

TECHNICAL **CATALOGUE**

DECORATIVE AND BATHROOM RADIATORS, FAN CONVECTORS

PURMO INT. 03/2019





PART OF THE **RETTIG**  GROUP

THE POWER OF A WORLD RANKING COMPANY

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

The values that the company brings to its customers are based on the creation, maintenance and development of win-win commercial relationships. Today, the Rettig ICC Group has the contribution of more than 4100 experienced and enthusiastic employees behind it. Rettig's products consist of steel panels, convectors, design and bathroom radiators and underfloor heating systems.

decorative radiators

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Kos H 10



Faro H 16



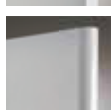
Kos V 22



Faro V 26



Tinos V 30



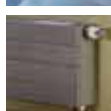
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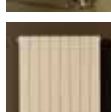
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Narbonne 40



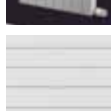
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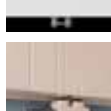
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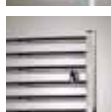
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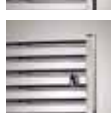
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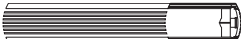
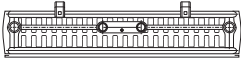
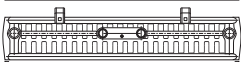
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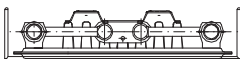
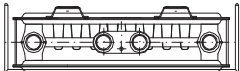
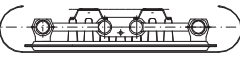
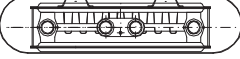
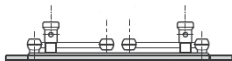
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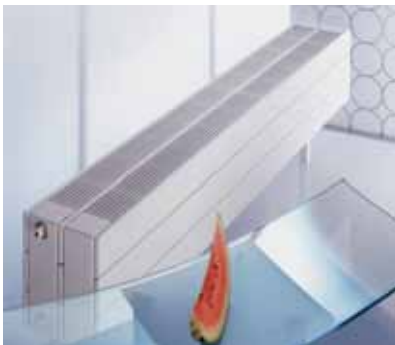
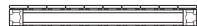
Type overview

		types
	Kos H 2 connections height [mm]: 400, 600, 750, 900 length [mm]: 450, 600, 750, 900, 1050, 1200, 1350, 1500, 1650*, 1800*, 1950* * except for the Kos H models of height 750 and 900 mm	20  21  22  33 
	Faro H 2 connections height [mm]: 400, 600, 750, 900 length [mm]: 450, 600, 750, 900, 1050, 1200, 1350, 1500, 1650*, 1800*, 1950* * except for the Faro H models of height 750 and 900 mm	20  21  22  33 
	Kos V 4 connections height [mm]: 1800, 1950, 2100 width [mm]: 300, 450, 600, 750	21  22 
	Faro V 4 connections height [mm]: 1800, 1950, 2100 width [mm]: 300, 450, 600, 750	21  22 

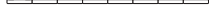
Type overview

			types
	Tinos V 6 connections height [mm]: 1800, 1950, 2100 width [mm]: 300, 450, 600, 750		11  21 
	Paros V 6 connections height [mm]: 1800, 1950, 2100 width [mm]: 300, 450, 600, 750		11  21 
	Arran 4 connections height [mm]: 1430, 1730 width [mm]: 514		

Type overview

		types
	Narbonne 4 connections height [mm]: 70, 142, 214, 286 length [mm]: 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600, 3800, 4000	example of types NA 11  NA 22  NA 34 
	Narbonne VT 5 connections height [mm]: 142, 214, 286 length [mm]: 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600, 3800, 4000	example of types NA 11  NA 22  NA 34 
	Narbonne V 4 connections height [mm]: 1600, 1800, 2000, 2200 width [mm]: 142, 214, 286, 358, 430, 502, 574, 646, 718, 790, 862	NV 10  NV 11  NV 20  NV 21 
	Narbonne V VT 6 connections height [mm]: 1600, 1800, 2000 width [mm]: 214, 286, 358, 430, 502, 574, 646, 718, 790, 862	NV 10  NV 11  NV 20  NV 21 

Type overview

		types
	Narbonne M 4 connections height [mm]: 142, 214, 286, 358, 430, 502, 574, 646, 790 length [mm]: 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1600, 1800, 2000, 2200, 2400	NA-M 11  NA-M 22  NA-M 34  NA-M 46 
	Narbonne V M 6 connections height [mm]: 1600, 1800, 2000 width [mm]: 214, 286, 358, 430, 502, 574, 646, 718, 790, 862	NV-M 10  NV-M 11  NV-M 20  NV-M 21 
	Vido two-pipe system or four-pipe system height [mm]: 595 length [mm]: 800, 1000, 1200, 1400, 1600	

	Kos H	Faro H	Kos V	Faro V	Tinos V	Paros V	Arran	Narbonne	Narbonne VT	Narbonne V	Narbonne V VT	Narbonne M	Narbonne V M	VIDO
softly profiled flat front panel	-	x	-	x	-	-	-	-	-	-	-	-	-	-
flat front panel	x	-	x	-	x	x	x	-	-	-	-	-	-	x
max. working pressure [bar]	6	6	6	6	6	6	6	5 (8)	5 (8)	5 (8)	5 (8)	5 (8)	5 (8)	10
no. of connectors – side / bottom	2	2	4	4	4	4	4	4	3/2	4	4/2	4	4/2	2 or 4
side connection	-	-	-	-	-	-	-	x	-	x	-	-	-	x
bottom connection	x	x	x	x	x	x	x	-	x	-	x	-	-	-
mid-bottom connection	-	-	x	x	x	x	x	-	-	-	-	x	x	-
mounting brackets bundled with the radiator	x	x	x	x	x	x	x	-	-	-	-	-	-	x
side covers	x	x	x	x	x	x	-	x	x	x	x	x	x	x
top grille	x	x	-	-	-	-	-	x	x	-	-	-	-	x
built-in valve insert	x	x	-	-	-	-	-	-	x	-	x	x	-	-

thermal output of the radiators

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

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

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

$$\phi = \phi_n \left[\frac{\Delta t}{\Delta t_n} \right]^n$$

where:

ϕ - thermal output of the radiator [W]

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

Δt - logarithmic difference of temperatures [K]

Δt_n - logarithmic difference of temperatures 49.833 [K] calculated for reference temperatures 75/65/20 °C

n - exponent characteristic for a given type of radiator

The logarithmic difference of temperatures is calculated according to the following formula:

$$\Delta t = \frac{t_s - t_r}{\ln ((t_s - t_i) / (t_r - t_i))}$$

where:

t_s - supply water temperature [°C]

t_r - return water temperature [°C]

t_i - room temperature [°C]



KOS H

A horizontal decorative radiator with a flat front panel, gently finished edges and a uniquely designed top cover

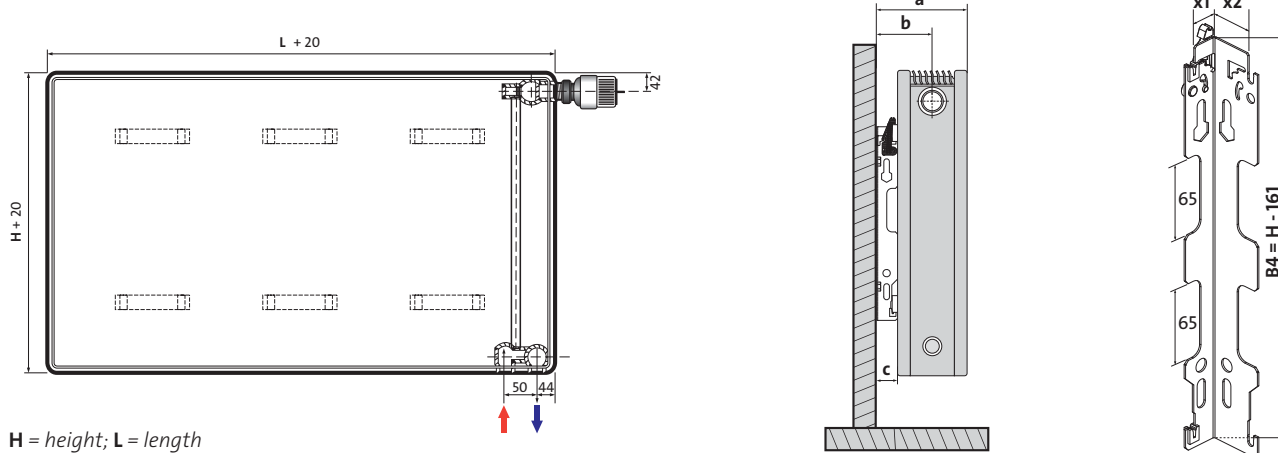
- Connections : 2 x G ½ " bottom, right side connectors (left side - available on request)
- Working pressure : 6 bar
- Maximal temperature : 99 °C
- Test pressure : 8 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request
- Installation on brackets : mounting on hanging lugs welded on the rear panel of the radiator
- Accessories bundled with the radiator : two MCW-5 wall brackets including wall plugs and screws, factory installed thermostatic valve (on the right side) and air vent (on the left side).



KOS H

installation with the MCW-5 angle wall brackets

front view



H = height; L = length

water volume and weight

water volume : l/m				
type \ height	400	600	750	900
20	4.44	6.67	8.00	9.33
21	4.76	6.95	8.67	10.38
22	4.76	6.95	8.67	10.38
33	6.73	10.10	11.27	12.44

weight : kg/m				
type \ height	400	600	750	900
20	22.83	32.50	40.19	47.89
21	26.48	37.43	46.67	56.29
22	29.24	42.67	53.52	64.38
33	42.70	62.38	77.19	92.00

number of brackets depending on the type and height of the radiator

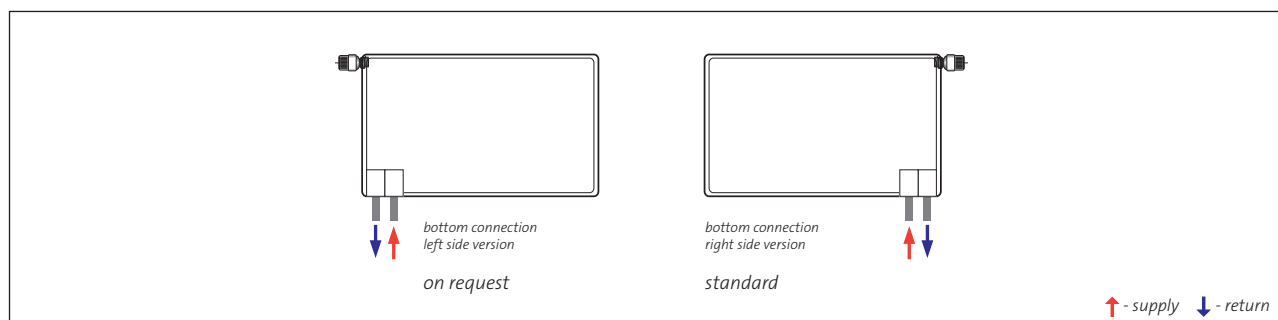
type	height H	length L	2x	3x
20 / 21 / 22	400-600	< 2000	x	
		≥ 2000		x
20 / 21 / 22	750-900	< 1600	x	
		≥ 1600		x
33	400	< 2000	x	
		≥ 2000		x
33	600-900	< 1600	x	
		≥ 1600		x

