082	1336	1584
17	782	653	878	1150	1420	1683
18	828	692	929	1217	1503	1782
19	874	730	981	1285	1587	1881
20	920	768	1032	1352	1670	1980
21	966	807	1084	1420	1754	2079
22	1012	845	1136	1488	1837	2178
23	1058	884	1187	1555	1921	2277
24	1104	922	1239	1623	2004	2376
25	1150	960	1290	1690	2088	2475
26	1196	999	1342	1758	2171	2574
27	1242	1037	1394	1826	2255	2673
28	1288	1076	1445	1893	2338	2772
29	1334	1114	1497	1961	2422	2871
30	1380	1152	1548	2028	2505	2970
31	1426	1191	1600	2096	2589	3069
32	1472	1229	1652	2164	2672	3168
33	1518	1268	1703	2231	2756	3267
34	1564	1306	1755	2299	2839	3366
35	1610	1344	1806	2366	2923	3465
36	1656	1383	1858	2434	3006	3564
37	1702	1421	1910	2502	3090	3663
38	1748	1460	1961	2569	3173	3762

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

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

Height		550				
Model		2055	3055	4055	5055	6055
Depth	mm	62	100	136	173	210
Exponent	n	1,25	1,26	1,26	1,27	1,28
Max. number of elements		64	64	64	64	64
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	168	226	295	364	432
5	230	210	282	369	456	540
6	276	252	338	443	547	648
7	322	294	395	516	638	756
8	368	336	451	590	729	864
9	414	378	507	664	820	972
10	460	419	563	737	911	1080
11	506	461	620	811	1002	1188
12	552	503	676	885	1093	1296
13	598	545	732	959	1184	1404
14	644	587	789	1032	1275	1512
15	690	629	845	1106	1367	1620
16	736	671	901	1180	1458	1728
17	782	713	958	1253	1549	1836
18	828	755	1014	1327	1640	1944
19	874	797	1070	1401	1731	2052
20	920	838	1126	1474	1822	2160
21	966	880	1183	1548	1913	2268
22	1012	922	1239	1622	2004	2376
23	1058	964	1295	1696	2095	2484
24	1104	1006	1352	1769	2186	2592
25	1150	1048	1408	1843	2278	2700
26	1196	1090	1464	1917	2369	2808
27	1242	1132	1521	1990	2460	2916
28	1288	1174	1577	2064	2551	3024
29	1334	1216	1633	2138	2642	3132
30	1380	1257	1689	2211	2733	3240
31	1426	1299	1746	2285	2824	3348
32	1472	1341	1802	2359	2915	3456
33	1518	1383	1858	2433	3006	3564
34	1564	1425	1915	2506	3097	3672
35	1610	1467	1971	2580	3189	3780
36	1656	1509	2027	2654	3280	3888
37	1702	1551	2084	2727	3371	3996
38	1748	1593	2140	2801	3462	4104

Warning: Weight over 100 kg

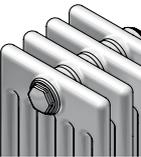
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		600				
						
Model		2060	3060	4060	5060	6060
Depth	mm	62	100	136	173	210
Exponent	n	1,25	1,26	1,27	1,27	1,29
Max. number of elements		64	64	64	64	64
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	182	244	320	395	468
5	230	227	305	399	493	585
6	276	272	366	479	592	702
7	322	318	427	559	691	819
8	368	363	488	639	789	936
9	414	408	549	719	888	1053
10	460	453	609	798	986	1170
11	506	499	670	878	1085	1287
12	552	544	731	958	1184	1404
13	598	589	792	1038	1282	1521
14	644	635	853	1118	1381	1638
15	690	680	914	1197	1479	1755
16	736	725	975	1277	1578	1872
17	782	771	1036	1357	1677	1989
18	828	816	1097	1437	1775	2106
19	874	861	1158	1517	1874	2223
20	920	906	1218	1596	1972	2340
21	966	952	1279	1676	2071	2457
22	1012	997	1340	1756	2170	2574
23	1058	1042	1401	1836	2268	2691
24	1104	1088	1462	1916	2367	2808
25	1150	1133	1523	1995	2465	2925
26	1196	1178	1584	2075	2564	3042
27	1242	1224	1645	2155	2663	3159
28	1288	1269	1706	2235	2761	3276
29	1334	1314	1767	2315	2860	3393
30	1380	1359	1827	2394	2958	3510
31	1426	1405	1888	2474	3057	3627
32	1472	1450	1949	2554	3156	3744
33	1518	1495	2010	2634	3254	3861
34	1564	1541	2071	2714	3353	3978
35	1610	1586	2132	2793	3451	4095
36	1656	1631	2193	2873	3550	4212
37	1702	1677	2254	2953	3649	4329
38	1748	1722	2315	3033	3747	4446

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

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

Height		750				
Model		2075	3075	4075	5075	6075
Depth	mm	62	100	136	173	210
Exponent	n	1,25	1,26	1,27	1,29	1,30
Max. number of elements		64	64	64	64	55
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	220	298	390	480	572
5	230	275	372	487	600	715
6	276	330	446	585	720	858
7	322	385	521	682	840	1001
8	368	440	595	780	960	1144
9	414	495	669	877	1080	1287
10	460	550	743	974	1200	1430
11	506	605	818	1072	1320	1573
12	552	660	892	1169	1440	1716
13	598	715	966	1267	1560	1859
14	644	770	1041	1364	1680	2002
15	690	825	1115	1461	1800	2145
16	736	880	1189	1559	1920	2288
17	782	935	1264	1656	2040	2431
18	828	990	1338	1754	2160	2574
19	874	1045	1412	1851	2280	2717
20	920	1100	1486	1948	2400	2860
21	966	1155	1561	2046	2520	3003
22	1012	1210	1635	2143	2640	3146
23	1058	1265	1709	2241	2760	3289
24	1104	1320	1784	2338	2880	3432
25	1150	1375	1858	2435	3000	3575
26	1196	1430	1932	2533	3120	3718
27	1242	1485	2007	2630	3240	3861
28	1288	1540	2081	2728	3360	4004
29	1334	1595	2155	2825	3480	4147
30	1380	1650	2229	2922	3600	4290
31	1426	1705	2304	3020	3720	4433
32	1472	1760	2378	3117	3840	4576
33	1518	1815	2452	3215	3960	4719
34	1564	1870	2527	3312	4080	4862
35	1610	1925	2601	3409	4200	5005
36	1656	1980	2675	3507	4320	5148
37	1702	2035	2750	3604	4440	5291
38	1748	2090	2824	3702	4560	5434

Warning: Weight over 100 kg

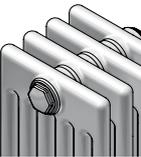
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		900				
						
Model		2090	3090	4090	5090	6090
Depth	mm	62	100	136	173	210
Exponent	n	1,25	1,27	1,28	1,30	1,31
Max. number of elements		64	64	64	50	46
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	256	348	456	564	668
5	230	320	435	570	705	835
6	276	384	522	684	846	1002
7	322	448	609	798	987	1169
8	368	512	696	912	1128	1336
9	414	576	783	1026	1269	1503
10	460	639	870	1140	1410	1670
11	506	703	957	1254	1551	1837
12	552	767	1044	1368	1692	2004
13	598	831	1131	1482	1833	2171
14	644	895	1218	1596	1974	2338
15	690	959	1305	1710	2115	2505
16	736	1023	1392	1824	2256	2672
17	782	1087	1479	1938	2397	2839
18	828	1151	1566	2052	2538	3006
19	874	1215	1653	2166	2679	3173
20	920	1278	1740	2280	2820	3340
21	966	1342	1827	2394	2961	3507
22	1012	1406	1914	2508	3102	3674
23	1058	1470	2001	2622	3243	3841
24	1104	1534	2088	2736	3384	4008
25	1150	1598	2175	2850	3525	4175
26	1196	1662	2262	2964	3666	4342
27	1242	1726	2349	3078	3807	4509
28	1288	1790	2436	3192	3948	4676
29	1334	1854	2523	3306	4089	4843
30	1380	1917	2610	3420	4230	5010
31	1426	1981	2697	3534	4371	5177
32	1472	2045	2784	3648	4512	5344
33	1518	2109	2871	3762	4653	5511
34	1564	2173	2958	3876	4794	5678
35	1610	2237	3045	3990	4935	5845
36	1656	2301	3132	4104	5076	6012
37	1702	2365	3219	4218	5217	6179
38	1748	2429	3306	4332	5358	6346

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

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

Height		1000				
mm						
Model		2100	3100	4100	5100	6100
Depth	mm	62	100	136	173	210
Exponent	n	1,25	1,27	1,29	1,30	1,31
Max. number of elements		64	64	60	50	42
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	278	381	500	616	732
5	230	348	476	625	770	915
6	276	417	571	750	924	1098
7	322	487	666	875	1078	1281
8	368	556	761	1000	1232	1464
9	414	626	856	1125	1386	1647
10	460	695	951	1250	1540	1830
11	506	765	1047	1375	1694	2013
12	552	834	1142	1500	1848	2196
13	598	904	1237	1625	2002	2379
14	644	973	1332	1750	2156	2562
15	690	1043	1427	1875	2310	2745
16	736	1112	1522	2000	2464	2928
17	782	1182	1617	2125	2618	3111
18	828	1251	1712	2250	2772	3294
19	874	1321	1807	2375	2926	3477
20	920	1390	1902	2500	3080	3660
21	966	1460	1998	2625	3234	3843
22	1012	1529	2093	2750	3388	4026
23	1058	1599	2188	2875	3542	4209
24	1104	1668	2283	3000	3696	4392
25	1150	1738	2378	3125	3850	4575
26	1196	1807	2473	3250	4004	4758
27	1242	1877	2568	3375	4158	4941
28	1288	1946	2663	3500	4312	5124
29	1334	2016	2758	3625	4466	5307
30	1380	2085	2853	3750	4620	5490
31	1426	2155	2949	3875	4774	5673
32	1472	2224	3044	4000	4928	5856
33	1518	2294	3139	4125	5082	6039
34	1564	2363	3234	4250	5236	6222
35	1610	2433	3329	4375	5390	6405
36	1656	2502	3424	4500	5544	6588
37	1702	2572	3519	4625	5698	6771
38	1748	2641	3614	4750	5852	6954

Warning: Weight over 100 kg

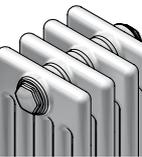
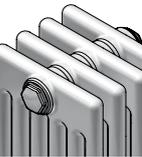
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		1100				
mm						
						
Model		2110	3110	4110	5110	6110
Depth	mm	62	100	136	173	210
Exponent	n	1,25	1,28	1,29	1,31	1,32
Max. number of elements		22	22	22	22	22
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	299	412	540	668	792
5	230	374	515	675	835	990
6	276	449	618	810	1002	1188
7	322	523	721	945	1169	1386
8	368	598	824	1080	1336	1584
9	414	673	927	1215	1503	1782
10	460	747	1030	1350	1670	1980
11	506	822	1133	1485	1837	2178
12	552	897	1236	1620	2004	2376
13	598	972	1339	1755	2171	2574
14	644	1046	1442	1890	2338	2772
15	690	1121	1545	2025	2505	2970
16	736	1196	1648	2160	2672	3168
17	782	1270	1751	2295	2839	3366
18	828	1345	1854	2430	3006	3564
19	874	1420	1957	2565	3173	3762
20	920	1494	2060	2700	3340	3960
21	966	1569	2163	2835	3507	4158
22	1012	1644	2266	2970	3674	4356
23	1058	1719	2369	3105	3841	4554
24	1104	1793	2472	3240	4008	4752
25	1150	1868	2575	3375	4175	4950
26	1196	1943	2678	3510	4342	5148
27	1242	2017	2781	3645	4509	5346
28	1288	2092	2884	3780	4676	5544
29	1334	2167	2987	3915	4843	5742
30	1380	2241	3090	4050	5010	5940
31	1426	2316	3193	4185	5177	6138
32	1472	2391	3296	4320	5344	6336
33	1518	2466	3399	4455	5511	6534
34	1564	2540	3502	4590	5678	6732
35	1610	2615	3605	4725	5845	6930
36	1656	2690	3708	4860	6012	7128
37	1702	2764	3811	4995	6179	7326
38	1748	2839	3914	5130	6346	7524

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

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

Height		1200				
mm						
Model		2120	3120	4120	5120	6120
Depth	mm	62	100	136	173	210
Exponent	n	1,26	1,29	1,30	1,31	1,32
Max. number of elements		22	22	22	22	22
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	331	460	588	716	840
5	230	414	575	735	895	1050
6	276	497	690	882	1074	1260
7	322	579	805	1029	1253	1470
8	368	662	920	1176	1432	1680
9	414	745	1035	1323	1611	1890
10	460	827	1150	1470	1790	2100
11	506	910	1265	1617	1969	2310
12	552	993	1380	1764	2148	2520
13	598	1076	1495	1911	2327	2730
14	644	1158	1610	2058	2506	2940
15	690	1241	1725	2205	2685	3150
16	736	1324	1840	2352	2864	3360
17	782	1406	1955	2499	3043	3570
18	828	1489	2070	2646	3222	3780
19	874	1572	2185	2793	3401	3990
20	920	1654	2300	2940	3580	4200
21	966	1737	2415	3087	3759	4410
22	1012	1820	2530	3234	3938	4620
23	1058	1903	2645	3381	4117	4830
24	1104	1985	2760	3528	4296	5040
25	1150	2068	2875	3675	4475	5250
26	1196	2151	2990	3822	4654	5460
27	1242	2233	3105	3969	4833	5670
28	1288	2316	3220	4116	5012	5880
29	1334	2399	3335	4263	5191	6090
30	1380	2481	3450	4410	5370	6300
31	1426	2564	3565	4557	5549	6510
32	1472	2647	3680	4704	5728	6720
33	1518	2730	3795	4851	5907	6930
34	1564	2812	3910	4998	6086	7140
35	1610	2895	4025	5145	6265	7350
36	1656	2978	4140	5292	6444	7560
37	1702	3060	4255	5439	6623	7770
38	1748	3143	4370	5586	6802	7980

Warning: Weight over 100 kg

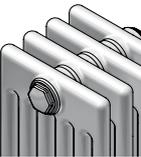
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		1500				
						
Model		2150	3150	4150	5150	6150
Depth	mm	62	100	136	173	210
Exponent	n	1,28	1,31	1,31	1,32	1,32
Max. number of elements		22	22	22	22	22
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	416	560	720	876	1024
5	230	520	700	900	1095	1280
6	276	624	840	1080	1314	1536
7	322	728	980	1260	1533	1792
8	368	832	1120	1440	1752	2048
9	414	936	1260	1620	1971	2304
10	460	1040	1400	1800	2190	2560
11	506	1144	1540	1980	2409	2816
12	552	1248	1680	2160	2628	3072
13	598	1352	1820	2340	2847	3328
14	644	1456	1960	2520	3066	3584
15	690	1560	2100	2700	3285	3840
16	736	1664	2240	2880	3504	4096
17	782	1768	2380	3060	3723	4352
18	828	1872	2520	3240	3942	4608
19	874	1976	2660	3420	4161	4864
20	920	2080	2800	3600	4380	5120
21	966	2184	2940	3780	4599	5376
22	1012	2288	3080	3960	4818	5632
23	1058	2392	3220	4140	5037	5888
24	1104	2496	3360	4320	5256	6144
25	1150	2600	3500	4500	5475	6400
26	1196	2704	3640	4680	5694	6656
27	1242	2808	3780	4860	5913	6912
28	1288	2912	3920	5040	6132	7168
29	1334	3016	4060	5220	6351	7424
30	1380	3120	4200	5400	6570	7680
31	1426	3224	4340	5580	6789	7936
32	1472	3328	4480	5760	7008	8192
33	1518	3432	4620	5940	7227	8448
34	1564	3536	4760	6120	7446	8704
35	1610	3640	4900	6300	7665	8960
36	1656	3744	5040	6480	7884	9216
37	1702	3848	5180	6660	8103	9472
38	1748	3952	5320	6840	8322	9728

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

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

Height		1800				
mm						
Model		2180	3180	4180	5180	6180
Depth	mm	62	100	136	173	210
Exponent	n	1,31	1,33	1,33	1,32	1,33
Max. number of elements		22	22	22	22	22
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	496	664	852	1036	1212
5	230	620	830	1065	1295	1515
6	276	744	996	1278	1554	1818
7	322	868	1162	1491	1813	2121
8	368	992	1328	1704	2072	2424
9	414	1116	1494	1917	2331	2727
10	460	1240	1660	2130	2590	3030
11	506	1364	1826	2343	2849	3333
12	552	1488	1992	2556	3108	3636
13	598	1612	2158	2769	3367	3939
14	644	1736	2324	2982	3626	4242
15	690	1860	2490	3195	3885	4545
16	736	1984	2656	3408	4144	4848
17	782	2108	2822	3621	4403	5151
18	828	2232	2988	3834	4662	5454
19	874	2356	3154	4047	4921	5757
20	920	2480	3320	4260	5180	6060
21	966	2604	3486	4473	5439	6363
22	1012	2728	3652	4686	5698	6666
23	1058	2852	3818	4899	5957	6969
24	1104	2976	3984	5112	6216	7272
25	1150	3100	4150	5325	6475	7575
26	1196	3224	4316	5538	6734	7878
27	1242	3348	4482	5751	6993	8181
28	1288	3472	4648	5964	7252	8484
29	1334	3596	4814	6177	7511	8787
30	1380	3720	4980	6390	7770	9090
31	1426	3844	5146	6603	8029	9393
32	1472	3968	5312	6816	8288	9696
33	1518	4092	5478	7029	8547	9999
34	1564	4216	5644	7242	8806	10302
35	1610	4340	5810	7455	9065	10605
36	1656	4464	5976	7668	9324	10908
37	1702	4588	6142	7881	9583	11211
38	1748	4712	6308	8094	9842	11514

Warning: Weight over 100 kg

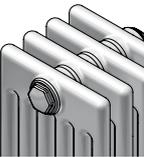
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		2000				
mm						
						
Model		2200	3200	4200	5200	6200
Depth	mm	62	100	136	173	210
Exponent	n	1,31	1,33	1,32	1,32	1,32
Max. number of elements		22	22	22	22	22
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	552	732	936	1140	1336
5	230	690	915	1170	1425	1670
6	276	828	1098	1404	1710	2004
7	322	966	1281	1638	1995	2338
8	368	1104	1464	1872	2280	2672
9	414	1242	1647	2106	2565	3006
10	460	1380	1830	2340	2850	3340
11	506	1518	2013	2574	3135	3674
12	552	1656	2196	2808	3420	4008
13	598	1794	2379	3042	3705	4342
14	644	1932	2562	3276	3990	4676
15	690	2070	2745	3510	4275	5010
16	736	2208	2928	3744	4560	5344
17	782	2346	3111	3978	4845	5678
18	828	2484	3294	4212	5130	6012
19	874	2622	3477	4446	5415	6346
20	920	2760	3660	4680	5700	6680
21	966	2898	3843	4914	5985	7014
22	1012	3036	4026	5148	6270	7348
23	1058	3174	4209	5382	6555	7682
24	1104	3312	4392	5616	6840	8016
25	1150	3450	4575	5850	7125	8350
26	1196	3588	4758	6084	7410	8684
27	1242	3726	4941	6318	7695	9018
28	1288	3864	5124	6552	7980	9352
29	1334	4002	5307	6786	8265	9686
30	1380	4140	5490	7020	8550	10020
31	1426	4278	5673	7254	8835	10354
32	1472	4416	5856	7488	9120	10688
33	1518	4554	6039	7722	9405	11022
34	1564	4692	6222	7956	9690	11356
35	1610	4830	6405	8190	9975	11690
36	1656	4968	6588	8424	10260	12024
37	1702	5106	6771	8658	10545	12358
38	1748	5244	6954	8892	10830	12692

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

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

Height		2200				
mm						
Model		2220	3220	4220	5220	6220
Depth	mm	62	100	136	173	210
Exponent	n	1,31	1,32	1,32	1,32	1,32
Max. number of elements		22	22	22	22	17
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	604	800	1024	1248	1460
5	230	755	1000	1280	1560	1825
6	276	906	1200	1536	1872	2190
7	322	1057	1400	1792	2184	2555
8	368	1208	1600	2048	2496	2920
9	414	1359	1800	2304	2808	3285
10	460	1510	2000	2560	3120	3650
11	506	1661	2200	2816	3432	4015
12	552	1812	2400	3072	3744	4380
13	598	1963	2600	3328	4056	4745
14	644	2114	2800	3584	4368	5110
15	690	2265	3000	3840	4680	5475
16	736	2416	3200	4096	4992	5840
17	782	2567	3400	4352	5304	6205
18	828	2718	3600	4608	5616	6570
19	874	2869	3800	4864	5928	6935
20	920	3020	4000	5120	6240	7300
21	966	3171	4200	5376	6552	7665
22	1012	3322	4400	5632	6864	8030
23	1058	3473	4600	5888	7176	8395
24	1104	3624	4800	6144	7488	8760
25	1150	3775	5000	6400	7800	9125
26	1196	3926	5200	6656	8112	9490
27	1242	4077	5400	6912	8424	9855
28	1288	4228	5600	7168	8736	10220
29	1334	4379	5800	7424	9048	10585
30	1380	4530	6000	7680	9360	10950
31	1426	4681	6200	7936	9672	11315
32	1472	4832	6400	8192	9984	11680
33	1518	4983	6600	8448	10296	12045
34	1564	5134	6800	8704	10608	12410
35	1610	5285	7000	8960	10920	12775
36	1656	5436	7200	9216	11232	13140
37	1702	5587	7400	9472	11544	13505
38	1748	5738	7600	9728	11856	13870

Warning: Weight over 100 kg

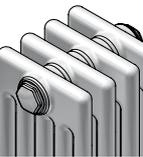
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		mm	2500				
							
Model			2250	3250	4250	5250	6250
Depth	mm		62	100	136	173	210
Exponent	n		1,30	1,32	1,31	1,31	1,32
Max. number of elements			22	22	22	22	17
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		684	900	1156	1408	1648
5	230		855	1125	1445	1760	2060
6	276		1026	1350	1734	2112	2472
7	322		1197	1575	2023	2464	2884
8	368		1368	1800	2312	2816	3296
9	414		1539	2025	2601	3168	3708
10	460		1710	2250	2890	3520	4120
11	506		1881	2475	3179	3872	4532
12	552		2052	2700	3468	4224	4944
13	598		2223	2925	3757	4576	5356
14	644		2394	3150	4046	4928	5768
15	690		2565	3375	4335	5280	6180
16	736		2736	3600	4624	5632	6592
17	782		2907	3825	4913	5984	7004
18	828		3078	4050	5202	6336	7416
19	874		3249	4275	5491	6688	7828
20	920		3420	4500	5780	7040	8240
21	966		3591	4725	6069	7392	8652
22	1012		3762	4950	6358	7744	9064
23	1058		3933	5175	6647	8096	9476
24	1104		4104	5400	6936	8448	9888
25	1150		4275	5625	7225	8800	10300
26	1196		4446	5850	7514	9152	10712
27	1242		4617	6075	7803	9504	11124
28	1288		4788	6300	8092	9856	11536
29	1334		4959	6525	8381	10208	11948
30	1380		5130	6750	8670	10560	12360
31	1426		5301	6975	8959	10912	12772
32	1472		5472	7200	9248	11264	13184
33	1518		5643	7425	9537	11616	13596
34	1564		5814	7650	9826	11968	14008
35	1610		5985	7875	10115	12320	14420
36	1656		6156	8100	10404	12672	14832
37	1702		6327	8325	10693	13024	15244
38	1748		6498	8550	10982	13376	15656

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

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

Height		2800				
mm						
Model		2280	3280	4280	5280	6280
Depth	mm	62	100	136	173	210
Exponent	n	1,30	1,30	1,30	1,30	1,30
Max. number of elements		22	22	22	17	14
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	756	1004	1292	1568	1836
5	230	945	1255	1615	1960	2295
6	276	1134	1506	1938	2352	2754
7	322	1323	1757	2261	2744	3213
8	368	1512	2008	2584	3136	3672
9	414	1701	2259	2907	3528	4131
10	460	1890	2510	3230	3920	4590
11	506	2079	2761	3553	4312	5049
12	552	2268	3012	3876	4704	5508
13	598	2457	3263	4199	5096	5967
14	644	2646	3514	4522	5488	6426
15	690	2835	3765	4845	5880	6885
16	736	3024	4016	5168	6272	7344
17	782	3213	4267	5491	6664	7803
18	828	3402	4518	5814	7056	8262
19	874	3591	4769	6137	7448	8721
20	920	3780	5020	6460	7840	9180
21	966	3969	5271	6783	8232	9639
22	1012	4158	5522	7106	8624	10098
23	1058	4347	5773	7429	9016	10557
24	1104	4536	6024	7752	9408	11016
25	1150	4725	6275	8075	9800	11475
26	1196	4914	6526	8398	10192	11934
27	1242	5103	6777	8721	10584	12393
28	1288	5292	7028	9044	10976	12852
29	1334	5481	7279	9367	11368	13311
30	1380	5670	7530	9690	11760	13770
31	1426	5859	7781	10013	12152	14229
32	1472	6048	8032	10336	12544	14688
33	1518	6237	8283	10659	12936	15147
34	1564	6426	8534	10982	13328	15606
35	1610	6615	8785	11305	13720	16065
36	1656	6804	9036	11628	14112	16524
37	1702	6993	9287	11951	14504	16983
38	1748	7182	9538	12274	14896	17442

Warning: Weight over 100 kg

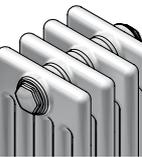
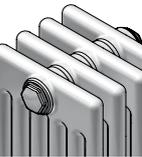
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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



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

Height		3000				
mm						
Model		2300	3300	4300	5300	6300
Depth	mm	62	100	136	173	210
Exponent	n	1,30	1,30	1,30	1,30	1,30
Max. number of elements		22	22	22	17	14
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	184	804	1076	1380	1680	1964
5	230	1005	1345	1725	2100	2455
6	276	1206	1614	2070	2520	2946
7	322	1407	1883	2415	2940	3437
8	368	1608	2152	2760	3360	3928
9	414	1809	2421	3105	3780	4419
10	460	2010	2690	3450	4200	4910
11	506	2211	2959	3795	4620	5401
12	552	2412	3228	4140	5040	5892
13	598	2613	3497	4485	5460	6383
14	644	2814	3766	4830	5880	6874
15	690	3015	4035	5175	6300	7365
16	736	3216	4304	5520	6720	7856
17	782	3417	4573	5865	7140	8347
18	828	3618	4842	6210	7560	8838
19	874	3819	5111	6555	7980	9329
20	920	4020	5380	6900	8400	9820
21	966	4221	5649	7245	8820	10311
22	1012	4422	5918	7590	9240	10802
23	1058	4623	6187	7935	9660	11293
24	1104	4824	6456	8280	10080	11784
25	1150	5025	6725	8625	10500	12275
26	1196	5226	6994	8970	10920	12766
27	1242	5427	7263	9315	11340	13257
28	1288	5628	7532	9660	11760	13748
29	1334	5829	7801	10005	12180	14239
30	1380	6030	8070	10350	12600	14730
31	1426	6231	8339	10695	13020	15221
32	1472	6432	8608	11040	13440	15712
33	1518	6633	8877	11385	13860	16203
34	1564	6834	9146	11730	14280	16694
35	1610	7035	9415	12075	14700	17185
36	1656	7236	9684	12420	15120	17676
37	1702	7437	9953	12765	15540	18167
38	1748	7638	10222	13110	15960	18658

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



High pressure version max. 18 bar (not for Completto version)

- with welded plugs
- 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)

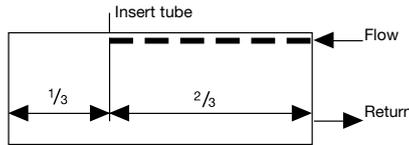
Operating temperature 120 °C

Further connections

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.

- 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

Angled or curved design (see page 43)

Radiator designs over height 3000 mm

Welded lugs, price per lug

Galvanising

(see also explanations on galvanising in section "General")
with subsequent standard finish (RAL 9016),
maximum dimensions: 3000 x 850 x 450 mm

Completto version

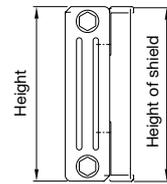
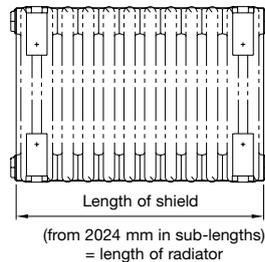
with valve inserts for clip seal (Danfoss thermostat) instead of M 30 x 1,5 threaded connection

Completto Q-Tech

Charleston Completto Q-Tech is built in factory-made, for an automatic hydraulic balancing of pressure differences that can occur when, e.g. connecting or turning off system parts. By the integrated diaphragm-sensed flow-control in the valve insert, the differential pressure is constantly kept above the pre-setting and standard cross section value. Therefore it is possible to quickly and easily do the hydraulic balancing of new and old systems or unknown pipe networks. The pre-setting of the needed flow for the customer needs on site, is achieved by turning the regulation ring with the pre-setting key which is integrated in the scope of delivery. Large flows of 10 to 170 l/h and very big differential pressure (max. 1,5 bar). The Q-Tech valve cannot be retrofitted with AV6, AV9 or other valves.

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.



Number of elements Zehnder Charleston	Number of shields	Number of brackets
7 to 30	1	4
31 to 44	1	6
45 to 60	2	8
61 to 88	2	12
89 to 114	3	18
115 to 130	3	18

Basic price per reflective cover plate

Price per metre, thermal radiation shield:

H = 260 - 450 mm

H = 500 - 750 mm

H = Height of shield

Basis for calculating the surcharge is the standard finish

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 Completto.</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

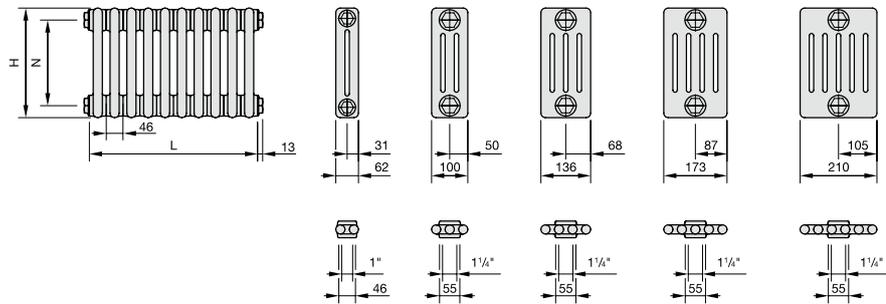
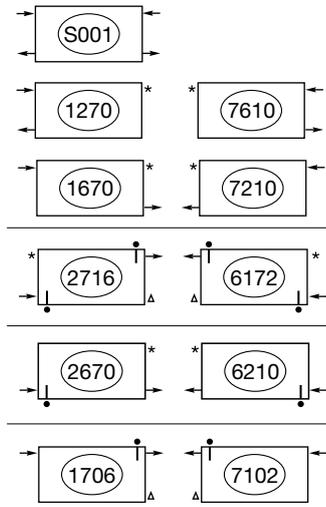
Zehnder Charleston, Zehnder Charleston Clinic¹⁾



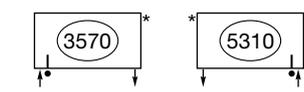
Connection type Dimensional drawings: Front view, side view and top view (bottom)

Connection 2-tube with external valve

same-side or opposite end

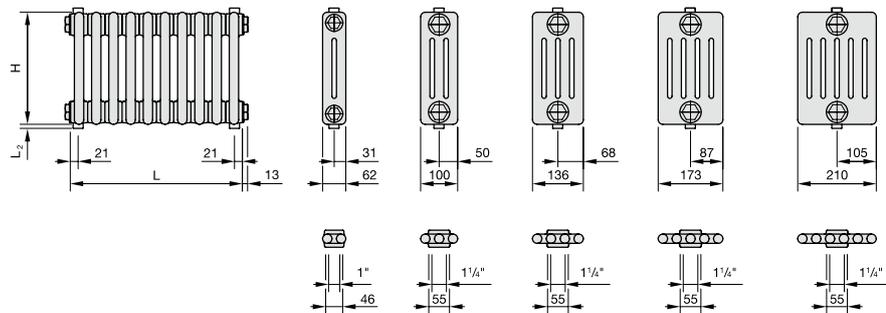
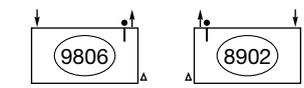


from bottom to bottom

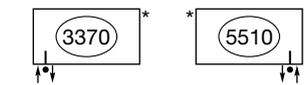


Please note: For Completo, see p. 45

from top to top

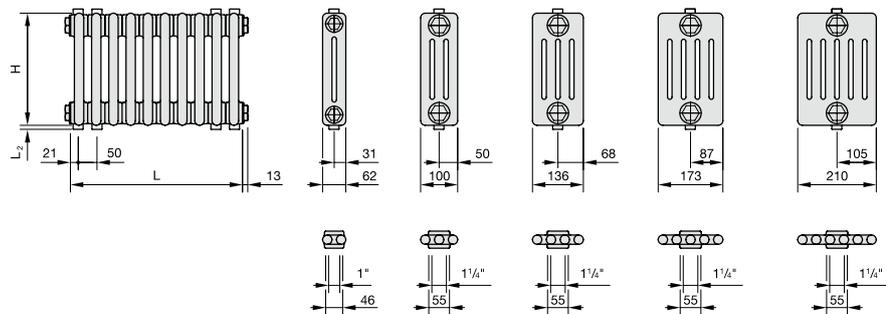
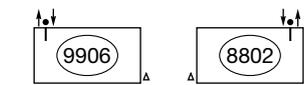


from bottom to bottom, at side 50 mm

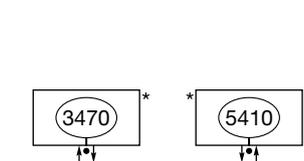


Please note: For Completo, see p. 45

from top to top, at side 50 mm



from bottom to bottom, central 50 mm



Please note: For Completo, see page 45

Central arrangement of connection fitting only with even number of elements²⁾

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" = 5; 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

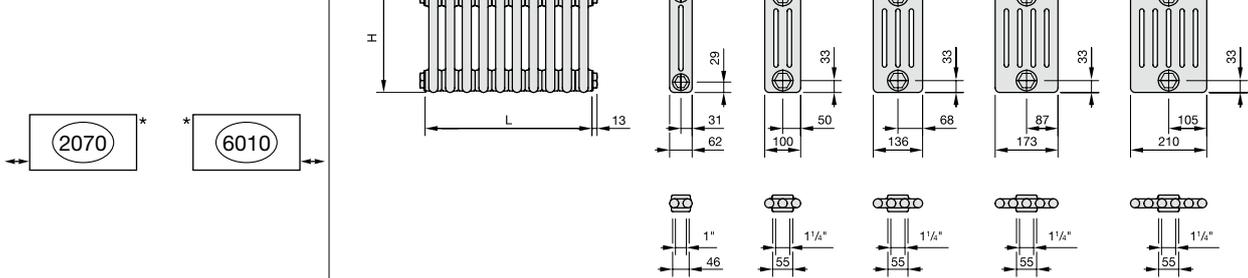
Zehnder Charleston, Zehnder Charleston Clinic¹⁾



Connection type Dimensional drawings: Front view, side view and top view (bottom)

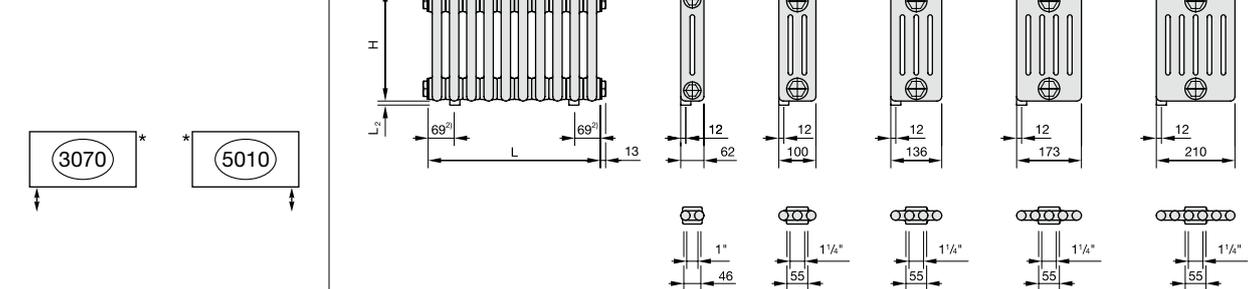
Connection 1-tube with external valve

for horizontal lance valve



Specify valve unit when placing order

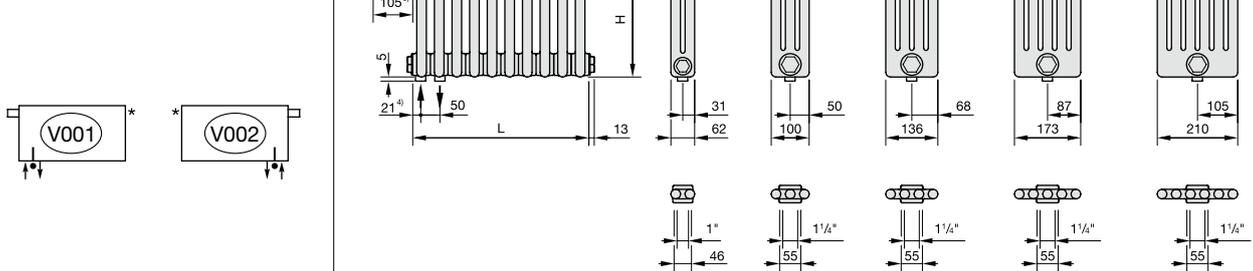
for vertical lance valve



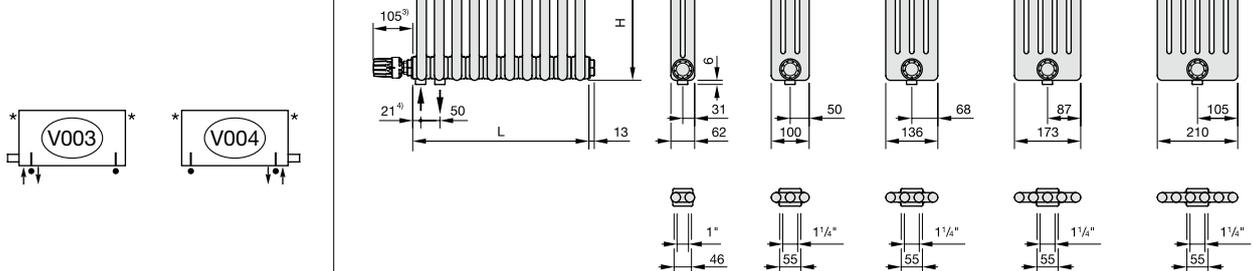
Specify valve unit when placing order

Completo connection with integrated valve (prices without thermostat)

valve at top, connection on side 50 mm



valve at bottom, connection on side 50 mm



Reduced thermal output of the first element due to insufficient circulation.

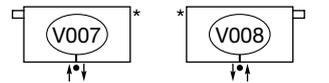
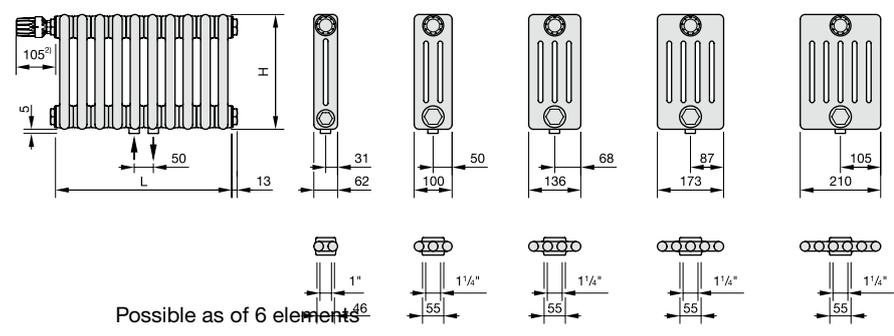
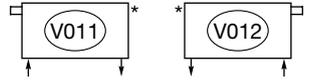
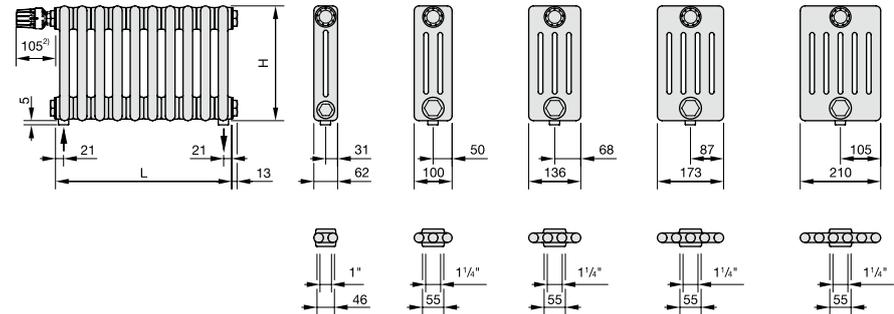
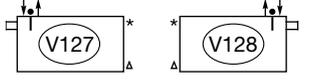
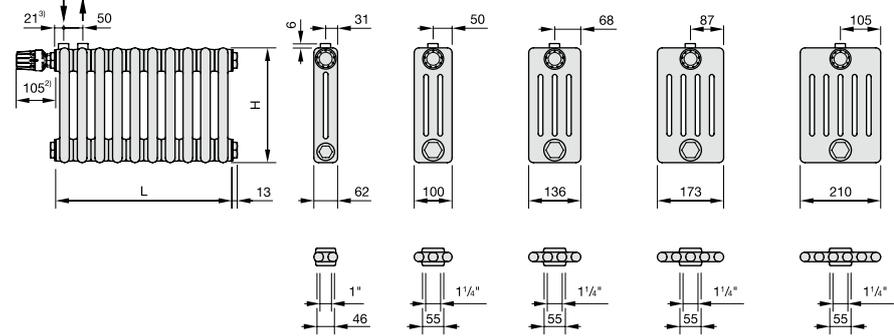
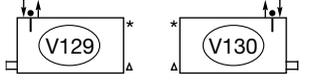
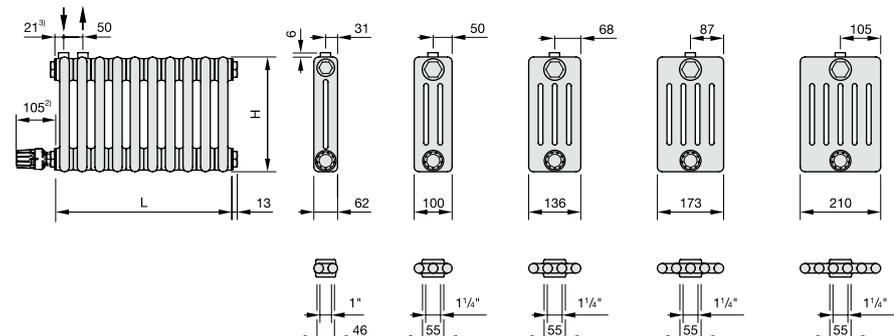
When orders are placed without indication of the connection type, the standard connection 4 x 1/2" (S001) will be delivered. Possible connections: 1270/7610 and 1670/7210.

- H = Height
- L = Length
- N = Boss spacing
- L₂ = Excess length thread, 1/2" = 5; 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) For Zehnder Charleston Clinic 88 mm
- 3) Only valid for Zehnder thermostat LH2
- 4) For Zehnder Charleston Clinic 31 mm
- 5) When exceeding the max. number of elements (see page 18), the radiator is nippedled factory-made.

Connection type	Dimensional drawings: Front view, side view and top view (bottom)
<p>Completo connection with integrated valve (prices without thermostat)</p> <p>valve at top, connection central 50 mm</p> 	 <p>Possible as of 6 elements</p> <p>Central arrangement of the connections only with even number of elements⁴⁾</p>
<p>valve at top, opposite end connection</p> 	
<p>valve at top, connection from top to top on side 50 mm</p> 	
<p>valve at bottom, connection from top to top on side 50 mm</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.

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 169.

- 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
- 5) When exceeding the max. number of elements (see page 18), the radiator is nippedled factory-made.

Dimensions in mm

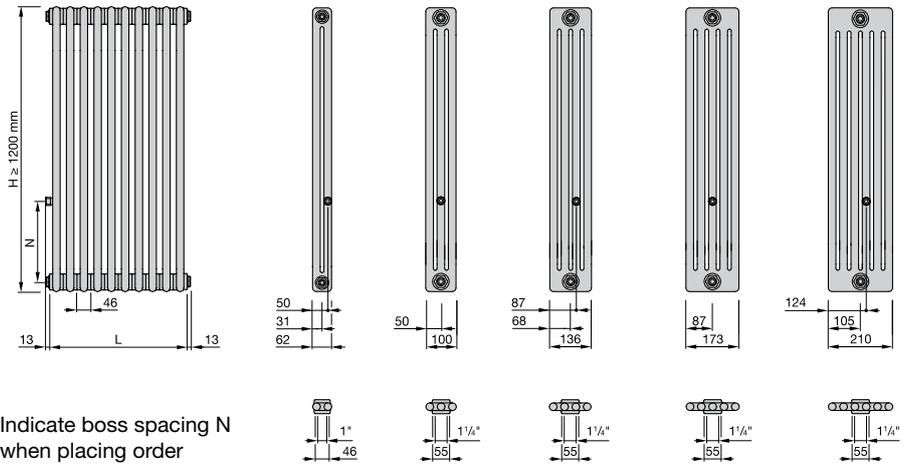
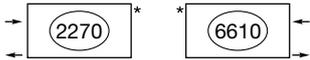
Zehnder Charleston, Zehnder Charleston Clinic¹⁾



Connection type | Dimensional drawings: Front view, side view and top view (bottom)

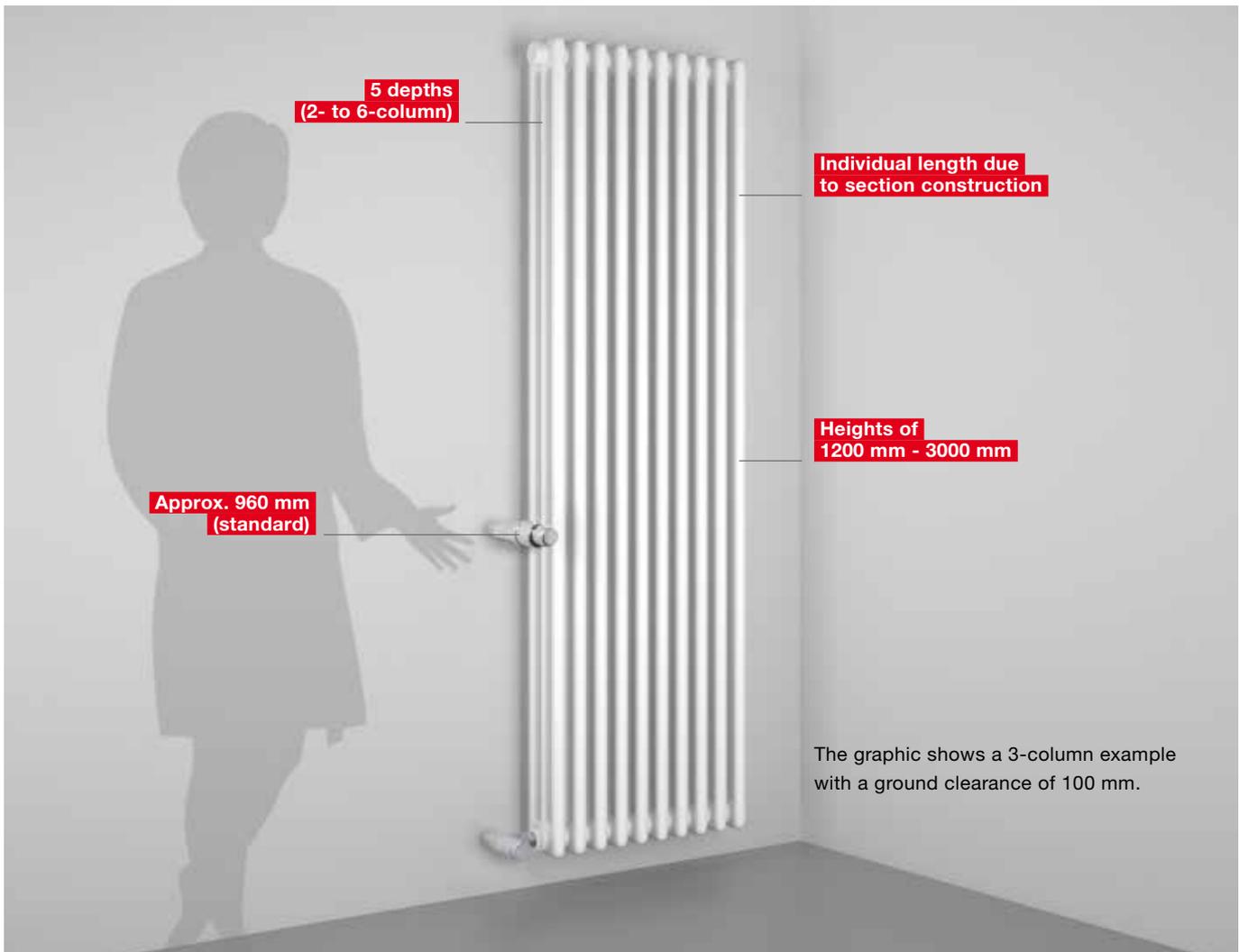
Connection 2-tube with external valve

Convenient operation for easy-access, same-side



- H = Height
- L = Length
- N = 500, 600, 619, 700, 800, 819, 900 mm
- * = Venting
- Δ = Draining

Dimensions in mm



Zehnder Charleston

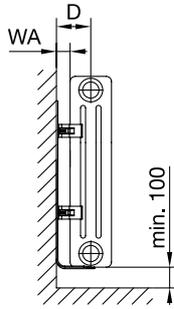
with EasyFix



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

Fixing details for accessory set SMB

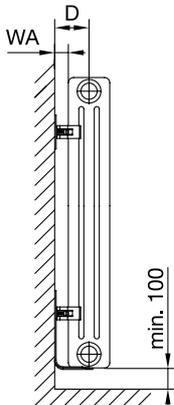
Set SMB 30-75



Distance D:

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

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 = 300-369			
All models			
L = 4-22 el. L = 23-39 el. L = 40-50 el. L = 51-60 el.	35	2 x SMB30 3 x SMB30 4 x SMB30 5 x SMB30	173521 173621 173721 173821
H = 370-484			
All models			
L = 4-22 el. L = 23-39 el. L = 40-50 el. L = 51-60 el.	35	2 x SMB40 3 x SMB40 4 x SMB40 5 x SMB40	173531 173631 173731 173831
H = 485-679			
All models			
L = 4-22 el. L = 23-39 el. L = 40-50 el. L = 51-60 el.	35	2 x SMB50 3 x SMB50 4 x SMB50 5 x SMB50	173541 173641 173741 173841
H = 680-1000			
2- to 4-column			
L = 4-22 el. L = 23-39 el. L = 40-55 el. L = 56-65 el.	35	2 x SMB75 3 x SMB75 4 x SMB75 5 x SMB75	173551 173651 173751 173851
5- to 6-column			
L = 4-15 el. L = 16-29 el. L = 30-42 el. L = 43-55 el.	35	2 x SMB75 3 x SMB75 4 x SMB75 5 x SMB75	173551 173651 173751 173851
H = 1001-1500			
2- to 4-column			
L = 4-15 el. L = 16-30 el. L = 31-45 el. L = 46-60 el.	35	2 x SMB2T 3 x SMB2T 4 x SMB2T 5 x SMB2T	173511 173611 173711 173811
5- to 6-column			
L = 4-10 el. L = 11-20 el. L = 21-30 el. L = 31-40 el.	35	2 x SMB2T 3 x SMB2T 4 x SMB2T 5 x SMB2T	173511 173611 173711 173811
H = 1501-2200			
2- to 4-column			
L = 4-11 el. L = 12-21 el. L = 22-31 el. L = 32-41 el.	35	2 x SMB2T 3 x SMB2T 4 x SMB2T 5 x SMB2T	173511 173611 173711 173811
5- to 6-column			
L = 4-10 el. L = 11-16 el. L = 17-21 el. L = 22-27 el.	35	2 x SMB2T 3 x SMB2T 4 x SMB2T 5 x SMB2T	173511 173611 173711 173811

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.

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

Set CVD		All models					
	<p>Distance D:</p> <p>2-column 59 mm 3-column 78 mm 4-column 96 mm 5-column 114 mm 6-column 133 mm</p>	Height 260 - 1000 mm with retaining spring					
		L = 4-20 el.	28	4 x BH + CVD 0	774401		
		L = 21-40 el.		6 x BH + CVD 0	774601		
		L = 41-60 el.		8 x BH + CVD 0	774801		
		Height 1001 - 1500 mm with retaining spring					
		L = 4-20 el.	28	4 x BH + CVD 0	774401		
		L = 21-40 el.		8 x BH + CVD 0	774801		
		L = 41-60 el.		10 x BH + CVD 0	774901		
		2- to 5-column					
		Height 1501 - 2200 mm with retaining spring					
L = 4-10 el.	28	4 x BH + CVD 0	774401				
L = 11-20 el.		6 x BH + CVD 0	774601				
L = 21-30 el.		8 x BH + CVD 0	774801				
L = 31-40 el.		10 x BH + CVD 0	774901				
6-column							
Height 1501 - 2200 mm with retaining spring							
L = 4-10 el.	28	4 x BH + CVD 0	774401				
L = 11-20 el.		8 x BH + CVD 0	774801				
L = 21-30 el.		10 x BH + CVD 0	774901				
L = 31-40 el.		14 x BH + CVD 0	-				
Set BKE ²⁾		All models					
	<p>Distance D:</p> <p>2-column 77 mm 3-column 96 mm 4-column 114 mm 5-column 133 mm 6-column 151 mm</p>	Height 260 - 1000 mm with retaining spring					
		L = 4-20 el.	46	4 x BH + BKE160	774461		
		L = 21-40 el.		6 x BH + BKE160	774661		
		L = 41-60 el.		8 x BH + BKE160	774861		
		Height 1001 - 1500 mm with retaining spring					
		L = 4-20 el.	46	4 x BH + BKE160	774461		
		L = 21-40 el.		8 x BH + BKE160	774861		
		L = 41-60 el.		10 x BH + BKE160	774961		
		2- to 5-column					
		Height 1501 - 2200 mm with retaining spring					
L = 4-10 el.	46	4 x BH + BKE160	774461				
L = 11-20 el.		6 x BH + BKE160	774661				
L = 21-30 el.		8 x BH + BKE160	774861				
L = 31-40 el.		10 x BH + BKE160	774961				
6-column							
Height 1501 - 2200 mm with retaining spring							
L = 4-10 el.	46	4 x BH + BKE160	774461				
L = 11-20 el.		8 x BH + BKE160	774861				
L = 21-30 el.		10 x BH + BKE160	774961				
L = 31-40 el.		14 x BH + BKE160	-				

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.

Zehnder Charleston

Illustration	Description	Model		
		Application	Amount + type of brackets	Article no. Piece
For other fixing options using accessories, see page 148 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 Bracket AK1: 796011
		Height 1001 - 1500 mm		
		L = 4-20 el. L = 21-40 el. L = 41-60 el.	4 x BH + AK 1 8 x BH + AK 1 10 x BH + AK 1	Bracket BH: 774001 Bracket AK 1: 796011
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 - 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
		Height 260 - 500 mm		
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
		Height H: 260 to < 600 mm ²⁾		
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
		Height H: 190 to < 600 mm ²⁾		

H = Height of radiator in mm

L = Length of radiator in elements

D = Dimension from wall to middle of connection

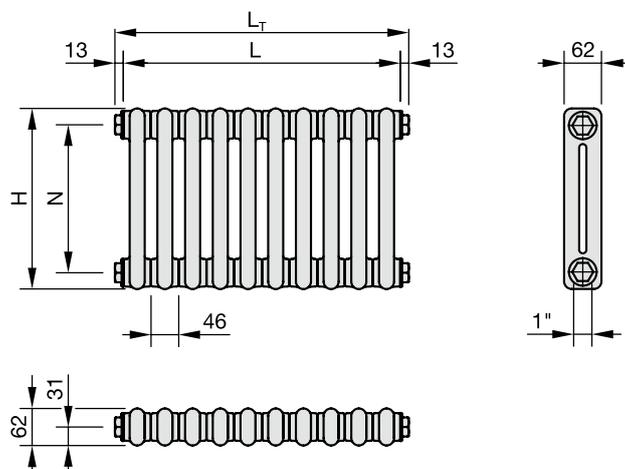
²⁾ Provided from a height of 600 mm for requirements class 2 additional brackets

³⁾ An on-site locking device may be required depending on the installation and connection situation and net weight of the radiator

Zehnder Charleston



Model 2-column



- H = Height
- L = Length = elements x 46 mm
- L_T = Total length = elements x 46 mm + 2 x 13 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

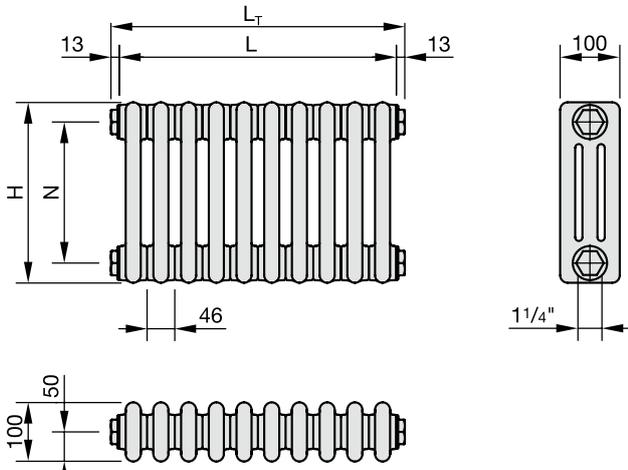
Technical specifications per element

Model	H mm	N mm	T mm	A m ²	V dm ³	M kg	s _k %	q _{ms} kg/h	Exp. n	Φ _s =ΔT 50 K EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
2026	260	202	62	0,04	0,3	0,40	25	2,0	1,25	21,1	17,1	11,1
2030	292	234	62	0,04	0,4	0,44	25	2,0	1,24	23,6	19,1	12,4
2035	342	284	62	0,05	0,4	0,51	24	2,0	1,24	27,5	22,3	14,5
2040	392	334	62	0,06	0,4	0,55	25	3,0	1,24	31,2	25,3	16,4
2045	442	384	62	0,07	0,5	0,62	24	3,0	1,24	34,9	28,3	18,4
2050	492	434	62	0,07	0,5	0,69	23	3,0	1,25	38,4	31,1	20,1
2055	542	484	62	0,08	0,6	0,75	23	4,0	1,25	41,9	33,9	22,0
2060	592	534	62	0,09	0,6	0,82	23	4,0	1,25	45,3	36,6	23,7
2075	742	684	62	0,11	0,7	1,01	22	5,0	1,25	55,0	44,5	28,8
2090	892	834	62	0,14	0,8	1,21	22	5,0	1,25	63,9	51,7	33,5
2100	992	934	62	0,15	0,9	1,34	22	6,0	1,25	69,5	56,2	36,4
2110	1092	1034	62	0,17	1,0	1,47	22	6,0	1,25	74,7	60,4	39,2
2120	1192	1134	62	0,18	1,1	1,60	22	7,0	1,26	82,7	66,8	43,1
2150	1492	1434	62	0,23	1,3	2,00	23	9,0	1,28	104,0	83,7	53,7
2180	1792	1734	62	0,28	1,5	2,39	23	11,0	1,31	124,0	99,3	63,0
2200	1992	1934	62	0,31	1,7	2,65	23	12,0	1,31	138,0	110,5	70,1
2220	2192	2134	62	0,34	1,9	2,92	23	13,0	1,31	151,0	120,9	76,7
2250	2492	2434	62	0,39	2,1	3,31	23	15,0	1,30	171,0	137,2	87,3
2280	2792	2734	62	0,44	2,4	3,70	23	16,0	1,30	189,0	151,6	96,5
2300	2992	2934	62	0,47	2,5	3,97	23	17,0	1,30	201,0	161,2	102,7

Zehnder Charleston



Model 3-column



- H = Height
- L = Length = elements x 46 mm
- L_T = Total length = elements x 46 mm + 2 x 13 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

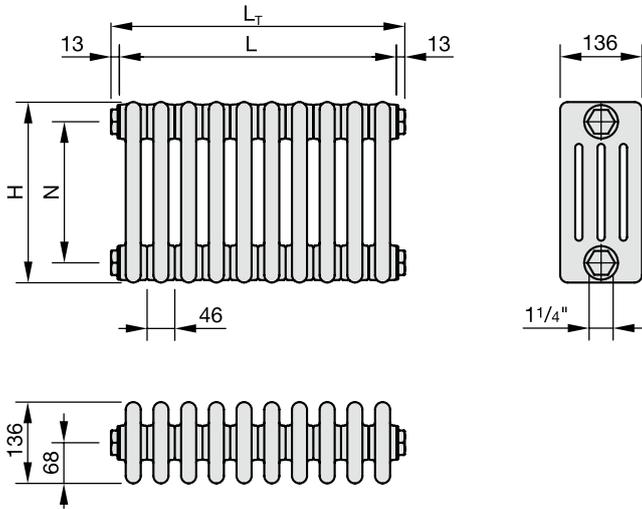
Technical specifications per element

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
3026	260	194	100	0,06	0,5	0,56	21	2,0	1,25	27,9	22,6	14,6
3030	300	234	100	0,07	0,6	0,63	20	3,0	1,25	32,0	25,9	16,8
3035	350	284	100	0,08	0,6	0,73	20	3,0	1,25	37,0	29,9	19,4
3040	400	334	100	0,09	0,7	0,83	19	4,0	1,25	41,9	33,9	22,0
3045	450	384	100	0,10	0,7	0,93	19	4,0	1,25	46,8	37,9	24,5
3050	500	434	100	0,11	0,8	1,03	18	4,0	1,25	51,6	41,7	27,0
3055	550	484	100	0,12	0,9	1,13	18	5,0	1,26	56,3	45,5	29,4
3060	600	534	100	0,14	0,9	1,23	18	5,0	1,26	60,9	49,2	31,8
3075	750	684	100	0,17	1,1	1,52	18	6,0	1,26	74,3	60,0	38,7
3090	900	834	100	0,21	1,3	1,81	18	7,0	1,27	87,0	70,1	45,1
3100	1000	934	100	0,23	1,4	2,01	18	8,0	1,27	95,1	76,7	49,3
3110	1100	1034	100	0,25	1,5	2,21	18	9,0	1,28	103,0	82,9	53,2
3120	1200	1134	100	0,28	1,6	2,40	18	10,0	1,29	115,0	92,4	59,0
3150	1500	1434	100	0,35	2,0	2,99	18	12,0	1,31	140,0	112,1	71,1
3180	1800	1734	100	0,42	2,4	3,58	18	14,0	1,33	166,0	132,5	83,5
3200	2000	1934	100	0,47	2,6	3,97	18	16,0	1,33	183,0	146,0	92,0
3220	2200	2134	100	0,51	2,9	4,36	18	17,0	1,32	200,0	159,9	101,1
3250	2500	2434	100	0,58	3,2	4,95	18	19,0	1,32	225,0	179,9	113,7
3280	2800	2734	100	0,65	3,6	5,54	18	22,0	1,30	251,0	201,3	128,2
3300	3000	2934	100	0,70	3,9	5,93	18	23,0	1,30	269,0	215,8	137,4

Zehnder Charleston



Model 4-column



- H = Height
- L = Length = elements x 46 mm
- L_T = Total length = elements x 46 mm + 2 x 13 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

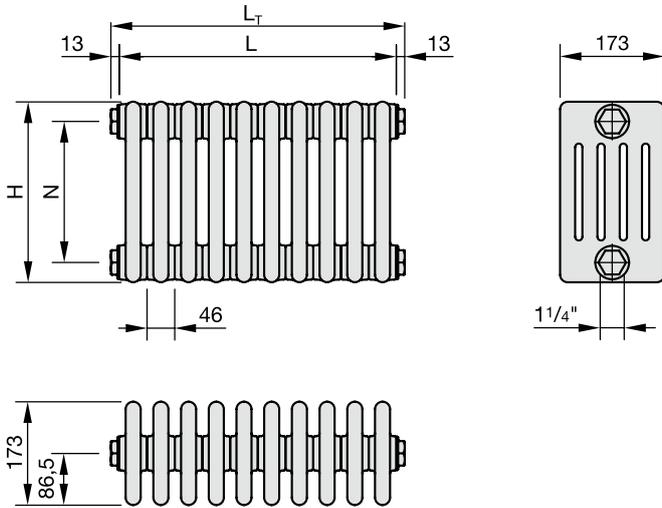
Technical specifications per element

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
4026	260	194	136	0,08	0,7	0,77	18	3,0	1,25	36,5	29,5	19,1
4030	300	234	136	0,09	0,7	0,88	18	4,0	1,25	41,9	33,9	22,0
4035	350	284	136	0,11	0,8	1,01	17	4,0	1,25	48,5	39,2	25,4
4040	400	334	136	0,12	0,9	1,16	16	5,0	1,26	54,9	44,3	28,6
4045	450	384	136	0,14	1,0	1,29	16	5,0	1,26	61,3	49,5	32,0
4050	500	434	136	0,15	1,0	1,42	16	6,0	1,26	67,6	54,6	35,2
4055	550	484	136	0,17	1,1	1,55	16	6,0	1,26	73,7	59,5	38,4
4060	600	534	136	0,19	1,2	1,67	15	7,0	1,27	79,8	64,3	41,4
4075	750	684	136	0,23	1,4	2,06	15	8,0	1,27	97,4	78,5	50,5
4090	900	834	136	0,28	1,7	2,45	15	10,0	1,28	114,0	91,7	58,8
4100	1000	934	136	0,31	1,8	2,70	15	11,0	1,29	125,0	100,4	64,2
4110	1100	1034	136	0,34	2,0	2,96	15	12,0	1,29	135,0	108,5	69,3
4120	1200	1134	136	0,37	2,1	3,22	15	13,0	1,30	147,0	117,9	75,1
4150	1500	1434	136	0,47	2,6	3,99	15	15,0	1,31	180,0	144,1	91,5
4180	1800	1734	136	0,56	3,1	4,76	15	18,0	1,33	213,0	170,0	107,1
4200	2000	1934	136	0,63	3,4	5,28	15	20,0	1,32	234,0	187,1	118,3
4220	2200	2134	136	0,69	3,8	5,79	15	22,0	1,32	256,0	204,6	129,4
4250	2500	2434	136	0,78	4,3	6,56	15	25,0	1,31	289,0	231,4	146,9
4280	2800	2734	136	0,88	4,8	7,33	15	28,0	1,30	323,0	259,1	165,0
4300	3000	2934	136	0,94	5,1	7,85	15	30,0	1,30	345,0	276,7	176,2

Zehnder Charleston



Model 5-column



- H = Height
- L = Length = elements x 46 mm
- L_T = Total length = elements x 46 mm + 2 x 13 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

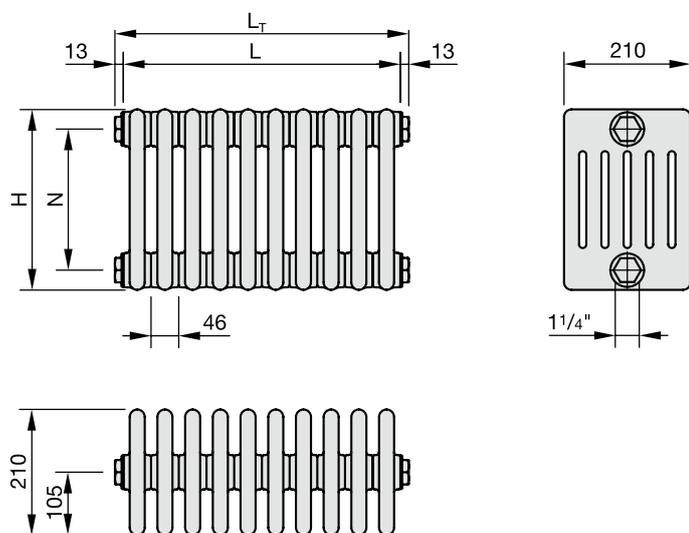
Technical specifications per element

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
5026	260	194	173	0,10	0,8	0,88	17	4,0	1,25	45,1	36,5	23,6
5030	300	234	173	0,12	0,9	1,01	16	4,0	1,25	51,7	41,8	27,1
5035	350	284	173	0,13	1,0	1,18	15	5,0	1,26	59,9	48,4	31,2
5040	400	334	173	0,15	1,1	1,51	15	6,0	1,26	67,9	54,8	35,4
5045	450	384	173	0,17	1,2	1,67	14	7,0	1,26	75,8	61,2	39,5
5050	500	434	173	0,19	1,3	1,83	14	7,0	1,27	83,5	67,3	43,3
5055	550	484	173	0,20	1,3	2,00	14	8,0	1,27	91,1	73,4	47,3
5060	600	534	173	0,23	1,5	2,16	13	8,0	1,27	98,6	79,5	51,1
5075	750	684	173	0,29	1,8	2,65	13	10,0	1,29	120,0	96,4	61,6
5090	900	834	173	0,35	2,1	3,14	13	12,0	1,30	141,0	113,1	72,0
5100	1000	934	173	0,39	2,3	3,47	13	13,0	1,30	154,0	123,5	78,7
5110	1100	1034	173	0,43	2,5	3,79	13	14,0	1,31	167,0	133,7	84,9
5120	1200	1134	173	0,47	2,7	4,12	13	15,0	1,31	179,0	143,3	91,0
5150	1500	1434	173	0,59	3,3	5,10	13	19,0	1,32	219,0	175,1	110,7
5180	1800	1734	173	0,70	3,9	6,08	13	22,0	1,32	259,0	207,0	130,9
5200	2000	1934	173	0,78	4,3	6,73	13	25,0	1,32	285,0	227,8	144,1
5220	2200	2134	173	0,86	4,7	7,39	13	27,0	1,32	312,0	249,4	157,7
5250	2500	2434	173	0,98	5,3	8,37	13	30,0	1,31	352,0	281,9	178,9
5280	2800	2734	173	1,10	5,9	9,35	13	34,0	1,30	392,0	314,4	200,2
5300	3000	2934	173	1,18	6,4	10,00	13	36,0	1,30	420,0	336,9	214,5

Zehnder Charleston



Model 6-column



- H = Height
- L = Length = elements x 46 mm
- L_T = Total length = elements x 46 mm + 2 x 13 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
6026	260	194	210	0,12	1,0	1,26	18	5,0	1,27	53,5	43,1	27,8
6030	300	234	210	0,14	1,1	1,42	15	5,0	1,26	61,3	49,5	32,0
6035	350	284	210	0,16	1,2	1,62	14	6,0	1,26	71,0	57,3	37,0
6040	400	334	210	0,19	1,3	1,79	14	7,0	1,27	80,5	64,9	41,8
6045	450	384	210	0,21	1,4	1,99	13	8,0	1,27	89,8	72,4	46,6
6050	500	434	210	0,23	1,5	2,19	13	9,0	1,28	99,0	79,7	51,1
6055	550	484	210	0,26	1,6	2,38	12	9,0	1,28	108,0	86,9	55,7
6060	600	534	210	0,28	1,8	2,58	12	10,0	1,29	117,0	94,0	60,1
6075	750	684	210	0,35	2,1	3,17	12	12,0	1,30	143,0	114,7	73,0
6090	900	834	210	0,42	2,5	3,76	12	14,0	1,31	167,0	133,7	84,9
6100	1000	934	210	0,47	2,7	4,16	12	16,0	1,31	183,0	146,5	93,0
6110	1100	1034	210	0,52	3,0	4,55	12	17,0	1,32	198,0	158,3	100,1
6120	1200	1134	210	0,56	3,2	4,95	12	18,0	1,32	210,0	167,9	106,2
6150	1500	1434	210	0,70	4,0	6,13	12	22,0	1,32	256,0	204,6	129,4
6180	1800	1734	210	0,85	4,7	7,31	12	26,0	1,33	303,0	241,8	152,4
6200	2000	1934	210	0,94	5,2	8,10	12	29,0	1,32	334,0	267,0	168,8
6220	2200	2134	210	1,03	5,6	8,89	12	31,0	1,32	365,0	291,8	184,5
6250	2500	2434	210	1,18	6,3	10,07	12	35,0	1,32	412,0	329,3	208,3
6280	2800	2734	210	1,33	7,0	11,25	12	39,0	1,30	459,0	368,2	234,4
6300	3000	2934	210	1,41	7,5	12,04	12	42,0	1,30	491,0	393,8	250,8

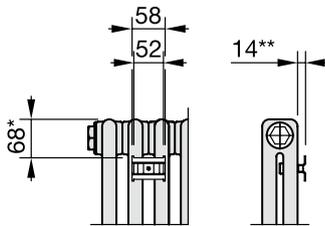
Zehnder Charleston



Dimensions for the bores when using CVD brackets (upper drill hole)

Number of fixings	2 axes / 4 brackets	3 axes / 6 brackets	4 axes / 8 brackets
		 If there is an odd number of sections then the middle axis is offset by 23 mm.	

Detail of suspension



Dimensions for the bores when using EasyFix brackets¹⁾

For height mm	SMB 2T H = 245-299	SMB 30-75 H = 300-1000	SMB 2T H = 1001-3000															
		 <table border="1"> <thead> <tr> <th>H</th> <th>D_{MP}</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>300 - 369</td> <td>134</td> <td>241</td> </tr> <tr> <td>370 - 484</td> <td>204</td> <td>309</td> </tr> <tr> <td>485 - 679</td> <td>309</td> <td>414</td> </tr> <tr> <td>680 - 1000</td> <td>518</td> <td>623</td> </tr> </tbody> </table>	H	D _{MP}	D	300 - 369	134	241	370 - 484	204	309	485 - 679	309	414	680 - 1000	518	623	
H	D _{MP}	D																
300 - 369	134	241																
370 - 484	204	309																
485 - 679	309	414																
680 - 1000	518	623																

¹⁾ For connection type 3370/5510 and V001-V004, the bracket must be offset inwards by one element

- = Position of drill hole
 - L = Length
 - H = Height
 - * = Smallest possible dimension
 - ** = Front edge of bracket to radiator
 - D = Dimension from bottom edge of radiator to upper drill hole
 - D_{MP} = Spacing of drill holes
- Dimensions in mm

For the recommended number of brackets, see page 48 onwards.

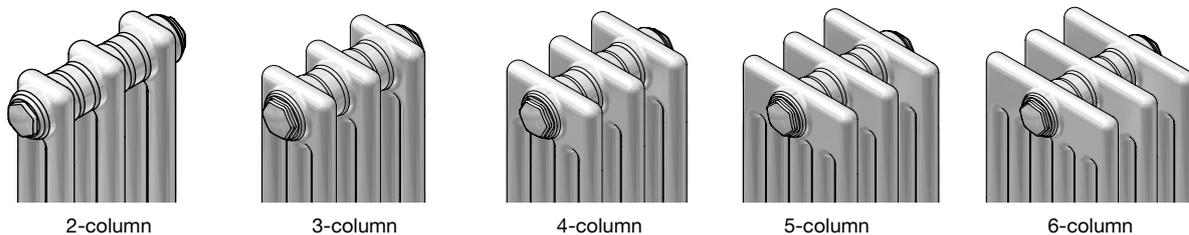


	Overview of models	Product description	Overview data	Special versions	Connections	Fixings	Technical data	Installation points
Zehnder Charleston Clinic								
 <ul style="list-style-type: none"> ■ Element length 65 mm ■ Larger element spacings ■ Particularly easy to clean 	58	59	60	80	81	82	85	90

Zehnder Charleston Clinic



Zehnder Charleston Clinic



Height ¹⁾ mm	Depth mm				
	62	100	136	173	210
260	K2026	K3026	K4026	K5026	K6026
300	K2030	K3030	K4030	K5030	K6030
350	K2035	K3035	K4035	K5035	K6035
400	K2040	K3040	K4040	K5040	K6040
450	K2045	K3045	K4045	K5045	K6045
500	K2050	K3050	K4050	K5050	K6050
550	K2055	K3055	K4055	K5055	K6055
600	K2060	K3060	K4060	K5060	K6060
750	K2075	K3075	K4075	K5075	K6075
900	K2090	K3090	K4090	K5090	K6090
1000	K2100	K3100	K4100	K5100	K6100
1100	K2110	K3110	K4110	K5110	K6110
1200	K2120	K3120	K4120	K5120	K6120
1500	K2150	K3150	K4150	K5150	K6150
1800	K2180	K3180	K4180	K5180	K6180
2000	K2200	K3200	K4200	K5200	K6200
2200	K2220	K3220	K4220	K5220	K6220
2500	K2250	K3250	K4250	K5250	K6250
2800	K2280	K3280	K4280	K5280	K6280
3000	K2300	K3300	K4300	K5300	K6300

¹⁾The values shown here are the so-called nominal height; the exact height varies by a few mm for 2-column radiators and for some of the 3-column radiators as well, see "Technical specifications"; larger heights over 3000 mm or intermediate heights are available on request.

Maximum radiator lengths on piece (per block)

Zehnder Charleston Clinic (also see price tables from page 60 onwards)

Model	Height mm		
	260 - 1000	> 1000 - 2500	> 2500 - 3000
2-5-column	44	16	16
6-column	44	16	14

Zehnder Charleston Clinic



Zehnder Charleston Clinic

Product description

There are rooms where cleanliness and hygiene are high priorities, such as hospitals and doctors' surgeries, for example. Zehnder Charleston Clinic is there to help. Ample clearance between the individual elements of the radiator ensures cleaning is a simple process. The Zehnder EasyFix fixing system for simple and anti-lift assembly ensures easy installation. Available in almost any colour and finish from the Zehnder colour chart.