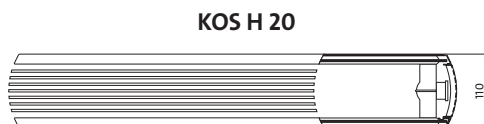
Shorter arm
installation
x1 = 24 mm

Longer arm
installation
x2 = 39.5 mm

type KOS H 20	a : 141 mm b : 84 mm c : 30 mm	a : 157 mm b : 100 mm c : 46 mm
type KOS H 21	a : 141 mm b : 84 mm c : 30 mm	a : 157 mm b : 100 mm c : 46 mm
type KOS H 22	a : 141 mm b : 84 mm c : 30 mm	a : 157 mm b : 100 mm c : 46 mm
type KOS H 33	a : 206 mm b : 84 mm c : 30 mm	a : 122 mm b : 100 mm c : 46 mm

recommended connections





RADIATOR DESCRIPTION - AN EXAMPLE : **KOS H 20 600 1200 L**

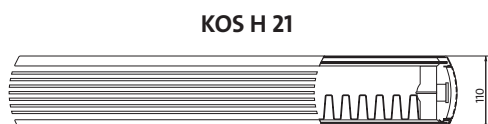
name _____
type _____
height _____
length _____
L : only for the left side version
(no letter: standard, i.e. the right side version)

length [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]			
		400	600	750	900
		[W]	[W]	[W]	[W]
450	75/65/20 55/45/20	306 157	428 221	512 264	590 304
600	75/65/20 55/45/20	407 209	571 295	683 352	786 405
750	75/65/20 55/45/20	509 262	713 368	854 440	983 507
900	75/65/20 55/45/20	611 314	856 442	1024 528	1179 608
1050	75/65/20 55/45/20	713 367	999 515	1195 616	1376 709
1200	75/65/20 55/45/20	815 419	1141 589	1366 704	1572 810
1350	75/65/20 55/45/20	917 471	1284 663	1536 792	1769 912
1500	75/65/20 55/45/20	1019 524	1427 736	1707 880	1965 1013
1650	75/65/20 55/45/20	1120 576	1569 810		
1800	75/65/20 55/45/20	1222 628	1712 883		
1950	75/65/20 55/45/20	1324 681	1854 957		

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	852	1192	1427	1643
exponent n	1.2870	1.2801	1.2812	1.2823

type 21

RADIATOR DESCRIPTION - AN EXAMPLE : **KOS H 21 600 1200 L**

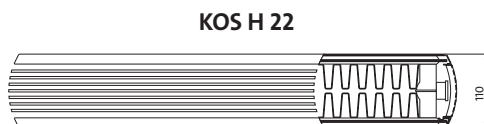
name _____
 type _____
 height _____
 length _____
 L : only for the left side version
 (no letter: standard, i.e. the right side version)



length [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]			
		400	600	750	900
		[W]	[W]	[W]	[W]
450	75/65/20 55/45/20	445 224	602 303	701 350	802 400
600	75/65/20 55/45/20	593 299	802 403	934 466	1070 534
750	75/65/20 55/45/20	742 374	1003 504	1168 583	1337 667
900	75/65/20 55/45/20	890 448	1203 605	1401 700	1605 801
1050	75/65/20 55/45/20	1038 523	1404 706	1635 817	1872 935
1200	75/65/20 55/45/20	1187 598	1604 806	1868 933	2140 1068
1350	75/65/20 55/45/20	1335 673	1805 907	2102 1049	2407 1202
1500	75/65/20 55/45/20	1484 748	2006 1008	2336 1167	2675 1335
1650	75/65/20 55/45/20	1632 822	2206 1109		
1800	75/65/20 55/45/20	1780 897	2407 1210		
1950	75/65/20 55/45/20	1929 972	2607 1310		

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	1249	1691	1973	2260
exponent n	1.3261	1.3311	1.3433	1.3440



RADIATOR DESCRIPTION - AN EXAMPLE : **KOS H 22 600 1200 L**

name _____
type _____
height _____
length _____
L : only for the left side version
(no letter: standard, i.e. the right side version)

length [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]			
		400	600	750	900
		[W]	[W]	[W]	[W]
450	75/65/20 55/45/20	573 288	764 378	922 456	1014 494
600	75/65/20 55/45/20	764 384	1018 503	1229 608	1352 659
750	75/65/20 55/45/20	956 480	1273 629	1536 760	1690 824
900	75/65/20 55/45/20	1147 576	1527 755	1843 912	2028 989
1050	75/65/20 55/45/20	1338 672	1782 881	2150 1064	2366 1154
1200	75/65/20 55/45/20	1529 768	2036 1006	2458 1217	2704 1318
1350	75/65/20 55/45/20	1720 864	2291 1132	2765 1369	3042 1483
1500	75/65/20 55/45/20	1911 960	2546 1258	3072 1521	3380 1648
1650	75/65/20 55/45/20	2102 1056	2800 1384		
1800	75/65/20 55/45/20	2293 1152	3055 1510		
1950	75/65/20 55/45/20	2484 1248	3309 1635		

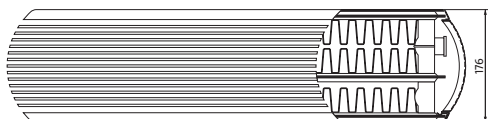
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	1612	2158	2603	2879
exponent n	1.3318	1.3635	1.3607	1.3897

type 33

RADIATOR DESCRIPTION - AN EXAMPLE : **KOS H 33 600 1200 L**

KOS H 33



name _____
 type _____
 height _____
 length _____
 L : only for the left side version
 (no letter: standard, i.e. the right side version)



length [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]			
		400	600	750	900
		[W]	[W]	[W]	[W]
450	75/65/20 55/45/20	803 405	1114 553	1309 646	1471 722
600	75/65/20 55/45/20	1070 540	1485 738	1745 862	1961 963
750	75/65/20 55/45/20	1338 676	1856 922	2181 1077	2451 1204
900	75/65/20 55/45/20	1606 811	2228 1107	2617 1292	2941 1444
1050	75/65/20 55/45/20	1873 946	2599 1291	3053 1508	3431 1685
1200	75/65/20 55/45/20	2141 1081	2970 1475	3490 1724	3922 1926
1350	75/65/20 55/45/20	2408 1216	3341 1659	3926 1939	4412 2167
1500	75/65/20 55/45/20	2676 1351	3713 1844	4362 2154	4902 2407
1650	75/65/20 55/45/20	2944 1486	4084 2029		
1800	75/65/20 55/45/20	3211 1621	4455 2213		
1950	75/65/20 55/45/20	3479 1757	4826 2397		

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	2252	3143	3699	4165
exponent n	1.3222	1.3539	1.3649	1.3758



FARO H

A horizontal decorative radiator with a softly profiled flat front panel, gently finished edges and a uniquely designed top cover.

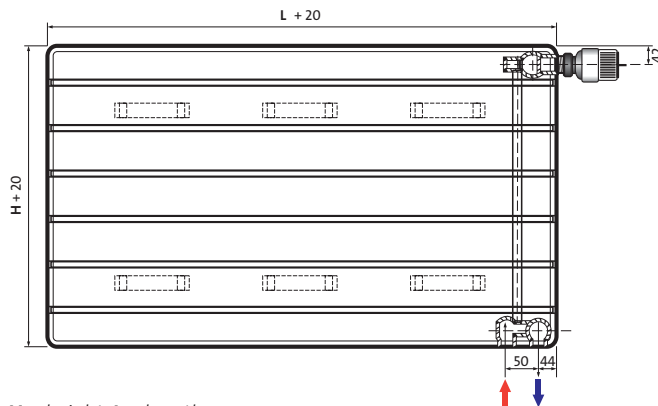
- Connections : 2 x G ½ " bottom, right side connectors (left side - available on request)
- Working pressure : 6 bar
- Maximal temperature : 99 °C
- Test pressure : 8 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request
- Installation on brackets : mounting on hanging lugs welded on the rear panel of the radiator
- Accessories bundled with the radiator : two MCW-5 wall brackets including wall plugs and screws, factory installed thermostatic valve (on the right side) and air vent (on the left side).



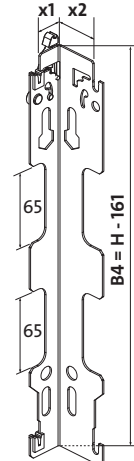
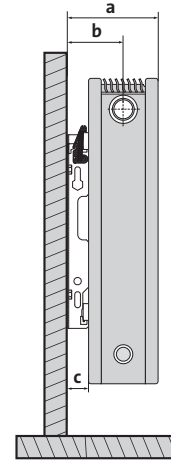
FARO H

installation with the MCW-5 angle wall brackets

front view



H = height; L = length



water volume and weight

water volume : l/m					
type	height	400	600	750	900
20		4.44	6.67	8.00	9.33
21		4.76	6.95	8.67	10.38
22		4.76	6.95	8.67	10.38
33		6.73	10.10	11.27	12.44

weight : kg/m					
type	height	400	600	750	900
20		22.83	32.50	40.19	47.89
21		26.48	37.43	46.67	56.29
22		29.24	42.67	53.52	64.38
33		42.70	62.38	77.19	92.00

number of brackets depending on the type and height of the radiator

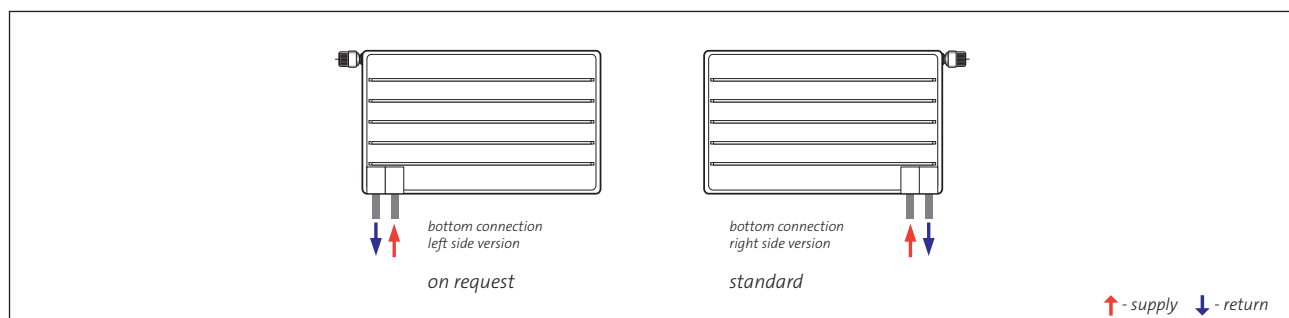
type	height H	length L	2x	3x
20 / 21 / 22	400-600	< 2000	x	
		≥ 2000		x
20 / 21 / 22	750-900	< 1600	x	
		≥ 1600		x
33	400	< 2000	x	
		≥ 2000		x
33	600-900	< 1600	x	
		≥ 1600		x

Shorter arm
installation
x1 = 24 mm

Longer arm
installation
x2 = 39.5 mm

type FARO H 20	a :	141 mm	a :	157 mm
	b :	84 mm	b :	100 mm
	c :	30 mm	c :	46 mm
type FARO H 21	a :	141 mm	a :	157 mm
	b :	84 mm	b :	100 mm
	c :	30 mm	c :	46 mm
type FARO H 22	a :	141 mm	a :	157 mm
	b :	84 mm	b :	100 mm
	c :	30 mm	c :	46 mm
type FARO H 33	a :	206 mm	a :	122 mm
	b :	84 mm	b :	100 mm
	c :	30 mm	c :	46 mm

recommended connections



↑ - supply ↓ - return



RADIATOR DESCRIPTION - AN EXAMPLE : **FARO H 20 600 1200 L**

name _____
type _____
height _____
length _____
L : only for the left side version
(no letter: standard, i.e. the right side version)