Technical specifications

- Steel round tubes Ø 25 mm
- Header in sheet steel
- Length of the individual element 65 mm
- Priming and powder coating to DIN 55900
- Thermal output tested to EN 442; with CE marking
- Maximum operating pressure 10 bar
- Maximum operating temperature 110 °C

Customisation options

- Large choice of connection types, including integrated valve
- Mounting sets for all applications
- Special colours and antibacterial coating
- Galvanised and painted
- Energy saving thermal radiation shield for installation in front of windows
- Special shapes: angled or curved, with handrail, etc.
- High pressure version up to max. 18 bar
- Operating temperature at 120 °C on request

Advantages

- Ample spaces between tubes make cleaning easy
- Residue-free laser welding technology LaZer made
- Classic elegance
- Accident-safe
- Cleaning with Zehnder lambswool cleaning brush
- Simple and secure with non-lift-out feature: Installation with Zehnder EasyFix
- Radiant heat with feel-good factor
- Energy-efficient for use in low temperature heating systems

Scope of delivery for standard version

- Primed and painted in RAL 9016
- Connections 4 x ½" female thread at front
- Connection S001: 1 blanking plug ½", directional air vent ½"
- Complete packaging in stretch film and carton
- Heights greater than 2200 mm with stabilising brace welded at the factory

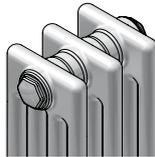
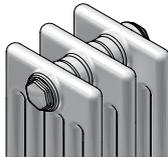
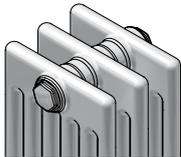
Scope of delivery for Completo version

- Primed and painted in RAL 9016
- Valve unit integrated on side, with valve insert AV 9, max. flow rate 250 kg/h
- Connections 2 x ½" female thread from bottom 50 mm
- Integrated baffle
- 1 directional air vent ½"
- Complete packaging in stretch film and carton

Zehnder Charleston Clinic



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

Height		260				
						
Model		K2026	K3026	K4026	K5026	K6026
Depth	mm	62	100	136	173	210
Exponent	n	1,30	1,27	1,26	1,25	1,28
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	96	125	162	198	232
5	306	120	156	202	247	291
6	371	143	187	242	296	349
7	436	167	218	283	346	407
8	501	191	250	323	395	465
9	566	215	281	364	445	523
10	631	239	312	404	494	581
11	696	263	343	444	543	639
12	761	287	374	485	593	697
13	826	311	406	525	642	755
14	891	335	437	566	692	813
15	956	359	468	606	741	872
16	1021	382	499	646	790	930
17	1086	406	530	687	840	988
18	1151	430	562	727	889	1046
19	1216	454	593	768	939	1104
20	1281	478	624	808	988	1162
21	1346	502	655	848	1037	1220
22	1411	526	686	889	1087	1278
23	1476	550	718	929	1136	1336
24	1541	574	749	970	1186	1394
25	1606	598	780	1010	1235	1453
26	1671	621	811	1050	1284	1511
27	1736	645	842	1091	1334	1569
28	1801	669	874	1131	1383	1627
29	1866	693	905	1172	1433	1685
30	1931	717	936	1212	1482	1743
31	1996	741	967	1252	1531	1801
32	2061	765	998	1293	1581	1859
33	2126	789	1030	1333	1630	1917
34	2191	813	1061	1374	1680	1975
35	2256	837	1092	1414	1729	2034
36	2321	860	1123	1454	1778	2092
37	2386	884	1154	1495	1828	2150
38	2451	908	1186	1535	1877	2208

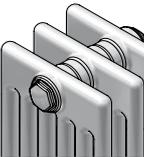
Warning: Weight over 100 kg

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 Clinic

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

Height		300				
						
Model		K2030	K3030	K4030	K5030	K6030
Depth	mm	62	100	136	173	210
Exponent	n	1,29	1,27	1,26	1,25	1,29
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	106	142	183	224	264
5	306	133	177	229	280	330
6	371	159	212	275	336	395
7	436	186	248	321	392	461
8	501	212	283	366	448	527
9	566	239	319	412	504	593
10	631	265	354	458	560	659
11	696	292	389	504	616	725
12	761	318	425	550	672	791
13	826	345	460	595	728	857
14	891	371	496	641	784	923
15	956	398	531	687	840	989
16	1021	424	566	733	896	1054
17	1086	451	602	779	952	1120
18	1151	477	637	824	1008	1186
19	1216	504	673	870	1064	1252
20	1281	530	708	916	1120	1318
21	1346	557	743	962	1176	1384
22	1411	583	779	1008	1232	1450
23	1476	610	814	1053	1288	1516
24	1541	636	850	1099	1344	1582
25	1606	663	885	1145	1400	1648
26	1671	689	920	1191	1456	1713
27	1736	716	956	1237	1512	1779
28	1801	742	991	1282	1568	1845
29	1866	769	1027	1328	1624	1911
30	1931	795	1062	1374	1680	1977
31	1996	822	1097	1420	1736	2043
32	2061	848	1133	1466	1792	2109
33	2126	875	1168	1511	1848	2175
34	2191	901	1204	1557	1904	2241
35	2256	928	1239	1603	1960	2307
36	2321	954	1274	1649	2016	2372
37	2386	981	1310	1695	2072	2438
38	2451	1007	1345	1740	2128	2504

Warning: Weight over 100 kg

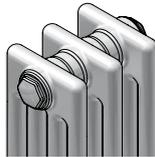
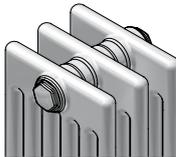
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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

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

Height		350				
						
Model		K2035	K3035	K4035	K5035	K6035
Depth	mm	62	100	136	173	210
Exponent	n	1,29	1,28	1,26	1,25	1,29
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	122	162	210	257	302
5	306	152	203	263	321	378
6	371	182	244	315	385	453
7	436	213	284	368	449	529
8	501	243	325	420	514	604
9	566	274	365	473	578	680
10	631	304	406	525	642	755
11	696	334	447	578	706	831
12	761	365	487	630	770	906
13	826	395	528	683	835	982
14	891	426	568	735	899	1057
15	956	456	609	788	963	1133
16	1021	486	650	840	1027	1208
17	1086	517	690	893	1091	1284
18	1151	547	731	945	1156	1359
19	1216	578	771	998	1220	1435
20	1281	608	812	1050	1284	1510
21	1346	638	853	1103	1348	1586
22	1411	669	893	1155	1412	1661
23	1476	699	934	1208	1477	1737
24	1541	730	974	1260	1541	1812
25	1606	760	1015	1313	1605	1888
26	1671	790	1056	1365	1669	1963
27	1736	821	1096	1418	1733	2039
28	1801	851	1137	1470	1798	2114
29	1866	882	1177	1523	1862	2190
30	1931	912	1218	1575	1926	2265
31	1996	942	1259	1628	1990	2341
32	2061	973	1299	1680	2054	2416
33	2126	1003	1340	1733	2119	2492
34	2191	1034	1380	1785	2183	2567
35	2256	1064	1421	1838	2247	2643
36	2321	1094	1462	1890	2311	2718
37	2386	1125	1502	1943	2375	2794
38	2451	1155	1543	1995	2440	2869

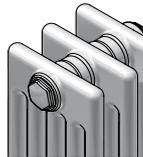
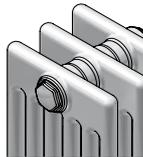
Warning: Weight over 100 kg

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 Clinic

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

Height		400				
						
Model		K2040	K3040	K4040	K5040	K6040
Depth	mm	62	100	136	173	210
Exponent	n	1,29	1,28	1,27	1,26	1,29
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	137	183	237	289	340
5	306	171	229	296	362	426
6	371	205	274	355	434	511
7	436	239	320	414	506	596
8	501	274	366	474	578	681
9	566	308	411	533	651	766
10	631	342	457	592	723	851
11	696	376	503	651	795	936
12	761	410	548	710	868	1021
13	826	445	594	770	940	1106
14	891	479	640	829	1012	1191
15	956	513	686	888	1085	1277
16	1021	547	731	947	1157	1362
17	1086	581	777	1006	1229	1447
18	1151	616	823	1066	1301	1532
19	1216	650	868	1125	1374	1617
20	1281	684	914	1184	1446	1702
21	1346	718	960	1243	1518	1787
22	1411	752	1005	1302	1591	1872
23	1476	787	1051	1362	1663	1957
24	1541	821	1097	1421	1735	2042
25	1606	855	1143	1480	1808	2128
26	1671	889	1188	1539	1880	2213
27	1736	923	1234	1598	1952	2298
28	1801	958	1280	1658	2024	2383
29	1866	992	1325	1717	2097	2468
30	1931	1026	1371	1776	2169	2553
31	1996	1060	1417	1835	2241	2638
32	2061	1094	1462	1894	2314	2723
33	2126	1129	1508	1954	2386	2808
34	2191	1163	1554	2013	2458	2893
35	2256	1197	1600	2072	2531	2979
36	2321	1231	1645	2131	2603	3064
37	2386	1265	1691	2190	2675	3149
38	2451	1300	1737	2250	2747	3234

Warning: Weight over 100 kg

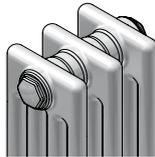
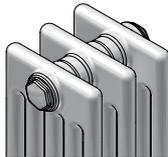
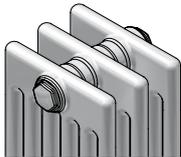
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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

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

Height		450				
						
Model		K2045	K3045	K4045	K5045	K6045
Depth	mm	62	100	136	173	210
Exponent	n	1,29	1,28	1,27	1,26	1,29
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	152	203	263	322	378
5	306	190	254	329	402	473
6	371	227	305	394	482	568
7	436	265	356	460	563	662
8	501	303	406	526	643	757
9	566	341	457	591	724	851
10	631	379	508	657	804	946
11	696	417	559	723	884	1041
12	761	455	610	788	965	1135
13	826	493	660	854	1045	1230
14	891	531	711	920	1126	1324
15	956	569	762	986	1206	1419
16	1021	606	813	1051	1286	1514
17	1086	644	864	1117	1367	1608
18	1151	682	914	1183	1447	1703
19	1216	720	965	1248	1528	1797
20	1281	758	1016	1314	1608	1892
21	1346	796	1067	1380	1688	1987
22	1411	834	1118	1445	1769	2081
23	1476	872	1168	1511	1849	2176
24	1541	910	1219	1577	1930	2270
25	1606	948	1270	1643	2010	2365
26	1671	985	1321	1708	2090	2460
27	1736	1023	1372	1774	2171	2554
28	1801	1061	1422	1840	2251	2649
29	1866	1099	1473	1905	2332	2743
30	1931	1137	1524	1971	2412	2838
31	1996	1175	1575	2037	2492	2933
32	2061	1213	1626	2102	2573	3027
33	2126	1251	1676	2168	2653	3122
34	2191	1289	1727	2234	2734	3216
35	2256	1327	1778	2300	2814	3311
36	2321	1364	1829	2365	2894	3406
37	2386	1402	1880	2431	2975	3500
38	2451	1440	1930	2497	3055	3595

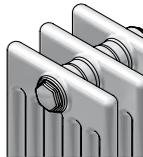
Warning: Weight over 100 kg

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 Clinic

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

Height		500				
						
Model		K2050	K3050	K4050	K5050	K6050
Depth	mm	62	100	136	173	210
Exponent	n	1,29	1,28	1,27	1,26	1,29
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	166	224	289	354	416
5	306	208	280	362	442	520
6	371	250	335	434	530	624
7	436	291	391	506	619	728
8	501	333	447	578	707	832
9	566	374	503	651	796	936
10	631	416	559	723	884	1040
11	696	458	615	795	972	1144
12	761	499	671	868	1061	1248
13	826	541	727	940	1149	1352
14	891	582	783	1012	1238	1456
15	956	624	839	1085	1326	1560
16	1021	666	894	1157	1414	1664
17	1086	707	950	1229	1503	1768
18	1151	749	1006	1301	1591	1872
19	1216	790	1062	1374	1680	1976
20	1281	832	1118	1446	1768	2080
21	1346	874	1174	1518	1856	2184
22	1411	915	1230	1591	1945	2288
23	1476	957	1286	1663	2033	2392
24	1541	998	1342	1735	2122	2496
25	1606	1040	1398	1808	2210	2600
26	1671	1082	1453	1880	2298	2704
27	1736	1123	1509	1952	2387	2808
28	1801	1165	1565	2024	2475	2912
29	1866	1206	1621	2097	2564	3016
30	1931	1248	1677	2169	2652	3120
31	1996	1290	1733	2241	2740	3224
32	2061	1331	1789	2314	2829	3328
33	2126	1373	1845	2386	2917	3432
34	2191	1414	1901	2458	3006	3536
35	2256	1456	1957	2531	3094	3640
36	2321	1498	2012	2603	3182	3744
37	2386	1539	2068	2675	3271	3848
38	2451	1581	2124	2747	3359	3952

Warning: Weight over 100 kg

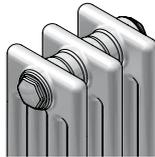
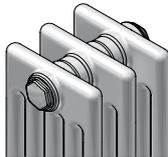
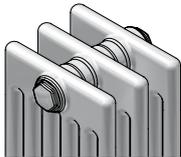
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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 Clinic



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

Height		550				
						
Model		K2055	K3055	K4055	K5055	K6055
Depth	mm	62	100	136	173	210
Exponent	n	1,29	1,29	1,28	1,27	1,29
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	181	244	315	386	452
5	306	226	305	394	482	565
6	371	271	366	473	578	678
7	436	316	427	552	675	791
8	501	362	488	630	771	904
9	566	407	549	709	868	1017
10	631	452	610	788	964	1130
11	696	497	671	867	1060	1243
12	761	542	732	946	1157	1356
13	826	588	793	1024	1253	1469
14	891	633	854	1103	1350	1582
15	956	678	915	1182	1446	1695
16	1021	723	976	1261	1542	1808
17	1086	768	1037	1340	1639	1921
18	1151	814	1098	1418	1735	2034
19	1216	859	1159	1497	1832	2147
20	1281	904	1220	1576	1928	2260
21	1346	949	1281	1655	2024	2373
22	1411	994	1342	1734	2121	2486
23	1476	1040	1403	1812	2217	2599
24	1541	1085	1464	1891	2314	2712
25	1606	1130	1525	1970	2410	2825
26	1671	1175	1586	2049	2506	2938
27	1736	1220	1647	2128	2603	3051
28	1801	1266	1708	2206	2699	3164
29	1866	1311	1769	2285	2796	3277
30	1931	1356	1830	2364	2892	3390
31	1996	1401	1891	2443	2988	3503
32	2061	1446	1952	2522	3085	3616
33	2126	1492	2013	2600	3181	3729
34	2191	1537	2074	2679	3278	3842
35	2256	1582	2135	2758	3374	3955
36	2321	1627	2196	2837	3470	4068
37	2386	1672	2257	2916	3567	4181
38	2451	1718	2318	2994	3663	4294

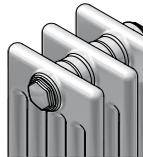
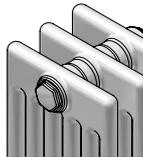
Warning: Weight over 100 kg

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 Clinic

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

Height		600				
mm						
Model		K2060	K3060	K4060	K5060	K6060
Depth	mm	62	100	136	173	210
Exponent	n	1,29	1,29	1,28	1,27	1,29
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	195	264	342	416	492
5	306	244	330	427	520	615
6	371	293	396	512	624	738
7	436	342	462	598	728	861
8	501	390	528	683	832	984
9	566	439	594	769	936	1107
10	631	488	660	854	1040	1230
11	696	537	726	939	1144	1353
12	761	586	792	1025	1248	1476
13	826	634	858	1110	1352	1599
14	891	683	924	1196	1456	1722
15	956	732	990	1281	1560	1845
16	1021	781	1056	1366	1664	1968
17	1086	830	1122	1452	1768	2091
18	1151	878	1188	1537	1872	2214
19	1216	927	1254	1623	1976	2337
20	1281	976	1320	1708	2080	2460
21	1346	1025	1386	1793	2184	2583
22	1411	1074	1452	1879	2288	2706
23	1476	1122	1518	1964	2392	2829
24	1541	1171	1584	2050	2496	2952
25	1606	1220	1650	2135	2600	3075
26	1671	1269	1716	2220	2704	3198
27	1736	1318	1782	2306	2808	3321
28	1801	1366	1848	2391	2912	3444
29	1866	1415	1914	2477	3016	3567
30	1931	1464	1980	2562	3120	3690
31	1996	1513	2046	2647	3224	3813
32	2061	1562	2112	2733	3328	3936
33	2126	1610	2178	2818	3432	4059
34	2191	1659	2244	2904	3536	4182
35	2256	1708	2310	2989	3640	4305
36	2321	1757	2376	3074	3744	4428
37	2386	1806	2442	3160	3848	4551
38	2451	1854	2508	3245	3952	4674

Warning: Weight over 100 kg

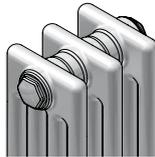
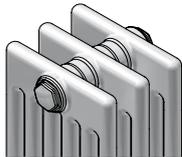
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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 Clinic



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

Height		750				
						
Model		K2075	K3075	K4075	K5075	K6075
Depth	mm	62	100	136	173	210
Exponent	n	1,29	1,30	1,29	1,28	1,30
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	237	324	420	512	604
5	306	296	406	525	640	755
6	371	355	487	630	768	906
7	436	414	568	735	896	1057
8	501	474	649	840	1024	1208
9	566	533	730	945	1152	1359
10	631	592	811	1050	1280	1510
11	696	651	892	1155	1408	1661
12	761	710	973	1260	1536	1812
13	826	770	1054	1365	1664	1963
14	891	829	1135	1470	1792	2114
15	956	888	1217	1575	1920	2265
16	1021	947	1298	1680	2048	2416
17	1086	1006	1379	1785	2176	2567
18	1151	1066	1460	1890	2304	2718
19	1216	1125	1541	1995	2432	2869
20	1281	1184	1622	2100	2560	3020
21	1346	1243	1703	2205	2688	3171
22	1411	1302	1784	2310	2816	3322
23	1476	1362	1865	2415	2944	3473
24	1541	1421	1946	2520	3072	3624
25	1606	1480	2028	2625	3200	3775
26	1671	1539	2109	2730	3328	3926
27	1736	1598	2190	2835	3456	4077
28	1801	1658	2271	2940	3584	4228
29	1866	1717	2352	3045	3712	4379
30	1931	1776	2433	3150	3840	4530
31	1996	1835	2514	3255	3968	4681
32	2061	1894	2595	3360	4096	4832
33	2126	1954	2676	3465	4224	4983
34	2191	2013	2757	3570	4352	5134
35	2256	2072	2839	3675	4480	5285
36	2321	2131	2920	3780	4608	5436
37	2386	2190	3001	3885	4736	5587
38	2451	2250	3082	3990	4864	5738

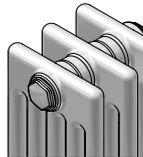
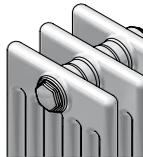
Warning: Weight over 100 kg

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 Clinic

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

Height		900				
mm						
Model		K2090	K3090	K4090	K5090	K6090
Depth	mm	62	100	136	173	210
Exponent	n	1,30	1,31	1,30	1,29	1,30
Max. number of elements		44	44	44	44	44
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	278	385	500	608	716
5	306	347	482	625	760	895
6	371	416	578	750	912	1074
7	436	486	674	875	1064	1253
8	501	555	770	1000	1216	1432
9	566	625	867	1125	1368	1611
10	631	694	963	1250	1520	1790
11	696	763	1059	1375	1672	1969
12	761	833	1156	1500	1824	2148
13	826	902	1252	1625	1976	2327
14	891	972	1348	1750	2128	2506
15	956	1041	1445	1875	2280	2685
16	1021	1110	1541	2000	2432	2864
17	1086	1180	1637	2125	2584	3043
18	1151	1249	1733	2250	2736	3222
19	1216	1319	1830	2375	2888	3401
20	1281	1388	1926	2500	3040	3580
21	1346	1457	2022	2625	3192	3759
22	1411	1527	2119	2750	3344	3938
23	1476	1596	2215	2875	3496	4117
24	1541	1666	2311	3000	3648	4296
25	1606	1735	2408	3125	3800	4475
26	1671	1804	2504	3250	3952	4654
27	1736	1874	2600	3375	4104	4833
28	1801	1943	2696	3500	4256	5012
29	1866	2013	2793	3625	4408	5191
30	1931	2082	2889	3750	4560	5370
31	1996	2151	2985	3875	4712	5549
32	2061	2221	3082	4000	4864	5728
33	2126	2290	3178	4125	5016	5907
34	2191	2360	3274	4250	5168	6086
35	2256	2429	3371	4375	5320	6265
36	2321	2498	3467	4500	5472	6444
37	2386	2568	3563	4625	5624	6623
38	2451	2637	3659	4750	5776	6802

Warning: Weight over 100 kg

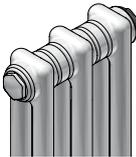
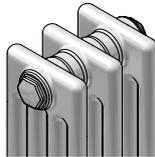
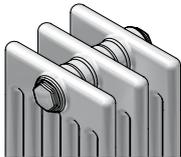
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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

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

Height		1000				
						
Model		K2100	K3100	K4100	K5100	K6100
Depth	mm	62	100	136	173	210
Exponent	n	1,30	1,32	1,31	1,30	1,30
Max. number of elements		16	16	16	16	16
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	304	428	552	672	792
5	306	380	535	690	840	990
6	371	456	642	828	1008	1188
7	436	532	749	966	1176	1386
8	501	608	856	1104	1344	1584
9	566	684	963	1242	1512	1782
10	631	760	1070	1380	1680	1980
11	696	836	1177	1518	1848	2178
12	761	912	1284	1656	2016	2376
13	826	988	1391	1794	2184	2574
14	891	1064	1498	1932	2352	2772
15	956	1140	1605	2070	2520	2970
16	1021	1216	1712	2208	2688	3168
17	1086	1292	1819	2346	2856	3366
18	1151	1368	1926	2484	3024	3564
19	1216	1444	2033	2622	3192	3762
20	1281	1520	2140	2760	3360	3960
21	1346	1596	2247	2898	3528	4158
22	1411	1672	2354	3036	3696	4356
23	1476	1748	2461	3174	3864	4554
24	1541	1824	2568	3312	4032	4752
25	1606	1900	2675	3450	4200	4950
26	1671	1976	2782	3588	4368	5148
27	1736	2052	2889	3726	4536	5346
28	1801	2128	2996	3864	4704	5544
29	1866	2204	3103	4002	4872	5742
30	1931	2280	3210	4140	5040	5940
31	1996	2356	3317	4278	5208	6138
32	2061	2432	3424	4416	5376	6336
33	2126	2508	3531	4554	5544	6534
34	2191	2584	3638	4692	5712	6732
35	2256	2660	3745	4830	5880	6930
36	2321	2736	3852	4968	6048	7128
37	2386	2812	3959	5106	6216	7326
38	2451	2888	4066	5244	6384	7524

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 Clinic

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

Height		1100				
Model		K2110	K3110	K4110	K5110	K6110
Depth	mm	62	100	136	173	210
Exponent	n	1,30	1,32	1,32	1,31	1,30
Max. number of elements		16	16	16	16	16
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	330	468	604	740	868
5	306	413	585	755	925	1085
6	371	496	702	906	1110	1302
7	436	578	819	1057	1295	1519
8	501	661	936	1208	1480	1736
9	566	743	1053	1359	1665	1953
10	631	826	1170	1510	1850	2170
11	696	909	1287	1661	2035	2387
12	761	991	1404	1812	2220	2604
13	826	1074	1521	1963	2405	2821
14	891	1156	1638	2114	2590	3038
15	956	1239	1755	2265	2775	3255
16	1021	1322	1872	2416	2960	3472
17	1086	1404	1989	2567	3145	3689
18	1151	1487	2106	2718	3330	3906
19	1216	1569	2223	2869	3515	4123
20	1281	1652	2340	3020	3700	4340
21	1346	1735	2457	3171	3885	4557
22	1411	1817	2574	3322	4070	4774
23	1476	1900	2691	3473	4255	4991
24	1541	1982	2808	3624	4440	5208
25	1606	2065	2925	3775	4625	5425
26	1671	2148	3042	3926	4810	5642
27	1736	2230	3159	4077	4995	5859
28	1801	2313	3276	4228	5180	6076
29	1866	2395	3393	4379	5365	6293
30	1931	2478	3510	4530	5550	6510
31	1996	2561	3627	4681	5735	6727
32	2061	2643	3744	4832	5920	6944
33	2126	2726	3861	4983	6105	7161
34	2191	2808	3978	5134	6290	7378
35	2256	2891	4095	5285	6475	7595
36	2321	2974	4212	5436	6660	7812
37	2386	3056	4329	5587	6845	8029
38	2451	3139	4446			

Warning: Weight over 100 kg

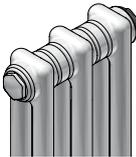
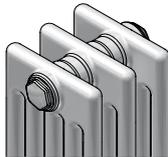
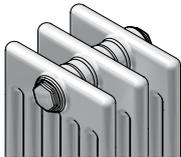
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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

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

Height		1200				
						
Model		K2120	K3120	K4120	K5120	K6120
Depth	mm	62	100	136	173	210
Exponent	n	1,30	1,33	1,32	1,31	1,30
Max. number of elements		16	16	16	16	16
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	364	508	660	804	944
5	306	456	635	825	1005	1180
6	371	547	762	990	1206	1416
7	436	638	889	1155	1407	1652
8	501	729	1016	1320	1608	1888
9	566	820	1143	1485	1809	2124
10	631	911	1270	1650	2010	2360
11	696	1002	1397	1815	2211	2596
12	761	1093	1524	1980	2412	2832
13	826	1184	1651	2145	2613	3068
14	891	1275	1778	2310	2814	3304
15	956	1367	1905	2475	3015	3540
16	1021	1458	2032	2640	3216	3776
17	1086	1549	2159	2805	3417	4012
18	1151	1640	2286	2970	3618	4248
19	1216	1731	2413	3135	3819	4484
20	1281	1822	2540	3300	4020	4720
21	1346	1913	2667	3465	4221	4956
22	1411	2004	2794	3630	4422	5192
23	1476	2095	2921	3795	4623	5428
24	1541	2186	3048	3960	4824	5664
25	1606	2278	3175	4125	5025	5900
26	1671	2369	3302	4290	5226	6136
27	1736	2460	3429	4455	5427	6372
28	1801	2551	3556	4620	5628	6608
29	1866	2642	3683	4785	5829	6844
30	1931	2733	3810	4950	6030	7080
31	1996	2824	3937	5115	6231	7316
32	2061	2915	4064	5280	6432	7552
33	2126	3006	4191	5445	6633	7788
34	2191	3097	4318	5610	6834	8024
35	2256	3189	4445	5775	7035	8260
36	2321	3280	4572	5940	7236	8496
37	2386	3371	4699	6105	7437	8732
38	2451	3462	4826	6270	7638	8968

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 Clinic

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

Height		1500				
Model		K2150	K3150	K4150	K5150	K6150
Depth	mm	62	100	136	173	210
Exponent	n	1,33	1,33	1,31	1,30	1,31
Max. number of elements		16	16	16	16	16
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	460	632	816	996	1172
5	306	575	790	1020	1245	1465
6	371	690	948	1224	1494	1758
7	436	805	1106	1428	1743	2051
8	501	920	1264	1632	1992	2344
9	566	1035	1422	1836	2241	2637
10	631	1150	1580	2040	2490	2930
11	696	1265	1738	2244	2739	3223
12	761	1380	1896	2448	2988	3516
13	826	1495	2054	2652	3237	3809
14	891	1610	2212	2856	3486	4102
15	956	1725	2370	3060	3735	4395
16	1021	1840	2528	3264	3984	4688
17	1086	1955	2686	3468	4233	4981
18	1151	2070	2844	3672	4482	5274
19	1216	2185	3002	3876	4731	5567
20	1281	2300	3160	4080	4980	5860
21	1346	2415	3318	4284	5229	6153
22	1411	2530	3476	4488	5478	6446
23	1476	2645	3634	4692	5727	6739
24	1541	2760	3792	4896	5976	7032
25	1606	2875	3950	5100	6225	7325
26	1671	2990	4108	5304	6474	7618
27	1736	3105	4266	5508	6723	7911
28	1801	3220	4424	5712	6972	8204
29	1866	3335	4582	5916	7221	8497
30	1931	3450	4740	6120	7470	8790
31	1996	3565	4898	6324	7719	9083
32	2061	3680	5056	6528	7968	9376
33	2126	3795	5214	6732	8217	9669
34	2191	3910	5372	6936	8466	9962
35	2256	4025	5530	7140	8715	10255
36	2321	4140	5688	7344	8964	10548
37	2386	4255	5846	7548	9213	10841
38	2451	4370	6004	7752	9462	11134

Warning: Weight over 100 kg

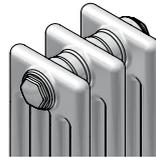
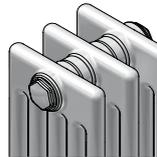
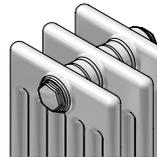
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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 Clinic



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

Height		1800				
						
Model		K2180	K3180	K4180	K5180	K6180
Depth	mm	62	100	136	173	210
Exponent	n	1,35	1,34	1,31	1,29	1,32
Max. number of elements		16	16	16	16	16
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	556	756	976	1188	1396
5	306	695	945	1220	1485	1745
6	371	834	1134	1464	1782	2094
7	436	973	1323	1708	2079	2443
8	501	1112	1512	1952	2376	2792
9	566	1251	1701	2196	2673	3141
10	631	1390	1890	2440	2970	3490
11	696	1529	2079	2684	3267	3839
12	761	1668	2268	2928	3564	4188
13	826	1807	2457	3172	3861	4537
14	891	1946	2646	3416	4158	4886
15	956	2085	2835	3660	4455	5235
16	1021	2224	3024	3904	4752	5584
17	1086	2363	3213	4148	5049	5933
18	1151	2502	3402	4392	5346	6282
19	1216	2641	3591	4636	5643	6631
20	1281	2780	3780	4880	5940	6980
21	1346	2919	3969	5124	6237	7329
22	1411	3058	4158	5368	6534	7678
23	1476	3197	4347	5612	6831	8027
24	1541	3336	4536	5856	7128	8376
25	1606	3475	4725	6100	7425	8725
26	1671	3614	4914	6344	7722	9074
27	1736	3753	5103	6588	8019	9423
28	1801	3892	5292	6832	8316	9772
29	1866	4031	5481	7076	8613	10121
30	1931	4170	5670	7320	8910	10470
31	1996	4309	5859	7564	9207	10819
32	2061	4448	6048	7808	9504	11168
33	2126	4587	6237	8052	9801	11517
34	2191	4726	6426	8296	10098	11866
35	2256	4865	6615	8540	10395	12215
36	2321	5004	6804	8784	10692	12564
37	2386	5143	6993	9028	10989	12913
38	2451	5282	7182	9272	11286	13262

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 Clinic

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

Height		2000				
Model		K2200	K3200	K4200	K5200	K6200
Depth	mm	62	100	136	173	210
Exponent	n	1,34	1,33	1,32	1,31	1,31
Max. number of elements		16	16	16	16	16
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	624	836	1080	1320	1548
5	306	780	1045	1350	1650	1935
6	371	936	1254	1620	1980	2322
7	436	1092	1463	1890	2310	2709
8	501	1248	1672	2160	2640	3096
9	566	1404	1881	2430	2970	3483
10	631	1560	2090	2700	3300	3870
11	696	1716	2299	2970	3630	4257
12	761	1872	2508	3240	3960	4644
13	826	2028	2717	3510	4290	5031
14	891	2184	2926	3780	4620	5418
15	956	2340	3135	4050	4950	5805
16	1021	2496	3344	4320	5280	6192
17	1086	2652	3553	4590	5610	6579
18	1151	2808	3762	4860	5940	6966
19	1216	2964	3971	5130	6270	7353
20	1281	3120	4180	5400	6600	7740
21	1346	3276	4389	5670	6930	8127
22	1411	3432	4598	5940	7260	8514
23	1476	3588	4807	6210	7590	8901
24	1541	3744	5016	6480	7920	9288
25	1606	3900	5225	6750	8250	9675
26	1671	4056	5434	7020	8580	10062
27	1736	4212	5643	7290	8910	10449
28	1801	4368	5852	7560	9240	10836
29	1866	4524	6061	7830	9570	11223
30	1931	4680	6270	8100	9900	11610
31	1996	4836	6479	8370	10230	11997
32	2061	4992	6688	8640	10560	12384
33	2126	5148	6897	8910	10890	12771
34	2191	5304	7106	9180	11220	13158
35	2256	5460	7315	9450	11550	13545
36	2321	5616	7524	9720	11880	13932
37	2386	5772	7733	9990	12210	14319
38	2451	5928	7942	10260	12540	14706

Warning: Weight over 100 kg

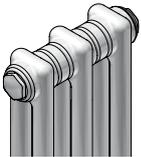
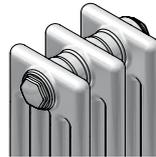
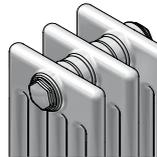
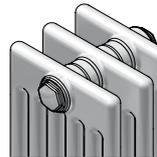
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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 Clinic



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

Height		2200				
						
Model		K2220	K3220	K4220	K5220	K6220
Depth	mm	62	100	136	173	210
Exponent	n	1,34	1,33	1,32	1,31	1,31
Max. number of elements		16	16	16	16	16
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	688	916	1184	1448	1700
5	306	860	1145	1480	1810	2125
6	371	1032	1374	1776	2172	2550
7	436	1204	1603	2072	2534	2975
8	501	1376	1832	2368	2896	3400
9	566	1548	2061	2664	3258	3825
10	631	1720	2290	2960	3620	4250
11	696	1892	2519	3256	3982	4675
12	761	2064	2748	3552	4344	5100
13	826	2236	2977	3848	4706	5525
14	891	2408	3206	4144	5068	5950
15	956	2580	3435	4440	5430	6375
16	1021	2752	3664	4736	5792	6800
17	1086	2924	3893	5032	6154	7225
18	1151	3096	4122	5328	6516	7650
19	1216	3268	4351	5624	6878	8075
20	1281	3440	4580	5920	7240	8500
21	1346	3612	4809	6216	7602	8925
22	1411	3784	5038	6512	7964	9350
23	1476	3956	5267	6808	8326	9775
24	1541	4128	5496	7104	8688	10200
25	1606	4300	5725	7400	9050	10625
26	1671	4472	5954	7696	9412	11050
27	1736	4644	6183	7992	9774	11475
28	1801	4816	6412	8288	10136	11900
29	1866	4988	6641	8584	10498	12325
30	1931	5160	6870	8880	10860	12750
31	1996	5332	7099	9176	11222	13175
32	2061	5504	7328	9472	11584	13600
33	2126	5676	7557	9768	11946	14025
34	2191	5848	7786	10064	12308	14450
35	2256	6020	8015	10360	12670	14875
36	2321	6192	8244	10656	13032	15300
37	2386	6364	8473	10952	13394	15725
38	2451	6536	8702	11248	13756	16150

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 Clinic

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

Height		2500				
Model		K2250	K3250	K4250	K5250	K6250
Depth	mm	62	100	136	173	210
Exponent	n	1,33	1,33	1,32	1,31	1,30
Max. number of elements		16	16	16	16	16
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	780	1040	1340	1640	1924
5	306	975	1300	1675	2050	2405
6	371	1170	1560	2010	2460	2886
7	436	1365	1820	2345	2870	3367
8	501	1560	2080	2680	3280	3848
9	566	1755	2340	3015	3690	4329
10	631	1950	2600	3350	4100	4810
11	696	2145	2860	3685	4510	5291
12	761	2340	3120	4020	4920	5772
13	826	2535	3380	4355	5330	6253
14	891	2730	3640	4690	5740	6734
15	956	2925	3900	5025	6150	7215
16	1021	3120	4160	5360	6560	7696
17	1086	3315	4420	5695	6970	8177
18	1151	3510	4680	6030	7380	8658
19	1216	3705	4940	6365	7790	9139
20	1281	3900	5200	6700	8200	9620
21	1346	4095	5460	7035	8610	10101
22	1411	4290	5720	7370	9020	10582
23	1476	4485	5980	7705	9430	11063
24	1541	4680	6240	8040	9840	11544
25	1606	4875	6500	8375	10250	12025
26	1671	5070	6760	8710	10660	12506
27	1736	5265	7020	9045	11070	12987
28	1801	5460	7280	9380	11480	13468
29	1866	5655	7540	9715	11890	13949
30	1931	5850	7800	10050	12300	14430
31	1996	6045	8060	10385	12710	14911
32	2061	6240	8320	10720	13120	15392
33	2126	6435	8580	11055	13530	15873
34	2191	6630	8840	11390	13940	16354
35	2256	6825	9100	11725	14350	16835
36	2321	7020	9360	12060	14760	17316
37	2386	7215	9620	12395	15170	17797
38	2451	7410	9880	12730	15580	18278

Warning: Weight over 100 kg

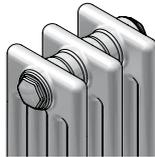
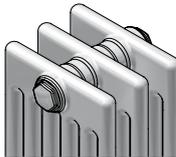
Surcharge for special colours, category 1 = 20%, category 2 = 30%

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 Clinic



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

Height		2800				
mm						
						
Model		K2280	K3280	K4280	K5280	K6280
Depth	mm	62	100	136	173	210
Exponent	n	1,32	1,33	1,32	1,31	1,30
Max. number of elements		16	16	16	16	14
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	876	1160	1500	1832	2148
5	306	1095	1450	1875	2290	2685
6	371	1314	1740	2250	2748	3222
7	436	1533	2030	2625	3206	3759
8	501	1752	2320	3000	3664	4296
9	566	1971	2610	3375	4122	4833
10	631	2190	2900	3750	4580	5370
11	696	2409	3190	4125	5038	5907
12	761	2628	3480	4500	5496	6444
13	826	2847	3770	4875	5954	6981
14	891	3066	4060	5250	6412	7518
15	956	3285	4350	5625	6870	8055
16	1021	3504	4640	6000	7328	8592
17	1086	3723	4930	6375	7786	9129
18	1151	3942	5220	6750	8244	9666
19	1216	4161	5510	7125	8702	10203
20	1281	4380	5800	7500	9160	10740
21	1346	4599	6090	7875	9618	11277
22	1411	4818	6380	8250	10076	11814
23	1476	5037	6670	8625	10534	12351
24	1541	5256	6960	9000	10992	12888
25	1606	5475	7250	9375	11450	13425
26	1671	5694	7540	9750	11908	13962
27	1736	5913	7830	10125	12366	14499
28	1801	6132	8120	10500	12824	15036
29	1866	6351	8410	10875	13282	15573
30	1931	6570	8700	11250	13740	16110
31	1996	6789	8990	11625	14198	16647
32	2061	7008	9280	12000	14656	17184
33	2126	7227	9570	12375	15114	17721
34	2191	7446	9860	12750	15572	18258
35	2256	7665	10150	13125	16030	18795
36	2321	7884	10440	13500	16488	19332
37	2386	8103	10730	13875	16946	19869
38	2451	8322	11020	14250	17404	20406

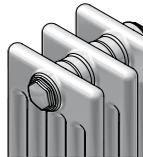
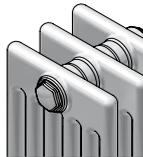
Warning: Weight over 100 kg

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 Clinic

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

Height		3000				
						
Model		K2300	K3300	K4300	K5300	K6300
Depth	mm	62	100	136	173	210
Exponent	n	1,32	1,33	1,32	1,31	1,30
Max. number of elements		16	16	16	16	14
Length		Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm	W	W	W	W	W
4	241	940	1244	1604	1960	2300
5	306	1175	1555	2005	2450	2875
6	371	1410	1866	2406	2940	3450
7	436	1645	2177	2807	3430	4025
8	501	1880	2488	3208	3920	4600
9	566	2115	2799	3609	4410	5175
10	631	2350	3110	4010	4900	5750
11	696	2585	3421	4411	5390	6325
12	761	2820	3732	4812	5880	6900
13	826	3055	4043	5213	6370	7475
14	891	3290	4354	5614	6860	8050
15	956	3525	4665	6015	7350	8625
16	1021	3760	4976	6416	7840	9200
17	1086	3995	5287	6817	8330	9775
18	1151	4230	5598	7218	8820	10350
19	1216	4465	5909	7619	9310	10925
20	1281	4700	6220	8020	9800	11500
21	1346	4935	6531	8421	10290	12075
22	1411	5170	6842	8822	10780	12650
23	1476	5405	7153	9223	11270	13225
24	1541	5640	7464	9624	11760	13800
25	1606	5875	7775	10025	12250	14375
26	1671	6110	8086	10426	12740	14950
27	1736	6345	8397	10827	13230	15525
28	1801	6580	8708	11228	13720	16100
29	1866	6815	9019	11629	14210	16675
30	1931	7050	9330	12030	14700	17250
31	1996	7285	9641	12431	15190	17825
32	2061	7520	9952	12832	15680	18400
33	2126	7755	10263	13233	16170	18975
34	2191	7990	10574	13634	16660	19550
35	2256	8225	10885	14035	17150	20125
36	2321	8460	11196	14436	17640	20700
37	2386	8695	11507	14837	18130	21275
38	2451	8930	11818	15238	18620	21850

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 Clinic


High pressure version max. 18 bar (not for Completto version)

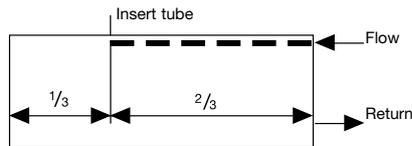
- with welded plugs
- with welded plugs and tied rod
- for radiators comprising several blocks additionally per welded joint

2- to 3-column
4- to 6-column
(at top and bottom)

Operating temperature 120 °C**Further connections****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.

- 2-column from 87 elements = length 5636 mm
- 3-column from 85 elements = length 5506 mm
- 4-column from 81 elements = length 5246 mm
- 5-column from 71 elements = length 4596 mm
- 6-column from 55 elements = length 3556 mm

**Intermediate heights**

calculated on next-higher catalogue height

Angled or curved design (see page 43)

Radiator designs over height 3000 mm

Welded lugs, price per lug

Galvanising

(see also explanations on galvanising in section "General")

Galvanising with subsequent standard finish (RAL 9016)

maximum dimensions: 3000 x 850 x 450 mm

Completto version

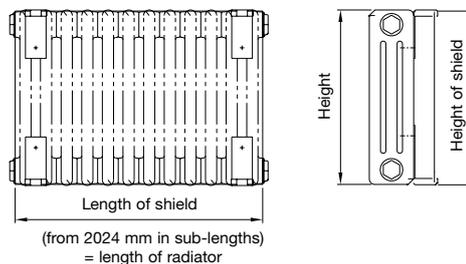
with valve inserts for clip seal (Danfoss thermostat) instead of M 30 x 1,5 threaded connection

Completto Q-Tech

Charleston Completto Q-Tech is built in factory-made, for an automatic hydraulic balancing of pressure differences that can occur when, e.g. connecting or turning off system parts. By the integrated diaphragm-sensed flow-control in the valve insert, the differential pressure is constantly kept above the pre-setting and standard cross section value. Therefore it is possible to quickly and easily do the hydraulic balancing of new and old systems or unknown pipe networks. The pre-setting of the needed flow for the customer needs on site, is achieved by turning the regulation ring with the pre-setting key which is integrated in the scope of delivery. Large flows of 10 to 170 l/h and very big differential pressure (max. 1,5 bar). The Q-Tech valve cannot be retrofitted with AV6, AV9 or other valves.

Thermal radiation shield

for 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.



Number of elements Zehnder Charleston Clinic	Number of shields	Number of brackets
5 to 21	1	4
22 to 31	1	6
32 to 42	2	8
43 to 61	2	12
62 to 84	3	18
85 to 92	3	18

Basic price per reflective cover plate

Price per metre, thermal radiation shield:

H = 260 - 450 mm

H = 500 - 750 mm

H = Height of shield

Basis for calculating the surcharge is the standard finish

Zehnder Charleston Clinic

Connections for Zehnder Charleston Clinic see chapter
Zehnder Charleston page 43 ff.

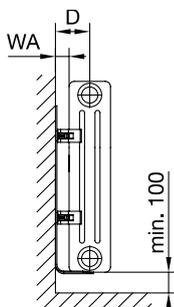
Zehnder Charleston Clinic with EasyFix



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

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
L = 17-27 el.		3 x SMB30	173621
L = 28-40 el.		4 x SMB30	173721
L = 41-55 el.		5 x SMB30	173821

H = 370-484

All models

L = 4-16 el.	35	2 x SMB40	173531
L = 17-27 el.		3 x SMB40	173631
L = 28-40 el.		4 x SMB40	173731
L = 41-55 el.		5 x SMB40	173831

H = 485-679

All models

L = 4-16 el.	35	2 x SMB50	173541
L = 17-27 el.		3 x SMB50	173641
L = 28-40 el.		4 x SMB50	173741
L = 41-55 el.		5 x SMB50	173841

H = 680-1000

All models

L = 4-14 el.	35	2 x SMB75	173551
L = 15-27 el.		3 x SMB75	173651
L = 28-40 el.		4 x SMB75	173751
L = 41-55 el.		5 x SMB75	173851

H = 1001-1500

2- to 4-column

L = 4-14 el.	35	2 x SMB2T	173511
L = 15-27 el.		3 x SMB2T	173611
L = 28-40 el.		4 x SMB2T	173711
L = 41-55 el.		5 x SMB2T	173811

5- to 6-column

L = 4-10 el.	35	2 x SMB2T	173511
L = 11-20 el.		3 x SMB2T	173611
L = 21-30 el.		4 x SMB2T	173711

H = 1501-2200

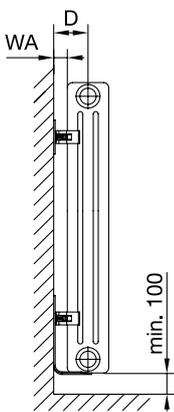
2- to 4-column

L = 4-11 el.	35	2 x SMB2T	173511
L = 12-21 el.		3 x SMB2T	173611
L = 22-31 el.		4 x SMB2T	173711

5- to 6-column

L = 4-8 el.	35	2 x SMB2T	173511
L = 9-15 el.		3 x SMB2T	173611
L = 16-22 el.		4 x SMB2T	173711

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

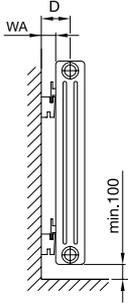
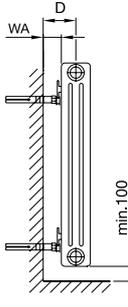
D = Dimension from wall to middle of connection

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			
		Application	Wall clearance WA mm	Brackets in set	Article no. ³⁾ set White

Accessory sets CVD, BKE

Set CVD	 Sketch Side view  Distance D: 2-column 57 mm 3-column 76 mm 4-column 94 mm 5-column 112 mm 6-column 131 mm	All models			
		Height 260 - 1500 mm with retaining spring L = 4-15 el. 24 4 x BHK + CVD 0 775421 L = 16-30 el. 6 x BHK + CVD 0 775621 L = 31-44 el. 8 x BHK + CVD 0 775821			
Height 1501 - 2200 mm with retaining spring L = 4-15 el. 24 4 x BHK + CVD 0 775421 L = 16-23 el. 6 x BHK + CVD 0 775621 L = 24-30 el. 8 x BHK + CVD 0 775821 L = 31-36 el. 10 x BHK + CVD 0 775921					
Height 1501 - 2200 mm with retaining spring L = 4-7 el. 24 4 x BHK + CVD 0 775421 L = 8-15 el. 6 x BHK + CVD 0 775621 L = 16-23 el. 8 x BHK + CVD 0 775821 L = 24-30 el. 10 x BHK + CVD 0 775921 L = 31-36 el. 12 x BHK + CVD 0 -					
Set BKE ²⁾	 Sketch Side view  Distance D: 2-column 77 mm 3-column 96 mm 4-column 114 mm 5-column 133 mm 6-column 151 mm	All models			
		Height 260 - 1500 mm with retaining spring L = 4-15 el. 46 4 x BHK+BKE160 775461 L = 16-30 el. 6 x BHK+BKE160 775661 L = 31-44 el. 8 x BHK+BKE160 775861			
Height 1501 - 2200 mm with retaining spring L = 4-15 el. 46 4 x BHK+BKE160 775461 L = 16-23 el. 6 x BHK+BKE160 775661 L = 24-30 el. 8 x BHK+BKE160 775861 L = 31-36 el. 10 x BHK+BKE160 775961					
Height 1501 - 2200 mm with retaining spring L = 4-7 el. 46 4 x BHK+BKE160 775461 L = 8-15 el. 6 x BHK+BKE160 775661 L = 16-23 el. 8 x BHK+BKE160 775861 L = 24-30 el. 10 x BHK+BKE160 775961 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	Amount + type of brackets	Article no. Piece

For other fixing options using accessories, see page 148 onwards.

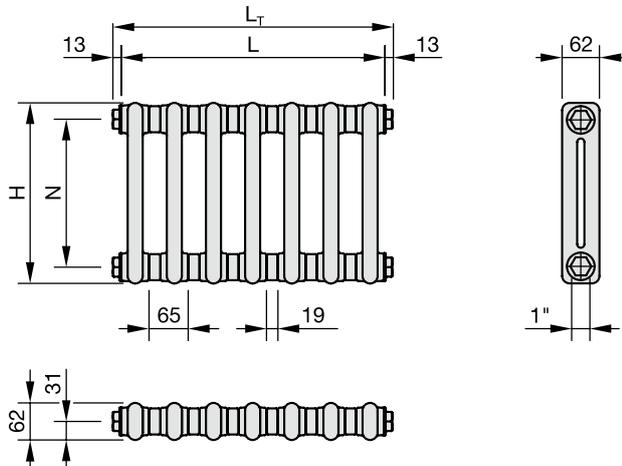
Wall bracket AK³⁾ 	For adjustable wall clearance, short and long version possible, standard: Short, RAL 9016, for details see "Accessories"	All models		
		Height 260 - 1500 mm		
		L = 4-15 el. L = 16-30 el. L = 31-44 el.	4 x BHK + AK 1 6 x BHK + AK 1 8 x BHK + AK 1	Bracket BHK: 775011 Bracket AK 1: 796011
		2- to 5-column		
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
		All models		
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
		All models		

L = Length of radiator in sections

²⁾ Provided from a height of 600 mm for requirements class 2 additional brackets

³⁾ An on-site locking device may be required depending on the installation and connection situation and net weight of the radiator

Model 2-column Clinic



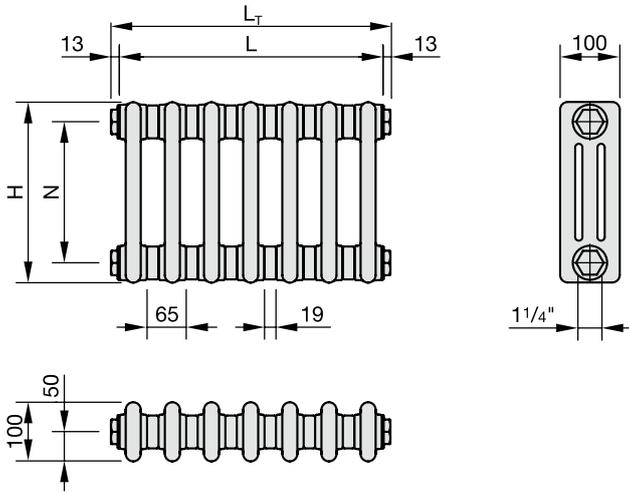
- H = Height
- L = Length = elements x 65 mm - 19 mm
- L_T = Total length = elements x 65 mm - 19 mm + 2 x 13 mm
- N = Boss spacing = H - 58 mm
- T = Depth
- A = Surface
- V = Water content
- M = Weight
- s_k = Proportion of radiation
- q_{ms} = Nominal flow rate
- n = Exponent
- Φ_s = Nominal heat output 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
K2026	260	202	62	0,04	0,4	0,47	25	2,1	1,30	23,9	19,2	12,2
K2030	292	234	62	0,05	0,4	0,51	25	2,3	1,29	26,5	21,3	13,6
K2035	342	284	62	0,06	0,4	0,58	24	2,5	1,29	30,4	24,4	15,6
K2040	392	334	62	0,07	0,5	0,62	25	2,8	1,29	34,2	27,5	17,6
K2045	442	384	62	0,07	0,5	0,69	24	3,0	1,29	37,9	30,5	19,5
K2050	492	434	62	0,08	0,6	0,75	23	3,3	1,29	41,6	33,4	21,4
K2055	542	484	62	0,09	0,6	0,82	23	3,6	1,29	45,2	36,3	23,2
K2060	592	534	62	0,10	0,6	0,88	23	3,9	1,29	48,8	39,2	25,1
K2075	742	684	62	0,12	0,8	1,08	22	4,8	1,29	59,2	47,6	30,4
K2090	892	834	62	0,14	0,9	1,28	22	5,8	1,30	69,4	55,7	35,4
K2100	992	934	62	0,16	1,0	1,41	22	6,4	1,30	76,0	61,0	38,8
K2110	1092	1034	62	0,18	1,0	1,54	22	7,1	1,30	82,6	66,3	42,2
K2120	1192	1134	62	0,19	1,1	1,67	22	7,8	1,30	91,1	73,1	46,5
K2150	1492	1434	62	0,24	1,3	2,07	23	9,9	1,33	115,0	91,8	57,8
K2180	1792	1734	62	0,29	1,6	2,46	23	12,1	1,35	139,0	110,5	69,2
K2200	1992	1934	62	0,32	1,8	2,72	23	13,5	1,34	156,0	124,3	78,1
K2220	2192	2134	62	0,35	1,9	2,98	23	14,9	1,34	172,0	137,0	86,1
K2250	2492	2434	62	0,40	2,2	3,38	23	16,8	1,33	195,0	155,6	98,1
K2280	2792	2734	62	0,45	2,4	3,77	23	18,8	1,32	219,0	175,1	110,7
K2300	2992	2934	62	0,48	2,6	4,03	23	20,2	1,32	235,0	187,9	118,8

Model 3-column Clinic



- H = Height
- L = Length = elements x 65 mm - 19 mm
- L_T = Total length = elements x 65 mm - 19 mm + 2 x 13 mm
- N = Boss spacing = H - 66 mm
- T = Depth
- 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

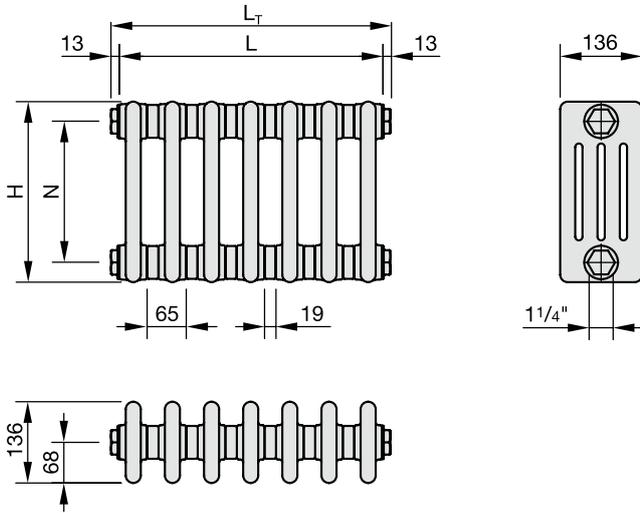
Technical specifications per element

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
K3026	260	194	100	0,06	0,6	0,63	21	2,7	1,27	31,2	25,2	16,2
K3030	300	234	100	0,07	0,6	0,71	20	3,1	1,27	35,4	28,5	18,4
K3035	350	284	100	0,08	0,7	0,80	20	3,5	1,28	40,6	32,7	21,0
K3040	400	334	100	0,10	0,7	0,91	19	4,0	1,28	45,7	36,8	23,6
K3045	450	384	100	0,11	0,8	1,01	19	4,4	1,28	50,8	40,9	26,2
K3050	500	434	100	0,12	0,9	1,10	18	4,8	1,28	55,9	45,0	28,8
K3055	550	484	100	0,13	0,9	1,20	18	5,3	1,29	61,0	49,0	31,3
K3060	600	534	100	0,14	1,0	1,30	18	5,7	1,29	66,0	53,0	33,9
K3075	750	684	100	0,18	1,2	1,59	18	6,9	1,30	81,1	65,0	41,4
K3090	900	834	100	0,21	1,3	1,89	18	8,2	1,31	96,3	77,1	48,9
K3100	1000	934	100	0,24	1,5	2,08	18	9,0	1,32	107,0	85,5	54,1
K3110	1100	1034	100	0,26	1,6	2,28	18	9,8	1,32	117,0	93,5	59,1
K3120	1200	1134	100	0,29	1,7	2,48	18	10,8	1,33	127,0	101,3	63,9
K3150	1500	1434	100	0,36	2,0	3,06	18	13,7	1,33	158,0	126,1	79,5
K3180	1800	1734	100	0,43	2,4	3,65	18	16,5	1,34	189,0	150,6	94,6
K3200	2000	1934	100	0,47	2,6	4,04	18	18,4	1,33	209,0	166,8	105,1
K3220	2200	2134	100	0,52	2,9	4,44	18	20,2	1,33	229,0	182,7	115,2
K3250	2500	2434	100	0,56	3,3	5,02	18	22,7	1,33	260,0	207,5	130,8
K3280	2800	2734	100	0,66	3,7	5,61	18	24,9	1,33	290,0	231,4	145,8
K3300	3000	2934	100	0,71	4,0	6,00	18	26,7	1,33	311,0	248,2	156,4

Zehnder Charleston Clinic



Model 4-column Clinic



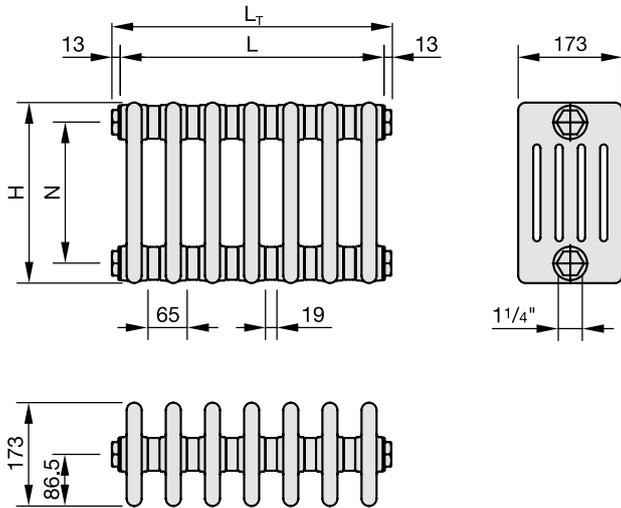
- H = Height
- L = Length = elements x 65 mm - 19 mm
- L_T = Total length = elements x 65 mm - 19 mm + 2 x 13 mm
- N = Boss spacing = H - 66 mm
- T = Depth
- A = Surface
- V = Water content
- M = Weight
- s_k = Proportion of radiation
- q_{ms} = Nominal flow rate
- n = Exponent
- Φ_s = Nominal heat output 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
K4026	260	194	136	0,09	0,7	0,85	18	3,4	1,26	40,4	32,6	21,1
K4030	300	234	136	0,10	0,8	0,95	18	3,9	1,26	45,8	37,0	23,9
K4035	350	284	136	0,11	0,9	1,08	17	4,5	1,26	52,5	42,4	27,4
K4040	400	334	136	0,13	0,9	1,23	16	5,1	1,27	59,2	47,7	30,7
K4045	450	384	136	0,15	1,0	1,36	16	5,7	1,27	65,7	53,0	34,1
K4050	500	434	136	0,16	1,1	1,49	16	6,2	1,27	72,3	58,3	37,5
K4055	550	484	136	0,18	1,2	1,62	16	6,8	1,28	78,8	63,4	40,7
K4060	600	534	136	0,19	1,3	1,75	15	7,4	1,28	85,4	68,7	44,1
K4075	750	684	136	0,24	1,5	2,13	15	9,1	1,29	105,0	84,4	53,9
K4090	900	834	136	0,29	1,8	2,52	15	10,8	1,30	125,0	100,3	63,8
K4100	1000	934	136	0,32	1,9	2,78	15	11,9	1,31	138,0	110,5	70,1
K4110	1100	1034	136	0,35	2,1	3,03	15	13,0	1,32	151,0	120,7	76,3
K4120	1200	1134	136	0,38	2,2	3,29	15	14,1	1,32	165,0	131,9	83,4
K4150	1500	1434	136	0,47	2,7	4,06	15	17,4	1,31	204,0	163,4	103,7
K4180	1800	1734	136	0,57	3,1	4,83	15	20,6	1,31	244,0	195,4	124,0
K4200	2000	1934	136	0,63	3,4	5,35	15	22,9	1,32	270,0	215,8	136,5
K4220	2200	2134	136	0,70	3,7	5,86	15	25,0	1,32	296,0	236,6	149,6
K4250	2500	2434	136	0,79	4,3	6,64	15	28,4	1,32	335,0	267,8	169,3
K4280	2800	2734	136	0,87	4,9	7,41	15	32,2	1,32	375,0	299,8	189,6
K4300	3000	2934	136	0,95	5,4	7,92	15	34,5	1,32	401,0	320,6	202,7

Model 5-column Clinic



- H = Height
- L = Length = elements x 65 mm - 19 mm
- L_T = Total length = elements x 65 mm - 19 mm + 2 x 13 mm
- N = Boss spacing = H - 66 mm
- T = Depth
- 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

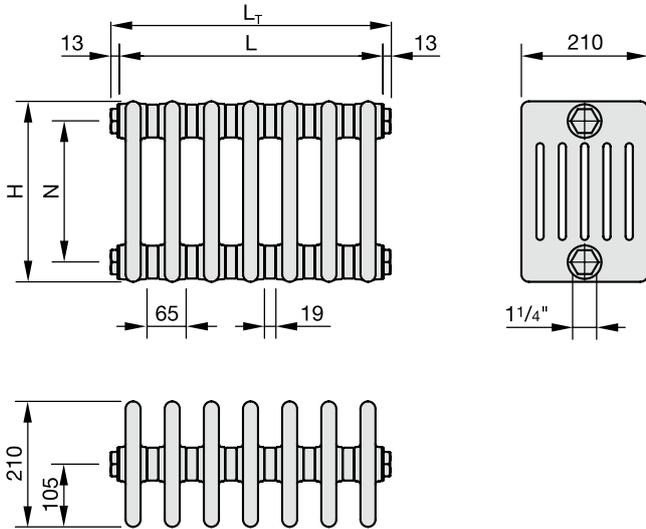
Technical specifications per element

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
K5026	260	194	173	0,11	0,9	0,95	17	4,2	1,25	49,4	40,0	25,9
K5030	300	234	173	0,12	1,0	1,08	16	4,8	1,25	56,0	45,3	29,4
K5035	350	284	173	0,14	1,1	1,25	15	5,5	1,25	64,2	51,9	33,6
K5040	400	334	173	0,16	1,2	1,58	15	6,2	1,26	72,3	58,4	37,7
K5045	450	384	173	0,18	1,3	1,74	14	6,9	1,26	80,4	64,9	41,9
K5050	500	434	173	0,20	1,4	1,91	14	7,7	1,26	88,4	71,4	46,1
K5055	550	484	173	0,22	1,5	2,07	14	8,4	1,27	96,4	77,7	50,0
K5060	600	534	173	0,24	1,6	2,23	13	9,1	1,27	104,0	83,8	54,0
K5075	750	684	173	0,30	1,9	2,72	13	11,2	1,28	128,0	103,0	66,1
K5090	900	834	173	0,36	2,2	3,21	13	13,2	1,29	152,0	122,1	78,0
K5100	1000	934	173	0,40	2,4	3,54	13	14,6	1,30	168,0	134,8	85,8
K5110	1100	1034	173	0,44	2,6	3,87	13	16,0	1,31	185,0	148,1	94,0
K5120	1200	1134	173	0,48	2,8	4,19	13	17,4	1,31	201,0	160,9	102,1
K5150	1500	1434	173	0,59	3,3	5,17	13	21,2	1,30	249,0	199,7	127,2
K5180	1800	1734	173	0,71	3,9	6,15	13	25,2	1,29	297,0	238,6	152,5
K5200	2000	1934	173	0,79	4,3	6,81	13	27,8	1,31	330,0	264,2	167,7
K5220	2200	2134	173	0,87	4,7	7,46	13	30,5	1,31	362,0	289,9	183,9
K5250	2500	2434	173	0,99	5,4	8,44	13	34,7	1,31	410,0	328,3	208,3
K5280	2800	2734	173	1,11	6,1	9,42	13	39,4	1,31	458,0	366,7	232,7
K5300	3000	2934	173	1,19	6,6	10,08	13	42,1	1,31	490,0	392,4	249,0

Zehnder Charleston Clinic



Model 6-column Clinic



- H = Height
- L = Length = elements x 65 mm - 19 mm
- L_T = Total length = elements x 65 mm - 19 mm + 2 x 13 mm
- N = Boss spacing = H - 66 mm
- T = Depth
- 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
K6026	260	194	210	0,13	1,0	1,33	18	5,0	1,28	58,1	46,8	30,0
K6030	300	234	210	0,15	1,1	1,49	15	5,7	1,29	65,9	52,9	33,8
K6035	350	284	210	0,17	1,3	1,69	14	6,6	1,29	75,5	60,7	38,8
K6040	400	334	210	0,19	1,4	1,87	14	7,4	1,29	85,1	68,4	43,7
K6045	450	384	210	0,22	1,5	2,06	13	8,3	1,29	94,6	76,0	48,6
K6050	500	434	210	0,24	1,6	2,26	13	9,1	1,29	104,0	83,6	53,4
K6055	550	484	210	0,26	1,8	2,46	12	10,0	1,29	113,0	90,8	58,0
K6060	600	534	210	0,29	1,9	2,65	12	10,8	1,29	123,0	98,8	63,2
K6075	750	684	210	0,36	2,2	3,25	12	13,2	1,30	151,0	121,1	77,1
K6090	900	834	210	0,43	2,6	3,84	12	15,7	1,30	179,0	143,6	91,4
K6100	1000	934	210	0,48	2,8	4,23	12	17,3	1,30	198,0	158,8	101,1
K6110	1100	1034	210	0,52	3,1	4,62	12	18,9	1,30	217,0	174,1	110,8
K6120	1200	1134	210	0,57	3,3	5,02	12	20,5	1,30	236,0	189,3	120,5
K6150	1500	1434	210	0,71	4,0	6,20	12	25,2	1,31	293,0	234,6	148,9
K6180	1800	1734	210	0,85	4,8	7,38	12	30,0	1,32	349,0	279,0	176,4
K6200	2000	1934	210	0,95	5,2	8,17	12	33,2	1,31	387,0	309,9	196,7
K6220	2200	2134	210	1,04	5,7	8,96	12	36,4	1,31	425,0	340,3	216,0
K6250	2500	2434	210	1,19	6,4	10,14	12	41,4	1,30	481,0	385,8	245,7
K6280	2800	2734	210	1,34	7,1	11,32	12	46,2	1,30	537,0	430,7	274,3
K6300	3000	2934	210	1,42	7,6	12,11	12	49,4	1,30	575,0	461,2	293,7

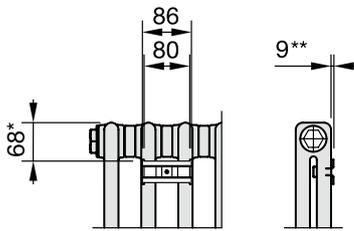
Zehnder Charleston Clinic



Dimensions for the bores when using CVD brackets (upper drill hole)¹⁾

Number of fixings	2 axes / 4 brackets	3 axes / 6 brackets	4 axes / 8 brackets
		 If there is an odd number of sections then the middle axis is offset by 23 mm.	

Detail of suspension



Dimensions for the bores when using EasyFix brackets¹⁾

	SMB 2T H = 245-299 mm	SMB 30-75 H = 300-1000 mm	SMB 2T H = 1001-3000 mm															
		<table border="1"> <thead> <tr> <th>H</th> <th>D_{MP}</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>300 - 369</td> <td>134</td> <td>241</td> </tr> <tr> <td>370 - 484</td> <td>204</td> <td>309</td> </tr> <tr> <td>485 - 679</td> <td>309</td> <td>414</td> </tr> <tr> <td>680 - 1000</td> <td>518</td> <td>623</td> </tr> </tbody> </table>	H	D _{MP}	D	300 - 369	134	241	370 - 484	204	309	485 - 679	309	414	680 - 1000	518	623	
H	D _{MP}	D																
300 - 369	134	241																
370 - 484	204	309																
485 - 679	309	414																
680 - 1000	518	623																

¹⁾ For connection type 3370/5510 and V001-V004, the bracket must be offset inwards by one element

- = Position of drill hole
- L = Length
- H = Height
- * = Smallest possible dimension
- ** = Front edge of bracket to radiator
- D = Dimension from bottom edge of radiator to upper drill hole
- D_{MP} = Spacing of drill holes
- Dimensions in mm

For the recommended number of brackets, see page 85 onwards.

Zehnder Charleston Retrofit



	Overview of models	Product description	Overview details	Fixings	Technical data
Zehnder Charleston Retrofit					
 <ul style="list-style-type: none"> ■ Suitable for connections of old DIN standard, aluminium and cast radiators ■ Retrofitting without changing the connection pipework ■ Optimum flexible heat output 	94	95	96	110	111

Zehnder Charleston Retrofit



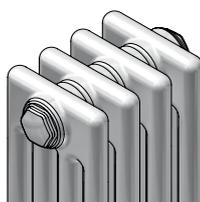
Zehnder Charleston Retrofit



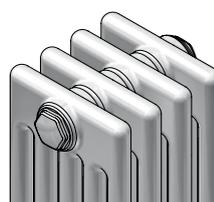
2-column



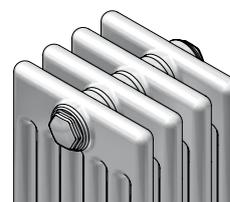
3-column



4-column



5-column



6-column

Height mm	Depth mm				
	62	100	136	173	210
266	-	-	-	-	6027
366	-	3037	4037	5037	6037
408	2041	-	-	-	-
416	-	3042	4042	-	6042
458	2046	-	-	-	-
558	2056	-	-	-	-
566	-	3057	4057	5057	6057
588	2059	-	-	-	-
596	-	3059	4059	-	-
628	2063	-	-	-	-
636	-	3064	4064	-	-
658	2066	-	-	-	-
666	-	3067	4067	5067	6067
677	2068	-	-	-	-
685	-	3069	4069	5069	6069
758	2076	-	-	-	-
766	-	3077	4077	5077	6077
788	2079	-	-	-	-
796	-	3079	4079	-	-
858	2086	-	-	-	-
866	-	3087	4087	5087	6087
877	2088	-	-	-	-
885	-	3089	4089	5089	6089
928	2093	-	-	-	-
936	-	3094	4094	-	-
958	2096	-	-	-	-
966	-	3097	4097	5097	6097
1066	-	3107	4107	5107	6107
1658	2166	-	-	-	-
1666	-	3167	4167	-	-
1858	2186	-	-	-	-
1866	-	3187	4187	-	-
2058	2206	-	-	-	-
2066	-	3207	4207	-	-

¹⁾The values shown here are the so-called nominal height; the exact height varies by a few mm for 2-column radiators and for some of the 3-column radiators as well, see "Technical specifications".

Maximum radiator lengths on piece (per block)

Zehnder Charleston Retrofit (also see price tables from page 96 onwards)

Model	Height mm						
	260 - 600	> 600 - 750	> 750 - 900	> 900 - 1000	> 1000 - 2000	> 2000 - 2500	> 2500 - 3000
2-, 3-column	64	64	64	64	22	22	22
4-column	64	64	64	60	22	22	22
5-column	64	64	50	50	22	22	17
6-column	64	55	46	42	22	17	14

Zehnder Charleston Retrofit



Old radiator



Radiator surface: Technoline

Product description

The original tubular radiator, specifically for renovations. Flexible installation for renovation projects as retrofit models are available for existing pipework, thus it is not necessary to adjust the piping. Suitable for connection to old steel tube radiators, cast iron radiators or aluminium radiators.

The element construction gives Zehnder Charleston Retrofit its transparent appearance and timeless elegance. The tubular radiator provides comfortable radiant heat and transforms the living space into an oasis of relaxation. The Zehnder Charleston Retrofit models make installation easy, especially for renovation projects: retrofit models are available for existing connections. Available in almost any colour and finish from the Zehnder colour chart.

Technical specifications

- Steel round tubes Ø 25 mm
- Header in sheet steel
- Length of the individual element 46 mm
- Priming and powder coating to DIN 55900
- Thermal output tested to EN 442; with CE marking
- Maximum operating pressure 10 bar
- Maximum operating temperature 110 °C

Customisation options

- Special colours and antibacterial coating
- Galvanised and painted
- High pressure version up to max. 18 bar
- Operating temperature at 120 °C on request

Advantages

- Flexible installation on existing pipework means time savings
- Residue-free laser welding technology LaZer made
- Classic elegance
- Radiant heat with feel-good factor
- Energy-efficient for use in low temperature heating systems

Scope of delivery for standard version

- Primed and painted in RAL 9016
- Connections 4 x ½" female thread at front
- Connection S001: 1 blanking plug ½", directional air vent ½"
- Complete packaging in stretch film and carton

Zehnder Charleston Retrofit



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

Height		mm	408	458	558	588	628
							
Model			2041	2046	2056	2059	2063
Depth	mm		62	62	62	62	62
Exponent	n		1,26	1,26	1,25	1,25	1,24
Max. number of elements			64	64	64	64	64
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		130	144	172	180	191
5	230		162	180	215	225	239
6	276		194	216	258	270	286
7	322		227	252	301	315	334
8	368		259	288	344	360	382
9	414		292	324	387	405	429
10	460		324	360	430	450	477
11	506		356	396	473	495	525
12	552		389	432	516	540	572
13	598		421	468	559	585	620
14	644		454	504	602	630	668
15	690		486	540	645	675	716
16	736		518	576	688	720	763
17	782		551	612	731	765	811
18	828		583	648	774	810	859
19	874		616	684	817	855	906
20	920		648	720	860	900	954
21	966		680	756	903	945	1002
22	1012		713	792	946	990	1049
23	1058		745	828	989	1035	1097
24	1104		778	864	1032	1080	1145
25	1150		810	900	1075	1125	1193
26	1196		842	936	1118	1170	1240
27	1242		875	972	1161	1215	1288
28	1288		907	1008	1204	1260	1336
29	1334		940	1044	1247	1305	1383
30	1380		972	1080	1290	1350	1431
31	1426		1004	1116	1333	1395	1479
32	1472		1037	1152	1376	1440	1526
33	1518		1069	1188	1419	1485	1574
34	1564		1102	1224	1462	1530	1622
35	1610		1134	1260	1505	1575	1670
36	1656		1166	1296	1548	1620	1717
37	1702		1199	1332	1591	1665	1765
38	1748		1231	1368	1634	1710	1813

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 Retrofit

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

Height		mm	658	677	758	788	858
Model			2066	2068	2076	2079	2086
Depth	mm		62	62	62	62	62
Exponent	n		1,24	1,24	1,24	1,23	1,23
Max. number of elements			64	64	64	64	64
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		199	204	224	231	248
5	230		249	255	280	289	310
6	276		298	305	336	347	372
7	322		348	356	392	405	434
8	368		398	407	448	462	496
9	414		447	458	504	520	558
10	460		497	509	560	578	620
11	506		547	560	616	636	682
12	552		596	611	672	694	744
13	598		646	662	728	751	806
14	644		696	713	784	809	868
15	690		746	764	840	867	930
16	736		795	814	896	925	992
17	782		845	865	952	983	1054
18	828		895	916	1008	1040	1116
19	874		944	967	1064	1098	1178
20	920		994	1018	1120	1156	1240
21	966		1044	1069	1176	1214	1302
22	1012		1093	1120	1232	1272	1364
23	1058		1143	1171	1288	1329	1426
24	1104		1193	1222	1344	1387	1488
25	1150		1243	1273	1400	1445	1550
26	1196		1292	1323	1456	1503	1612
27	1242		1342	1374	1512	1561	1674
28	1288		1392	1425	1568	1618	1736
29	1334		1441	1476	1624	1676	1798
30	1380		1491	1527	1680	1734	1860
31	1426		1541	1578	1736	1792	1922
32	1472		1590	1629	1792	1850	1984
33	1518		1640	1680	1848	1907	2046
34	1564		1690	1731	1904	1965	2108
35	1610		1740	1782	1960	2023	2170
36	1656		1789	1832	2016	2081	2232
37	1702		1839	1883	2072	2139	2294
38	1748		1889	1934	2128	2196	2356

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 Retrofit



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

Height		mm	877	928	958	1658	1858
							
Model			2088	2093	2096	2166	2186
Depth	mm		62	62	62	62	62
Exponent	n		1,23	1,22	1,22	1,29	1,29
Max. number of elements			64	64	64	22	22
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		252	264	270	460	516
5	230		316	330	338	575	645
6	276		379	396	406	690	774
7	322		442	462	473	805	903
8	368		505	528	541	920	1032
9	414		568	594	608	1035	1161
10	460		631	660	676	1150	1290
11	506		694	726	744	1265	1419
12	552		757	792	811	1380	1548
13	598		820	858	879	1495	1677
14	644		883	924	946	1610	1806
15	690		947	990	1014	1725	1935
16	736		1010	1056	1082	1840	2064
17	782		1073	1122	1149	1955	2193
18	828		1136	1188	1217	2070	2322
19	874		1199	1254	1284	2185	2451
20	920		1262	1320	1352	2300	2580
21	966		1325	1386	1420	2415	2709
22	1012		1388	1452	1487	2530	2838
23	1058		1451	1518	1555	2645	2967
24	1104		1514	1584	1622	2760	3096
25	1150		1578	1650	1690	2875	3225
26	1196		1641	1716	1758	2990	3354
27	1242		1704	1782	1825	3105	3483
28	1288		1767	1848	1893	3220	3612
29	1334		1830	1914	1960	3335	3741
30	1380		1893	1980	2028	3450	3870
31	1426		1956	2046	2096	3565	3999
32	1472		2019	2112	2163	3680	4128
33	1518		2082	2178	2231	3795	4257
34	1564		2145	2244	2298	3910	4386
35	1610		2209	2310	2366	4025	4515
36	1656		2272	2376	2434	4140	4644
37	1702		2335	2442	2501	4255	4773
38	1748		2398	2508	2569	4370	4902

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 Retrofit

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

Height		mm	2058	366	416	566	596
							
Model			2206	3037	3042	3057	3059
Depth	mm		62	100	100	100	100
Exponent	n		1,28	1,28	1,28	1,27	1,27
Max. number of elements			22	64	64	64	64
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		568	154	174	231	242
5	230		710	193	218	289	303
6	276		852	232	261	347	363
7	322		994	270	305	405	424
8	368		1136	309	348	462	484
9	414		1278	347	392	520	545
10	460		1420	386	435	578	605
11	506		1562	425	479	636	666
12	552		1704	463	522	694	726
13	598		1846	502	566	751	787
14	644		1988	540	609	809	847
15	690		2130	579	653	867	908
16	736		2272	618	696	925	968
17	782		2414	656	740	983	1029
18	828		2556	695	783	1040	1089
19	874		2698	733	827	1098	1150
20	920		2840	772	870	1156	1210
21	966		2982	811	914	1214	1271
22	1012		3124	849	957	1272	1331
23	1058		3266	888	1001	1329	1392
24	1104		3408	926	1044	1387	1452
25	1150		3550	965	1088	1445	1513
26	1196		3692	1004	1131	1503	1573
27	1242		3834	1042	1175	1561	1634
28	1288		3976	1081	1218	1618	1694
29	1334		4118	1119	1262	1676	1755
30	1380		4260	1158	1305	1734	1815
31	1426		4402	1197	1349	1792	1876
32	1472		4544	1235	1392	1850	1936
33	1518		4686	1274	1436	1907	1997
34	1564		4828	1312	1479	1965	2057
35	1610		4970	1351	1523	2023	2118
36	1656		5112	1390	1566	2081	2178
37	1702		5254	1428	1610	2139	2239
38	1748		5396	1467	1653	2196	2299

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 Retrofit



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

Height		mm	636	666	685	766	796
							
Model			3064	3067	3069	3077	3079
Depth	mm		100	100	100	100	100
Exponent	n		1,27	1,26	1,26	1,26	1,26
Max. number of elements			64	64	64	64	64
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		257	268	274	303	310
5	230		321	335	343	379	387
6	276		385	401	412	454	464
7	322		449	468	480	530	542
8	368		514	535	549	606	619
9	414		578	602	617	681	697
10	460		642	669	686	757	774
11	506		706	736	755	833	851
12	552		770	803	823	908	929
13	598		835	870	892	984	1006
14	644		899	937	960	1060	1084
15	690		963	1004	1029	1136	1161
16	736		1027	1070	1098	1211	1238
17	782		1091	1137	1166	1287	1316
18	828		1156	1204	1235	1363	1393
19	874		1220	1271	1303	1438	1471
20	920		1284	1338	1372	1514	1548
21	966		1348	1405	1441	1590	1625
22	1012		1412	1472	1509	1665	1703
23	1058		1477	1539	1578	1741	1780
24	1104		1541	1606	1646	1817	1858
25	1150		1605	1673	1715	1893	1935
26	1196		1669	1739	1784	1968	2012
27	1242		1733	1806	1852	2044	2090
28	1288		1798	1873	1921	2120	2167
29	1334		1862	1940	1989	2195	2245
30	1380		1926	2007	2058	2271	2322
31	1426		1990	2074	2127	2347	2399
32	1472		2054	2141	2195	2422	2477
33	1518		2119	2208	2264	2498	2554
34	1564		2183	2275	2332	2574	2632
35	1610		2247	2342	2401	2650	2709
36	1656		2311	2408	2470	2725	2786
37	1702		2375	2475	2538	2801	2864
38	1748		2440	2542	2607	2877	2941

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 Retrofit



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

Height		mm	866	885	936	966	1066
							
Model			3087	3089	3094	3097	3107
Depth	mm		100	100	100	100	100
Exponent	n		1,26	1,26	1,25	1,25	1,25
Max. number of elements			64	64	64	64	22
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		337	343	360	370	400
5	230		421	429	450	462	500
6	276		505	515	540	554	600
7	322		589	601	630	647	700
8	368		674	686	720	739	800
9	414		758	772	810	832	900
10	460		842	858	900	924	1000
11	506		926	944	990	1016	1100
12	552		1010	1030	1080	1109	1200
13	598		1095	1115	1170	1201	1300
14	644		1179	1201	1260	1294	1400
15	690		1263	1287	1350	1386	1500
16	736		1347	1373	1440	1478	1600
17	782		1431	1459	1530	1571	1700
18	828		1516	1544	1620	1663	1800
19	874		1600	1630	1710	1756	1900
20	920		1684	1716	1800	1848	2000
21	966		1768	1802	1890	1940	2100
22	1012		1852	1888	1980	2033	2200
23	1058		1937	1973	2070	2125	2300
24	1104		2021	2059	2160	2218	2400
25	1150		2105	2145	2250	2310	2500
26	1196		2189	2231	2340	2402	2600
27	1242		2273	2317	2430	2495	2700
28	1288		2358	2402	2520	2587	2800
29	1334		2442	2488	2610	2680	2900
30	1380		2526	2574	2700	2772	3000
31	1426		2610	2660	2790	2864	3100
32	1472		2694	2746	2880	2957	3200
33	1518		2779	2831	2970	3049	3300
34	1564		2863	2917	3060	3142	3400
35	1610		2947	3003	3150	3234	3500
36	1656		3031	3089	3240	3326	3600
37	1702		3115	3175	3330	3419	3700
38	1748		3200	3260	3420	3511	3800