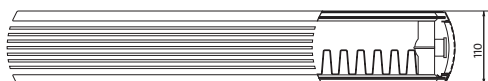
length [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]			
		400	600	750	900
		[W]	[W]	[W]	[W]
450	75/65/20 55/45/20	306 157	428 221	512 264	590 304
600	75/65/20 55/45/20	407 209	571 295	683 352	786 405
750	75/65/20 55/45/20	509 262	713 368	854 440	983 507
900	75/65/20 55/45/20	611 314	856 442	1024 528	1179 608
1050	75/65/20 55/45/20	713 367	999 515	1195 616	1376 709
1200	75/65/20 55/45/20	815 419	1141 589	1366 704	1572 810
1350	75/65/20 55/45/20	917 471	1284 663	1536 792	1769 912
1500	75/65/20 55/45/20	1019 524	1427 736	1707 880	1965 1013
1650	75/65/20 55/45/20	1120 576	1569 810		
1800	75/65/20 55/45/20	1222 628	1712 883		
1950	75/65/20 55/45/20	1324 681	1854 957		

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 exponent n	852 1.2870	1192 1.2801	1427 1.2812	1643 1.2823
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RADIATOR DESCRIPTION - AN EXAMPLE : FARO H 21 600 1200 L

FARO H 21



name _____
 type _____
 height _____
 length _____
 L : only for the left side version
 (no letter: standard, i.e. the right side version)



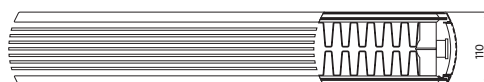
length [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]			
		400	600	750	900
		[W]	[W]	[W]	[W]
450	75/65/20 55/45/20	445 224	602 303	701 350	802 400
600	75/65/20 55/45/20	593 299	802 403	934 466	1070 534
750	75/65/20 55/45/20	742 374	1003 504	1168 583	1337 667
900	75/65/20 55/45/20	890 448	1203 605	1401 700	1605 801
1050	75/65/20 55/45/20	1038 523	1404 706	1635 817	1872 935
1200	75/65/20 55/45/20	1187 598	1604 806	1868 933	2140 1068
1350	75/65/20 55/45/20	1335 673	1805 907	2102 1049	2407 1202
1500	75/65/20 55/45/20	1484 748	2006 1008	2336 1167	2675 1335
1650	75/65/20 55/45/20	1632 822	2206 1109		
1800	75/65/20 55/45/20	1780 897	2407 1210		
1950	75/65/20 55/45/20	1929 972	2607 1310		

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	1249	1691	1973	2260
exponent n	1.3261	1.3311	1.3433	1.3440



FARO H 22



RADIATOR DESCRIPTION - AN EXAMPLE : **FARO H 22 600 1200 L**

name _____
type _____
height _____
length _____
L : only for the left side version
(no letter: standard, i.e. the right side version)

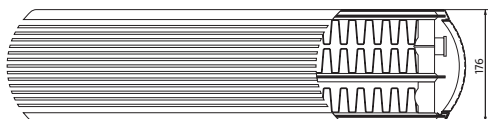
length [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]			
		400	600	750	900
		[W]	[W]	[W]	[W]
450	75/65/20 55/45/20	573 288	764 378	922 456	1014 494
600	75/65/20 55/45/20	764 384	1018 503	1229 608	1352 659
750	75/65/20 55/45/20	956 480	1273 629	1536 760	1690 824
900	75/65/20 55/45/20	1147 576	1527 755	1843 912	2028 989
1050	75/65/20 55/45/20	1338 672	1782 881	2150 1064	2366 1154
1200	75/65/20 55/45/20	1529 768	2036 1006	2458 1217	2704 1318
1350	75/65/20 55/45/20	1720 864	2291 1132	2765 1369	3042 1483
1500	75/65/20 55/45/20	1911 960	2546 1258	3072 1521	3380 1648
1650	75/65/20 55/45/20	2102 1056	2800 1384		
1800	75/65/20 55/45/20	2293 1152	3055 1510		
1950	75/65/20 55/45/20	2484 1248	3309 1635		

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	1612	2158	2603	2879
exponent n	1.3318	1.3635	1.3607	1.3897

RADIATOR DESCRIPTION - AN EXAMPLE : FARO H 33 600 1200 L

FARO H 33



name _____
 type _____
 height _____
 length _____
 L : only for the left side version
 (no letter: standard, i.e. the right side version)



length [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]			
		400	600	750	900
		[W]	[W]	[W]	[W]
450	75/65/20 55/45/20	803 405	1114 553	1309 646	1471 722
600	75/65/20 55/45/20	1070 540	1485 738	1745 862	1961 963
750	75/65/20 55/45/20	1338 676	1856 922	2181 1077	2451 1204
900	75/65/20 55/45/20	1606 811	2228 1107	2617 1292	2941 1444
1050	75/65/20 55/45/20	1873 946	2599 1291	3053 1508	3431 1685
1200	75/65/20 55/45/20	2141 1081	2970 1475	3490 1724	3922 1926
1350	75/65/20 55/45/20	2408 1216	3341 1659	3926 1939	4412 2167
1500	75/65/20 55/45/20	2676 1351	3713 1844	4362 2154	4902 2407
1650	75/65/20 55/45/20	2944 1486	4084 2029		
1800	75/65/20 55/45/20	3211 1621	4455 2213		
1950	75/65/20 55/45/20	3479 1757	4826 2397		

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	2252	3143	3699	4165
exponent n	1.3222	1.3539	1.3649	1.3758



KOS V

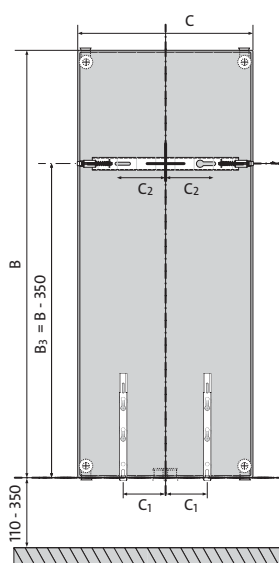
A vertical decorative radiator with a flat front panel, gently finished edges and side covers.

- Connections : 4 x G ½" bottom; 2 x G ½" top - for the air vent and plug installation
- Working pressure : 6 bar
- Maximal temperature : 99 °C
- Test pressure : 8 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request
- Many connection possibilities
- Accessories bundled with the radiator : brackets, plugs, air vent.



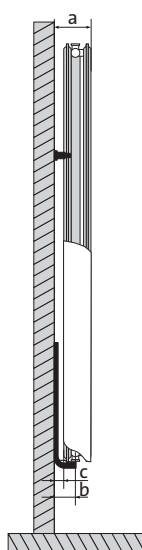
KOS V

front view



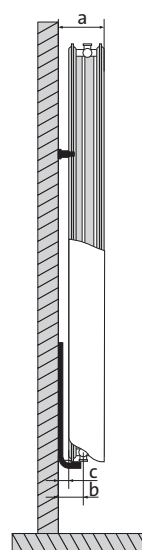
C	300	450	600	750
C ₁	75	100	175	250
C ₂	50	125	200	275

side views



type KOS V 21

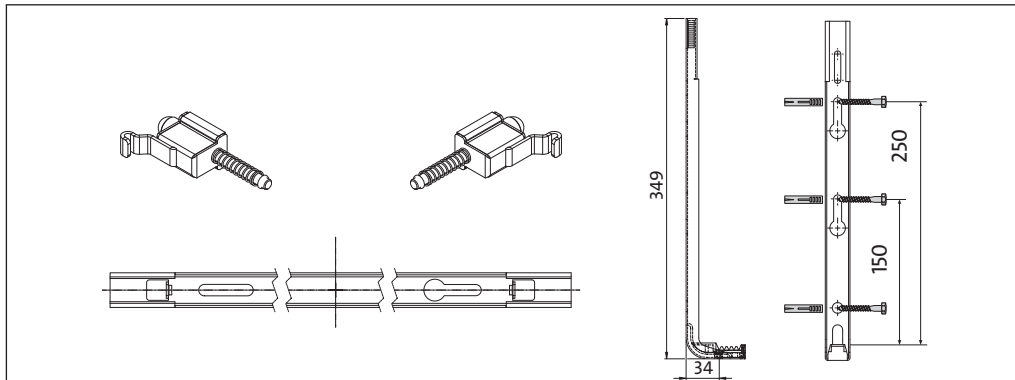
a : 111 mm
b : 67 mm
c : 27 mm



type KOS V 22

a : 136 mm
b : 67 mm
c : 27 mm

installation

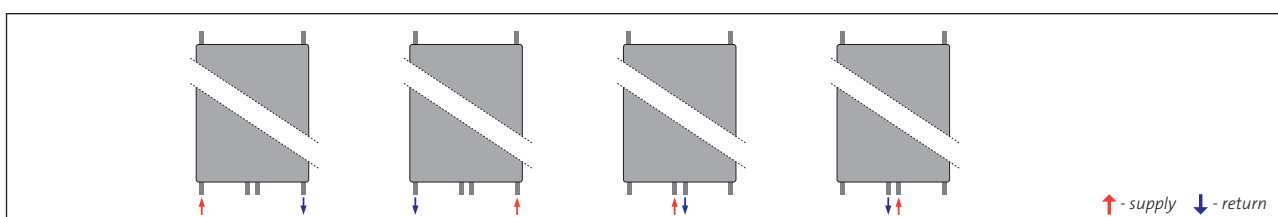


water volume and weight

water volume : l/m				
type	height	1800	1950	2100
21		21.47	24.13	25.47
22		21.73	23.47	25.33

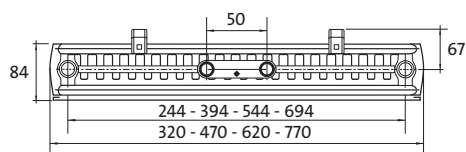
weight : kg/m				
type	height	1800	1950	2100
21		100.27	109.33	117.07
22		111.60	123.73	130.93

recommended connections





RADIATOR DESCRIPTION - AN EXAMPLE : **KOS V 21 1800 600**



name _____
type _____
height _____
width _____

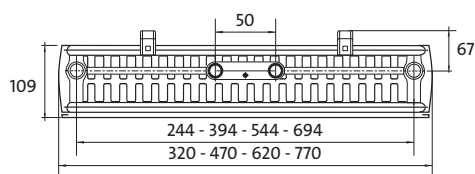
width [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]		
		1800	1950	2100
		[W]	[W]	[W]
300	75/65/20 55/45/20	886 448	936 472	978 491
450	75/65/20 55/45/20	1329 672	1404 709	1467 737
600	75/65/20 55/45/20	1772 896	1873 945	1957 983
750	75/65/20 55/45/20	2216 1121	2341 1181	2446 1228

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	3727	3942	4125
exponent n	1.3192	1.3231	1.3327

KOS V INOX	width [mm]	height [mm]	exponent n	weight [kg]	water volume [l]	75/65/20	55/45/20
KOS V 21 1800 450 INOX	450	1800	1.3308	45.10	10.10	1183	595
KOS V 21 1950 600 INOX	600	1950	1.3600	64.20	14.30	1601	793
KOS V 21 2100 750 INOX	750	2100	1.3693	83.60	18.30	2095	1032

type 22

RADIATOR DESCRIPTION - AN EXAMPLE : **KOS V 22 1800 600**

name _____
 type _____
 height _____
 width _____



For type 22 connections are asymmetric with respect to the radiator panels

width [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]		
		1800	1950	2100
		[W]	[W]	[W]
300	75/65/20 55/45/20	1046 524	1103 528	1161 583
450	75/65/20 55/45/20	1569 785	1654 792	1742 874
600	75/65/20 55/45/20	2092 1047	2205 1055	2323 1166
750	75/65/20 55/45/20	2615 1309	2756 1319	2903 1457

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	4415	4725	4898
exponent n	1.3387	1.4255	1.3343



FARO V

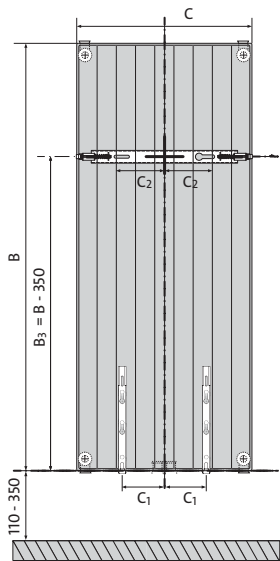
A vertical decorative radiator with a softly profiled flat front panel, gently finished edges and side covers.