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 Retrofit



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

Height		mm	1666	1866	2066	366	416
Model			3167	3187	3207	4037	4042
Depth	mm		100	100	100	136	136
Exponent	n		1,31	1,32	1,32	1,28	1,28
Max. number of elements			22	22	22	64	64
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		616	684	752	202	228
5	230		770	855	940	253	285
6	276		924	1026	1128	304	342
7	322		1078	1197	1316	354	399
8	368		1232	1368	1504	405	456
9	414		1386	1539	1692	455	513
10	460		1540	1710	1880	506	570
11	506		1694	1881	2068	557	627
12	552		1848	2052	2256	607	684
13	598		2002	2223	2444	658	741
14	644		2156	2394	2632	708	798
15	690		2310	2565	2820	759	855
16	736		2464	2736	3008	810	912
17	782		2618	2907	3196	860	969
18	828		2772	3078	3384	911	1026
19	874		2926	3249	3572	961	1083
20	920		3080	3420	3760	1012	1140
21	966		3234	3591	3948	1063	1197
22	1012		3388	3762	4136	1113	1254
23	1058		3542	3933	4324	1164	1311
24	1104		3696	4104	4512	1214	1368
25	1150		3850	4275	4700	1265	1425
26	1196		4004	4446	4888	1316	1482
27	1242		4158	4617	5076	1366	1539
28	1288		4312	4788	5264	1417	1596
29	1334		4466	4959	5452	1467	1653
30	1380		4620	5130	5640	1518	1710
31	1426		4774	5301	5828	1569	1767
32	1472		4928	5472	6016	1619	1824
33	1518		5082	5643	6204	1670	1881
34	1564		5236	5814	6392	1720	1938
35	1610		5390	5985	6580	1771	1995
36	1656		5544	6156	6768	1822	2052
37	1702		5698	6327	6956	1872	2109
38	1748		5852	6498	7144	1923	2166

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 Retrofit

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

Height		mm	566	596	636	666	685
Model			4057	4059	4064	4067	4069
Depth	mm		136	136	136	136	136
Exponent	n		1,27	1,27	1,27	1,26	1,26
Max. number of elements			64	64	64	64	64
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		303	317	336	350	360
5	230		379	397	421	438	450
6	276		454	476	505	526	539
7	322		530	555	589	613	629
8	368		606	634	673	701	719
9	414		681	714	757	788	809
10	460		757	793	841	876	899
11	506		833	872	925	964	989
12	552		908	952	1009	1051	1079
13	598		984	1031	1093	1139	1169
14	644		1060	1110	1177	1226	1259
15	690		1136	1190	1262	1314	1349
16	736		1211	1269	1346	1402	1438
17	782		1287	1348	1430	1489	1528
18	828		1363	1427	1514	1577	1618
19	874		1438	1507	1598	1664	1708
20	920		1514	1586	1682	1752	1798
21	966		1590	1665	1766	1840	1888
22	1012		1665	1745	1850	1927	1978
23	1058		1741	1824	1934	2015	2068
24	1104		1817	1903	2018	2102	2158
25	1150		1893	1983	2103	2190	2248
26	1196		1968	2062	2187	2278	2337
27	1242		2044	2141	2271	2365	2427
28	1288		2120	2220	2355	2453	2517
29	1334		2195	2300	2439	2540	2607
30	1380		2271	2379	2523	2628	2697
31	1426		2347	2458	2607	2716	2787
32	1472		2422	2538	2691	2803	2877
33	1518		2498	2617	2775	2891	2967
34	1564		2574	2696	2859	2978	3057
35	1610		2650	2776	2944	3066	3147
36	1656		2725	2855	3028	3154	3236
37	1702		2801	2934	3112	3241	3326
38	1748		2877	3013	3196	3329	3416

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 Retrofit



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

Height		mm	766	796	866	885	936
Model			4077	4079	4087	4089	4094
Depth	mm		136	136	136	136	136
Exponent	n		1,26	1,26	1,26	1,26	1,25
Max. number of elements			64	64	64	64	64
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		397	412	444	448	472
5	230		496	515	555	560	590
6	276		595	618	666	672	708
7	322		694	721	777	784	826
8	368		794	824	888	896	944
9	414		893	927	999	1008	1062
10	460		992	1030	1110	1120	1180
11	506		1091	1133	1221	1232	1298
12	552		1190	1236	1332	1344	1416
13	598		1290	1339	1443	1456	1534
14	644		1389	1442	1554	1568	1652
15	690		1488	1545	1665	1680	1770
16	736		1587	1648	1776	1792	1888
17	782		1686	1751	1887	1904	2006
18	828		1786	1854	1998	2016	2124
19	874		1885	1957	2109	2128	2242
20	920		1984	2060	2220	2240	2360
21	966		2083	2163	2331	2352	2478
22	1012		2182	2266	2442	2464	2596
23	1058		2282	2369	2553	2576	2714
24	1104		2381	2472	2664	2688	2832
25	1150		2480	2575	2775	2800	2950
26	1196		2579	2678	2886	2912	3068
27	1242		2678	2781	2997	3024	3186
28	1288		2778	2884	3108	3136	3304
29	1334		2877	2987	3219	3248	3422
30	1380		2976	3090	3330	3360	3540
31	1426		3075	3193	3441	3472	3658
32	1472		3174	3296	3552	3584	3776
33	1518		3274	3399	3663	3696	3894
34	1564		3373	3502	3774	3808	4012
35	1610		3472	3605	3885	3920	4130
36	1656		3571	3708	3996	4032	4248
37	1702		3670	3811	4107	4144	4366
38	1748		3770	3914	4218	4256	4484

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 Retrofit

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

Height		mm	966	1066	1666	1866	2066
Model			4097	4107	4167	4187	4207
Depth	mm		136	136	136	136	136
Exponent	n		1,25	1,25	1,31	1,32	1,32
Max. number of elements			60	22	22	22	22
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		484	528	792	880	968
5	230		605	660	990	1100	1210
6	276		726	792	1188	1320	1452
7	322		847	924	1386	1540	1694
8	368		968	1056	1584	1760	1936
9	414		1089	1188	1782	1980	2178
10	460		1210	1320	1980	2200	2420
11	506		1331	1452	2178	2420	2662
12	552		1452	1584	2376	2640	2904
13	598		1573	1716	2574	2860	3146
14	644		1694	1848	2772	3080	3388
15	690		1815	1980	2970	3300	3630
16	736		1936	2112	3168	3520	3872
17	782		2057	2244	3366	3740	4114
18	828		2178	2376	3564	3960	4356
19	874		2299	2508	3762	4180	4598
20	920		2420	2640	3960	4400	4840
21	966		2541	2772	4158	4620	5082
22	1012		2662	2904	4356	4840	5324
23	1058		2783	3036	4554	5060	5566
24	1104		2904	3168	4752	5280	5808
25	1150		3025	3300	4950	5500	6050
26	1196		3146	3432	5148	5720	6292
27	1242		3267	3564	5346	5940	6534
28	1288		3388	3696	5544	6160	6776
29	1334		3509	3828	5742	6380	7018
30	1380		3630	3960	5940	6600	7260
31	1426		3751	4092	6138	6820	7502
32	1472		3872	4224	6336	7040	7744
33	1518		3993	4356	6534	7260	7986
34	1564		4114	4488	6732	7480	8228
35	1610		4235	4620	6930	7700	8470
36	1656		4356	4752	7128	7920	8712
37	1702		4477	4884	7326	8140	8954
38	1748		4598	5016	7524	8360	9196

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 Retrofit



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

Height		mm	366	566	666	685	766
							
Model			5037	5057	5067	5069	5077
Depth	mm		173	173	173	173	173
Exponent	n		1,28	1,27	1,26	1,26	1,26
Max. number of elements			64	64	64	64	50
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		250	374	432	444	492
5	230		313	468	540	555	615
6	276		375	561	648	666	738
7	322		438	655	756	777	861
8	368		500	748	864	888	984
9	414		563	842	972	999	1107
10	460		625	935	1080	1110	1230
11	506		688	1029	1188	1221	1353
12	552		750	1122	1296	1332	1476
13	598		813	1216	1404	1443	1599
14	644		875	1309	1512	1554	1722
15	690		938	1403	1620	1665	1845
16	736		1000	1496	1728	1776	1968
17	782		1063	1590	1836	1887	2091
18	828		1125	1683	1944	1998	2214
19	874		1188	1777	2052	2109	2337
20	920		1250	1870	2160	2220	2460
21	966		1313	1964	2268	2331	2583
22	1012		1375	2057	2376	2442	2706
23	1058		1438	2151	2484	2553	2829
24	1104		1500	2244	2592	2664	2952
25	1150		1563	2338	2700	2775	3075
26	1196		1625	2431	2808	2886	3198
27	1242		1688	2525	2916	2997	3321
28	1288		1750	2618	3024	3108	3444
29	1334		1813	2712	3132	3219	3567
30	1380		1875	2805	3240	3330	3690
31	1426		1938	2899	3348	3441	3813
32	1472		2000	2992	3456	3552	3936
33	1518		2063	3086	3564	3663	4059
34	1564		2125	3179	3672	3774	4182
35	1610		2188	3273	3780	3885	4305
36	1656		2250	3366	3888	3996	4428
37	1702		2313	3460	3996	4107	4551
38	1748		2375	3553	4104	4218	4674

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 Retrofit



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

Height		mm	866	885	966	1066	266
							
Model			5087	5089	5097	5107	6027
Depth	mm		173	173	173	173	210
Exponent	n		1,26	1,26	1,25	1,25	1,28
Max. number of elements			50	50	50	22	64
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		544	556	600	648	219
5	230		680	695	750	810	274
6	276		816	834	900	972	328
7	322		952	973	1050	1134	383
8	368		1088	1112	1200	1296	438
9	414		1224	1251	1350	1458	492
10	460		1360	1390	1500	1620	547
11	506		1496	1529	1650	1782	602
12	552		1632	1668	1800	1944	656
13	598		1768	1807	1950	2106	711
14	644		1904	1946	2100	2268	766
15	690		2040	2085	2250	2430	821
16	736		2176	2224	2400	2592	875
17	782		2312	2363	2550	2754	930
18	828		2448	2502	2700	2916	985
19	874		2584	2641	2850	3078	1039
20	920		2720	2780	3000	3240	1094
21	966		2856	2919	3150	3402	1149
22	1012		2992	3058	3300	3564	1203
23	1058		3128	3197	3450	3726	1258
24	1104		3264	3336	3600	3888	1313
25	1150		3400	3475	3750	4050	1368
26	1196		3536	3614	3900	4212	1422
27	1242		3672	3753	4050	4374	1477
28	1288		3808	3892	4200	4536	1532
29	1334		3944	4031	4350	4698	1586
30	1380		4080	4170	4500	4860	1641
31	1426		4216	4309	4650	5022	1696
32	1472		4352	4448	4800	5184	1750
33	1518		4488	4587	4950	5346	1805
34	1564		4624	4726	5100	5508	1860
35	1610		4760	4865	5250	5670	1915
36	1656		4896	5004	5400	5832	1969
37	1702		5032	5143	5550	5994	2024
38	1748		5168	5282	5700	6156	2079

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 Retrofit



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

Height		mm	366	416	566	666	685
							
Model			6037	6042	6057	6067	6069
Depth	mm		210	210	210	210	210
Exponent	n		1,28	1,28	1,27	1,26	1,26
Max. number of elements			64	64	64	55	55
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		296	334	444	512	528
5	230		370	418	555	640	660
6	276		444	501	666	768	792
7	322		518	585	777	896	924
8	368		592	668	888	1024	1056
9	414		666	752	999	1152	1188
10	460		740	835	1110	1280	1320
11	506		814	919	1221	1408	1452
12	552		888	1002	1332	1536	1584
13	598		962	1086	1443	1664	1716
14	644		1036	1169	1554	1792	1848
15	690		1110	1253	1665	1920	1980
16	736		1184	1336	1776	2048	2112
17	782		1258	1420	1887	2176	2244
18	828		1332	1503	1998	2304	2376
19	874		1406	1587	2109	2432	2508
20	920		1480	1670	2220	2560	2640
21	966		1554	1754	2331	2688	2772
22	1012		1628	1837	2442	2816	2904
23	1058		1702	1921	2553	2944	3036
24	1104		1776	2004	2664	3072	3168
25	1150		1850	2088	2775	3200	3300
26	1196		1924	2171	2886	3328	3432
27	1242		1998	2255	2997	3456	3564
28	1288		2072	2338	3108	3584	3696
29	1334		2146	2422	3219	3712	3828
30	1380		2220	2505	3330	3840	3960
31	1426		2294	2589	3441	3968	4092
32	1472		2368	2672	3552	4096	4224
33	1518		2442	2756	3663	4224	4356
34	1564		2516	2839	3774	4352	4488
35	1610		2590	2923	3885	4480	4620
36	1656		2664	3006	3996	4608	4752
37	1702		2738	3090	4107	4736	4884
38	1748		2812	3173	4218	4864	5016

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 Retrofit

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

Height		mm	766	866	885	966	1066
Model			6077	6087	6089	6097	6107
Depth	mm		210	210	210	210	210
Exponent	n		1,26	1,26	1,26	1,25	1,25
Max. number of elements			46	46	46	42	22
Length			Φ_s	Φ_s	Φ_s	Φ_s	Φ_s
Elements	mm		W	W	W	W	W
4	184		588	648	660	708	772
5	230		735	810	825	885	965
6	276		882	972	990	1062	1158
7	322		1029	1134	1155	1239	1351
8	368		1176	1296	1320	1416	1544
9	414		1323	1458	1485	1593	1737
10	460		1470	1620	1650	1770	1930
11	506		1617	1782	1815	1947	2123
12	552		1764	1944	1980	2124	2316
13	598		1911	2106	2145	2301	2509
14	644		2058	2268	2310	2478	2702
15	690		2205	2430	2475	2655	2895
16	736		2352	2592	2640	2832	3088
17	782		2499	2754	2805	3009	3281
18	828		2646	2916	2970	3186	3474
19	874		2793	3078	3135	3363	3667
20	920		2940	3240	3300	3540	3860
21	966		3087	3402	3465	3717	4053
22	1012		3234	3564	3630	3894	4246
23	1058		3381	3726	3795	4071	4439
24	1104		3528	3888	3960	4248	4632
25	1150		3675	4050	4125	4425	4825
26	1196		3822	4212	4290	4602	5018
27	1242		3969	4374	4455	4779	5211
28	1288		4116	4536	4620	4956	5404
29	1334		4263	4698	4785	5133	5597
30	1380		4410	4860	4950	5310	5790
31	1426		4557	5022	5115	5487	5983
32	1472		4704	5184	5280	5664	6176
33	1518		4851	5346	5445	5841	6369
34	1564		4998	5508	5610	6018	6562
35	1610		5145	5670	5775	6195	6755
36	1656		5292	5832	5940	6372	6948
37	1702		5439	5994	6105	6549	7141
38	1748		5586	6156	6270	6726	7334

Warning: Weight over 100 kg

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

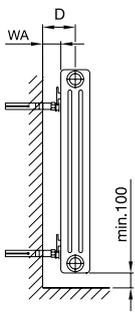
Factor f_1 for converting the thermal output to operating temperatures 70/55/20 °C = 0,80, to 70/50/20 °C = 0,73, to 55/45/20 °C = 0,51

Zehnder Charleston Retrofit



Illustration	Sketch Side view	Model			
		Application	Wall clearance WA mm	Brackets in set	Article no. ¹⁾ Set white

Fixing details for accessory set BKE

Set BKE ²⁾		All models					
			<p>Distance D:</p> <p>2-column 77 mm</p> <p>3-column 96 mm</p> <p>4-column 114 mm</p> <p>5-column 133 mm</p> <p>6-column 151 mm</p>	Height 260 - 1000 mm		with retaining spring	
L = 4-20 el.	46			4 x BH + BKE160	774461		
L = 21-40 el.				6 x BH + BKE160	774661		
L = 41-60 el.				8 x BH + BKE160	774861		
Height 1001 - 1500 mm				with retaining spring			
L = 4-20 el.	46			4 x BH + BKE160	774461		
L = 21-40 el.				8 x BH + BKE160	774861		
L = 41-60 el.				10 x BH + BKE160	774961		
2- to 5-column							
Height 1501 - 2200 mm				with retaining spring			
L = 4-10 el.	46			4 x BH + BKE160	774461		
L = 11-20 el.				6 x BH + BKE160	774661		
L = 21-30 el.		8 x BH + BKE160	774861				
L = 31-40 el.		10 x BH + BKE160	774961				
6-column							
Height 1501 - 2200 mm		with retaining spring					
L = 4-10 el.	46	4 x BH + BKE160	774461				
L = 11-20 el.		8 x BH + BKE160	774861				
L = 21-30 el.		10 x BH + BKE160	774961				
L = 31-40 el.		14 x BH + BKE160	-				

L = Length of radiator in mm

D = Dimension from wall to middle of connection

WA = Wall clearance

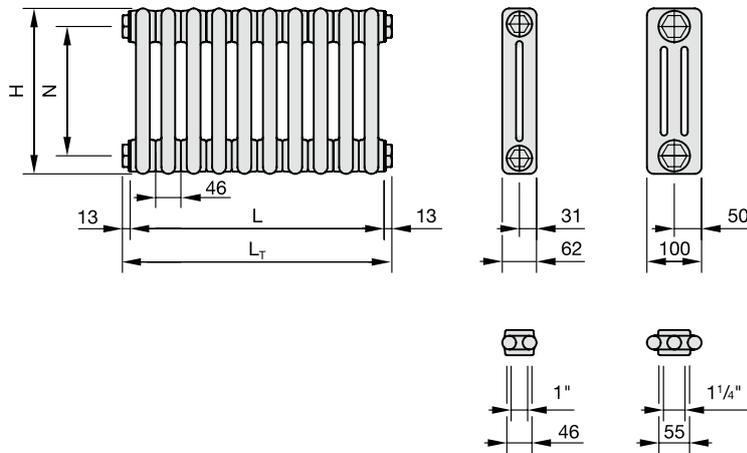
¹⁾ The article no. of the set in colour is produced by replacing the end digit 1 by the end digit 9.

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

Zehnder Charleston Retrofit



Retrofit models 2- to 6-column



- H = Height
- L = Length = elements x 46 mm
- L_T = Total length = elements x 46 mm + 2 x 13 mm
- N = Boss spacing
- T = Depth
- 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

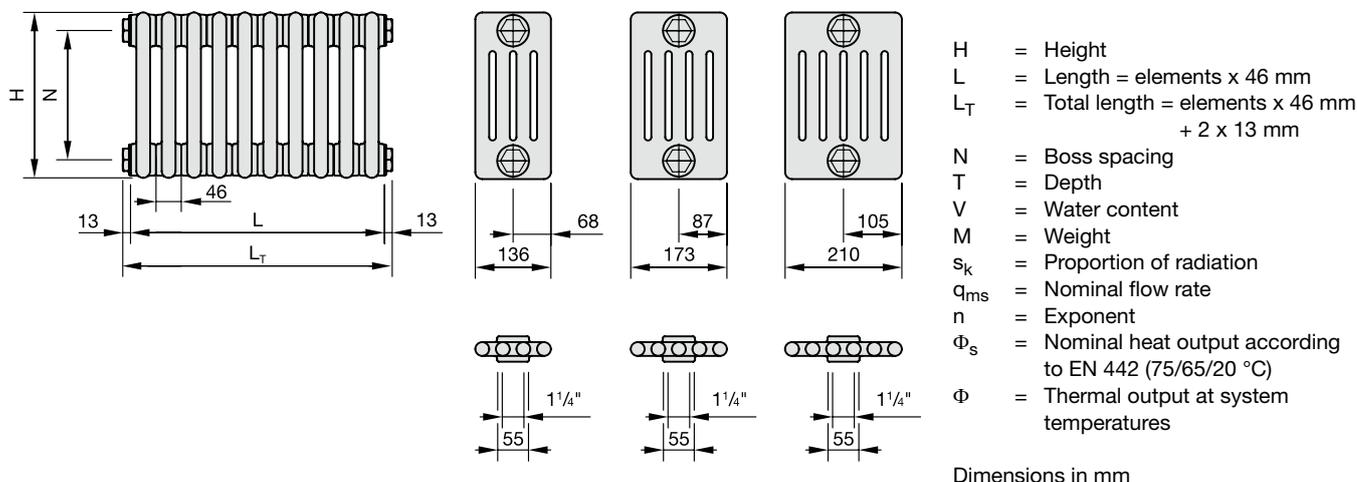
Technical specifications per element

Model	H mm	N mm	T mm	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
2041	408	350	62	0,40	0,65	24	3,0	1,26	32,4	26,3	17,1
2046	458	400	62	0,50	0,72	24	3,0	1,26	36,0	29,2	19,0
2056	558	500	62	0,60	0,86	23	4,0	1,25	43,0	34,8	22,5
2059	588	530	62	0,60	0,90	23	3,9	1,25	45,0	36,4	23,8
2063	628	570	62	0,70	0,95	22	4,0	1,24	47,7	38,7	25,3
2066	658	600	62	0,70	0,99	22	4,0	1,24	49,7	40,2	26,0
2068	677	619	62	0,65	1,11	23	4,4	1,24	50,9	41,3	27,0
2076	758	700	62	0,70	1,19	22	4,8	1,24	56,0	45,4	29,7
2079	788	730	62	0,71	1,22	22	4,9	1,23	57,8	46,9	30,8
2086	858	800	62	0,75	1,34	22	5,2	1,23	62,0	50,3	33,1
2088	877	819	62	0,80	1,40	22	5,4	1,23	63,1	51,2	33,7
2093	928	870	62	0,80	1,33	22	5,7	1,22	66,0	53,7	35,4
2096	958	900	62	0,90	1,40	22	6,0	1,22	67,6	54,7	35,4
2166	1658	1600	62	1,40	2,22	23	10,0	1,29	115,0	92,4	59,5
2186	1858	1800	62	1,50	2,60	23	11,1	1,29	129,0	103,7	66,7
2206	2058	2000	62	1,70	2,90	23	12,3	1,28	142,0	114,3	73,8
3037	366	300	100	0,60	0,89	19	3,0	1,28	38,6	31,2	20,2
3042	416	350	100	0,70	0,99	19	4,0	1,28	43,5	35,2	22,8
3057	566	500	100	0,90	1,31	18	5,0	1,27	57,8	46,7	30,1
3059	596	530	100	0,90	1,37	18	5,2	1,27	60,5	48,8	31,6
3064	636	570	100	1,00	1,45	18	5,4	1,27	64,2	51,8	33,6
3067	666	600	100	1,00	1,52	18	6,0	1,26	66,9	54,0	34,9
3069	685	619	100	0,97	1,68	18	5,9	1,26	68,6	55,4	36,0
3077	766	700	100	1,15	1,76	18	6,5	1,26	75,7	61,1	39,8
3079	796	730	100	1,15	1,80	18	6,7	1,26	77,4	62,5	40,7
3087	866	800	100	1,19	1,98	18	7,3	1,26	84,2	68,0	44,2
3089	885	819	100	1,21	2,12	18	7,5	1,26	85,8	69,3	45,1
3094	936	870	100	1,30	2,05	18	7,8	1,25	90,0	72,8	47,5
3097	966	900	100	1,30	2,15	18	8,0	1,25	92,4	74,5	47,9
3107	1066	1000	100	1,50	2,36	18	9,0	1,25	100,0	80,6	51,9
3167	1666	1600	100	2,00	3,30	18	13,4	1,31	154,0	123,3	78,9
3187	1866	1800	100	2,40	3,95	18	15,0	1,32	171,0	136,7	87,1
3207	2066	2000	100	2,60	4,35	18	16,3	1,32	188,0	150,3	95,8

Zehnder Charleston Retrofit



Retrofit models 2- to 6-column



Technical specifications per element

Model	H mm	N mm	T mm	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
4037	366	300	136	0,80	1,14	16	4,0	1,28	50,6	40,9	26,5
4042	416	350	136	0,90	1,28	16	5,0	1,28	57,0	46,0	29,7
4057	566	500	136	1,10	1,69	15	6,0	1,27	75,7	61,0	39,3
4059	596	530	136	1,20	1,78	15	6,8	1,27	79,3	63,9	41,5
4064	636	570	136	1,20	1,82	15	7,2	1,27	84,1	67,8	44,0
4067	666	600	136	1,30	1,96	15	7,0	1,26	87,6	70,6	45,4
4069	685	619	136	1,27	2,02	15	7,7	1,26	89,9	72,6	47,2
4077	766	700	136	1,45	2,24	15	8,6	1,26	99,2	80,1	52,1
4079	796	730	136	1,45	2,30	15	8,8	1,26	103,0	83,2	54,1
4087	866	800	136	1,56	2,51	15	9,3	1,26	111,0	89,7	58,3
4089	885	819	136	1,59	2,56	15	9,5	1,26	112,0	90,5	58,8
4094	936	870	136	1,70	2,70	15	10,1	1,25	118,0	95,5	62,3
4097	966	900	136	1,70	2,79	15	10,0	1,25	121,0	97,4	62,4
4107	1066	1000	136	1,90	3,06	15	11,0	1,25	132,0	106,1	67,8
4167	1666	1600	136	2,10	4,40	15	17,1	1,31	198,0	158,6	101,4
4187	1866	1800	136	3,10	5,12	15	18,8	1,32	220,0	175,9	112,1
4207	2066	2000	136	3,40	5,62	15	20,8	1,32	242,0	193,5	123,3
5037	366	300	173	1,00	1,49	15	5,0	1,28	62,5	50,5	32,6
5057	566	500	173	1,40	2,17	14	8,0	1,27	93,5	75,4	48,5
5067	666	600	173	1,60	2,52	13	9,0	1,26	108,0	86,9	55,7
5069	685	619	173	1,70	2,90	13	9,5	1,26	111,0	89,7	58,3
5077	766	700	173	1,85	2,99	13	10,6	1,26	123,0	99,3	64,6
5087	866	800	173	2,00	3,36	13	11,8	1,26	136,0	109,8	71,5
5089	885	819	173	2,10	3,60	13	12,0	1,26	139,0	112,3	73,0
5097	966	900	173	2,10	3,54	13	13,0	1,25	150,0	120,3	76,6
5107	1066	1000	173	2,30	3,88	13	14,0	1,25	162,0	129,9	82,7
6027	266	200	210	1,10	1,44	16	5,0	1,28	54,7	44,1	28,4
6037	366	300	210	1,10	1,80	14	6,0	1,28	74,0	59,8	38,6
6042	416	350	210	1,30	2,01	13	7,0	1,28	83,5	67,3	43,3
6057	566	500	210	1,70	2,62	12	9,0	1,27	111,0	89,3	57,3
6067	666	600	210	1,90	3,02	12	11,0	1,26	128,0	102,7	65,4
6069	685	619	210	2,00	3,30	12	11,4	1,26	132,0	106,6	69,3
6077	766	700	210	2,15	3,61	12	12,6	1,26	147,0	118,7	77,2
6087	866	800	210	2,40	4,05	12	13,9	1,26	162,0	130,8	85,1
6089	885	819	210	2,50	4,20	12	14,2	1,26	165,0	133,3	86,7
6097	966	900	210	2,60	4,25	12	15,0	1,25	177,0	141,7	89,9
6107	1066	1000	210	2,80	4,65	12	16,0	1,25	193,0	154,3	97,6

Zehnder Charleston Turned



Design patented DM/102 344!

	Overview of models	Product description	Overview details	Connections	Technical data
Zehnder Charleston Turned					
 <ul style="list-style-type: none"> ■ Classic tubular radiator rotated by 90° ■ Element height 46 mm ■ Welded-on lugs 	116	117	118	119	118

Zehnder Charleston Turned



Zehnder Charleston Turned



2-column



3-column

Height mm	Length ¹⁾ mm	Depth mm	
		62	100
302	1500	T2150/6	T3150/6
	1800	T2180/6	T3180/6
394	1500	T2150/8	T3150/8
	1800	T2180/8	T3180/8
486	1500	T2150/10	T3150/10
	1800	T2180/10	T3180/10
578	1500	T2150/12	T3150/12
	1800	T2180/12	T3180/12

¹⁾ The values shown here are the so-called nominal length; the exact length for 2-column radiators is 8 mm lower; see page 118.

Zehnder Charleston Turned



Zehnder Charleston Turned

Product description

Zehnder Charleston Turned, the original steel tubular radiator with a new look, boasts a fresh design and great performance. The orientation, rotated by 90°, lends the classic radiator a new dimension and gives Zehnder Charleston Turned an exceptionally slim design. Due to its outstanding performance, the steel tubular radiator turns large living spaces into an oasis of well-being. Available in almost any colour and finish from the Zehnder colour chart.

Technical specifications

- Steel round tubes Ø 25 mm
- Header in sheet steel
- Height of the individual element 46 mm
- Priming and powder coating to DIN 55900
- Thermal output tested to EN 442; with CE marking
- Maximum operating pressure 10 bar
- Maximum operating temperature 110 °C

Advantages

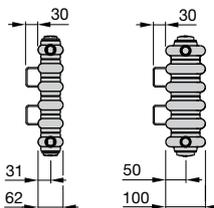
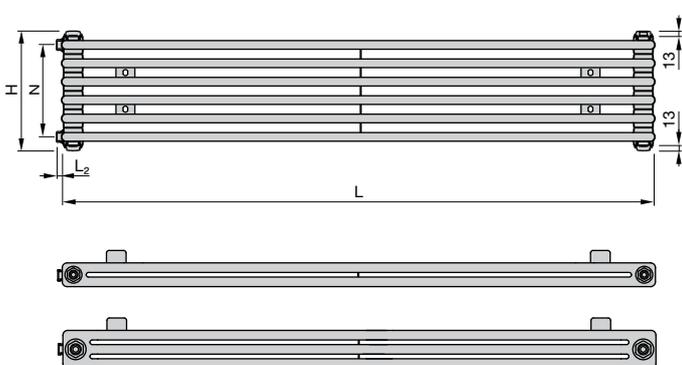
- Innovative design due to its orientation rotated by 90°
- Significantly higher thermal output due to the optimal waterflow properties of the horizontal tubes
- Easy installation via welded-on lugs in the same colour as the radiator (provided ex factory)
- Lasting attractive looks with no tube deformation due to a welded-on centre brace in the same colour as the radiator (provided ex factory)
- Wide range of applications due to various connection options
- High level of thermal output ideal for old buildings with a high heat load
- Available with special Zehnder TopCare surface coating for preventing the reproduction and spread of microorganisms
- Residue-free laser welding technology “LaZer made” guarantees maximum quality, high-end design and reliable operation of the heating system

Scope of delivery for standard version

- Primed and painted in RAL 9016
- Connections 3 x ½" female thread
- Directional air vent ½"
- Welded-on lugs and centre brace
- Complete packaging in stretch film and carton

Zehnder Charleston Turned

Horizontal models



- H = Height
- N = Connection centre
- T = Depth of radiator
- A = Surface
- V = Water content
- M = Weight
- n = Exponent
- Φ_S = Nominal heat output according to EN 442 (75/65/20 °C)
- Φ = Thermal output at system temperatures

Dimensions in mm

Prices and technical specifications per radiator

Model	H mm	N Bottom connection mm	N Side connection mm	L mm	T mm	T incl. lugs ²⁾ mm	A m ²	V dm ³	M kg	Exp. n	$\Phi_S = \Delta T 50 \text{ K}$ EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
T2150/6	302	1434	234	1492	62	92	1,42	7,8	12,73	1,23	759	616	402
T2150/8	394	1434	326	1492	62	92	1,89	10,4	16,97	1,25	975	789	512
T2150/10	486	1434	418	1492	62	92	2,36	13,0	21,21	1,26	1195	965	622
T2150/12	578	1434	510	1492	62	92	2,83	15,6	25,45	1,23	1420	1152	751
T2180/6	302	1734	234	1792	62	92	1,70	9,0	15,16	1,22	924	751	491
T2180/8	394	1734	326	1792	62	92	2,26	12,0	20,22	1,24	1187	962	626
T2180/10	486	1734	418	1792	62	92	2,83	15,0	25,27	1,25	1454	1176	761
T2180/12	578	1734	510	1792	62	92	3,40	18,0	30,32	1,26	1729	1397	902
T3150/6	302	1434	234	1500	100	130	2,11	12,0	19,66	1,23	1032	837	546
T3150/8	394	1434	326	1500	100	130	2,82	16,0	26,22	1,25	1318	1067	691
T3150/10	486	1434	418	1500	100	130	3,52	20,0	32,77	1,26	1598	1290	831
T3150/12	578	1434	510	1500	100	130	4,22	24,0	39,32	1,26	1871	1510	974
T3180/6	302	1734	234	1800	100	130	2,53	14,4	23,45	1,25	1255	1016	659
T3180/8	394	1734	326	1800	100	130	3,38	19,2	31,27	1,27	1604	1294	833
T3180/10	486	1734	418	1800	100	130	4,22	24,0	39,09	1,29	1944	1563	999
T3180/12	578	1734	510	1800	100	130	5,06	28,8	46,91	1,26	2276	1838	1186

1) Surcharge for special colour, category 1 = 20%; category 2 = 30%

2) Wall distance of the welded-on lugs: 30 mm

Zehnder Charleston Turned

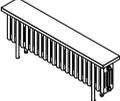
Connection type	Dimensional drawings: front view, side view and top view (bottom)
Connection 2-tube with external valve	
<p>bottom connection</p>	
<p>same-side</p>	
<p>opposite side</p>	

H = Height
 L = Length
 N = Boss spacing
 * = Venting
 L₂ = Excess length thread,
 1280/7690 = 5 mm;
 1680/7290 = 15 mm

Dimensions in mm

Zehnder Charleston Bench

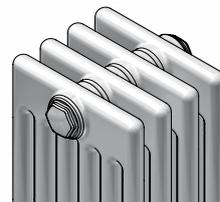
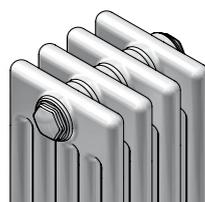
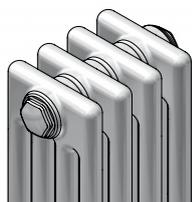


	Overview of models	Product description	Overview details	Special versions	Connections	Technical data
Zehnder Charleston Bench						
 <ul style="list-style-type: none"> ■ Can be used as a bench or shelf ■ Lengths according to requirements ■ For unfinished and finished floors 	122	123	124	126	125	124

Zehnder Charleston Bench



Zehnder Charleston Bench



Bench height total ¹⁾ mm	Length mm	4-column	5-column	6-column
430	1012	CB 4026-22	CB 5026-22	CB 6026-22
	1242	CB 4026-27	CB 5026-27	CB 6026-27
	1426	CB 4026-31	CB 5026-31	CB 6026-31
	1610	CB 4026-35	CB 5026-35	CB 6026-35
	1748	CB 4026-38	CB 5026-38	CB 6026-38
	2024	CB 4026-44	CB 5026-44	CB 6026-44
	2300	CB 4026-50	CB 5026-50	CB 6026-50

¹⁾ Dimension applies from finished floor.

Zehnder Charleston Bench



Zehnder Charleston Bench

Product description

Zehnder Charleston Bench is the version of a heated bench with vertical tube guide. This radiator is part of the product family of Zehnder Charleston and can additionally be used as seating in either private or public spaces.

The radiator can be installed on unfinished or finished floors, the connection is provided from the floor as standard, the seat (see example in figure) added on site depending on the installation situation. The aspects of hygienic suitability (certificate) and cleanability also naturally apply to Zehnder Charleston Bench.

Technical specifications

- Steel round tubes Ø 25 mm
- Header in sheet steel
- Length of the individual element 46 mm
- Priming and powder coating to DIN 55900
- Thermal output tested to EN 442; with CE marking
- Maximum operating pressure 10 bar
- Operating temperature max. 110 °C

Customisation options

- Choice of connection types, including integrated valve
- Special colours and antibacterial coating
- Galvanised and painted
- Energy-saving thermal radiation shield for installation in front of windows
- Special shapes: angled or curved
- High pressure version up to max. 18 bar

Advantages

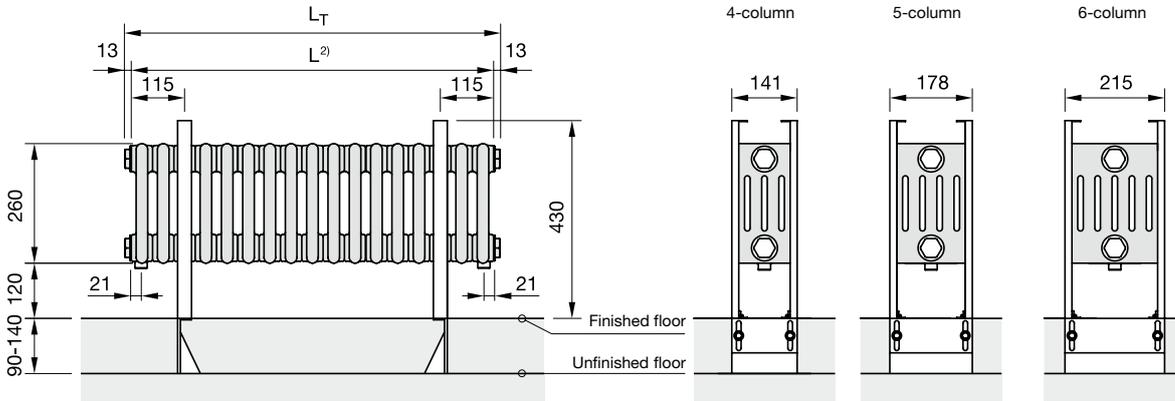
- Residue-free laser welding technology LaZer made
- Combination of bench and radiator
- Classic elegance
- Accident-safe
- Cleaning with Zehnder lambswool cleaning brush
- Energy-efficient for use in low temperature heating systems

Scope of delivery for standard version

- Primed and painted in RAL 9016
- Connections 2 x ½" female thread from bottom
- 1 x ½" connection for directional air vent
- Bench brackets (without seat)
- Complete packaging in stretch film and cardboard

Zehnder Charleston Bench

Model 4- to 6-column



- L = Length
- L_T = Total length = elements x 46 mm + 2 x 13 mm
- T = Depth of radiator
- V = Water content
- M = Weight

- 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

Prices and technical specifications

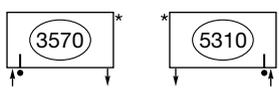
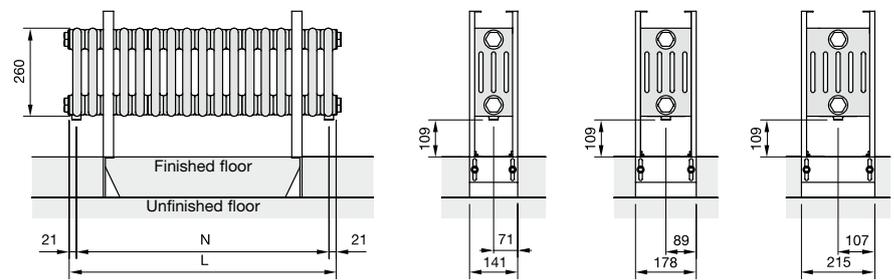
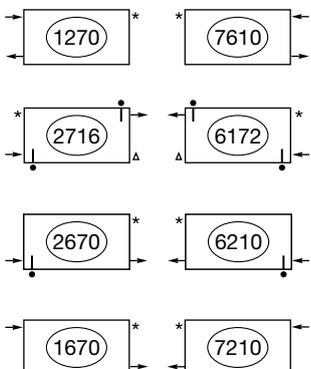
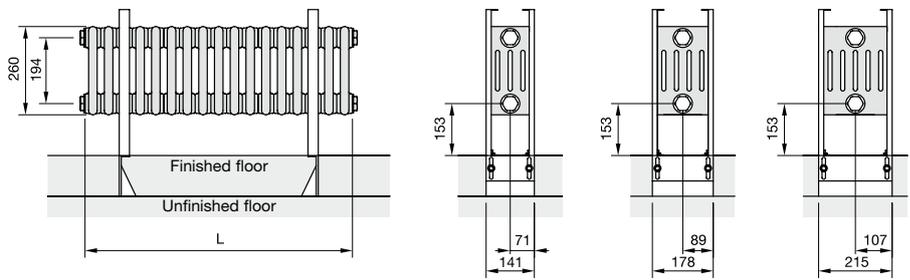
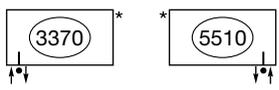
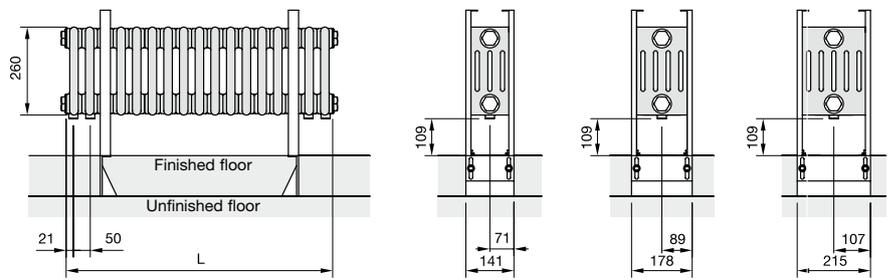
Model	$L^2)$ mm	T mm	V dm ³	M kg	q_{ms} kg/h	Exp. n	$\Phi_S = \Delta T$ 50 K EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
CB4026-22	1012	141	13,6	20,9	69,0	1,25	804	650	421
CB4026-27	1242	141	16,7	26,5	84,8	1,25	986	798	517
CB4026-31	1426	141	19,2	29,6	97,3	1,25	1132	916	593
CB4026-35	1610	141	21,7	32,7	109,9	1,25	1278	1034	670
CB4026-38	1748	141	23,6	36,7	119,3	1,25	1388	1123	728
CB4026-44	2024	141	27,3	41,3	138,1	1,25	1607	1300	842
CB4026-50	2300	141	31,0	46,0	156,9	1,25	1826	1477	957
CB5026-22	1012	178	16,5	23,7	85,3	1,25	993	803	521
CB5026-27	1242	178	20,3	30,1	104,7	1,25	1218	985	638
CB5026-31	1426	178	23,3	33,6	120,2	1,25	1399	1132	733
CB5026-35	1610	178	26,3	37,1	135,8	1,25	1579	1277	828
CB5026-38	1748	178	28,5	41,7	147,4	1,25	1715	1387	899
CB5026-44	2024	178	33,0	46,9	170,6	1,25	1986	1607	1041
CB5026-50	2300	178	37,5	52,2	193,9	1,25	2256	1825	1183
CB6026-22	1012	215	19,4	32,6	101,2	1,27	1177	949	611
CB6026-27	1242	215	23,8	41,1	124,2	1,27	1445	1165	750
CB6026-31	1426	215	27,3	46,1	142,6	1,27	1659	1337	861
CB6026-35	1610	215	30,8	51,1	161,0	1,27	1873	1510	972
CB6026-38	1748	215	33,4	57,1	174,8	1,27	2033	1639	1055
CB6026-44	2024	215	38,7	64,6	202,4	1,27	2354	1898	1221
CB6026-50	2300	215	44,0	72,2	230,0	1,27	2675	2156	1388

¹⁾ Total price, including accessories, surcharge for special finish, colour category 1 = 20%, colour category 2 = 30%, cover on side.

²⁾ Number of bench brackets depending on length:
 2 x brackets for L = 1012
 3 x brackets for L = 1242 - 1610
 4 x brackets for L = 1748 - 2300

Zehnder Charleston Bench



Connection type	Dimensional drawings: Front view and side views
Connection 2-tube with external valve	
<p>standard connection from bottom¹⁾</p> 	
<p>same or opposite end</p> 	
<p>from bottom to bottom, on side, 50 mm</p> 	

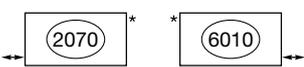
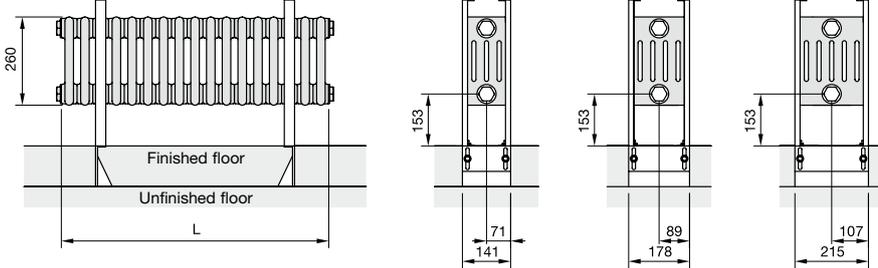
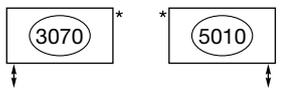
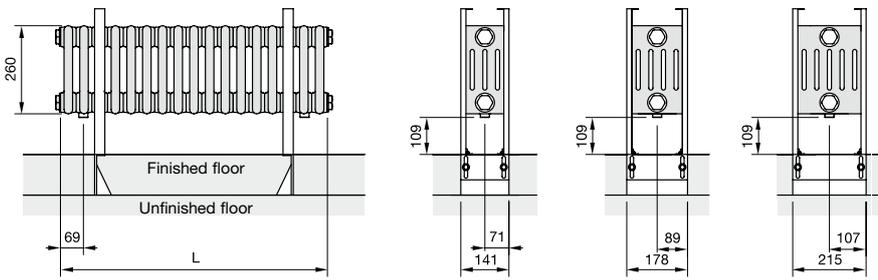
¹⁾When ordered without specification of the connection type, the standard connection from bottom to bottom will be supplied, suitable for connection 3570/5310.

- N = Boss spacing
- L = Length
- * = Venting
- Δ = Draining
- = Internal installations

Dimensions in mm

Zehnder Charleston Bench



Connection type	Dimensional drawings: Front view and side views
Connection 1-tube with external valve - See note on the single-pipe system in the keyword list	
for horizontal baffle plate ²⁾ 	
for vertical baffle plate ²⁾ 	

²⁾ Specify valve unit when placing order

<p>High pressure version max. 18 bar (not for Completo connection)</p>	<p>with welded-on plug: 2- to 3-column with welded-on plug + tied rod: 4 to 6-column</p>
<p>Angled or curved design</p>	
<p>Intermediate lengths</p>	
<p>Galvanising with subsequent standard finish (RAL 9016) (see also explanations on galvanising in section “General”)</p>	
<p>Version with thermal radiation shield (→ section Zehnder Charleston)</p>	
<p>Completo connection with integrated valve (prices without thermostat) details and further Completo connections, see page 45 onwards.</p>	

Basis for calculating the surcharge is the standard finish

- L = Length
- * = Venting
- Δ = Draining

Dimensions in mm

Zehnder Charleston Bench

Curved version		
Version	Sketch/template	Prices €
<p>Curved Zehnder Charleston Bench radiators are available with the following minimum outside curve radii:</p> <p>4-column: 750 mm 5-column: 900 mm 6-column: 1000 mm</p> <p>When making a price enquiry, please include a sketch with the dimensions radius R, length and wall clearance in mm.</p>		On request
		On request

Angled version		
Version	Sketch/template	Prices €
<p>Zehnder Charleston Bench angled, available from 90° to 179°. When making a price inquiry, please provide the following dimensions: L_1, L_2, L_3, wall clearance WA in mm and angle α_1, α_2 in degrees.</p>		On request
		On request
		On request

When placing an order for curved and angled radiators, please enclose sketch or template.

- HK = Radiator
- WA = Wall clearance
- R = Radius
- α_1, α_2 = Angles (°)
- L_1, L_2, L_3 = Lengths

Dimensions in mm

Zehnder Radiator Bench

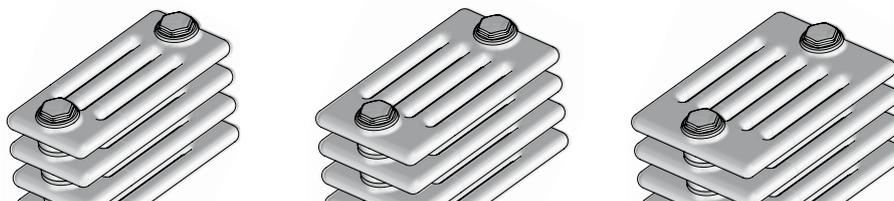


	Overview of models	Product description	Overview details	Special versions	Connections	Technical data
Zehnder Radiator Bench						
 <ul style="list-style-type: none"> ■ Dual function as bench and radiator ■ Different seat heights ■ Transversable right or left 	130	131	132	135	135	132

Zehnder Radiator Bench



Zehnder Radiator Bench



Bench height total ¹⁾ mm	Length mm	4-column	5-column	6-column
479	1200	B4120/4	B5120/4	B6120/4
	1500	B4150/4	B5150/4	B6150/4
	1800	B4180/4	B5180/4	B6180/4
	2000	B4200/4	B5200/4	B6200/4
	2500	B4250/4	B5250/4	B6250/4
	3000	B4300/4	B5300/4	B6300/4
525	1200	B4120/5	B5120/5	B6120/5
	1500	B4150/5	B5150/5	B6150/5
	1800	B4180/5	B5180/5	B6180/5
	2000	B4200/5	B5200/5	B6200/5
	2500	B4250/5	B5250/5	B6250/5
	3000	B4300/5	B5300/5	B6300/5
571	1200	B4120/6	B5120/6	B6120/6
	1500	B4150/6	B5150/6	B6150/6
	1800	B4180/6	B5180/6	B6180/6
	2000	B4200/6	B5200/6	B6200/6
	2500	B4250/6	B5250/6	B6250/6
	3000	B4300/6	B5300/6	B6300/6
617	1200	B4120/7	B5120/7	B6120/7
	1500	B4150/7	B5150/7	B6150/7
	1800	B4180/7	B5180/7	B6180/7
	2000	B4200/7	B5200/7	B6200/7
	2500	B4250/7	B5250/7	B6250/7
	3000	B4300/7	B5300/7	B6300/7
663	1200	B4120/8	B5120/8	B6120/8
	1500	B4150/8	B5150/8	B6150/8
	1800	B4180/8	B5180/8	B6180/8
	2000	B4200/8	B5200/8	B6200/8
	2500	B4250/8	B5250/8	B6250/8
	3000	B4300/8	B5300/8	B6300/8

¹⁾ Dimensions apply from unfinished floor.

Zehnder Radiator Bench



Zehnder Radiator Bench

Product description

The sections of the heated bench are arranged horizontally above each other in Zehnder Radiator Bench. With the additional use as a seat or shelf, Zehnder Radiator Bench offers a different look from the normal upright tubes.

Different heights also result in different seat heights. The radiator is installed on the unfinished floor, the connection is provided from the floor as standard, the seat (see example above) is added on site depending on the installation situation.

The aspects of hygienic suitability (certificate), cleanability also naturally apply to Zehnder Radiator Bench.

Technical specifications

- Steel round tubes Ø 25 mm
- Header in sheet steel
- Length of the individual element 46 mm
- Priming and powder coating to DIN 55900
- Thermal output tested to EN 442; with CE marking
- Operating pressure max. 10 bar
- Operating temperature max. 110 °C

Customisation options

- Choice of connection types
- Special colours and antibacterial coating
- Galvanised and painted
- High pressure version up to max. 18 bar

Advantages

- Residue-free laser welding technology LaZer made
- Combination of bench and radiator
- Classic elegance
- Accident-safe
- Easy cleaning with Zehnder lambswool cleaning brush
- Energy-efficient for use in low temperature heating systems

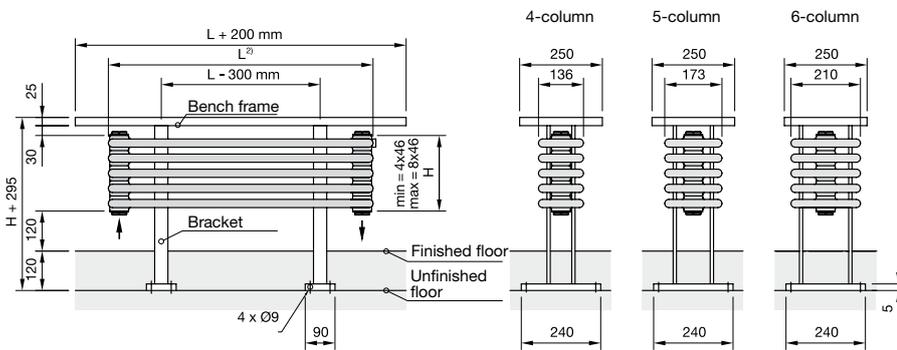
Scope of delivery for standard version

- Primed and painted in RAL 9016
- Connections 2 x ½" female thread from bottom
- 1 x ½" connection for directional air vent
- Bench frame with brackets (without seat)
- Complete packaging in stretch film and cardboard

Zehnder Radiator Bench



Model Radiator Bench



- H = Height
- L = Length
- T = Depth of radiator
- V = Water content
- M = Weight
- q_{ms} = Nominal water flow
- n = Exponent
- Φ_S = Nominal heat output according to EN 442 (75/65/20 °C)
- Φ = Thermal output at system temperatures

Dimensions in mm

Prices and technical specifications

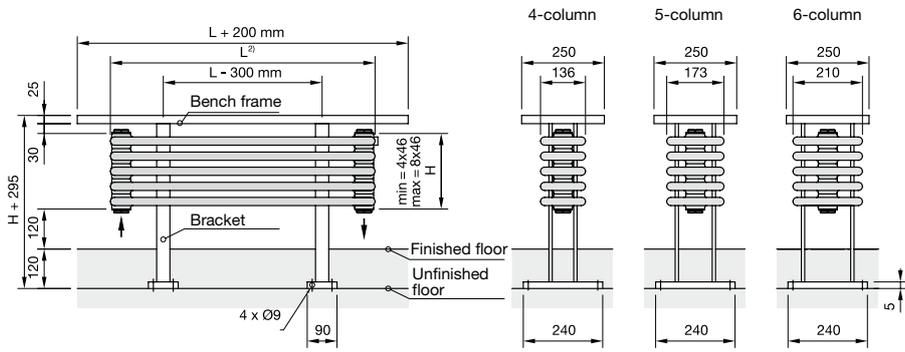
Model	H	L ²⁾	T	V	M	q _{ms}	Exp.	Φ _S =ΔT 50 K EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
	mm	mm	mm	dm ³	kg	kg/h	n			
B4120/4	184	1200	136	8,4	23,3	64,0	1,25	744	602	390
B4150/4	184	1500	136	10,3	30,1	80,0	1,25	930	752	487
B4180/4	184	1800	136	12,2	34,0	96,0	1,25	1116	903	585
B4200/4	184	2000	136	13,5	36,7	107,0	1,25	1240	1003	650
B4250/4	184	2500	136	16,9	43,4	138,0	1,25	1550	1254	812
B4300/4	184	3000	136	19,9	49,7	160,0	1,25	1859	1504	974
B5120/4	184	1200	173	10,3	27,0	79,0	1,25	917	742	481
B5150/4	184	1500	173	12,7	34,6	99,0	1,25	1146	927	601
B5180/4	184	1800	173	15,1	39,4	118,0	1,25	1375	1112	721
B5200/4	184	2000	173	16,7	42,7	131,0	1,25	1528	1236	801
B5250/4	184	2500	173	20,7	50,7	164,0	1,25	1910	1545	1001
B5300/4	184	3000	173	24,7	58,4	197,0	1,25	2292	1854	1201
B6120/4	184	1200	210	12,3	30,4	93,0	1,25	1085	878	569
B6150/4	184	1500	210	15,2	38,9	117,0	1,25	1357	1098	711
B6180/4	184	1800	210	18,1	44,5	140,0	1,25	1628	1317	853
B6200/4	184	2000	210	20,0	48,3	155,0	1,25	1809	1463	948
B6250/4	184	2500	210	24,8	57,7	194,0	1,25	2261	1829	1185
B6300/4	184	3000	210	29,6	66,7	233,0	1,25	2713	2195	1422
B4120/5	230	1200	136	10,5	26,7	75,0	1,26	875	707	456
B4150/5	230	1500	136	12,9	34,4	94,0	1,26	1093	883	570
B4180/5	230	1800	136	15,3	39,1	113,0	1,26	1312	1060	684
B4200/5	230	2000	136	16,9	42,3	125,0	1,26	1458	1177	760
B4250/5	230	2500	136	20,9	50,2	157,0	1,26	1822	1471	950
B4300/5	230	3000	136	24,9	57,8	188,0	1,26	2187	1766	1140
B5120/5	230	1200	173	12,9	31,3	93,0	1,26	1078	871	562
B5150/5	230	1500	173	15,9	40,0	116,0	1,26	1348	1089	703
B5180/5	230	1800	173	18,9	45,8	139,0	1,26	1618	1307	844
B5200/5	230	2000	173	20,9	49,7	155,0	1,26	1797	1451	937
B5250/5	230	2500	173	25,9	59,4	193,0	1,26	2247	1815	1172
B5300/5	230	3000	173	30,9	68,7	232,0	1,26	2696	2177	1406
B6120/5	230	1200	210	15,4	35,5	110,0	1,26	1276	1030	665
B6150/5	230	1500	210	19,0	45,3	137,0	1,26	1596	1289	832
B6180/5	230	1800	210	22,6	52,1	165,0	1,26	1915	1546	999
B6200/5	230	2000	210	25,0	56,7	183,0	1,26	2127	1718	1109
B6250/5	230	2500	210	31,0	68,0	229,0	1,26	2659	2147	1387
B6300/5	230	3000	210	37,0	79,0	274,0	1,26	3191	2577	1664

¹⁾ Total price, including accessories (without seat), surcharge for special finish, colour category 1 = 20%, colour category 2 = 30%

²⁾ Number of bench brackets depending on length:
 2 x brackets for L = 1200
 3 x brackets for L = 1500 - 3000

Zehnder Radiator Bench

Model Radiator Bench



- H = Height
- L = Length
- T = Depth of radiator
- V = Water content
- M = Weight
- q_{ms} = Nominal water flow
- n = Exponent
- Φ_S = Nominal heat output according to EN 442 (75/65/20 °C)
- Φ = Thermal output at system temperatures

Dimensions in mm

Prices and technical specifications

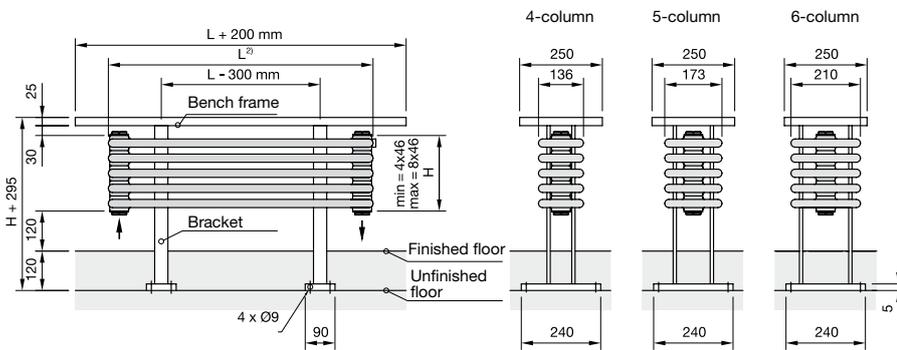
Model	H	L ²⁾	T	V	M	q _{ms}	Exp.	Φ _S =ΔT 50 K EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
	mm	mm	mm	dm ³	kg	kg/h	n			
B4120/6	276	1200	136	12,5	30,1	86,0	1,26	1001	808	522
B4150/6	276	1500	136	15,4	38,6	108,0	1,26	1251	1010	652
B4180/6	276	1800	136	18,3	44,1	129,0	1,26	1502	1213	783
B4200/6	276	2000	136	20,2	47,8	143,0	1,26	1668	1347	870
B4250/6	276	2500	136	25,0	57,1	179,0	1,26	2085	1684	1087
B4300/6	276	3000	136	29,8	65,9	215,0	1,26	2503	2021	1305
B5120/6	276	1200	173	15,4	35,6	106,0	1,26	1234	997	643
B5150/6	276	1500	173	19,0	45,4	133,0	1,26	1543	1246	805
B5180/6	276	1800	173	22,6	52,2	159,0	1,26	1851	1495	965
B5200/6	276	2000	173	25,0	56,7	177,0	1,26	2057	1661	1073
B5250/6	276	2500	173	31,0	68,0	221,0	1,26	2571	2076	1341
B5300/6	276	3000	173	37,0	79,0	265,0	1,26	3085	2491	1609
B6120/6	276	1200	210	18,5	40,7	126,0	1,26	1461	1180	762
B6150/6	276	1500	210	22,8	51,7	157,0	1,26	1826	1475	952
B6180/6	276	1800	210	27,1	59,7	188,0	1,26	2191	1769	1142
B6200/6	276	2000	210	30,0	65,0	209,0	1,26	2434	1966	1269
B6250/6	276	2500	210	37,2	78,4	262,0	1,26	3043	2457	1587
B6300/6	276	3000	210	44,4	91,3	314,0	1,26	3652	2949	1904
B4120/7	322	1200	136	14,6	33,6	97,0	1,26	1124	908	586
B4150/7	322	1500	136	18,0	42,9	121,0	1,26	1405	1135	733
B4180/7	322	1800	136	21,4	49,2	145,0	1,26	1686	1362	879
B4200/7	322	2000	136	23,6	53,5	161,0	1,26	1873	1513	977
B4250/7	322	2500	136	29,2	64,0	201,0	1,26	2342	1891	1221
B4300/7	322	3000	136	34,8	74,1	242,0	1,26	2810	2269	1465
B5120/7	322	1200	173	18,0	40,0	119,0	1,26	1386	1119	723
B5150/7	322	1500	173	22,2	50,9	149,0	1,26	1732	1399	903
B5180/7	322	1800	173	26,4	58,6	179,0	1,26	2078	1678	1084
B5200/7	322	2000	173	29,2	63,8	199,0	1,26	2309	1865	1204
B5250/7	322	2500	173	36,2	76,8	248,0	1,26	2887	2331	1505
B5300/7	322	3000	173	43,2	89,3	298,0	1,26	3464	2797	1806
B6120/7	322	1200	210	21,6	45,8	141,0	1,26	1640	1324	855
B6150/7	322	1500	210	26,6	58,2	176,0	1,26	2050	1655	1069
B6180/7	322	1800	210	31,6	67,3	212,0	1,26	2460	1987	1283
B6200/7	322	2000	210	35,0	73,5	235,0	1,26	2733	2207	1425
B6250/7	322	2500	210	43,4	88,8	294,0	1,26	3417	2759	1782
B6300/7	322	3000	210	51,8	103,7	353,0	1,26	4100	3311	2138

1) Total price, including accessories (without seat), surcharge for special finish, colour category 1 = 20%, colour category 2 = 30%
 2) Number of bench brackets depending on length: 2 x brackets for L = 1200
 3 x brackets for L = 1500 - 3000

Zehnder Radiator Bench



Model Radiator Bench



- H = Height
- L = Length
- T = Depth of radiator
- V = Water content
- M = Weight
- q_{ms} = Nominal water flow
- n = Exponent
- Φ_S = Nominal heat output according to EN 442 (75/65/20 °C)
- Φ = Thermal output at system temperatures

Dimensions in mm

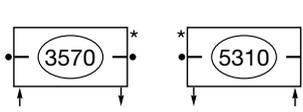
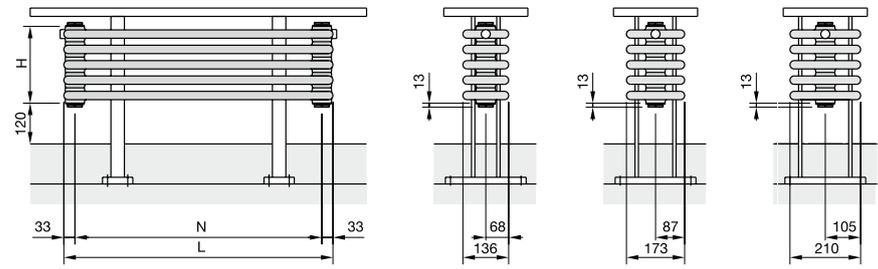
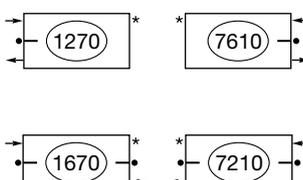
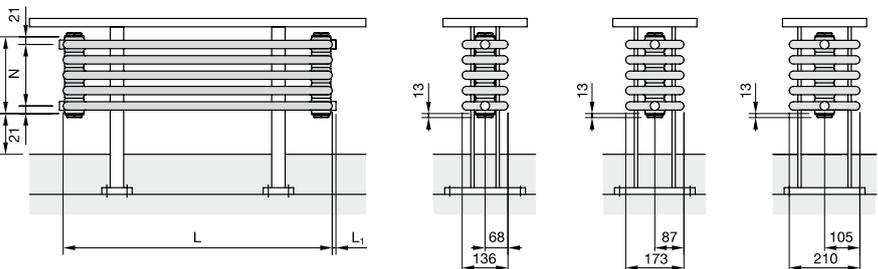
Prices and technical specifications

Model	H	L ²⁾	T	V	M	q_{ms}	Exp.	$\Phi_S = \Delta T$ 50 K EN442 Watt	Φ 70/55/20 °C Watt	Φ 55/45/20 °C Watt
	mm	mm	mm	dm ³	kg	kg/h	n			
B4120/8	368	1200	136	16,7	37,0	107,0	1,27	1245	1004	646
B4150/8	368	1500	136	20,6	47,3	134,0	1,27	1556	1254	807
B4180/8	368	1800	136	24,4	54,4	160,0	1,27	1867	1505	969
B4200/8	368	2000	136	27,0	59,1	178,0	1,27	2074	1672	1076
B4250/8	368	2500	136	33,4	70,9	223,0	1,27	2593	2090	1345
B4300/8	368	3000	136	39,8	82,3	267,0	1,27	3111	2508	1614
B5120/8	368	1200	173	20,6	44,3	132,0	1,27	1534	1237	796
B5150/8	368	1500	173	25,4	56,3	165,0	1,27	1918	1546	995
B5180/8	368	1800	173	30,2	65,0	198,0	1,27	2301	1855	1194
B5200/8	368	2000	173	33,4	70,9	220,0	1,27	2557	2061	1326
B5250/8	368	2500	173	41,4	85,5	275,0	1,27	3196	2577	1658
B5300/8	368	3000	173	49,4	99,7	330,0	1,27	3836	3093	1990
B6120/8	368	1200	210	24,6	51,0	156,0	1,27	1816	1464	942
B6150/8	368	1500	210	30,4	64,7	195,0	1,27	2270	1830	1178
B6180/8	368	1800	210	36,2	75,0	234,0	1,27	2724	2196	1413
B6200/8	368	2000	210	40,0	82,0	260,0	1,27	3027	2440	1570
B6250/8	368	2500	210	49,6	99,2	325,0	1,27	3783	3050	1962
B6300/8	368	3000	210	59,2	116,1	390,0	1,27	4540	3660	2355

¹⁾ Total price, including accessories (without seat), surcharge for special finish, colour category 1 = 20%, colour category 2 = 30%

²⁾ Number of bench brackets depending on length:
 2 x brackets for L = 1200
 3 x brackets for L = 1500 - 3000

Zehnder Radiator Bench

Connection type	Dimensional drawings: Front view and side views
Connection 2-tube with external valve	
from bottom to bottom ¹⁾ 	
same or opposite end 	

¹⁾ When placing an order without specification of the connection, the standard connection (3570/5310) from bottom to bottom with 3 x 1/2" will be delivered.

Special versions

High-pressure version max. 18 bar
 with welded plugs: 2 to 3-column
 with welded plugs + tied rod: 4- to 6-column

Special versions, single-tube connection

Galvanising
 with subsequent standard finish (RAL 9016)
 (see also explanations on galvanising in section "General")

Basis for calculating the surcharge is the standard finish

- H = Height
- L = Length
- R = Radius
- * = Venting
- N = Boss spacing
- L₁ = Connection length at side
- = Internal installations

Dimensions in mm

Connection size Ø	3/8"	1/2"	3/4"
L ₁ (mm)	12	12	15

Zehnder Charleston

Electric operation



	Overview of models	Product description	Technical specifications	Installation points
Zehnder Charleston				
 <ul style="list-style-type: none"> ■ Classic tubular radiator as electric version ■ Oil-filled steel elements ■ Radio remote control 	138	139	140	141

Zehnder Charleston

Electric operation

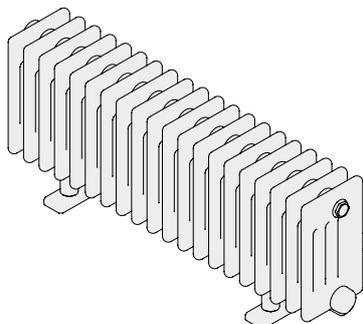


Wall version



Length ¹⁾ mm	Height mm
	600
502	NZ-060-053/GF
594	NZ-060-062/GF
732	NZ-060-076/GF
870	NZ-060-089/GF
1008	NZ-060-103/GF
1284	NZ-060-131/GF

Plinth version



Length ¹⁾ mm	Height mm ²⁾
	300
962	NZ-030-100/GF

¹⁾ Total length incl. immersion heater

²⁾ Without foot

Zehnder Charleston

Electric operation



Product description

Electric Zehnder Charleston is an oil filled multi-column radiator available in 6 sizes ideal for installation in loft conversions. The complementary Zehnder Charleston Electric Plinth low level model is perfectly suited to conservatories and in front of low-level windows. Radiator with powder coating, in colour RAL 9016 as standard or in special colour.

Advantages

- Energy-efficient and comfortable heating via innovative “open window detection”
- High energy efficiency due to compliance with the European Ecodesign Directive saves energy costs
- Low energy consumption of only 0,5 W in stand-by mode for increased energy efficiency
- User-friendly remote control device allows simple operation
- Comfortable operation as needed by customisable daily and weekly programme
- Timer function for on-demand operation
- Increased safety due to parental control

Technical specifications

- Oil-filled multi-column electric radiator
- Vertical steel round tubes Ø 25 mm, 3 and 5 columns versions available
- Connection cable without plug, appliance class II
- With integrated electric heating element and remote control
- Protection class IP44
- Supply voltage: 230 V
- Fixing: model NZ 060-XXX/GF delivered ready to install with 2 wall brackets in colour of radiator. Model NZ 030-100/GF delivered ready to install with 2 feet in colour of radiator.

Standard scope of delivery:

- Primed and painted in RAL 9016
- Remote control device in white
- Connecting cable 1,20 m without plug
- Mounting accessories
- Packaging

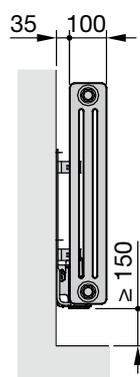
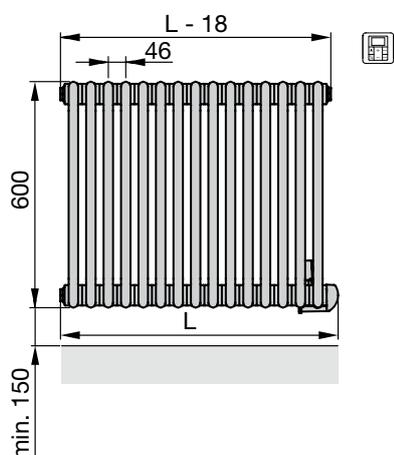


Control unit radio
remote-controlled
Model 2

Zehnder Charleston

Electric operation

Wall version



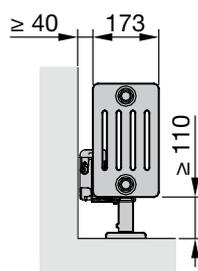
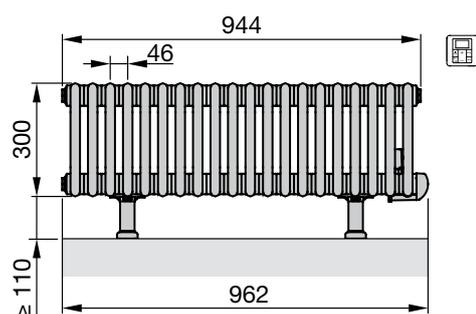
H = Height
L = Length including immersion heater

Dimensions in mm

Technical specifications per radiator

Model	H mm	L ¹⁾ mm	Elements	T mm	M kg	Output Electric heating element Watt
NZ-060-053/GF	600	502	10	100	27	500
NZ-060-062/GF	600	594	12	100	30	750
NZ-060-076/GF	600	732	15	100	41	1000
NZ-060-089/GF	600	870	18	100	47	1250
NZ-060-103/GF	600	1008	21	100	58	1500
NZ-060-131/GF	600	1284	27	100	70	2000

Plinth version



H = Height
L = Length including immersion heater

Dimensions in mm

Technical specifications per radiator

Model	H ³⁾ mm	L ¹⁾ mm	Elements	T mm	M kg	Output Electric heating element Watt
NZ-030-100/GF	300	962	20	173	42,4	1000

¹⁾ Total length incl. immersion heater

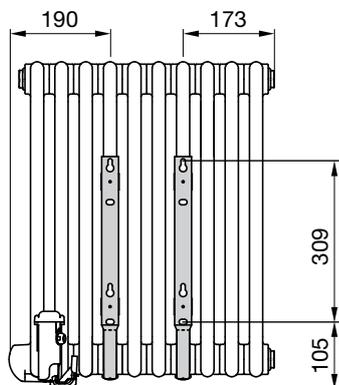
²⁾ Surcharge for special colour, category 1 = 20%; category 2 = 30%, not available in Technoline

³⁾ Without foot

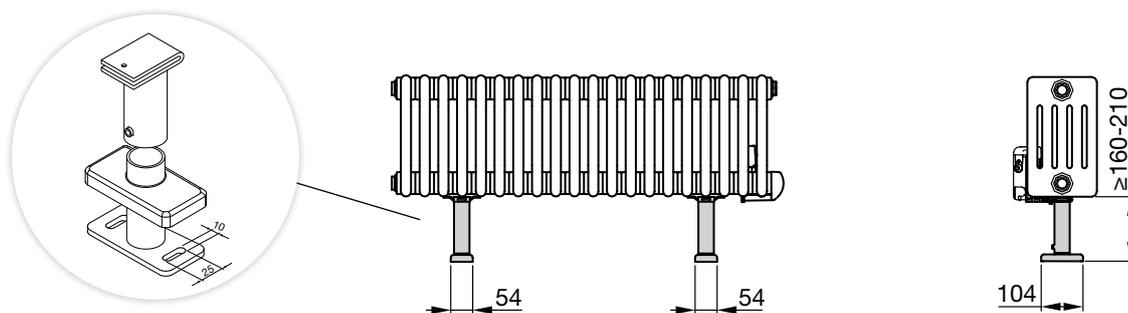
Zehnder Charleston

Electric operation

Dimensions for Wall version



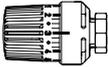
Dimensions for Plinth version



Dimensions in mm, plinth incl. cover

Accessories



	Mounting Sets	Valves	Rail	Miscellaneous
Zehnder accessories				
	144	153	159	159

Individual brackets for wall mounting

Zehnder SMB bracket available only in connection with Zehnder Charleston.

Description	Version	Article number	Application
Set Charleston SMB 2T For height 260 - 299 mm and height 1001 - 3000 mm Wall bracket for fast and simple installation, painted to order. Wall clearance to rear edge of radiator 35 mm. Max. load per axis = 100 kg Completely pre-assembled bracket comprising: - Bars, one or two-piece - Attenuator cover - Base with attenuator		RAL 9016 2 x SMB 2T 173511 3 x SMB 2T 173611 4 x SMB 2T 173711 5 x SMB 2T 173811	Zehnder Charleston, Zehnder Charleston Clinic
		Special finish 2 x SMB 2T 173519 3 x SMB 2T 173619 4 x SMB 2T 173719 5 x SMB 2T 173819	
Set Charleston SMB 30 For height 300 - 369 mm		RAL 9016 2 x SMB 30 173521 3 x SMB 30 173621 4 x SMB 30 173721 5 x SMB 30 173821	
		Special finish 2 x SMB 30 173529 3 x SMB 30 173629 4 x SMB 30 173729 5 x SMB 30 173829	
Set Charleston SMB 40 For height 370 - 484 mm		RAL 9016 2 x SMB 40 173531 3 x SMB 40 173631 4 x SMB 40 173731 5 x SMB 40 173831	
		Special finish 2 x SMB 40 173539 3 x SMB 40 173639 4 x SMB 40 173739 5 x SMB 40 173839	
Set Charleston SMB 50 For height 485 - 679 mm		RAL 9016 2 x SMB 50 173541 3 x SMB 50 173641 4 x SMB 50 173741 5 x SMB 50 173841	also for Zehnder Charleston electric operation
		Special finish 2 x SMB 50 173549 3 x SMB 50 173649 4 x SMB 50 173749 5 x SMB 50 173849	
Set Charleston SMB 75 For height 680 - 1000 mm		RAL 9016 2 x SMB 75 173551 3 x SMB 75 173651 4 x SMB 75 173751 5 x SMB 75 173851	
		Special finish 2 x SMB 75 173559 3 x SMB 75 173659 4 x SMB 75 173759 5 x SMB 75 173859	
Set Charleston SMB 2 2 clamp brackets as wall holders in connection with foot brackets		RAL 9016 173401 Special finish 173409	Zehnder Charleston, Zehnder Charleston Clinic

Screws and anchors are not included in the scope of delivery.

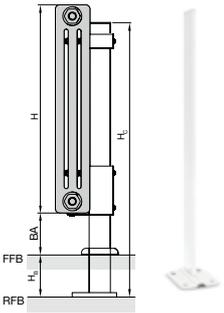
Individual sets for wall and floor mounting

Description	Version	Article number	Application
Set CVD for Charleston Fixing set, consisting of: - Bracket CVD 0 - Support BH - Attenuator - Locking mechanism		RAL 9016 4 x CVD 0 / BH 774401 6 x CVD 0 / BH 774601 8 x CVD 0 / BH 774801 10 x CVD 0 / BH 774901	Zehnder Charleston
		Special finish 4 x CVD 0 / BH 774409 6 x CVD 0 / BH 774609 8 x CVD 0 / BH 774809 10 x CVD 0 / BH 774909	
Set CVD for Charleston Clinic Fixing set, consisting of: - Bracket CVD 0 - Support BHK - Attenuator - Locking mechanism		RAL 9016 4 x CVD 0 / BHK 775421 6 x CVD 0 / BHK 775621 8 x CVD 0 / BHK 775821 10 x CVD 0 / BHK 775921	Zehnder Charleston Clinic
		Special finish 4 x CVD 0 / BHK 775429 6 x CVD 0 / BHK 775629 8 x CVD 0 / BHK 775829 10 x CVD 0 / BHK 775929	
Set BKE for Charleston Wall hole Ø 18 mm, bracket length 160 mm. Depth regulation and plastic head off-centre, height-adjustable 0 - 7 mm. Fixing set, consisting of: - Build-in bracket BKE - Support BH (white) - Incl. 2 retaining springs BSF1		Galvanised/RAL 9016 4 x BKE / BH 774461 6 x BKE / BH 774661 8 x BKE / BH 774861 10 x BKE / BH 774961	Zehnder Charleston
		Special finish 4 x BKE / BH 774469 6 x BKE / BH 774669 8 x BKE / BH 774869 10 x BKE / BH 774969	
Set BKE for Charleston Clinic Wall hole Ø 18 mm, bracket length 160 mm. Depth regulation and plastic head off-centre, height-adjustable 0 - 7 mm. Fixing set, consisting of: - Build-in bracket BKE - Support BHK (white) - Incl. 2 retaining springs BSF1		Galvanised/RAL 9016 4 x BKE / BHK 775461 6 x BKE / BHK 775661 8 x BKE / BHK 775861 10 x BKE / BHK 775961	Zehnder Charleston Clinic
		Special finish 4 x BKE / BHK 775469 6 x BKE / BHK 775669 8 x BKE / BHK 775869 10 x BKE / BHK 775969	
Set support for TSK In connection with wall brackets to guard against movement, meets high requirements according to VDI 6036, available in two different lengths: TSK130 = length 130 mm (for 2-column), TSK160 = length 160 mm (for 3-6-column or larger wall clearances)		RAL 9016 2 x TSK130 774701 2 x TSK160 774721	Zehnder Charleston
		Special finish 2 x TSK130 774709 2 x TSK160 774729	
Set support for TSKC In connection with wall brackets to guard against movement, meets high requirements according to VDI 6036, available in two different lengths: TSKC130 = length 130 mm (for 2-column), TSKC160 = length 160 mm (for 3-6-column or larger wall clearances)		RAL 9016 2 x TSKC130 774711 2 x TSKC160 774731	Zehnder Charleston Clinic
		Special finish 2 x TSKC130 774719 2 x TSKC160 774739	

Screws and anchors are not included in the scope of delivery. Only some accessories in special finishes available as a set, see individual brackets.