- Connections : 4 x G ½" bottom; 2 x G ½" top - for the air vent and plug installation
- Working pressure : 6 bar
- Maximal temperature : 99 °C
- Test pressure : 8 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request
- Many connection possibilities
- Accessories bundled with the radiator : brackets, plugs, air vent.



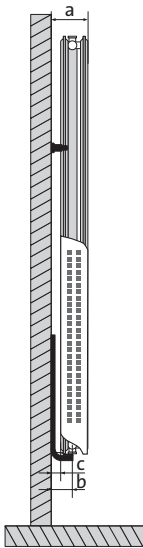
FARO V

front view

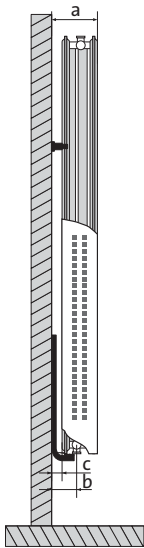


C	300	450	600	750
C ₁	75	100	175	250
C ₂	50	125	200	275

side views

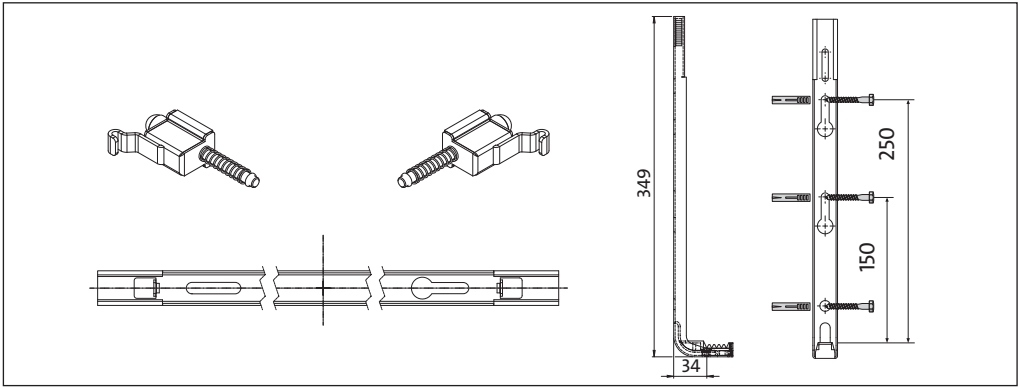


type FARO V 21
a : 111 mm
b : 67 mm
c : 27 mm



type FARO V 22
a : 136 mm
b : 67 mm
c : 27 mm

installation

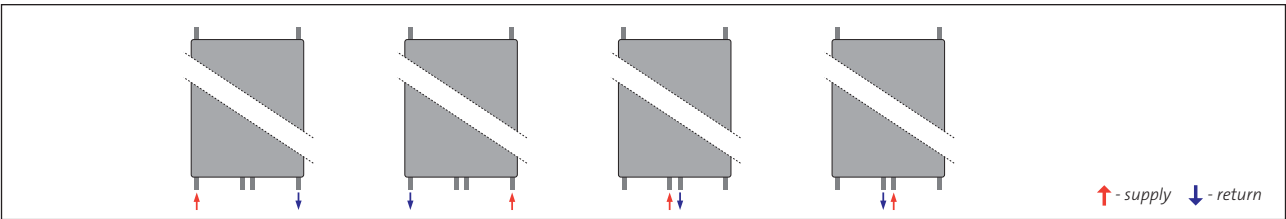


water volume and weight

water volume : l/m				
type	height	1800	1950	2100
21		21.47	24.13	25.47
22		21.73	23.47	25.33

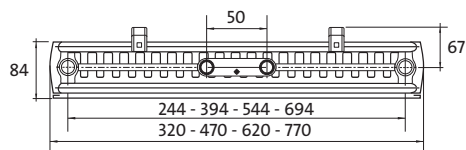
weight : kg/m				
type	height	1800	1950	2100
21		100.27	109.33	117.07
22		111.60	123.73	130.93

recommended connections





RADIATOR DESCRIPTION - AN EXAMPLE : **FARO V 21 1800 600**



name _____
type _____
height _____
width _____

width [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]		
		1800	1950	2100
		[W]	[W]	[W]
300	75/65/20 55/45/20	886 448	936 472	978 491
450	75/65/20 55/45/20	1329 672	1404 709	1467 737
600	75/65/20 55/45/20	1772 896	1873 945	1957 983
750	75/65/20 55/45/20	2216 1121	2341 1181	2446 1228

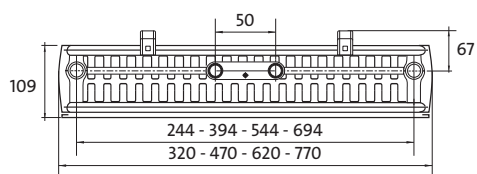
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	3727	3942	4125
exponent n	1.3192	1.3231	1.3327

FARO V INOX	width [mm]	height [mm]	exponent n	weight [kg]	water volume [l]	75/65/20	55/45/20
FARO V 21 1800 450 INOX	450	1800	1.3308	45.10	10.10	1183	595
FARO V 21 1950 600 INOX	600	1950	1.3600	64.20	14.30	1601	793
FARO V 21 2100 750 INOX	750	2100	1.3693	83.60	18.30	2095	1032

type 22

RADIATOR DESCRIPTION - AN EXAMPLE : **FARO V 22 1800 600**



name _____
type _____
height _____
width _____



For type 22 connections are asymmetric with respect to the radiator panels

width [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]		
		1800	1950	2100
		[W]	[W]	[W]
300	75/65/20 55/45/20	1046 524	1103 528	1161 583
450	75/65/20 55/45/20	1569 785	1654 792	1742 874
600	75/65/20 55/45/20	2092 1047	2205 1055	2323 1166
750	75/65/20 55/45/20	2615 1309	2756 1319	2903 1457

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20	4415	4725	4898
exponent n	1.3387	1.4255	1.3343

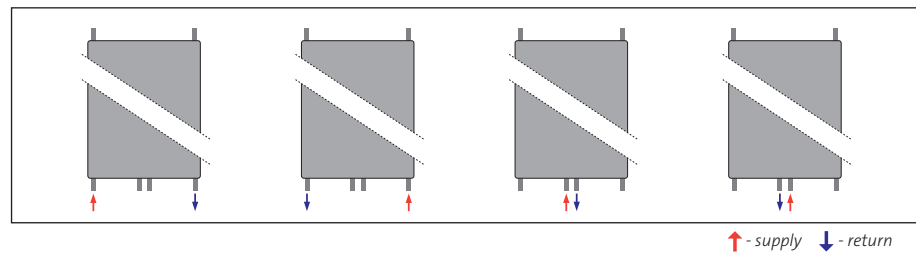


TINOS V

A vertical decorative radiator with a flat front panel overlapping heater sides at straight angles. Its modern and stylish design blends perfectly with the latest trends in heating technology.

- Connections : 4 x G 1/2" bottom; 2 x G 1/2" top - for the air vent and plug installation
- Working pressure : 6 bar
- Maximal temperature : 99 °C
- Test pressure : 8 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request
- Many connection possibilities
- Accessories bundled with the radiator : brackets MCW-V, plugs, air vent.

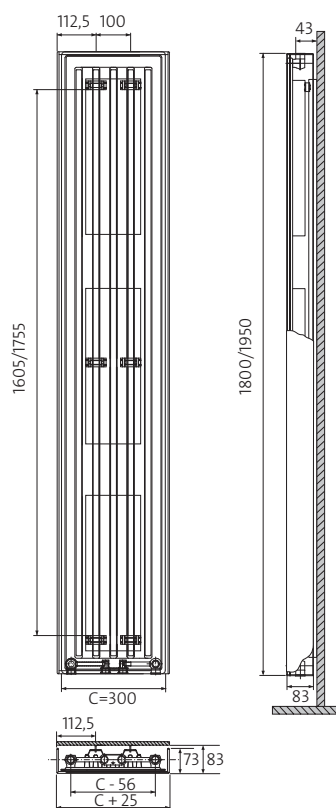
recommended connections



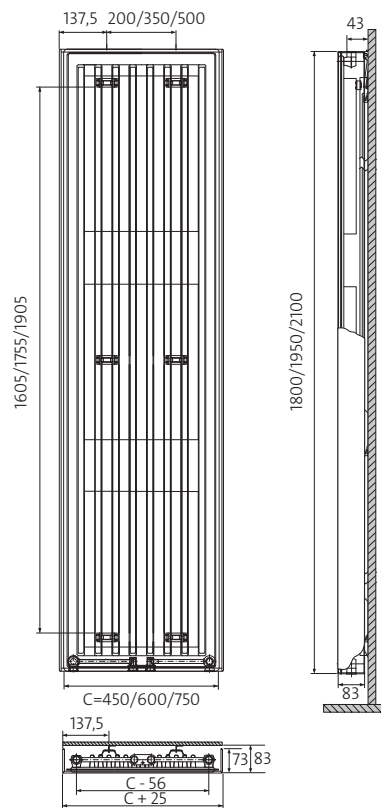
TINOS V

dimensions

type 11 (325)



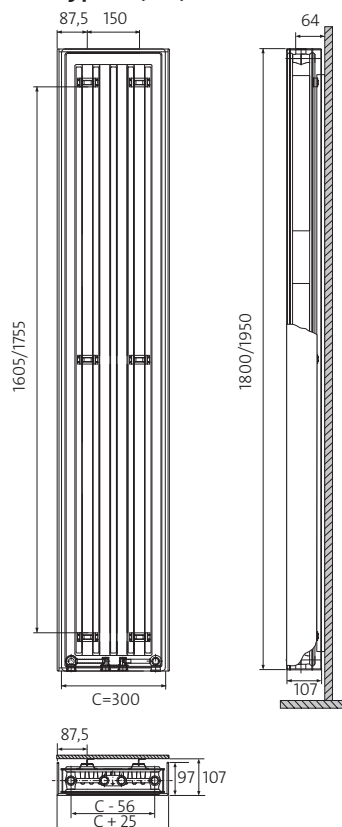
type 11 (475/625/775)



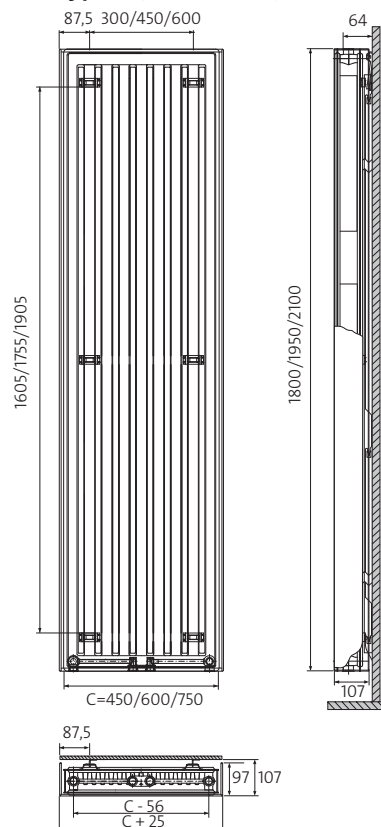
**bracket
MCW-V**



type 21 (325)



type 21 (475/625/775)



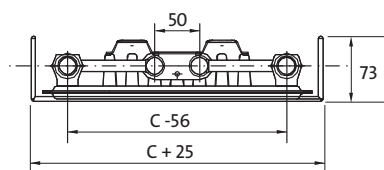
**bracket
MCW-V**



Dimensions : mm



TINOS V 11



RADIATOR DESCRIPTION - AN EXAMPLE : **TINOS V 11 1800 325**

name _____
type _____
height _____
width _____

width [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]		
		1800	1950	2100
		[W]	[W]	[W]
325 (C=300)	75/65/20 55/45/20	653 339	720 382	
475 (C=450)	75/65/20 55/45/20	976 509	1056 549	
625 (C=600)	75/65/20 55/45/20	1298 678	1393 710	1429 752
775 (C=750)	75/65/20 55/45/20		1729 863	1749 915

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n for width: 325	1.2810	1.2418	
475	1.2761	1.2811	
625	1.2711	1.3205	1.2575
775		1.3598	1.2685

water volume and weight (type 11)

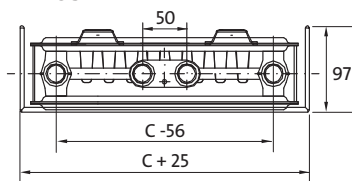
water volume : l/m

type \ height	1800	1950	2100
325	3.50	3.80	
475	5.25	5.47	
625	7.00	7.13	8.12
775		8.80	10.15

weight : kg/m

type \ height	1800	1950	2100
325	21.00	23.20	
475	30.37	33.88	
625	39.73	44.57	47.75
775		55.25	59.20

TINOS V 21



RADIATOR DESCRIPTION - AN EXAMPLE : **TINOS V 21 1800 325**

name

type

height

width



width [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]		
		1800	1950	2100
		[W]	[W]	[W]
325 (C=300)	75/65/20 55/45/20	886 452	936 476	
475 (C=450)	75/65/20 55/45/20	1329 677	1405 715	
625 (C=600)	75/65/20 55/45/20	1772 903	1873 953	1957 991
775 (C=750)	75/65/20 55/45/20		2341 1191	2446 1238

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n for width: 325	1.3192	1.3231	
475	1.3192	1.3231	
625	1.3192	1.3231	1.3327
775		1.3231	1.3327

water volume and weight (type 21)

water volume : l/m

type \ height	1800	1950	2100
325	6.44	7.24	
475	9.66	10.86	
625	12.88	14.48	15.28
775		18.10	19.10

weight : kg/m

type \ height	1800	1950	2100
325	30.08	32.80	
475	45.12	49.20	
625	60.16	65.60	70.24
775		82.00	87.80

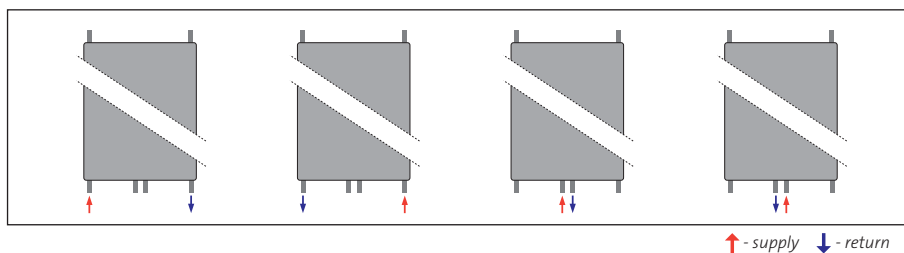


PAROS V

A vertical decorative radiator with a flat front panel overlapping both heater sides with smooth curves. Its modern and stylish design reflects the latest trends in heating technology.

- Connections : 4 x G 1/2" bottom; 2 x G 1/2" top - for the air vent and plug installation
- Working pressure : 6 bar
- Maximal temperature : 99 °C
- Test pressure : 8 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request
- Many connection possibilities
- Accessories bundled with the radiator : brackets MCW-V, plugs, air vent.

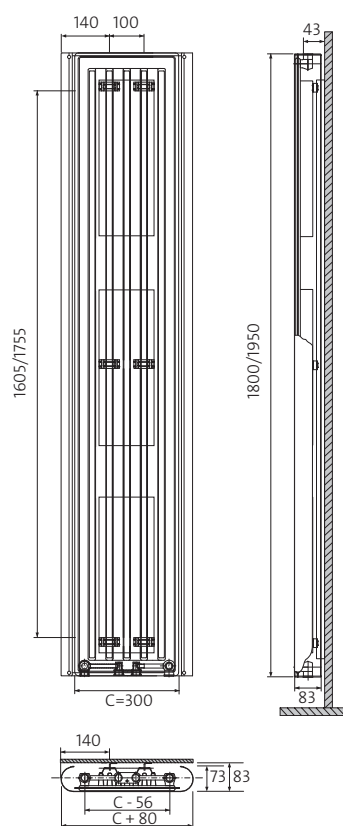
recommended connections



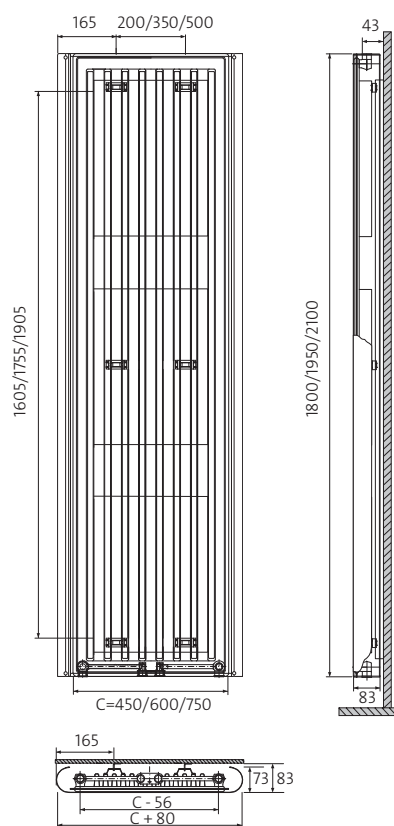
PAROS V

dimensions

type 11 (380)



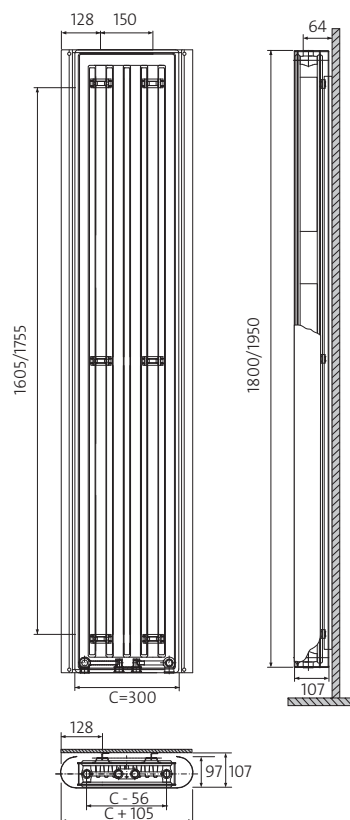
type 11 (530/680/830)



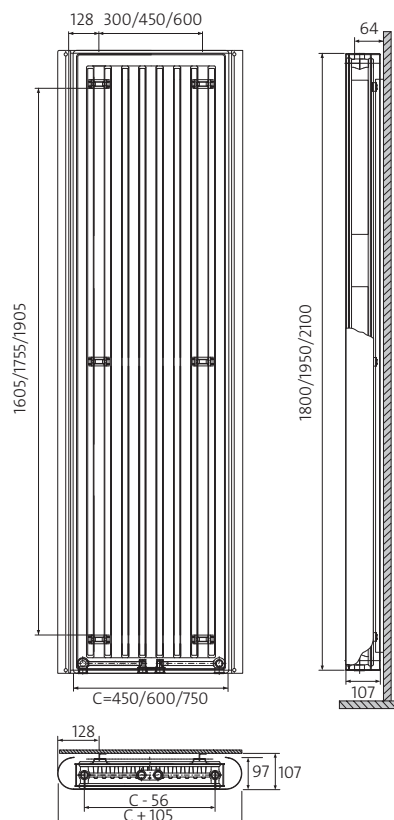
bracket
MCW-V



type 21 (405)



type 21 (555/705/855)



bracket
MCW-V

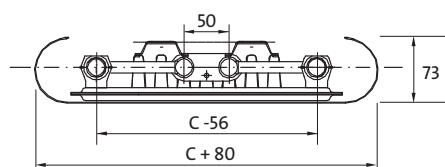


Dimensions : mm



PAROS V 11

RADIATOR DESCRIPTION - AN EXAMPLE : **PAROS V 11 1800 380**



name _____
type _____
height _____
width _____

width [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]		
		1800	1950	2100
		[W]	[W]	[W]
380 (C=300)	75/65/20 55/45/20	653 339	720 382	
530 (C=450)	75/65/20 55/45/20	976 509	1056 549	
680 (C=600)	75/65/20 55/45/20	1298 678	1393 710	1429 752
830 (C=750)	75/65/20 55/45/20		1729 863	1749 915

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n for width: 380	1.2810	1.2418	
530	1.2761	1.2811	
680	1.2711	1.3205	1.2575
830		1.3598	1.2685

water volume and weight (type 11)

water volume : l/m

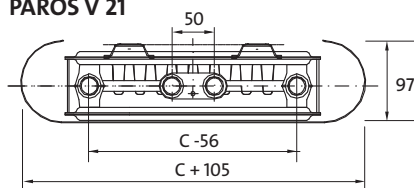
type \ height	1800	1950	2100
380	3.50	3.80	
530	5.25	5.47	
680	7.00	7.13	8.12
830		8.80	10.15

weight : kg/m

type \ height	1800	1950	2100
380	21.00	23.20	
530	30.37	33.88	
680	39.73	44.57	47.75
830		55.25	59.20

type 21

PAROS V 21



RADIATOR DESCRIPTION - AN EXAMPLE : **PAROS V 21 1800 405**

name
type
height
width



width [mm]	temperatures $t_s / t_r / t_l$ [°C]	height [mm]		
		1800	1950	2100
		[W]	[W]	[W]
405 (C=300)	75/65/20 55/45/20	886 452	936 476	
555 (C=450)	75/65/20 55/45/20	1329 677	1405 715	
705 (C=600)	75/65/20 55/45/20	1772 903	1873 953	1957 991
855 (C=750)	75/65/20 55/45/20		2341 1191	2446 1238

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n for width: 405	1.3192	1.3231	
555	1.3192	1.3231	
705	1.3192	1.3231	1.3327
855		1.3231	1.3327

water volume and weight (type 21)

water volume : l/m

type \ height	1800	1950	2100
405	6.44	7.24	
555	9.66	10.86	
705	12.88	14.48	15.28
855		18.10	19.10

weight : kg/m

type \ height	1800	1950	2100
405	30.08	32.80	
555	45.12	49.20	
705	60.16	65.60	70.24
855		82.00	87.80



ARRAN

A decorative vertical radiator for special purposes. A combination of minimalist form and high practicality. Its low installation depth makes it utterly discreet. Its simple shapes can be enriched with accessory railing hangers. The drying option widens the application scope to include kitchens. The rich colour range of the Purmo colour palette has been extended to include a few ready-made colour sets for the front panel and the surrounding frame.

technical specifications

- Connections : 4 x G ½ " bottom, 2 x G ½ " top connectors – for the installation of a plug and an air vent.
- Working pressure : 6 bar
- Maximal temperature : 99 °C
- Test pressure : 8 bar



- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator : brackets, plug, air vent.