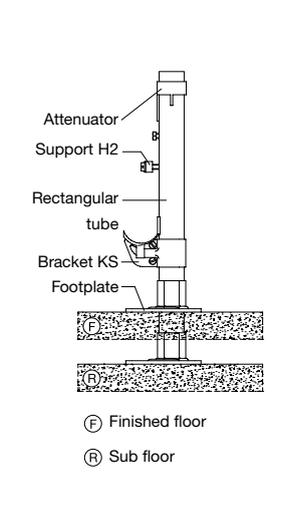
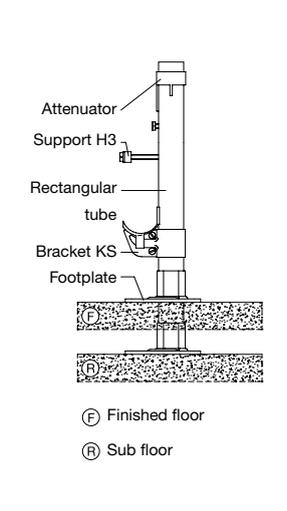
Zehnder HDS floor bracket



Description	Height H _C mm	Article number	Application									
<p>Free-standing floor bracket HDS reinforced floor bracket for heavy requirements (e. g. schools) on finished and unfinished floors, available in RAL 9016 or special finish.</p>  <p>Floor bracket rectangular tube 60 x 10 mm and welded-on footplate in standard colour RAL 9016 or special finish.</p> <p>BA = ground clearance HB = floor structure height HB + BA = max. 300 mm HC = console height H = radiator height, 260 - 600 mm</p> <p>Dimensions in mm</p>  <p>Recommended console height H_C</p> <table border="1"> <thead> <tr> <th>Installation location</th> <th>H_C 2-column</th> <th>H_C 3- to 6-column</th> </tr> </thead> <tbody> <tr> <td>Finished floor (FFB)</td> <td>= H + BA - max. 72 mm</td> <td>= H + BA - max. 80 mm</td> </tr> <tr> <td>Unfinished floor (RFB)</td> <td>= H + H_B + BA - max. 72 mm</td> <td>= H + H_B + BA - max. 80 mm</td> </tr> </tbody> </table>	Installation location	H _C 2-column	H _C 3- to 6-column	Finished floor (FFB)	= H + BA - max. 72 mm	= H + BA - max. 80 mm	Unfinished floor (RFB)	= H + H _B + BA - max. 72 mm	= H + H _B + BA - max. 80 mm	<p>370 mm 420 mm 470 mm 520 mm 570 mm 620 mm 670 mm 720 mm 770 mm 820 mm</p>	<p>722201 722211 722221 722231 722241 722251 722261 722271 722281 722291</p>	
Installation location	H _C 2-column	H _C 3- to 6-column										
Finished floor (FFB)	= H + BA - max. 72 mm	= H + BA - max. 80 mm										
Unfinished floor (RFB)	= H + H _B + BA - max. 72 mm	= H + H _B + BA - max. 80 mm										
<p>Clamp bracket set in standard colour RAL 9016 or special finish, consisting of: 1x bottom clamp bracket with attenuator 1x top clamp bracket 1x plastic plug, white, for standpipe 2x plastic cover, white, for brackets</p>		<p>722321 722331 722341</p>	<p>2-column 3- and 5-column 4- and 6-column</p>									
<p>Plastic cover for HDS footplate 137 x 15 mm, white, suitable for retrofitting</p>		<p>722301</p>	<p>for installation on finished floor</p>									
<p>Plastic cover for HDS standpipe 90 x 41 mm, white, suitable for retrofitting</p>		<p>722311</p>	<p>for installation on unfinished floor</p>									

¹⁾ The article number of the item in special finish is created by replacing the end digit 1 by the end digit 9 (not available for plastic covers)
Surcharge for special finishing: 50 % on the price of RAL 9016

Individual brackets for floor mounting

Description	Version	Article number	Application
<p>Foot bracket set HFK incl. cover H = 140 - 170¹⁾ mm</p>		<p>RAL 9016 2 x HFK 754551 3 x HFK 754561 Special finish 2 x HFK 754559 3 x HFK 754569</p>	<p>Zehnder Charleston</p>
<p>Foot bracket set HFK incl. cover H = 170 - 350 mm</p>		<p>RAL 9016 2 x HFK 754431 3 x HFK 754441 Special finish 2 x HFK 754439 3 x HFK 754449</p>	<p>Zehnder Charleston</p>
<p>Free-standing floor bracket STF 2 for tightening With bracket, without bench frame, RAL 9016</p> <p>Comprising: - Attenuator, plastic - Support H2, plastic - Rectangular tube - Bracket KS - Footplate - Sealing cap, plastic</p> <p>Can be combined with: - Cover AD1 for footplate - Cover AR for rectangular tube</p> <p>* The desired dimension depends on the sum of the floor construction, ground clearance and height of the radiator.</p>		<p>Dimension* 360 mm 719011 410 mm 719021 460 mm 719031 510 mm 719041 560 mm 719051 610 mm 719061 660 mm 719071 710 mm 719081 760 mm 719091 810 mm 719101 860 mm 719111 910 mm 719121 960 mm 719131 1010 mm 719141 1060 mm 719151 1110 mm 719161 1160 mm 719171</p>	<p>Zehnder Charleston (2-column), up to H < 600 mm ²⁾</p>
<p>Free-standing floor bracket STF 3 for tightening With bracket, without bench frame, RAL 9016</p> <p>Comprising: - Attenuator, plastic - Support H3, plastic - Rectangular tube - Bracket KS - Footplate - Sealing cap, plastic</p> <p>Can be combined with: - Cover AD1 for footplate - Cover AR for rectangular tube</p> <p>* The desired dimension depends on the sum of the floor construction, ground clearance and height of the radiator.</p>		<p>Dimension* 360 mm 721011 410 mm 721021 460 mm 721031 510 mm 721041 560 mm 721051 610 mm 721061 660 mm 721071 710 mm 721081 760 mm 721091 810 mm 721101 860 mm 721111 910 mm 721121 960 mm 721131 1010 mm 721141 1060 mm 721151 1110 mm 721161 1160 mm 721171</p>	<p>Zehnder Charleston 3 to 6-column, up to H < 600 mm ²⁾</p>

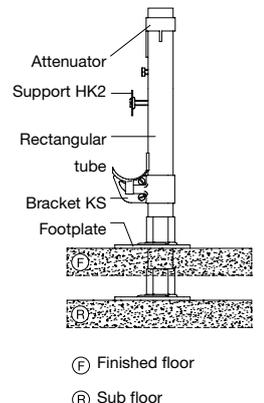
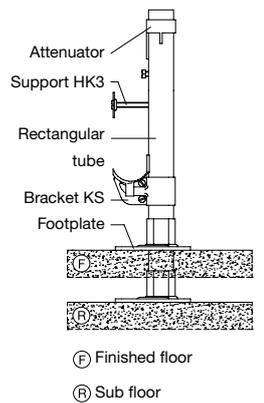
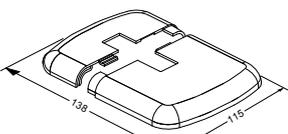
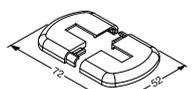
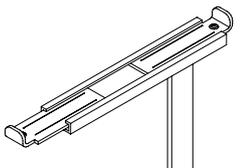
Screws and anchors are not included in the scope of delivery. Surcharge for custom-made colour: 50% surcharge on price of RAL 9016

1) Cut the round tubes to length by 5 mm each at the building site to reduce the minimum height to 130 mm.

2) Provide additional bracket from a height of 600 mm for the requirements class 2.

H = Total height of bracket

Individual floor brackets for floor mounting

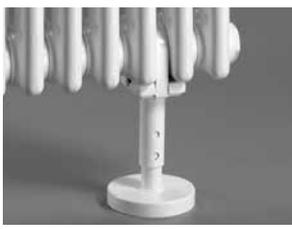
Description	Version	Article number	Application
<p>Floor brackets STF 2 K for tightening</p> <p>With bracket, without bench frame, RAL 9016</p> <p>Comprising:</p> <ul style="list-style-type: none"> - Attenuator, plastic - Support HK2 - Rectangular tube - Bracket KS - Footplate - Sealing cap, plastic <p>Can be combined with:</p> <ul style="list-style-type: none"> - Cover AD1 for footplate - Cover AR for rectangular tube <p>* The desired dimension depends on the sum of the floor construction, ground clearance and height of the radiator.</p>		<p>Dimension*</p> <p>360 mm</p> <p>410 mm</p> <p>460 mm</p> <p>510 mm</p> <p>560 mm</p> <p>610 mm</p> <p>660 mm</p> <p>710 mm</p> <p>760 mm</p> <p>810 mm</p> <p>860 mm</p> <p>910 mm</p> <p>960 mm</p> <p>1010 mm</p> <p>1060 mm</p> <p>1110 mm</p> <p>1160 mm</p>	<p>605011</p> <p>605021</p> <p>605031</p> <p>605041</p> <p>605051</p> <p>605061</p> <p>605071</p> <p>605081</p> <p>605091</p> <p>605101</p> <p>605111</p> <p>605121</p> <p>605131</p> <p>605141</p> <p>605151</p> <p>605161</p> <p>605171</p> <p>Zehnder Charleston Clinic (2-column), up to H < 600 mm ¹⁾</p>
<p>Floor bracket STF 3 K for tightening</p> <p>With bracket, without bench frame, RAL 9016</p> <p>Comprising:</p> <ul style="list-style-type: none"> - Attenuator, plastic - Support HK3 - Rectangular tube - Bracket KS - Footplate - Sealing cap, plastic <p>Can be combined with:</p> <ul style="list-style-type: none"> - Cover AD1 for footplate - Cover AR for rectangular tube <p>* The desired dimension depends on the sum of the floor construction, ground clearance and height of the radiator.</p>		<p>Dimension*</p> <p>360 mm</p> <p>410 mm</p> <p>460 mm</p> <p>510 mm</p> <p>560 mm</p> <p>610 mm</p> <p>660 mm</p> <p>710 mm</p> <p>760 mm</p> <p>810 mm</p> <p>860 mm</p> <p>910 mm</p> <p>960 mm</p> <p>1010 mm</p> <p>1060 mm</p> <p>1110 mm</p> <p>1160 mm</p>	<p>609011</p> <p>609021</p> <p>609031</p> <p>609041</p> <p>609051</p> <p>609061</p> <p>609071</p> <p>609081</p> <p>609091</p> <p>609101</p> <p>609111</p> <p>609121</p> <p>609131</p> <p>609141</p> <p>609151</p> <p>609161</p> <p>609171</p> <p>Zehnder Charleston Clinic 3 to 6-column, up to H < 600 mm ¹⁾</p>
<p>Plastic cover, AD1</p> <p>For footplate Not included in price of STF, suitable for retrofitting</p>		<p>Plastic, white</p> <p>703000</p>	<p>Floor brackets STF</p>
<p>Cover AR</p> <p>For rectangular tube Not included in price of STF.</p>		<p>Plastic, white</p> <p>704000</p>	<p>Floor brackets STF</p>
<p>Bench frame for floor bracket STF</p>		<p>Galvanised</p> <p>713002</p>	<p>Floor brackets STF</p>

Screws and anchors are not included in the scope of delivery

Surcharge for custom-made colour: 50% surcharge on price of RAL 9016

¹⁾ Provide additional bracket from a height of 600 mm for the requirements class 2.

Individual supports for floor mounting

Description	Version	Article number	Application
Welded foot bracket for Charleston Height-adjustable, for mounting on unfinished or finished floor. Number of brackets = fixing axes on radiator incl. cover	 In colour of radiator 120 - 170 mm 170 - 350 mm	1100013810 1100013870	Zehnder Charleston ²⁾ max. height 600 mm
Welded foot bracket for Charleston Height: fix 150 mm for mounting on unfinished or finished floor. Number of brackets = fixing axes on radiator Cover separately	 In colour of radiator 150mm	-	Zehnder Charleston ²⁾ max. height 600 mm
Traditional welded feet for Charleston H = 100 mm, for mounting on finished floors Number of brackets = fixing axes on radiator	 In colour of radiator	-	Zehnder Charleston 3-6 column Free-standing installation up to and including a height of 600 mm (requirements classes 1 and 2)
Foot bracket HFK For tightening with bracket, painted, without cover H = 140 - 170 ¹⁾ mm	 RAL 9016 Special finish	754411 754419	Zehnder Charleston ²⁾
Foot bracket HFK For tightening with bracket, painted, without cover H = 170 - 350 mm, can be shortened on site		RAL 9016 Special finish	754421 754429
Cover for foot bracket Charleston, welded (height adjustable) and foot bracket HFK Diameter 106 mm for round tube bracket Ø 25 mm	 Plastic, white Special finish	753031 753039	Zehnder Charleston
Cover for foot bracket Charleston, welded fix 150 mm Diameter 106 mm for round tube bracket Ø 30 mm	 Plastic, white Special finish	753041 753049	Zehnder Charleston

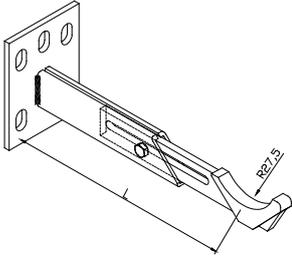
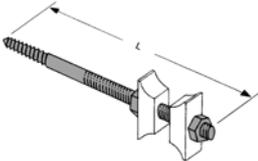
Screws and anchors are not included in the scope of delivery

¹⁾ Cut the round tubes to length by 5 mm each at the building site to reduce the minimum height to 130 mm.

²⁾ Provide additional bracket from a height of 600 mm for requirements class 2, request a separate allocation for requirements class 3 (e.g. school)

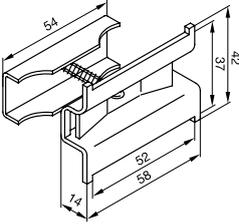
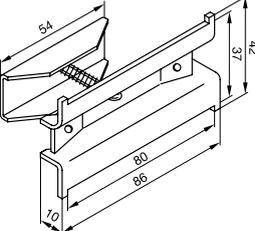
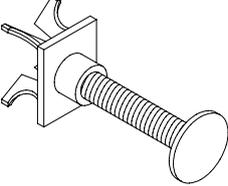
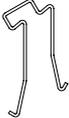
Individual brackets for wall mounting



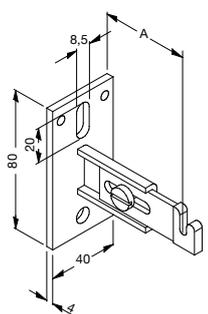
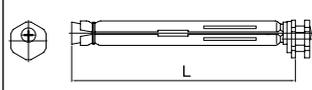
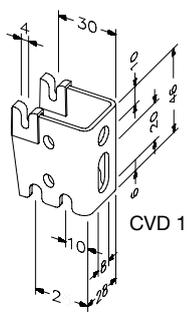
Description	Version	Article number	Application																					
<p>T bracket AKK for tightening With white attenuator</p> <p>2-column, L = 68-91 mm 3-6 column, L = 95-139 mm</p> <p>2-column, L = 68-91 mm 3-6 column, L = 95-139 mm</p> <p>Wall distance WA for modified bracket allocation (mm):</p> <table border="1"> <tr> <td>RAL 9016</td> <td>796101</td> <td>796111</td> </tr> <tr> <td>Special finish</td> <td>796109</td> <td>796119</td> </tr> <tr> <td>2-column</td> <td>37-60</td> <td>64-108</td> </tr> <tr> <td>3-column</td> <td>18-41</td> <td>45-89</td> </tr> <tr> <td>4-column</td> <td>0-26</td> <td>27-71</td> </tr> <tr> <td>5-column</td> <td>-</td> <td>8,5-52,5</td> </tr> <tr> <td>6-column</td> <td>-</td> <td>0-34</td> </tr> </table> <p>Compatible supports HA/HAK + TKK</p>	RAL 9016	796101	796111	Special finish	796109	796119	2-column	37-60	64-108	3-column	18-41	45-89	4-column	0-26	27-71	5-column	-	8,5-52,5	6-column	-	0-34		<p>RAL 9016 RAL 9016</p> <p>Special finish Special finish</p>	<p>796101 796111</p> <p>796109 796119</p> <p>Zehnder Charleston Zehnder Charleston Clinic</p>
RAL 9016	796101	796111																						
Special finish	796109	796119																						
2-column	37-60	64-108																						
3-column	18-41	45-89																						
4-column	0-26	27-71																						
5-column	-	8,5-52,5																						
6-column	-	0-34																						
<p>Support TKK For tightening, white plastic/galvanised To be used with bracket AKK, L = 150 mm</p>		<p>784100 784120</p>	<p>Zehnder Charleston Zehnder Charleston Clinic</p>																					

Screws and anchors are not included in the scope of delivery

Support, spacers, etc.

Description	Version	Article number	Application
Support BH Clamp bracket for tightening instead of welded lugs; variable positioning		RAL 9016 Special finish 774001 774009	Zehnder Charleston (not Clinic version)
Support BHK Clamp bracket for tightening instead of welded lugs; variable positioning		RAL 9016 Special finish 775011 775019	Zehnder Charleston Clinic
Spacer DS Adjustable for wall clearance 15-60 mm		Plastic, white 780000	Zehnder Charleston Zehnder Charleston Clinic
Retaining spring for CVD For wall brackets CVD 0, CVD 1 and CVD 2 with support BH/BHK or lugs with height 20 mm. Price valid for 2 retaining springs		Spring steel 948012	Zehnder Charleston

Individual brackets for wall mounting

Description	Version	Article number	Application	
Wall bracket AK 1 ¹⁾ With attenuator. Clearance A 40 - 55 mm Compatible supports BH/BHK		RAL 9016 Special finish 796011 796019	For all radiators with suspension brackets or plates	
Wall bracket AK 2 ¹⁾ With attenuator. Clearance A 60 - 80 mm Compatible supports BH/BHK		RAL 9016 Special finish 796021 796029	For all radiators with suspension brackets or plates	
Build-in bracket BKE ¹⁾ Wall hole Ø 18 mm. Depth regulation and plastic head off-centre, height-adjustable 0 - 7 mm. Can be combined with retaining spring BFS 1 for Zehnder Charleston with support BH/BHK.		Galvanised L = 100 mm 766012 L = 130 mm 766022 L = 160 mm 766032 L = 200 mm 766042 L = 240 mm 766052	For all radiators with suspension brackets or plates	
Security clip BFS 1 For drilling templates BKE with support BH/BHK		Spring steel	777010	Zehnder Charleston
Wall bracket CVD 0 ¹⁾ With attenuator, clearances 10/15 mm		RAL 9016 Special finish 795031 795039	For all radiators with suspension brackets or plates	
Wall bracket CVD 1 ¹⁾ With attenuator, clearances 25/30 mm		RAL 9016 Special finish 795041 795049	For all radiators with suspension brackets or plates	
Wall bracket CVD 2 ¹⁾ With attenuator, clearances 30/45/50 mm		RAL 9016 Special finish 795051 795059	For all radiators with suspension brackets or plates	
Retaining spring for CVD For wall brackets CVD 0, CVD 1 and CVD 2 with support BH/BHK or lugs with height 20 mm. Price valid for 2 retaining springs		Spring steel	948012	Zehnder Charleston

¹⁾ An on-site locking device may be required depending on the installation and connection situation and the net weight of the radiator. In this case, retaining springs (suitable for the relevant product) or an on-site locking device must be provided.

Valves, return screw connections, thermostats

Description		Version	Article number	Application
Adaptor nipple From 1/2" female thread to 3/4" external thread for screwing with O-ring seal			837110	For all radiators
Directional air vent, nickel-plated, self-sealing		1/4" 3/8" 1/2" 1/8"	816010 816020 816030 816040	
Directional air vent, chrome-plated, self-sealing Suitable for max. operating pressure of 18 bar		1/2"	816070	
Zehnder thermostat "LH2" Thermostat with integrated fluid sensor, tested according to EN 215. Can be restricted and locked to individual reference value of 7 to 28 °C. Version with zero setting and threaded connection for thermostat M 30 x 1,5		White Chrome	819140 819148	For all radiators with threaded connection M 30 x 1,5 mm
Zehnder thermostat "DH" Thermostat with integrated expansion material sensor, reference value range 7 to 28 °C. Version with zero setting		White Chrome	819050 819058	
Zehnder thermostat "SH" Elegant thermostat with integrated fluid sensor, tested according to EN 215, reference value range 7 to 28 °C. Version with zero setting. Thermostat threaded connection M 30 x 1,5 with coupling nut in chrome.		White Chrome Stainless steel	819080 819088 819082	
Zehnder thermostat „Design Line“ Thermostat with integrated fluid sensor. Can be restricted and locked to individual reference value of 6,5 - 28 °C, connection for thermostat M 30 x 1,5		White Chrome Stainless steel optic Copper Bronze 1) Special finish	841271 841278 853720 853850 853860 841279	
Thermostatic head M 30 x 1.5 mm		White Chrome	853931 853938	
Blanking plug, nickel-plated, self-sealing		1/2"	974020	For all radiators
Blanking plug, chrome-plated Suitable for operating pressure up to max. 18 bar		1/2"	974058	
Angle adapter for thermostat M 30 x 1,5		White	819500	For all radiators with threaded connection M 30 x 1,5 mm

All fittings etc. suitable for operating temperature max. 110 °C and operating pressure max. 10 bar, unless indicated otherwise.

1) Suitable for connection fitting and valve body in brass.

Zehnder Design Line valves

Description		Version	Article number	Application
Valve set type A Angled flow and lockshield, thermostatic insert M 30 x 1,5 mm with pre-setting 1-7, manual handwheel, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes		Chrom	838888	For all radiators with 1/2" female thread
Valve set type B Angled flow and lockshield, manual handwheel thermostatic insert M 30 x 1,5 mm with pre-setting 1-7, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes		White Chrome	838891 838898	
Valve set type C Straight flow and lockshield, manual handwheel thermostatic insert M 30 x 1,5 mm with pre-setting 1-7, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes		White Chrome	838941 838948	
Valve set type D Reverse flow and angled lockshield, manual handwheel thermostatic insert M 30 x 1,5 mm with pre-setting 1-7, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes		White Chrome	838951 838958	
Valve set type G Angled-angled flow head to the left, thermostatic insert M 30 x 1,5 mm with pre-setting 1-7, manual handwheel, lockshield angled, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes		White Chrome	838981 838988	
Ventilset Typ I Angled-angled flow head to the right, manual handwheel, thermostatic insert M 30 x 1,5 mm with pre-setting 1-7, lockshield angled, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes		White Chrome	838991 838998	

Zehnder Design Line valves

Description		Version	Article number	Application
Valve type O 50 mm straight, thermostatic insert M 30 x 1,5 mm with pre-setting 1-7 and by-pass, turnable for manual handwheel to the left or right, including 2 pcs ¾" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes		White Chrome	839041 839048	For all radiators with ½" female thread
Valve type P 50 mm angled, with by-pass, to the right thermostatic insert M 30 x 1,5 mm, with pre-setting 1-7 and by-pass, manual handwheel, including 2 pcs ¾" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes		White Chrome	839051 839058	
Valve type Q 50 mm angled, with by-pass, to the left thermostatic insert M 30 x 1,5 mm with pre-setting 1-7 and by-pass, manual handwheel, including 2 pcs ¾" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes		White Chrome	839101 839108	
Valve type U 50 mm swiveling design valve straight or angled, with by-pass, thermostatic insert M 30 x 1.5 mm with pre-setting 1-7, manual handwheel to the left or to the right, including 2 pc ¾" Eurocone nuts Ø 16.8 mm in finish of valve body, without adaptors for pipes		chrome white	839178 839171	

Zehnder Design Line Coloured Valves



Description		Version	Article nr.	Application
<p>Zehnder thermostat "Design Line" Thermostat with integrated fluid sensor. Can be restricted and locked to individual reference value of 6,5 - 28 °C, connection for thermostat M 30 x 1,5</p>		Special finish	841279	For all radiators with 1/2" female thread, in colour of radiator
<p>Valve set type B Angled flow and lockshield, thermostatic insert M 30 x 1,5 mm with pre-setting 1-7, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes. Thermostat Design Line with integrated fluid sensor. Can be restricted and locked to individual reference value of 6,5 - 28 °C, connection for thermostat M 30 x 1,5.</p>		Special finish	838899	
		Valve set with manual handwheel	839439	
		Valve set including Design Line thermostat	839439	
<p>Valve type O 50 mm straight, thermostatic insert M 30 x 1,5 mm with pre-setting 1-7 and by-pass, turnable to the left or right, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes. Thermostat Design Line with integrated fluid sensor. Can be restricted and locked to individual reference value of 6,5 - 28 °C, connection for thermostat M 30 x 1,5.</p>		Special finish	839049	
		Valve set with manual handwheel	839409	
		Valve set including Design Line thermostat	839409	
<p>Valve type P 50 mm angled, with by-pass, to the right thermostatic insert M 30 x 1,5 mm, with pre-setting 1-7 and by-pass, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes. Thermostat Design Line with integrated fluid sensor. Can be restricted and locked to individual reference value of 6,5 - 28 °C, connection for thermostat M 30 x 1,5.</p>		Special finish	839059	
		Valve set with manual handwheel	839419	
		Valve set including Design Line thermostat	839419	
<p>Valve type Q 50 mm angled, with by-pass, to the left thermostatic insert M 30 x 1,5 mm with pre-setting 1-7 and by-pass, including 2 pcs 3/4" Eurocone nuts Ø 16,8 mm in finish of valve body, without adaptors for pipes. Thermostat Design Line with integrated fluid sensor. Can be restricted and locked to individual reference value of 6,5 - 28 °C, connection for thermostat M 30 x 1,5.</p>		Special finish	839109	
		Valve set with manual handwheel	839429	
		Valve set including Design Line thermostat	839429	

All valves etc. suitable for operating temperature max. 110 °C and operating pressure max. 10 bar, if not indicated differently.
For further information, please see information in the keyword list.

Zehnder Design Line Accessories

Description		Version	Article number	Application
Nut 1/2", 2 pcs Fe - 3/4" Eurocone		White Chrome	842001 842008	Adapter for screw fittings with 1/2" external thread
Adaptors, 2 pcs Multilayer 16 x 2,0 mm		Brass	842060	
Adaptors, 2 pcs PEX 12 x 1,0 mm		Brass	842070	
Adaptors, 2 pcs Copper Ø 10 mm Copper Ø 12 mm Copper Ø 14 mm Copper Ø 15 mm Copper Ø 16 mm		Brass	842080 842090 842100 842110 842120	Matching to Zehnder Design Line valves and union nuts (2 x 3/4" Eurocone, Ø 16,8 mm) which are included in the scope of delivery
Nuts Ø 18 mm - 3/4" Eurocone + adaptors copper Ø 18 mm 2 pcs		Chrome / brass	842140	
Nuts Ø 20,8 mm - 3/4" Eurocone + adaptors multilayer Ø 20 x 2 mm 2 pcs		Chrome / brass	842150	
Adaptors, 2 pcs Multilayer Ø 14 mm		Brass	842160	
Adaptors, 2 pcs Multilayer Ø 16 x 2,25 mm		Brass	842170	
Universal Adaptor set (without nuts 3/4" Eurocone - Ø 16,8 mm) - 2 pcs Alu/Pex multilayer 16 x 2.0 mm - 2 pcs PEX 12 x 1 mm - 2 pcs CU 12 mm - 2 pcs CU 14 mm - 2 pcs CU 15 mm		Brass	842180	

Zehnder Design Line Accessories



Description	Version	Article number	Application
Sleeving kit L = 70 mm L = 160 mm		Chrome Chrome	853738 853668 For radiator installation
Collar Ø45 mm for Ø ½" for Ø 10 mm for Ø 12 mm for Ø 14 mm for Ø 15 mm for Ø 16 mm for Ø 18 mm		White Chrome White Chrome White Chrome White Chrome White Chrome White Chrome	816241 816248 816251 816258 816261 816268 816271 816278 816281 816288 816291 816298 816301 816308 For existing connections

Rail, Miscellaneous

Description	Version	Article number	Application
<p>Towel rail Charleston with anti-crash device</p> <p>Depth 45 mm Rail to be shortened on site, attachments and towel bar in chrome.</p> <p>Length 366 mm (at least 9 elements) Length 918 mm (at least 20 elements)</p>	 <p>Chrome Length 366 mm Length 918 mm</p>	<p>966018 966028</p>	<p>Zehnder Charleston Zehnder Charleston Clinic</p>
<p>Connection plugs for 2-column radiators</p> <p>For hard marsonite seal</p> <p>Plug painted RAL 9016</p> <p>Right-hand thread as standard on flow side of the radiator</p>	 <p>Right-hand thread 1" x 1/8" right 1" x 1/4" right 1" x 3/8" right 1" x 1/2" right 1" x 3/4" right Left-hand thread 1" x 1/8" left 1" x 1/4" left 1" x 3/8" left 1" x 1/2" left 1" x 3/4" left</p>	<p>908101 908201 908301 908401 908501 909101 909201 909301 909401 909501</p>	<p>Zehnder Charleston All versions</p>
<p>Connection plugs for 3 to 6-column radiators</p> <p>For hard marsonite seal</p> <p>Plug painted RAL 9016</p> <p>Right-hand thread as standard on flow side of the radiator</p>	 <p>Right-hand thread 5/4" x 1/8" right 5/4" x 1/4" right 5/4" x 3/8" right 5/4" x 1/2" right 5/4" x 3/4" right 5/4" x 1" right Left-hand thread 5/4" x 1/8" left 5/4" x 1/4" left 5/4" x 3/8" left 5/4" x 1/2" left 5/4" x 3/4" left 5/4" x 1" left</p>	<p>908111 908211 908311 908411 908511 908611 909111 909211 909311 909411 909511 909611</p>	
<p>Clip-in baffle</p>	 <p>1" 5/4"</p>	<p>911110 911120</p>	
<p>Blind plugs for 2-column radiators</p> <p>For hard marsonite seal</p> <p>Plug painted RAL 9016 Right-hand thread as standard on flow side of the radiator</p>	 <p>Right-hand thread 1" Left-hand thread 1"</p>	<p>906001 907001</p>	
<p>Blind plugs for 3 to 6-column radiators</p> <p>For hard marsonite seal</p> <p>Plug painted RAL 9016 Right-hand thread as standard on flow side of the radiator</p>	<p>Right-hand thread 5/4" right Left-hand thread 5/4" left</p>	<p>906011 907011</p>	
<p>Blind plugs</p> <p>With soft seal, RAL 9016</p>	 <p>Right-hand thread 1" 5/4" Left-hand thread 1" 5/4"</p>	<p>906021 906031 907021 907031</p>	

All fittings, plugs, etc. suitable for max. operating temperature of 110 °C and max. operating pressure of 10 bar, unless noted otherwise.

Miscellaneous

Description	Version	Article number	Application									
Connection plugs With soft seal, RAL 9016 Connection 1/2"	Right-hand thread 1" 5/4" Left-hand thread 1" 5/4"	908421 908431 909421 909431	Zehnder Charleston Zehnder Charleston Clinic									
Plug key Steel	1" 5/4"	901010 901020										
Plug key For painted plugs with soft seal	Plastic	901030	Zehnder Charleston									
Fitting	2-column 1" 3 to 6-column 5/4"	911020 911030	Zehnder Charleston Zehnder Charleston Clinic									
1 set coupling tools 2-column 1" 3 to 6-column 5/4" 2-column 1" 3 to 6-column 5/4"	Dimensions 750 mm 750 mm 1250 mm 1250 mm	903020 903030 905020 905030										
Seals Hard marsonite seal 0,75 mm	2-column 1" 3 to 6-column 5/4"	915020 915030										
Soft seal, plastic white Joint seal, only seals on unpainted sealing surfaces Approved fastening torques: <table border="1"> <thead> <tr> <th>Boss size</th> <th>Plugs Lens seal</th> <th>Joint joint seal</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>30 - 35 Nm</td> <td>45 - 55 Nm</td> </tr> <tr> <td>5/4"</td> <td>50 - 70 Nm</td> <td>70 - 80 Nm</td> </tr> </tbody> </table>	Boss size	Plugs Lens seal	Joint joint seal	1"	30 - 35 Nm	45 - 55 Nm	5/4"	50 - 70 Nm	70 - 80 Nm	For 1" boss For 5/4" boss	915021 915031	Zehnder Charleston
Boss size	Plugs Lens seal	Joint joint seal										
1"	30 - 35 Nm	45 - 55 Nm										
5/4"	50 - 70 Nm	70 - 80 Nm										
Lambswool cleaning brush		601020 601030	Zehnder Charleston Zehnder Charleston Clinic Charleston electric operation									
Lacquer aerosol Original paint, air-drying For improving the surface finish, 150 ml RAL 9001 (Cream White) RAL 9002 (Grey White) RAL 9010 (Pure White) RAL 9016 (Traffic White)		Colour: RAL 9001 RAL 9002 RAL 9010 RAL 9016	977020 977050 977080 977090									
Lacquer pens Original paint, air-drying For repairing minor damage RAL 9010 (Pure White) RAL 9016 (Traffic White)		Colour: RAL 9010 RAL 9016 On request	675020 675130 675000									

Accessories

A wide range of accessories are available for various additional uses, such as hanging up towels. For more information, see the section on "Accessories".

Accessory set

To make accessories simple to choose, accessory sets are offered for each radiator. Detailed information is provided in the relevant section.

Antimicrobial coating

Especially for use in hygienically sensitive areas. This coating is based on the well-known bacteria-inhibiting and killing effect of silver ions embedded in the painted surface and offers safe and reliable long-term protection against the growth and spread of micro-organisms on radiator surfaces. This coating is completely safe for people and animals to touch. It has scientifically proven properties and is primarily offered for Zehnder Charleston Clinic.

Baffle

To avoid reduced output, e.g. with a riding connection, internal installations, e.g. baffles, deflector plates, guide plates, are required. Detailed information is available on request.

Advantages

See "Product description".

Brackets

Appropriate brackets are offered as an accessory set for the respective radiators. Detailed information is given alongside the relevant products and in the "Accessories" section. Also see notes under "Fixings".

CE marking

The CE marking on Zehnder radiators shows that they are manufactured in accordance with the prevailing European standard EN 442 and that the product has been subjected to the prescribed conformity evaluation procedure.



Product/product family	CE - Year
Zehnder Charleston	CE - 05
Zehnder Charleston Clinic	CE - 05
Zehnder Charleston Retrofit	CE - 05
Zehnder Charleston Turned	CE - 18
Zehnder Charleston Bench	CE - 05
Zehnder Radiator Bench	CE - 05
Zehnder Charleston electric version	CE - 17

Clear Lacquer Version (Technoline)

See "Colours"

Connections

Each Zehnder radiator is supplied complete with connections. Unless stated otherwise, all connections are female threads. Unless a different dimension is specified, the supplied connections are 1/2". Orders without a connection type number will always be delivered with the respective standard connection. Plastic plugs inserted to protect the thread must be removed and replaced with an directional air vent / draining valve or blind plug.

Conversion

Factor for converting the nominal heat output to thermal outputs at other system temperatures, see "Thermal output".

Corrosion protection

See "Finish" and "Surface protection".

Colours

Zehnder radiators are available in almost every colour conceivable. From all possible colours, the Zehnder colour chart shows a selection of colours from various colour systems, such as RAL colours, sanitary colours or colours from the NCS-S system. The standard paint for the entire Zehnder radiator programme is the colour RAL 9016, Traffic White.

17 common colours make up Zehnder colour category 1, with an additional charge of 20%, 30 others colour make up category 2, with an additional charge of 30% on the standard finish. All other paintable colours are available for a surcharge on request. Another coating option is the clear lacquer version for Zehnder Charleston (Technoline), which falls in category 2. This essentially concerns one unique colour for each radiator. For this reason, different surface structures and visual colour differences can also occur at a later point in time. These colour deviations are not a fault and are therefore not subject to claims under warranty as described in our General Sales and Delivery Conditions.

Structural paints (structured paint surface) are possible on Zehnder radiators and also fall under category 2.

The Zehnder colour chart is printed on the inside of the rear catalogue cover.

For more information, see "Finish".

Description

The description for a product contains all the information needed to create a specification or tender. The text-block structure simplifies the composition of all necessary features according to on-site requirements.

Dimensions

The dimensions indicated in the documentation are correct at the time of printing. Subject to change without notice.

Electric operation and Ecodesign Directive

Electric radiators are fixed units that comprise the actual radiator body, a filling medium (heat transfer fluid), a heating element and associated controls. This unit is subject to a special function test and must not be changed. The heat transfer fluid is frost-proof up to -20°C. The electric radiators are subject to the Ecodesign Directive. The aim of this Directive is to reduce the environmental effects of products that consume energy, with the entire product life-cycle taken into account. A points system is used to evaluate the extent to which the Directive has been fulfilled. Various functions, such as standby power consumption ≤ 0,5 W, weekly programme and open window detection, help to fulfil the minimum legal requirements (that is, they help to achieve the minimum number of points). Devices that meet the minimum requirements and are thus compliant with the Ecodesign Directive.

Please note:

- The electrical installation must comply with local regulations.
- In stationary installation (without plug), a switch must be installed (all-phase isolation from the mains with min. 3 mm contact spacing).
- For electric-only radiators, the defined filling quantity must not be changed.
- The electric heating element must only be opened and the mains cable only replaced by the manufacturer.
- When using radiators with electric heating elements, the qualified electrician is the competent partner for the protective measures to be taken.
- Follow the operating instructions.

Keyword list

Environment

The certification of our environmental management system to DIN EN ISO 14 001 by an independent institution obliges us to make continuous improvements to our environmental services through reducing or avoiding environmental burdens and waste, encouraging the utilisation and protection of resources as well as observing all environmental laws and regulations applicable to us.

Finish

Ready-painted radiators in this price list have a two-coat finish (to DIN 55900, Part 1 and 2, comprising primer and top coat). The top coat is a powder coating. The high-quality Zehnder powder coating produces an especially smooth and extremely durable surface. Further information on the applications and limits of radiators is contained in information sheet number 7 of the BDH (Bundesindustrieverband Deutschland, Haus-, Energie- und Umwelttechnik e.V.).

Please always use the original RAL, NCS colour samples or original colour charts of the sanitary manufacturers for exact colour matching. For technical production reasons, minor colour deviations are possible in paints on steel surfaces, also when taking the prevailing lighting conditions into account. Deviations can also occur when comparing painted steel surfaces (radiators) with ceramic products.

The colours shown here (see inside of rear cover) are not binding for printing reasons. Radiators in metallic colours, e.g. RAL 9006, RAL 9007 and Anthracite are unique products and visual differences may appear in the colour, depending on the radiator.

Fixings

To ensure that radiators are fitted safely, the weight of the radiator and other aspects must be considered when choosing the right quality and quantity of fixings. Additional loads and foreseeable misuse of a radiator must be considered or ruled out by planning and implementation in line with the known building use. The installation situation and accessibility are just as important criteria as wall material, bracket shape, location of the suspension points, locking device, add-on elements and the like.

Detailed information on the required number of fixing axes in accordance with VDI 6036 requirements class 2 is given for the respective products in the section on "Installation accessories". Recommendations for additional requirements classes on request. See also the key word VDI 6036.

Flow connection

This concerns the connection on the radiator through which the hot water flows into the radiator.

Galvanising

Only ½" connections or larger are possible. Curved or angled radiators cannot be galvanised. Galvanisation creates structures on the surface. These are caused by the technological process and therefore are not a fault. We cannot guarantee a clean, smooth surface. Galvanised radiators are generally delivered with a top coat. For explanation, see "Surface protection".

Maximum dimension galvanised: 3000 x 850 x 450 mm

Ground clearance

A reduction in the distance between the radiator and the floor can result in reduced output. For more information, see "Reduced output".