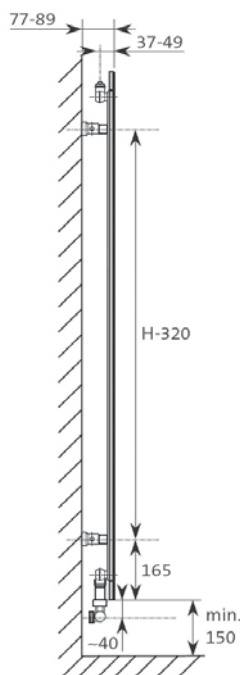
ARRAN

front view



NOTE: The price of the radiator does not include the connection valve block!! The block is not included in scope of delivery for this radiator.

side view

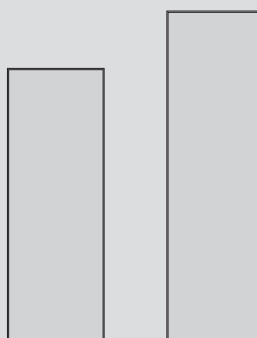


top view



H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors

dimensions in mm



ARA 14 ..

ARA 17 ..

A standard version without a hanger and a valve. The front panel and the surrounding frame in colour RAL9016.

type	output [W]		H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm³]	weight [kg]	order code
	75/65/20	55/45/20			Hz [mm]	Lz [mm]				
ARA 1405	587	307	1430	514	1110	300	50	3.86	29.27	F17E0140050003XC0000
ARA 1705	710	373	1730	514	1410	300	50	4.85	34.20	F17E0170050003XC0000

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

NARBONNE

Narbonne radiators are composed of several interconnected profiled steel heating elements of rectangular cross sections. Each radiator has four connection openings with G ½" male threads that enable either left-hand side or right-hand side connection. Narbonne radiators have two side covers and a top masking grille. Up to and including the height of 286 mm, Narbonne radiators are delivered without hangers, while models 358 mm to 790 mm high have, as a standard, installation hangers welded on the back of the radiator.

Narbonne WVO radiators up to 286 mm high, type NA-S 22, 34, and 47, are equipped with a protective screen that reduces emission of heat towards the external partition located behind the radiator.

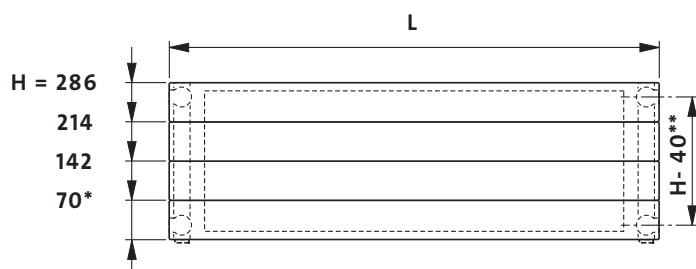
technical specification

- Material : high quality steel profiles of a rectangular cross section, dimensions: 70 x 11 x 1.5 mm (high pressure version: 70 x 11 x 2.0 mm)
- Height : 70, 142, 214, 286, 358, 430, 502, 574, 646, 790 mm
- Length : from 500 up to 4000 mm
- Depth : from 68 up to 339 mm
- Connections : 4 x G ½", side connectors
- Max. operating pressure : 5 bar for the standard version, 8 bar for the high pressure version
- Max. temperature : 110°C
- Colour : RAL 9016, other RAL colours available, surcharge at each order
- Brackets : wall or floor – ordered separately, at Client's preference
- Accessories : plug and air vent, included in the radiator's kit



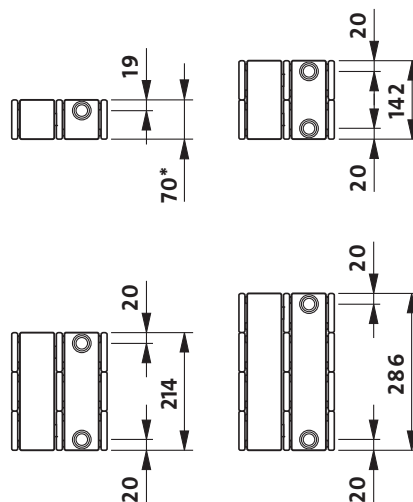
height from 70 up to 286 mm

front view

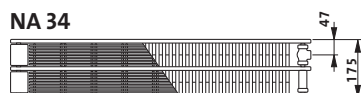
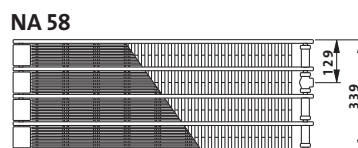
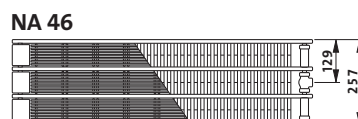
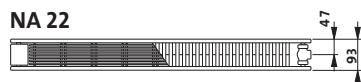
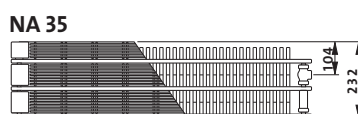


- * only cross connection possible
- ** not applicable to the 70 mm-high radiator
- H - height [mm]
- L - length [mm]

example side views



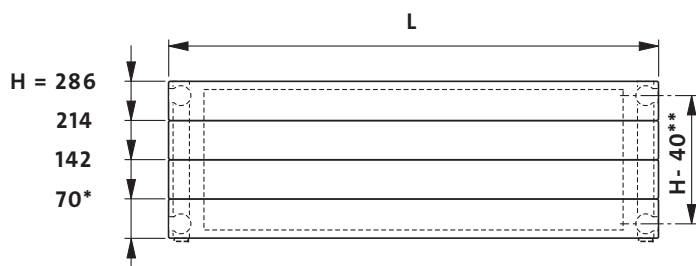
top view



type	NA 11	NA 22	NA 23	NA 34	NA 35	NA 46	NA 58
height [mm]	214; 286	70; 142; 214; 286	70; 142; 214; 286	70; 142; 214; 286	70; 142; 214; 286	70; 142; 214; 286	70; 142; 214; 286
length [mm]	500 - 4000 mm (*depending on the type)						
step	100 mm (200 mm from the length of 1400 mm)						

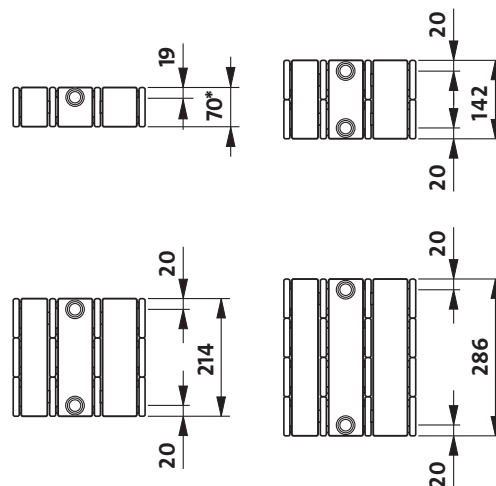
height from 70 up to 286 mm
a version with a protective screen

front view



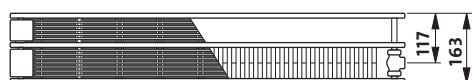
- * only cross connection possible
- ** not applicable to the 70 mm-high radiator
- H - height [mm]
- L - length [mm]

example side views

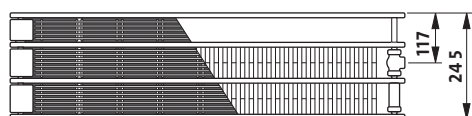


top view

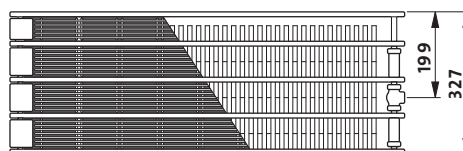
NA-S 22



NA-S 34



NA-S 47

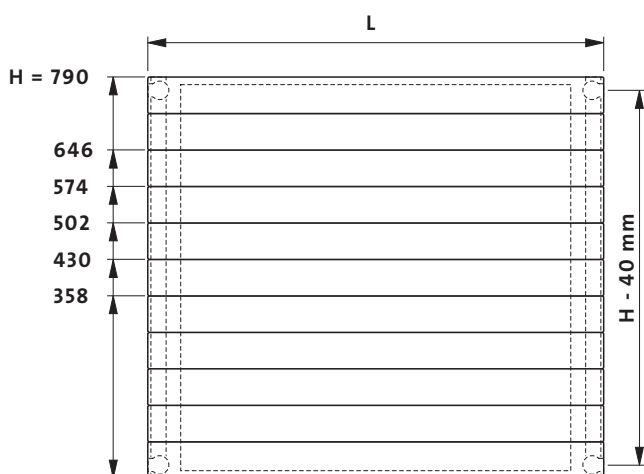


Radiators in the WVO version have a waterless protective screen welded to their backs; as a result of convection between the radiator and the protective screen, a large part of heat that would otherwise be wasted returns to the room.

type	NA-S 22	NA-S 34	NA-S 47
height [mm]	70; 142; 214; 286	70; 142; 214; 286	70; 142; 214; 286
length [mm]	500 - 4000 mm (*in the case of NA-S 47 up to 2800 mm)		
step	100 mm (200 mm from the length of 1400 mm)		

height from 358 up to 790 mm

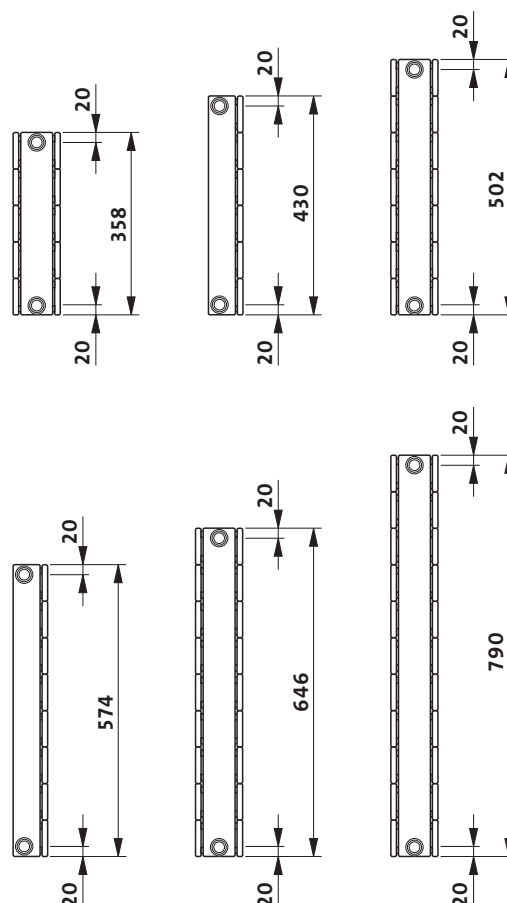
front view



H - height [mm]

L - length [mm]

example side views

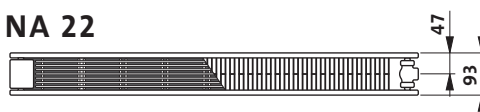


top view

NA 10



NA 22



NA 11



type	NA 10	NA 11	NA 22
height [mm]	358; 430; 502; 574; 646; 790	358; 430; 502; 574; 646; 790	358; 430; 502; 574; 646; 790
length [mm]	500 - 4000 mm (height 790 mm - up to 3000 mm)		
step	100 mm (200 mm from the length of 1400 mm)		

weight and water volume

weight : kg/m

type	height [mm]									
	70	142	214	286	358	430	502	574	646	790
NA 10	-	-	-	-	11.91	14.04	16.17	18.29	20.43	24.68
NA 11	-	-	11.14	14.51	16.71	19.85	22.99	26.15	29.29	33.55
NA 22	7.34	13.97	20.59	27.23	30.89	36.93	42.96	49.01	55.05	63.06
NA-S 22	10.53	19.43	28.34	37.24	-	-	-	-	-	-
NA 23	9.20	17.02	24.84	32.66	-	-	-	-	-	-
NA 34	12.68	23.93	35.18	46.42	-	-	-	-	-	-
NA-S 34	15.87	29.39	42.92	56.44	-	-	-	-	-	-
NA 35	14.54	26.98	39.42	51.86	-	-	-	-	-	-
NA 46	18.02	33.89	49.76	65.62	-	-	-	-	-	-
NA-S 47	22.04	41.27	60.50	79.74	-	-	-	-	-	-
NA 58	23.36	43.85	64.34	85.82	-	-	-	-	-	-

water volume : l/m

type	height [mm]									
	70	142	214	286	358	430	502	574	646	790
NA 10	-	-	-	-	2.76	3.33	3.87	4.44	4.99	6.12
NA 11	-	-	1.67	2.22	2.78	3.33	3.87	4.44	4.99	6.12
NA 22	1.10	2.18	3.34	4.44	5.55	6.66	7.77	8.88	9.99	12.22
NA-S 22	1.10	2.18	3.34	4.44	-	-	-	-	-	-
NA 23	1.10	2.18	3.34	4.44	-	-	-	-	-	-
NA 34	1.68	3.33	4.99	6.66	-	-	-	-	-	-
NA-S 34	1.68	3.33	4.99	6.66	-	-	-	-	-	-
NA 35	1.69	3.33	4.99	6.66	-	-	-	-	-	-
NA 46	2.26	4.53	6.79	9.06	-	-	-	-	-	-
NA-S 47	2.26	4.53	6.79	9.06	-	-	-	-	-	-
NA 58	2.83	5.68	8.52	11.36	-	-	-	-	-	-

RADIATOR DESCRIPTION - AN EXAMPLE : NARBONNE 11 21 1600

name
type
height
length



depth [mm]		68 mm 			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA 11	NA 11	NA 11	NA 11
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C			232 118	289 146
600	75/65/20 °C 55/45/20 °C			278 142	346 175
700	75/65/20 °C 55/45/20 °C			325 166	404 204
800	75/65/20 °C 55/45/20 °C			371 189	462 233
900	75/65/20 °C 55/45/20 °C			418 213	519 262
1000	75/65/20 °C 55/45/20 °C			464 236	577 291
1100	75/65/20 °C 55/45/20 °C			510 260	635 320
1200	75/65/20 °C 55/45/20 °C			557 284	692 349
1300	75/65/20 °C 55/45/20 °C			603 307	750 378
1400	75/65/20 °C 55/45/20 °C			650 331	808 408
1600	75/65/20 °C 55/45/20 °C			742 378	923 466
1800	75/65/20 °C 55/45/20 °C			835 425	1039 524
2000	75/65/20 °C 55/45/20 °C			928 473	1154 582
2200	75/65/20 °C 55/45/20 °C			1021 520	1269 640
2400	75/65/20 °C 55/45/20 °C			1114 568	1385 699
2600	75/65/20 °C 55/45/20 °C			1206 614	1500 757
2800	75/65/20 °C 55/45/20 °C			1299 662	1616 815
3000	75/65/20 °C 55/45/20 °C			1392 709	1731 873
3200	75/65/20 °C 55/45/20 °C			1485 757	1846 931
3400	75/65/20 °C 55/45/20 °C			1578 804	1962 990
3600	75/65/20 °C 55/45/20 °C			1670 851	2077 1048
3800	75/65/20 °C 55/45/20 °C			1763 898	2193 1106
4000	75/65/20 °C 55/45/20 °C			1856 946	2308 1164

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	-	-	1.32	1.34
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 22 70 1600**

name

type

height

length

depth [mm]		93 mm 			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA 22	NA 22	NA 22	NA 22
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	212 111	321 165	419 211	516 255
600	75/65/20 °C 55/45/20 °C	254 133	385 198	503 254	619 306
700	75/65/20 °C 55/45/20 °C	297 155	449 231	587 296	722 357
800	75/65/20 °C 55/45/20 °C	339 177	513 264	670 338	826 408
900	75/65/20 °C 55/45/20 °C	382 200	577 297	754 380	929 459
1000	75/65/20 °C 55/45/20 °C	424 222	641 330	838 423	1032 510
1100	75/65/20 °C 55/45/20 °C	466 244	705 363	922 465	1135 561
1200	75/65/20 °C 55/45/20 °C	509 266	769 396	1006 507	1238 612
1300	75/65/20 °C 55/45/20 °C	551 288	833 429	1089 549	1342 663
1400	75/65/20 °C 55/45/20 °C	594 310	897 462	1173 592	1445 714
1600	75/65/20 °C 55/45/20 °C	678 354	1026 528	1341 676	1651 816
1800	75/65/20 °C 55/45/20 °C	763 399	1154 594	1508 761	1858 918
2000	75/65/20 °C 55/45/20 °C	848 443	1282 660	1676 845	2064 1020
2200	75/65/20 °C 55/45/20 °C	933 488	1410 726	1844 930	2270 1122
2400	75/65/20 °C 55/45/20 °C	1018 532	1538 792	2011 1014	2477 1224
2600	75/65/20 °C 55/45/20 °C	1102 576	1667 858	2179 1099	2683 1326
2800	75/65/20 °C 55/45/20 °C	1187 620	1795 924	2346 1183	2890 1428
3000	75/65/20 °C 55/45/20 °C	1272 665	1923 990	2514 1268	3096 1530
3200	75/65/20 °C 55/45/20 °C	1357 709	2051 1056	2682 1353	3302 1632
3400	75/65/20 °C 55/45/20 °C	1442 754	2179 1122	2849 1437	3509 1734
3600	75/65/20 °C 55/45/20 °C	1526 798	2308 1188	3017 1522	3715 1836
3800	75/65/20 °C 55/45/20 °C	1611 842	2436 1254	3184 1606	3922 1938
4000	75/65/20 °C 55/45/20 °C	1696 886	2564 1320	3352 1691	4128 2040

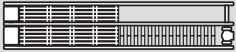
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.27	1.30	1.34	1.38
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 22 70 1600**

name
type
height
length



depth [mm]		163 mm 			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA-S 22	NA-S 22	NA-S 22	NA-S 22
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	212 111	321 165	419 211	516 255
600	75/65/20 °C 55/45/20 °C	254 133	385 198	503 254	619 306
700	75/65/20 °C 55/45/20 °C	297 155	449 231	587 296	722 357
800	75/65/20 °C 55/45/20 °C	339 177	513 264	670 338	826 408
900	75/65/20 °C 55/45/20 °C	382 200	577 297	754 380	929 459
1000	75/65/20 °C 55/45/20 °C	424 222	641 330	838 423	1032 510
1100	75/65/20 °C 55/45/20 °C	466 244	705 363	922 465	1135 561
1200	75/65/20 °C 55/45/20 °C	509 266	769 396	1006 507	1238 612
1300	75/65/20 °C 55/45/20 °C	551 288	833 429	1089 549	1342 663
1400	75/65/20 °C 55/45/20 °C	594 310	897 462	1173 592	1445 714
1600	75/65/20 °C 55/45/20 °C	678 354	1026 528	1341 676	1651 816
1800	75/65/20 °C 55/45/20 °C	763 399	1154 594	1508 761	1858 918
2000	75/65/20 °C 55/45/20 °C	848 443	1282 660	1676 845	2064 1020
2200	75/65/20 °C 55/45/20 °C	933 488	1410 726	1844 930	2270 1122
2400	75/65/20 °C 55/45/20 °C	1018 532	1538 792	2011 1014	2477 1224
2600	75/65/20 °C 55/45/20 °C	1102 576	1667 858	2179 1099	2683 1326
2800	75/65/20 °C 55/45/20 °C	1187 620	1795 924	2346 1183	2890 1428
3000	75/65/20 °C 55/45/20 °C	1272 665	1923 990	2514 1268	3096 1530
3200	75/65/20 °C 55/45/20 °C	1357 709	2051 1056	2682 1353	3302 1632
3400	75/65/20 °C 55/45/20 °C	1442 754	2179 1122	2849 1437	3509 1734
3600	75/65/20 °C 55/45/20 °C	1526 798	2308 1188	3017 1522	3715 1836
3800	75/65/20 °C 55/45/20 °C	1611 842	2436 1254	3184 1606	3922 1938
4000	75/65/20 °C 55/45/20 °C	1696 886	2564 1320	3352 1691	4128 2040

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.27	1.30	1.34	1.38
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 23 70 1600**

name

type

height

length

depth [mm]		150 mm 			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA 23	NA 23	NA 23	NA 23
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	262 138	399 205	518 261	631 312
600	75/65/20 °C 55/45/20 °C	314 165	478 246	621 313	757 374
700	75/65/20 °C 55/45/20 °C	367 193	558 287	725 366	883 436
800	75/65/20 °C 55/45/20 °C	419 220	638 328	828 418	1009 499
900	75/65/20 °C 55/45/20 °C	472 248	717 369	932 470	1135 561
1000	75/65/20 °C 55/45/20 °C	524 275	797 410	1035 522	1261 623
1100	75/65/20 °C 55/45/20 °C	576 303	877 451	1139 574	1387 685
1200	75/65/20 °C 55/45/20 °C	629 330	956 492	1242 626	1513 748
1300	75/65/20 °C 55/45/20 °C	681 358	1036 533	1346 679	1639 810
1400	75/65/20 °C 55/45/20 °C	734 386	1116 574	1449 731	1765 872
1600	75/65/20 °C 55/45/20 °C	838 440	1275 656	1656 835	2018 997
1800	75/65/20 °C 55/45/20 °C	943 495	1435 739	1863 940	2270 1122
2000	75/65/20 °C 55/45/20 °C	1048 551	1594 821	2070 1044	2522 1246
2200	75/65/20 °C 55/45/20 °C	1153 606	1753 902	2277 1148	2774 1371
2400	75/65/20 °C 55/45/20 °C	1258 661	1913 985	2484 1253	3026 1495
2600	75/65/20 °C 55/45/20 °C	1362 716	2072 1067	2691 1357	3279 1620
2800	75/65/20 °C 55/45/20 °C	1467 771	2232 1149	2898 1462	3531 1745
3000	75/65/20 °C 55/45/20 °C	1572 826	2391 1231	3105 1566	3783 1869
3200	75/65/20 °C 55/45/20 °C	1677 881	2550 1313	3312 1670	4035 1994
3400	75/65/20 °C 55/45/20 °C	1782 936	2710 1395	3519 1775	4287 2118
3600	75/65/20 °C 55/45/20 °C	1886 991	2869 1477	3726 1879	4540 2243
3800	75/65/20 °C 55/45/20 °C	1991 1046	3029 1559	3933 1984	4792 2368
4000	75/65/20 °C 55/45/20 °C	2096 1101	3188 1641	4140 2088	5044 2492