Guide plate

See "Baffle".

High pressure

Even with suitable radiators and accessory parts, pressure loads up to a maximum of 18 bar are only permitted if pressure surges can be excluded.

Hydraulic balancing

By hydraulic balancing the various system resistances are set so that the radiators are supplied with the necessary quantity of water at all operational points, in order to achieve the desired thermal output.

Hygiene version

Numerous Zehnder radiators are suitable for use in hygienically sensitive areas. Hygiene certificates can be requested for this. The keyword "Antimicrobial coating" is also of interest for the topic of hygiene.

Immersion tube

Some types of connection require the installation of an immersion tube to achieve optimal heat distribution.

Inlet and outlet resistance

The resistance coefficient (zeta value) is used to calculate the pressure loss. For more information, see "Pressure loss".

Installation in series

The installation in series of radiators refers to the series connection of several radiators. Detailed information is given alongside the relevant products.

Joining

Zehnder Charleston radiators in lengths above the set maximum number of elements are supplied in sub-blocks and must be joined together on site. For detailed information, see section on "Zehnder Charleston".

Lance valve

The lances must be shortened or extended, depending on the radiator and connection types. Detailed information is available on request. See keyword "Single-tube systems".

Length restrictions

Avoiding damage during transport significantly increases the cost of packaging, which must be charged for accordingly.

Made to measure

Zehnder radiators can be customised (e.g. angled, curved, with welded brackets). Special shapes require templates to be made from solid materials (cardboard, packing paper) in order to guarantee quick and trouble-free processing. The support of the area manager can be used for a small charge.

Where necessary, the customer will receive a scale drawing of the version to be installed and final pricing for inspection and approval, after which the order will be manufactured. The order cannot be cancelled once placed.

Minimum water flow

If the flow of water through a radiator is heavily reduced, the heat output can fall far below the calculated or indicated value. For this reason, a minimum water flow should always be ensured.

The approximate minimum water flows $q_{m \min}$ in % of the nominal flow rate q_{ms} which does not cause the thermal output to deviate from the standard characteristic curve by more than 5% is 17%.

Operating pressure

The maximum permissible operating pressure of a radiator depends on its geometry, the material used and the finish. The permissible operating pressure varies according to the product, see table: Suitable fittings, plugs and directional air vents must be ensured in connection with high pressure applications in excess of 10 bar. See "High pressure".

Product/product family	Standard version [bar]	High pressure version [bar]
Zehnder Charleston	10	18
Zehnder Charleston Clinic	10	18
Zehnder Charleston Retrofit	10	18
Zehnder Charleston Turned	10	-
Zehnder Charleston Bench	10	18
Zehnder Radiator Bench	10	18

Operating temperature

The coating of Zehnder radiators can be used for central heating systems up to 110 °C. It is suitable for use in district heating, low temperature and condensing systems.

Packaging

The packaging of Zehnder radiators serves as protection against damage during transport and on building sites. It must be removed before starting the system for the first time in order to avoid any damage caused by condensation.

Pressure loss

The pressure loss is determined using a zeta value of 2,5 per radiator for connection sizes from $\frac{3}{8}$ " to $\frac{1}{4}$ " and a flow velocity of 1 m/sec. The inherent resistance of a radiator can be ignored. In special cases (e.g. where an integrated valve is fitted), information on pressure losses is provided.

Prices

Terms of delivery for quoted prices are: FQA Lahr. All prices are gross prices. Where prices are not stated or only shown with the proviso 'current list price', the valid list prices will be calculated on the day of delivery. Also see General Sales and Delivery Conditions.

Quality check

Zehnder Group Deutschland GmbH is certified to DIN ISO 9001 and is therefore subject to stringent quality controls carried out by independent institutions in the areas of Design/Development, Production, Assembly and Customer Service.

Reduced output

The thermal output can be affected depending on where the radiator is installed. The standard thermal output is measured in an unobstructed setting with a ground clearance of 110 mm and a wall clearance of 50 mm. Any reduction in these clearances, as well as installation in alcoves and the application of covers and grilles can, depending on the model, lead to a reduction in thermal output. In the case of grilles, this reduction can differ between 5 and 12%, depending on the radiator.

Reflective cover plates

The disadvantage of installing a radiator in front of external glazing is that heat is lost directly through the glass. The back of a radiator emits heat in the form of thermal radiation in the same way as the front. For wall mounted radiators, the thermal radiation is reflected or absorbed by the wall, whereas this long-wave radiation radiates almost unimpeded through the pane of glass when radiators are installed in front of windows, even at greater distances. In order to avoid this unnecessary loss of heat and energy, radiators are available with a reflective cover plate fitted to the side of the radiator facing the window.

Returns

Radiators and accessories cannot be returned.

Return connection

This concerns the connection on the radiator through which the hot

water leaves the radiator and passes along the return line to the heat generator.

Scope of delivery

The scope of delivery for the standard version of a radiator can be found in the respective product description.

Seal

In the case of sealed connections and plugs, it may be necessary to tighten up the connection and blind plugs depending on the water quality, e.g. in a remote heating connection, after testing the pressure or heating the system for the first time. The sealing materials supplied or used by Zehnder are intended for use in closed heating systems.

Single-tube system

We recommend using single-tube valves with an adjustable bypass or a ballast system (riser), i.e. with an adjustable water volume over the radiator. Essentially, a reduced output of at least 25% must be considered when using single-tube lance valves. Function is often guaranteed only for certain models and up to specific lengths. Maximum lengths and an indication of how the radiators function with various makes of valve is available on request.

Standard thermal output

The standard thermal output of a radiator is determined in an independent, certified test laboratory according to standard EN 442 at the standard operating temperatures of 75/65/20 °C. The conversion of the thermal output to other system temperatures is done on the basis of the standard thermal output according to EN 12831. For easy dimensioning, additional outputs for frequently used temperatures are shown alongside the standard thermal output:

- 70/55/20 °C
- 55/45/20 °C

Standard colour/finish

The standard colour for Zehnder radiators is RAL 9016. For more information, see "Painting".

Storage

Zehnder radiators must be stored for the long-term or temporarily in dry and chemical-free rooms.

Structural finish

See "Finish".

Surface protection

We recommend that installation areas affected by damp or chemicals are only fitted with radiators that are galvanised and then given a powder coating. A polyzinc coating with subsequent powder-coating increases the corrosion protection of the radiator, depending on the surface geometry. Possible applications are available on request. (see also "Galvanising")

System temperatures

These are the temperatures at which the hot water heating system is operated (flow, return and room temperature).

Technical specifications

The dimensions indicated in the documentation are correct at the time of printing. We reserve the right to make amendments that improve the product.

Technoline

See "Colours"

Test pressure

Each radiator is checked for leaks by subjecting it to 1,3 times its rated maximum operating pressure before delivery. For orders that

Keyword list

do not indicate the required operating pressure, the radiator will be delivered with the operating pressure of the standard version.

Thermal output Φ

The thermal output of a radiator model is given by the standard characteristic curve:

$$\Phi = K_M \cdot \Delta T^n$$



EN 442 defines the test procedure and the measurement method in identically arranged test laboratories. A single, pan-European measuring method therefore replaces the previous measurements that varied from country to country.

The output given under the following conditions in accordance with EN 442 applies as the nominal heat output Φ_s :

Flow temperature	$t_1 = 75 \text{ }^\circ\text{C}$
Return temperature	$t_2 = 65 \text{ }^\circ\text{C}$
Mean water temperature	$t_m = 70 \text{ }^\circ\text{C}$
Room temperature	$t_r = 20 \text{ }^\circ\text{C}$
Excess temperature ($t_m - t_r$)	$\Delta T = 50 \text{ K}$

Thermal outputs Φ (different ΔT than 50 K)

For all excess temperatures other than $\Delta T_n = 50 \text{ K}$, the thermal output is calculated in accordance with the formulae

$$\Phi = \Phi_s \times f_1 \text{ or } \Phi = \Phi_s \times \left(\frac{\Delta T}{\Delta T_n} \right)^n$$

ΔT is to be calculated logarithmically as follows:

$$\Delta T = \frac{(t_1 - t_r) - (t_2 - t_r)}{\ln \left(\frac{t_1 - t_r}{t_2 - t_r} \right)} = \frac{t_1 - t_2}{\ln \left(\frac{t_1 - t_r}{t_2 - t_r} \right)}$$

The excess temperature ΔT_n under standard conditions (75/65/20 °C) is, as a logarithmic excess temperature

$$\Delta T_n = \frac{75 - 65}{\ln \left(\frac{75 - 20}{65 - 20} \right)} = 49,83 \text{ K}$$

The entire calculation process can be avoided by using the tables on page 170.

These can be used to directly read off the f_1 factor for known system temperatures (t_1 , t_2 , t_r) and radiator exponents. For other system temperatures, f_1 must be determined mathematically according to the specified formulae.

Examples for the dimensioning of radiators

Example of Zehnder Charleston:

Model 3050 (3-column) - 20 elements

$\Phi_s = 1032 \text{ W}$, exponent $n = 1,25$

$t_1 = 60 \text{ }^\circ\text{C}$, $t_2 = 40 \text{ }^\circ\text{C}$, $t_r = 20 \text{ }^\circ\text{C}$

Determining ΔT :

$$\Delta T = \frac{(60 - 40)}{\ln \left(\frac{60 - 20}{40 - 20} \right)} = \frac{20}{0,693} = 28,85 \text{ K}$$

$$\phi = 1032 \text{ W} \times \left(\frac{28,85}{49,83} \right)^{1,25} = 1032 \text{ W} \times 0,579^{1,25} = 1032 \text{ W} \times 0,505 = \underline{\underline{521 \text{ W}}}$$

Tolerances

Industry standard tolerances and tolerances based on production technology are subject to change for all indicated dimensions and fall within the tolerances defined in EN 442. The maximum tolerance must be considered during pre-assembly of the pipework or fixing materials. We reserve the right to make technical amendments during the validity of the documentation as part of product improvement.

TopCare

See keyword "Antimicrobial surface".

VDI 6036

Application of the directive VDI 6036 assists all participants in the process to make a comprehensive and comparable assessment of the installation situation. As an accepted rule of technology, this directive and the resulting assessment can also be drawn on for regulation purposes in the event of damages. Directive VDI 6036 classifies applications for radiator fastenings into various requirements classes with different loads. Additional loads for various intensities of misuse can be added to the net weight and water content of the radiator as required. Zehnder issues standard assignment recommendations for requirements classes 1 and 2, and for stable wall constructions (e.g. concrete) for selected fixing pieces - unless otherwise marked. Assignment recommendations for requirements class 3 and for special custom applications (requirements class 4) on request.

Example applications from VDI 6036:

Requirements class 2 (normal and increased requirements): owner-occupied homes, rented flats, kindergartens, hospitals, retirement and nursing homes, office buildings, doctors' surgeries/lawyers offices, retail outlets.

Requirements class 3 (high-level requirements): schools, sports facilities, youth centres, meeting places, railway stations, barracks

Requirements class 4 (very high-level requirements or special burdens): prisons, psychiatric institutions, special agreements

Wall clearance

This is the distance between the wall and the back of the radiator. For more information, see "Reduced output".

Warranty

The warranty period for the products shown in this price list is two years. Additional information is provided in the General Sales and Delivery Conditions.

Water quality

Operating conditions and water quality according to VDI 2035 must be maintained.

Claims under guarantee will be rejected if substances (e.g. chemicals, antifreeze, etc.) are added to the heating water which have an aggressive effect on the sealing material. In case of non compliance, no liability can be accepted in accordance with point 8 of our General Sales and Delivery Conditions for sealing material, nor for any resulting defects and consequences. Claims under guarantee in accordance with point 8 of our General Sales and Delivery Conditions will also be rendered invalid in case of:

- Operation with steam,
- Periodical or long-term draining of the system,
- Excessive sludge in the radiators and
- Occasional or constant of oxygen into the system.

Wetrooms

See "Surface protection"

Keyword list

Legend

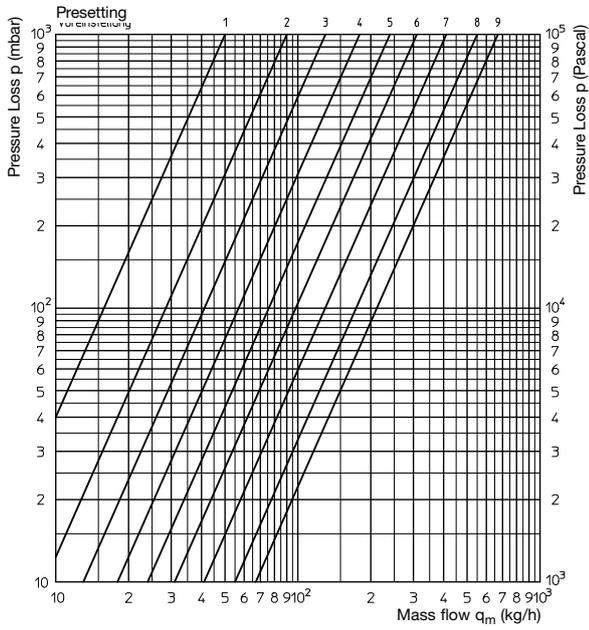
Icon	Unit	Description
H	mm	Height
L	mm	Length
T	mm	Depth
H Lam.	mm	Height of fins
N	mm	Boss spacing
A	m ²	Surface
V	dm ³	Water content
M	kg	Empty weight
N _s	-	Number of elements
t ₁	°C	Flow temperature
t ₂	°C	Return temperature
t _r	°C	Room air temperature
t _m	°C	Mean water temperature (t ₁ +t ₂)/2
ΔT	K	Excess temperature t _m - t _r
Φ	W=(J/s)	Thermal output
Φ _s	W	Nominal heat output
Φ _L	W	Nominal heat output of the module
C _p	J/(kg K)	Specific heat capacity
n	-	Radiator indicator, exponent
S _k	%	Proportion of radiation
C _K	-	Conversion factor to Φ _s
q _m	kg/h/(kg/s)	Water flow
q _{ms}	kg/h/(kg/s)	Nominal flow rate
v	m/s	Velocity
Δp	kPa	Pressure loss, pressure drop
ζ	-	Resistance coefficient
ln	-	Natural logarithm

Physical unit

°C	Degrees, Celsius
K	Kelvin, unit for temperature difference
m	Metres
mm	Millimetres
m/s	Metres/second, flow rate
Pa	Pascal, 1 Pa = 0,102 mmWS
mmWS	mm water column
W	Watt, unit of power 1 W = 0,6 kilocalories/hour old unit of power, 1 kcal/h = 1,163 W
c	Specific heat capacity of water = 1 kcal/kg K = 4,187 kJ/kg K
kJ	Kilojoule, 1 kJ = 0,239 kcal

Pressure loss graph

Valve insert AV 9 (Oventrop)



Presetting	1	2	3	4	5	6	7	8	9
kv-value	0,05	0,09	0,14	0,20	0,26	0,32	0,43	0,57 ¹⁾	0,67 ²⁾

1) Charleston Completto 0,54

2) Charleston Completto 0,63

Conversion table, f_1 factor

t_1	t_2	n	75					70					65					60					55				
			1,20	1,25	1,30	1,35	1,40	1,20	1,25	1,30	1,35	1,40	1,20	1,27	1,30	1,35	1,40	1,20	1,25	1,30	1,35	1,40	1,20	1,25	1,30	1,35	1,40
90	10		1,562	1,591	1,621	1,651	1,682	1,491	1,516	1,542	1,568	1,594	1,419	1,449	1,462	1,483	1,505	1,346	1,363	1,380	1,397	1,414	1,270	1,283	1,296	1,309	1,322
	15		1,432	1,454	1,476	1,498	1,521	1,363	1,380	1,398	1,416	1,435	1,291	1,311	1,319	1,333	1,347	1,218	1,228	1,238	1,248	1,259	1,142	1,149	1,155	1,162	1,168
	18		1,356	1,373	1,390	1,408	1,426	1,286	1,300	1,313	1,327	1,341	1,215	1,229	1,235	1,245	1,255	1,142	1,148	1,155	1,161	1,168	1,066	1,069	1,072	1,075	1,078
	20		1,305	1,319	1,334	1,349	1,364	1,236	1,247	1,258	1,269	1,280	1,165	1,175	1,180	1,187	1,195	1,092	1,096	1,100	1,104	1,108	1,016	1,017	1,017	1,018	1,019
	22		1,254	1,266	1,278	1,290	1,303	1,185	1,194	1,202	1,211	1,220	1,115	1,122	1,125	1,130	1,135	1,042	1,043	1,045	1,047	1,049	0,966	0,966	0,963	0,962	0,960
24		1,204	1,214	1,223	1,233	1,242	1,136	1,142	1,148	1,154	1,160	1,065	1,069	1,071	1,073	1,076	0,992	0,992	0,991	0,991	0,991	0,916	0,913	0,909	0,906	0,903	
85	10		1,501	1,526	1,552	1,579	1,606	1,432	1,454	1,476	1,498	1,521	1,363	1,387	1,398	1,416	1,435	1,291	1,305	1,319	1,333	1,347	1,218	1,228	1,238	1,248	1,259
	15		1,372	1,391	1,409	1,428	1,447	1,305	1,319	1,334	1,349	1,364	1,236	1,251	1,258	1,269	1,280	1,165	1,172	1,180	1,187	1,195	1,092	1,092	1,096	1,100	1,108
	18		1,296	1,311	1,325	1,339	1,354	1,229	1,240	1,251	1,261	1,272	1,160	1,171	1,175	1,182	1,190	1,090	1,094	1,098	1,102	1,105	1,017	1,017	1,017	1,018	1,019
	20		1,246	1,258	1,269	1,281	1,293	1,179	1,187	1,196	1,204	1,212	1,111	1,118	1,121	1,125	1,130	1,040	1,042	1,044	1,045	1,047	0,967	0,967	0,966	0,964	0,963
	22		1,196	1,205	1,214	1,223	1,233	1,130	1,135	1,141	1,147	1,153	1,061	1,065	1,067	1,069	1,072	0,991	0,991	0,990	0,990	0,989	0,918	0,915	0,911	0,908	0,905
24		1,147	1,153	1,160	1,166	1,173	1,080	1,084	1,087	1,091	1,094	1,012	1,013	1,013	1,014	1,014	0,942	0,940	0,937	0,935	0,933	0,869	0,864	0,859	0,854	0,849	
80	10		1,439	1,461	1,483	1,505	1,528	1,372	1,391	1,409	1,428	1,447	1,305	1,325	1,334	1,349	1,364	1,236	1,247	1,258	1,269	1,280	1,165	1,172	1,180	1,187	1,195
	15		1,312	1,326	1,342	1,357	1,372	1,246	1,258	1,269	1,281	1,293	1,179	1,191	1,196	1,204	1,212	1,111	1,116	1,121	1,125	1,130	1,040	1,042	1,044	1,044	1,047
	18		1,236	1,247	1,258	1,270	1,281	1,171	1,179	1,187	1,195	1,203	1,105	1,111	1,114	1,119	1,124	1,037	1,038	1,040	1,041	1,043	0,966	0,965	0,964	0,962	0,961
	20		1,187	1,195	1,204	1,212	1,221	1,122	1,127	1,133	1,138	1,144	1,056	1,059	1,061	1,063	1,066	0,988	0,987	0,987	0,986	0,986	0,918	0,914	0,911	0,908	0,904
	22		1,137	1,143	1,149	1,156	1,162	1,073	1,076	1,079	1,082	1,086	1,007	1,008	1,008	1,008	1,008	0,939	0,937	0,934	0,932	0,930	0,869	0,864	0,859	0,854	0,849
24		1,088	1,092	1,096	1,100	1,103	1,024	1,025	1,026	1,027	1,028	0,959	0,956	0,955	0,954	0,952	0,891	0,887	0,883	0,878	0,874	0,821	0,814	0,808	0,801	0,794	
75	10																										
	15																										
	18																										
	20																										
	22																										
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60	10																										
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	20																										
	22																										
24																											

Conversion factor f_1 for converting the standard thermal output to EN 442 at 75/65/20 °C for other system temperatures: $\Phi = \Phi_s \cdot f_1$

$$f_1 = \left[\frac{(t_1 - t_2)}{\ln \left(\frac{t_1 - t_r}{t_2 - t_r} \right) \cdot 49,83 \text{ K}} \right]^n$$

The radiator exponent depends on the model and type of radiator and can therefore be found in the table containing the technical specifications for the respective radiator. For exponents other than those given, the correction factor can be interpolated or precisely calculated according to the above formulae. An exponent of 1,3 can be used for the approximate calculation.

System temperatures not shown must be mathematically determined using the formulae given, or can be made available on request.

For more information about thermal outputs, see keyword list.

Legend

Icon	Unit	Description
t_1	°C	Flow temperature
t_2	°C	Return temperature
t_r	°C	Room air temperature
Φ	W (J / s)	Thermal output
Φ_s	W	Nominal heat output
n	-	Radiator indicator, exponent
\ln	-	Natural logarithm

Physical unit

K	Kelvin, unit for temperature difference
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Conversion table, f_1 factor



t_1	t_2	n	50					45					40					35					30				
			1,20	1,25	1,30	1,35	1,40	1,20	1,25	1,30	1,35	1,40	1,20	1,25	1,30	1,35	1,40	1,20	1,25	1,30	1,35	1,40	1,20	1,25	1,30	1,35	1,40
90	10		1,193	1,201	1,210	1,219	1,228	1,112	1,117	1,122	1,127	1,132	1,028	1,029	1,030	1,031	1,032	0,939	0,937	0,934	0,932	0,929	0,844	0,839	0,833	0,827	0,821
	15		1,064	1,067	1,070	1,073	1,075	0,983	0,982	0,981	0,981	0,980	0,897	0,893	0,889	0,885	0,881	0,805	0,798	0,791	0,784	0,777	0,706	0,696	0,686	0,676	0,666
	18		0,988	0,987	0,987	0,986	0,986	0,906	0,902	0,898	0,894	0,891	0,819	0,812	0,805	0,798	0,792	0,725	0,715	0,706	0,696	0,687	0,621	0,608	0,596	0,585	0,573
	20		0,937	0,935	0,932	0,930	0,927	0,854	0,849	0,843	0,838	0,832	0,766	0,758	0,749	0,741	0,733	0,670	0,659	0,648	0,638	0,627	0,562	0,549	0,536	0,523	0,511
	22		0,887	0,882	0,878	0,874	0,869	0,803	0,796	0,789	0,781	0,774	0,714	0,704	0,694	0,684	0,675	0,615	0,603	0,591	0,579	0,567	0,502	0,487	0,473	0,460	0,447
85	10		1,142	1,149	1,155	1,162	1,168	1,064	1,067	1,070	1,073	1,075	0,983	0,982	0,981	0,981	0,980	0,897	0,893	0,889	0,885	0,881	0,805	0,798	0,791	0,784	0,777
	15		1,016	1,017	1,017	1,018	1,019	0,937	0,935	0,932	0,930	0,927	0,854	0,849	0,843	0,838	0,832	0,766	0,758	0,749	0,741	0,733	0,670	0,659	0,648	0,638	0,627
	18		0,941	0,939	0,936	0,934	0,931	0,862	0,856	0,851	0,846	0,840	0,778	0,770	0,761	0,754	0,746	0,687	0,677	0,666	0,656	0,646	0,587	0,574	0,562	0,550	0,537
	20		0,891	0,887	0,883	0,883	0,874	0,811	0,804	0,797	0,790	0,784	0,726	0,717	0,707	0,698	0,689	0,634	0,622	0,611	0,599	0,588	0,531	0,517	0,503	0,490	0,477
	22		0,842	0,836	0,830	0,824	0,818	0,761	0,753	0,744	0,736	0,727	0,675	0,664	0,653	0,643	0,632	0,581	0,568	0,555	0,543	0,530	0,472	0,457	0,443	0,430	0,416
80	10		1,092	1,096	1,100	1,104	1,108	1,016	1,017	1,017	1,018	1,019	0,937	0,935	0,932	0,930	0,927	0,854	0,849	0,843	0,838	0,832	0,766	0,758	0,749	0,741	0,733
	15		0,967	0,966	0,964	0,963	0,962	0,891	0,887	0,883	0,878	0,874	0,811	0,804	0,797	0,790	0,784	0,726	0,717	0,707	0,698	0,689	0,634	0,622	0,611	0,599	0,588
	18		0,893	0,889	0,885	0,881	0,877	0,817	0,810	0,803	0,797	0,790	0,736	0,727	0,718	0,709	0,700	0,649	0,638	0,627	0,615	0,604	0,554	0,540	0,527	0,514	0,502
	20		0,844	0,839	0,833	0,827	0,821	0,768	0,759	0,751	0,743	0,735	0,686	0,676	0,665	0,655	0,644	0,598	0,585	0,573	0,561	0,549	0,499	0,484	0,471	0,457	0,444
	22		0,796	0,788	0,781	0,773	0,766	0,719	0,709	0,699	0,690	0,680	0,636	0,624	0,613	0,601	0,590	0,546	0,532	0,519	0,506	0,494	0,442	0,427	0,413	0,399	0,386
75	10		1,040	1,042	1,044	1,045	1,047	0,967	0,966	0,964	0,963	0,962	0,891	0,887	0,883	0,878	0,874	0,811	0,804	0,797	0,790	0,784	0,726	0,717	0,707	0,698	0,689
	15		0,918	0,914	0,911	0,908	0,904	0,844	0,839	0,833	0,827	0,821	0,768	0,759	0,751	0,743	0,735	0,686	0,676	0,665	0,655	0,644	0,598	0,585	0,573	0,561	0,549
	18		0,845	0,839	0,833	0,827	0,822	0,772	0,763	0,755	0,747	0,739	0,694	0,684	0,673	0,663	0,653	0,611	0,599	0,587	0,575	0,563	0,520	0,506	0,492	0,479	0,466
	20		0,797	0,789	0,782	0,775	0,767	0,723	0,714	0,704	0,695	0,685	0,645	0,634	0,622	0,611	0,600	0,561	0,548	0,535	0,522	0,510	0,467	0,452	0,438	0,424	0,411
	22		0,749	0,740	0,732	0,723	0,714	0,676	0,665	0,654	0,643	0,633	0,597	0,584	0,572	0,560	0,548	0,511	0,497	0,483	0,470	0,457	0,412	0,397	0,383	0,369	0,355
70	10		0,988	0,987	0,987	0,986	0,986	0,918	0,914	0,911	0,908	0,904	0,844	0,839	0,833	0,827	0,821	0,768	0,759	0,751	0,743	0,735	0,686	0,676	0,665	0,655	0,644
	15		0,867	0,862	0,857	0,852	0,847	0,797	0,789	0,782	0,775	0,767	0,723	0,714	0,704	0,695	0,685	0,645	0,634	0,622	0,611	0,600	0,561	0,548	0,535	0,522	0,510
	18		0,796	0,788	0,781	0,773	0,766	0,726	0,716	0,707	0,697	0,688	0,652	0,640	0,629	0,618	0,607	0,572	0,559	0,546	0,534	0,522	0,485	0,471	0,457	0,443	0,430
	20		0,749	0,740	0,731	0,722	0,713	0,678	0,668	0,657	0,646	0,636	0,604	0,592	0,579	0,567	0,555	0,524	0,510	0,496	0,483	0,470	0,434	0,419	0,405	0,391	0,378
	22		0,702	0,692	0,682	0,672	0,662	0,632	0,620	0,608	0,596	0,585	0,557	0,543	0,530	0,517	0,505	0,475	0,460	0,446	0,433	0,420	0,382	0,367	0,352	0,338	0,325
65	10		0,935	0,932	0,929	0,927	0,924	0,867	0,862	0,857	0,852	0,847	0,797	0,789	0,782	0,775	0,767	0,723	0,714	0,704	0,695	0,685	0,645	0,634	0,622	0,611	0,600
	15		0,816	0,809	0,802	0,795	0,789	0,749	0,740	0,731	0,722	0,713	0,678	0,668	0,657	0,646	0,636	0,604	0,592	0,579	0,567	0,555	0,524	0,510	0,496	0,483	0,470
	18		0,746	0,737	0,728	0,719	0,710	0,679	0,668	0,657	0,647	0,636	0,608	0,596	0,584	0,572	0,560	0,533	0,519	0,506	0,493	0,480	0,450	0,436	0,421	0,408	0,394
	20		0,699	0,689	0,679	0,669	0,659	0,633	0,621	0,609	0,597	0,586	0,562	0,549	0,536	0,523	0,511	0,486	0,472	0,458	0,444	0,431	0,401	0,386	0,372	0,358	0,344
	22		0,654	0,642	0,631	0,620	0,609	0,587	0,574	0,561	0,549	0,537	0,516	0,502	0,488	0,475	0,462	0,439	0,424	0,410	0,396	0,382	0,351	0,336	0,321	0,308	0,295
60	10		0,880	0,876	0,871	0,867	0,862	0,816	0,809	0,802	0,795	0,789	0,749	0,740	0,731	0,722	0,713	0,678	0,668	0,657	0,646	0,636	0,604	0,592	0,579	0,567	0,555
	15		0,763	0,755	0,746	0,738	0,730	0,699	0,689	0,679	0,669	0,659	0,633	0,621	0,609	0,597	0,586	0,562	0,549	0,536	0,523	0,511	0,486	0,472	0,458	0,444	0,431
	18		0,694	0,684	0,674	0,664	0,654	0,631	0,619	0,607	0,596	0,584	0,564	0,551	0,538	0,525	0,513	0,493	0,479	0,465	0,451	0,438	0,415	0,400	0,386	0,372	0,358
	20		0,649	0,638	0,626	0,615	0,604	0,586	0,573	0,560	0,548	0,536	0,519	0,505	0,492	0,478	0,465	0,447	0,433	0,418	0,405	0,391	0,368	0,353	0,338	0,324	0,311
	22		0,604	0,592	0,579	0,567	0,556	0,541	0,528	0,514	0,501	0,489	0,474	0,460	0,446	0,432	0,419	0,402	0,387	0,372	0,359	0,345	0,319	0,305	0,290	0,277	0,264
55	10		0,825	0,818	0,812	0,805	0,799	0,763	0,755	0,746	0,738	0,730	0,699	0,689	0,679	0,669	0,659	0,633	0,621	0,609	0,597	0,586	0,562	0,549	0,536	0,523	0,511
	15		0,710	0,700	0,690	0,680	0,670	0,649	0,638	0,626	0,615	0,604	0,586	0,573	0,560	0,548	0,536	0,519	0,505	0,492	0,478	0,465	0,447	0,433	0,418	0,405	0,391
	18		0,642	0,630	0,619	0,607	0,596	0,582	0,569	0,556	0,544	0,532	0,519	0,505	0,491	0,478	0,465	0,452	0,437	0,423	0,409	0,396	0,379	0,364	0,350	0,336	0,322
	20		0,597	0,585	0,572	0,560	0,548	0,538	0,524	0,511	0,498	0,485	0,475	0,461	0,447	0,433	0,420	0,408	0,393	0,379	0,365	0,351	0,334	0,319	0,304	0,291	0,278
	22		0,553	0,540	0,527	0,514	0,501	0,494	0,480	0,466	0,453	0,440	0,432	0,417	0,403	0,389	0,375	0,364	0,349	0,335	0,321	0,308	0,288	0,273	0,259	0,246	0,234
50	10		0,710	0,700	0,690	0,680	0,670	0,649	0,638	0,626	0,615	0,604	0,586	0,573	0,560	0,548	0,536	0,519	0,505	0,492	0,478	0,465	0,447	0,433	0,418	0,405	0,391
	15		0,597	0,585	0,572	0,560	0,548	0,538	0,524	0,511	0,498	0,485	0,475	0,461	0,447	0,433	0,420	0,408	0,393	0,379	0,365	0,351	0,334	0,319	0,304	0,291	0,278
	18		0,532	0,518	0,504	0,491	0,478	0,473	0,458	0,444	0,430	0,417	0,410	0,395	0,381	0,367	0,354	0,342	0,327	0,313	0,299	0,284	0,270	0,257	0,244	0,231	0,218
	20		0,488	0,474	0,460	0,447	0,433	0,430	0,415	0,401	0,387	0,374	0,368	0,353	0,338	0,324	0,311	0,299	0,284	0,270	0,255						

Delivered as ordered

A barcode-based logistics system ensures reliable, punctual delivery. Sturdy, fully cardboard packaging prevents any kind of damage during transport and storage. An extra stretch film covering protects Zehnder Charleston during and after installation, and is only removed when you move in.

Zehnder Charleston radiators are always safely protected with stretch film and cardboard packaging:

- When in transit
- When in storage
- Until the end of the construction phase



Reliability

- Short delivery times: 8 - 10 working days
- Express programme: 4 - 5 working days
- Fast, reliable warehouse administration
- Normally on-time delivery

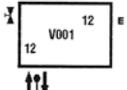
Zehnder Charleston label

- Important information such as the name of the building site, floor, room, radiator model, connection type
- Logistics optimised through use of barcodes



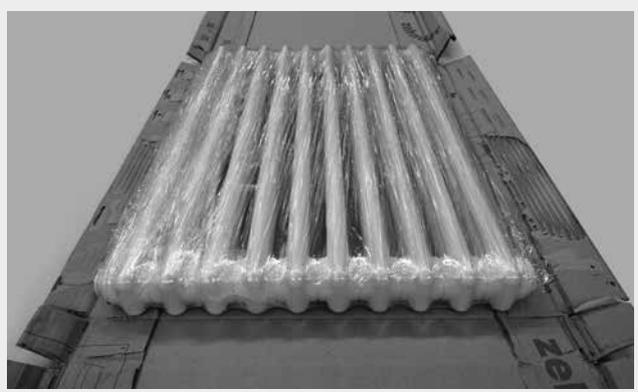
Zehnder Charleston label

Zehnder Charleston Modell: 3060 – 21 Anschluss: V001 Farbe: 9016 / RAL 9016 SO: 1002046832 000110 Kundenbestell – Nr.: 4024478474 Projekt: Raum:	Kundenadresse: Max Mustermann Musterstrasse 1 DE – 00000 Musterhausen Gesamtanzahl HK: 0017 Produktionsdatum: 31.10.20 Route: DE – S – 011	N
	707597 0010	 2082848

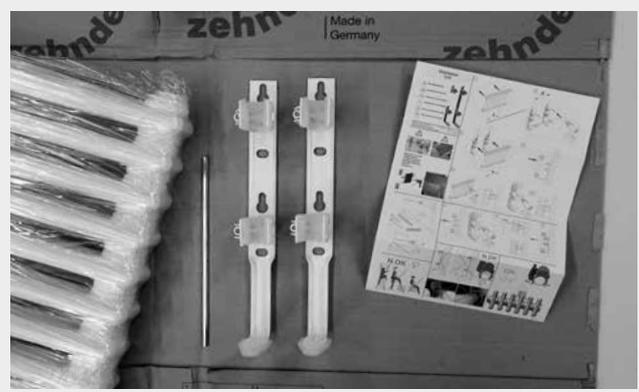
Zehnder Charleston Modell: 3060 – 21 Farbe: 9016 / RAL 9016 SO: 1002046832 000110 Kundenbestell – Nr.: 4024478474 Projekt: Raum:	 Höhe [mm]: 600 Länge [mm]: 992 Tiefe [mm]: 100 Bruttogewicht [kg]: 31,9/127,6 Leistung ΔT_{50K} [Watt]: 1279,2 Zubehör: 2x SMB50	 2082848
 (95)1002046832000110(96)000827119701		

Zehnder Charleston packaging to order

Benefits on the building site



Zehnder Charleston is laid on the original Zehnder box before installation on the building site.



The standard accessories ordered with the radiator are enclosed.



Stretch film remains in place during installation and protects the radiator until you move in.



Original packaging serves as additional protection of Zehnder Charleston during the entire building phase, until you are ready to move in.

Warm colours

Colour category 1: CORE



White Quartz ¹⁾
0521



Pure White ²⁾
RAL 9010 / 9010



Edelweiss
0067



Cream
RAL 9001 / 9001



Telegrey 4
RAL 7047 / 7247



Beige Quartz
0523



Golden Sand
0258



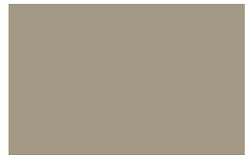
Yellow Grey
RAL 7034 / 7234



Pearl Beige
RAL 1035 / 1235



Beach Gold
0272



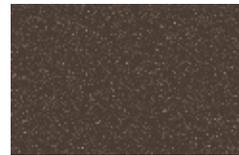
Concrete Grey
0265



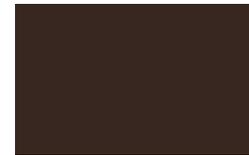
Beige Grey
0267



Bronze
0276



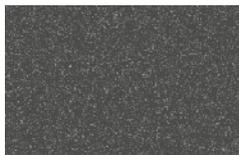
Brown Quartz
0529



Dark Brown
0270



Grey Aluminium
9007



Anthracite
0346



Umbra Grey
RAL 7022 / 7222

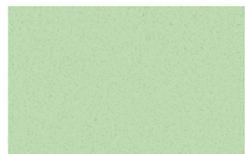


Volcanic
0336



Surcharge for colour category 1: 20 %

Colour category 2: TREND



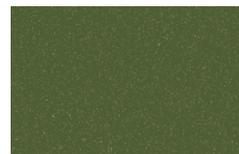
Pastel Green
RAL 6019 / 6219



Reseda Green
RAL 6011 / 6211



Cement Grey
RAL 7033 / 7233



Olive Green
RAL 6003 / 6203



Terracotta Faded
0299



Terracotta
0292



Ruby Red
RAL 3003 / 3003



Surcharge for colour category 2: 30 %

¹⁾ Unlike to the colour standard (here RAL tone) the Zehnder no. also includes the features matt respectively glossy. Therefore the RAL standard and Zehnder no. differ in many colours. Please note that the prices always relate to the given finishes matt or glossy, deviating finishes will be calculated like colours outside of the colour cart. These colours are finished with a gloss finish; all other colours are matt-finished.

¹⁾ Not for Zehnder Nova, Nova Neo and Excelsior

²⁾ Standard colour for Fare Tech & Alura Tech, therefore Traffic White RAL 9016 with surcharge 20 % of categorie 1

³⁾ Only for Zehnder Charleston and Zehnder Metropolitan

⁴⁾ Only for Zehnder Charleston - surcharge as category 2

Cool colours

Colour category 1: CORE



White Matt
0556



Light Beige
0253



Light Grey
0262



White Aluminium
9006



Light Jeans
0264



Titane
0335



Inox Look
0332



Telegrey 2
RAL 7046 / 7246



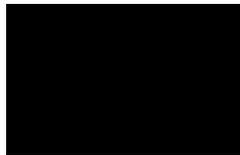
Blue Grey
RAL 7031 / 7231



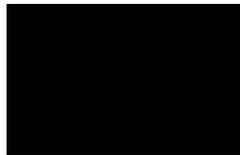
Anthracite Grey
RAL 7016 / 7016



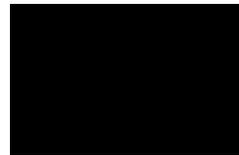
Black Quartz
0550



Black Matt
0557



Traffic Black
RAL 9017 / 9217



Jet Black
RAL 9005 / 9005



Surcharge for colour category 1: 20 %

Colour category 2: TREND



Pastel Blue
RAL 5024 / 5224



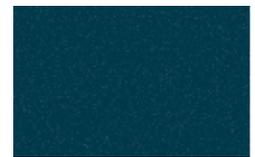
Pigeon Blue
RAL 5014 / 5214



Gentian Blue
RAL 5010 / 5210



Sapphire Blue
RAL 5003 / 5203



Blue Night
0289

Surcharge for colour category 2: 30 %

STANDARD



Traffic White
RAL 9016 / 9016



ANTIMICROBIAL SURFACE



TopCare⁴⁾
RAL 9016 / 9316



FINISHES



Technoline (Clear)³⁾
0325



Chrome (Surface)
0008



Stainless steel brushed
9517

Some colours/surfaces are only available for selected products. Please also see the notes on the respective product pages. For Special surfaces of the Studio Collection, please see the respective product chapters. Special colours on request. Due to different manufacturing techniques of the original colours, deviations can occur in colour and polish. RAL and NCS are designations from the manufacturer. The respective colour code (EDI) is set at the 9th and 10th places in the article no.

Other special finishes in the RAL, RAL-D, NCS-S, Sanitary, DB colour systems are available as required, surcharges on request.



Zehnder
World of Colours

Z-SI-V0122-RAD-PB-Charleston, en, subject to change without notice