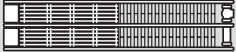
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.26	1.30	1.34	1.38
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 34 70 1600**

name _____
type _____
height _____
length _____



depth [mm]		175 mm 			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA 34	NA 34	NA 34	NA 34
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	331 180	525 276	697 353	862 426
600	75/65/20 °C 55/45/20 °C	397 216	630 331	836 424	1034 511
700	75/65/20 °C 55/45/20 °C	463 252	735 386	976 495	1206 596
800	75/65/20 °C 55/45/20 °C	529 288	840 441	1115 565	1378 681
900	75/65/20 °C 55/45/20 °C	595 324	945 496	1255 636	1551 766
1000	75/65/20 °C 55/45/20 °C	661 360	1050 552	1394 707	1723 851
1100	75/65/20 °C 55/45/20 °C	727 396	1155 607	1533 777	1895 936
1200	75/65/20 °C 55/45/20 °C	793 432	1260 662	1673 848	2068 1022
1300	75/65/20 °C 55/45/20 °C	859 468	1365 717	1812 919	2240 1107
1400	75/65/20 °C 55/45/20 °C	925 504	1470 772	1952 990	2412 1192
1600	75/65/20 °C 55/45/20 °C	1058 576	1680 883	2230 1130	2757 1362
1800	75/65/20 °C 55/45/20 °C	1190 648	1890 993	2509 1272	3101 1532
2000	75/65/20 °C 55/45/20 °C	1322 720	2100 1103	2788 1413	3446 1703
2200	75/65/20 °C 55/45/20 °C	1454 792	2310 1214	3067 1555	3791 1873
2400	75/65/20 °C 55/45/20 °C	1586 864	2520 1324	3346 1696	4135 2043
2600	75/65/20 °C 55/45/20 °C	1719 936	2730 1434	3624 1837	4480 2214
2800	75/65/20 °C 55/45/20 °C	1851 1008	2940 1545	3903 1979	4824 2384
3000	75/65/20 °C 55/45/20 °C	1983 1080	3150 1655	4182 2120	5169 2554
3200	75/65/20 °C 55/45/20 °C	2115 1152	3360 1765	4461 2261	5514 2725
3400	75/65/20 °C 55/45/20 °C	2247 1223	3570 1876	4740 2403	5858 2895
3600	75/65/20 °C 55/45/20 °C	2380 1296	3780 1986	5018 2544	6203 3065
3800	75/65/20 °C 55/45/20 °C	2512 1368	3990 2096	5297 2685	6547 3235
4000	75/65/20 °C 55/45/20 °C	2644 1440	4200 2207	5576 2827	6892 3406

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.19	1.26	1.33	1.38
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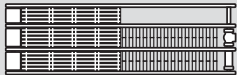
RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 34 70 1600**

name

type

height

length

depth [mm]		245 mm 			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA-S 34	NA-S 34	NA-S 34	NA-S 34
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	331 180	525 276	697 353	862 426
600	75/65/20 °C 55/45/20 °C	397 216	630 331	836 424	1034 511
700	75/65/20 °C 55/45/20 °C	463 252	735 386	976 495	1206 596
800	75/65/20 °C 55/45/20 °C	529 288	840 441	1115 565	1378 681
900	75/65/20 °C 55/45/20 °C	595 324	945 496	1255 636	1551 766
1000	75/65/20 °C 55/45/20 °C	661 360	1050 552	1394 707	1723 851
1100	75/65/20 °C 55/45/20 °C	727 396	1155 607	1533 777	1895 936
1200	75/65/20 °C 55/45/20 °C	793 432	1260 662	1673 848	2068 1022
1300	75/65/20 °C 55/45/20 °C	859 468	1365 717	1812 919	2240 1107
1400	75/65/20 °C 55/45/20 °C	925 504	1470 772	1952 990	2412 1192
1600	75/65/20 °C 55/45/20 °C	1058 576	1680 883	2230 1130	2757 1362
1800	75/65/20 °C 55/45/20 °C	1190 648	1890 993	2509 1272	3101 1532
2000	75/65/20 °C 55/45/20 °C	1322 720	2100 1103	2788 1413	3446 1703
2200	75/65/20 °C 55/45/20 °C	1454 792	2310 1214	3067 1555	3791 1873
2400	75/65/20 °C 55/45/20 °C	1586 864	2520 1324	3346 1696	4135 2043
2600	75/65/20 °C 55/45/20 °C	1719 936	2730 1434	3624 1837	4480 2214
2800	75/65/20 °C 55/45/20 °C	1851 1008	2940 1545	3903 1979	4824 2384
3000	75/65/20 °C 55/45/20 °C	1983 1080	3150 1655	4182 2120	5169 2554
3200	75/65/20 °C 55/45/20 °C	2115 1152	3360 1765	4461 2261	5514 2725
3400	75/65/20 °C 55/45/20 °C	2247 1223	3570 1876	4740 2403	5858 2895
3600	75/65/20 °C 55/45/20 °C	2380 1296	3780 1986	5018 2544	6203 3065
3800	75/65/20 °C 55/45/20 °C	2512 1368	3990 2096	5297 2685	6547 3235
4000	75/65/20 °C 55/45/20 °C	2644 1440	4200 2207	5576 2827	6892 3406

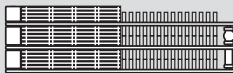
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.19	1.26	1.33	1.38
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 35 70 1600**

name
type
height
length



depth [mm]		232 mm 			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA 35	NA 35	NA 35	NA 35
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	405 215	599 310	826 414	986 482
600	75/65/20 °C 55/45/20 °C	485 257	718 371	991 497	1183 579
700	75/65/20 °C 55/45/20 °C	566 300	838 434	1156 580	1380 675
800	75/65/20 °C 55/45/20 °C	647 343	958 496	1321 663	1577 771
900	75/65/20 °C 55/45/20 °C	728 386	1077 557	1486 746	1774 868
1000	75/65/20 °C 55/45/20 °C	809 429	1197 619	1651 828	1971 964
1100	75/65/20 °C 55/45/20 °C	890 472	1317 681	1816 911	2168 1060
1200	75/65/20 °C 55/45/20 °C	971 515	1436 743	1981 994	2365 1157
1300	75/65/20 °C 55/45/20 °C	1052 558	1556 805	2146 1077	2562 1253
1400	75/65/20 °C 55/45/20 °C	1133 601	1676 867	2311 1160	2759 1349
1600	75/65/20 °C 55/45/20 °C	1294 687	1915 991	2642 1326	3154 1543
1800	75/65/20 °C 55/45/20 °C	1456 773	2155 1115	2972 1491	3548 1735
2000	75/65/20 °C 55/45/20 °C	1618 859	2394 1239	3302 1657	3942 1928
2200	75/65/20 °C 55/45/20 °C	1780 945	2633 1362	3632 1822	4336 2121
2400	75/65/20 °C 55/45/20 °C	1942 1031	2873 1486	3962 1988	4730 2314
2600	75/65/20 °C 55/45/20 °C	2103 1116	3112 1610	4293 2154	5125 2507
2800	75/65/20 °C 55/45/20 °C	2265 1202	3352 1734	4623 2320	5519 2699
3000	75/65/20 °C 55/45/20 °C	2427 1288	3591 1858	4953 2485	5913 2892
3200	75/65/20 °C 55/45/20 °C	2589 1374	3830 1982	5283 2651	6307 3085
3400	75/65/20 °C 55/45/20 °C	2751 1460	4070 2106	5613 2816	6701 3278
3600	75/65/20 °C 55/45/20 °C	2912 1546	4309 2229	5944 2983	7096 3471
3800	75/65/20 °C 55/45/20 °C	3074 1632	4549 2354	6274 3148	7490 3663
4000	75/65/20 °C 55/45/20 °C	3236 1718	4788 2477	6604 3314	7884 3856

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.24	1.29	1.35	1.40
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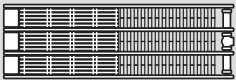
RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 46 70 1600**

name

type

height

length

depth [mm]		257 mm 			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA 46	NA 46	NA 46	NA 46
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	475 253	727 374	1036 517	1224 599
600	75/65/20 °C 55/45/20 °C	570 304	872 449	1243 621	1468 718
700	75/65/20 °C 55/45/20 °C	665 355	1018 524	1450 724	1713 838
800	75/65/20 °C 55/45/20 °C	760 405	1163 599	1658 828	1958 958
900	75/65/20 °C 55/45/20 °C	855 456	1309 674	1865 931	2202 1077
1000	75/65/20 °C 55/45/20 °C	950 507	1454 748	2072 1034	2447 1197
1100	75/65/20 °C 55/45/20 °C	1045 557	1599 823	2279 1138	2692 1317
1200	75/65/20 °C 55/45/20 °C	1140 608	1745 898	2486 1241	2936 1436
1300	75/65/20 °C 55/45/20 °C	1235 659	1890 973	2694 1345	3181 1556
1400	75/65/20 °C 55/45/20 °C	1330 710	2036 1048	2901 1448	3426 1676
1600	75/65/20 °C 55/45/20 °C	1520 811	2326 1197	3315 1655	3915 1915
1800	75/65/20 °C 55/45/20 °C	1710 912	2617 1347	3730 1862	4405 2155
2000	75/65/20 °C 55/45/20 °C	1900 1014	2908 1497	4144 2069	4894 2394
2200	75/65/20 °C 55/45/20 °C	2090 1115	3199 1647	4558 2275	5383 2633
2400	75/65/20 °C 55/45/20 °C	2280 1216	3490 1796	4973 2483	5873 2873
2600	75/65/20 °C 55/45/20 °C	2470 1318	3780 1946	5387 2689	6362 3112
2800	75/65/20 °C 55/45/20 °C	2660 1419	4071 2096	5802 2896	6852 3351
3000	75/65/20 °C 55/45/20 °C	2850 1520	4362 2245	6216 3103	7341 3591
3200	75/65/20 °C 55/45/20 °C				
3400	75/65/20 °C 55/45/20 °C				
3600	75/65/20 °C 55/45/20 °C				
3800	75/65/20 °C 55/45/20 °C				
4000	75/65/20 °C 55/45/20 °C				

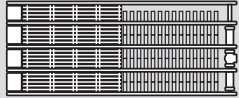
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.23	1.30	1.36	1.40
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 47 70 1600**

name _____
type _____
height _____
length _____



depth [mm]		327 mm 			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA-S 47	NA-S 47	NA-S 47	NA-S 47
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	493 273	761 400	1151 575	1334 656
600	75/65/20 °C 55/45/20 °C	592 327	913 480	1381 689	1600 787
700	75/65/20 °C 55/45/20 °C	690 382	1065 560	1611 804	1867 918
800	75/65/20 °C 55/45/20 °C	789 436	1218 640	1842 920	2134 1049
900	75/65/20 °C 55/45/20 °C	887 490	1370 720	2072 1034	2400 1180
1000	75/65/20 °C 55/45/20 °C	986 545	1522 800	2302 1149	2667 1311
1100	75/65/20 °C 55/45/20 °C	1085 600	1674 879	2532 1264	2934 1442
1200	75/65/20 °C 55/45/20 °C	1183 654	1826 959	2762 1379	3200 1573
1300	75/65/20 °C 55/45/20 °C	1282 709	1979 1040	2993 1494	3467 1704
1400	75/65/20 °C 55/45/20 °C	1380 763	2131 1120	3223 1609	3734 1836
1600	75/65/20 °C 55/45/20 °C	1578 872	2435 1279	3683 1839	4267 2098
1800	75/65/20 °C 55/45/20 °C	1775 981	2740 1440	4144 2069	4801 2360
2000	75/65/20 °C 55/45/20 °C	1972 1090	3044 1599	4604 2298	5334 2622
2200	75/65/20 °C 55/45/20 °C	2169 1199	3348 1759	5064 2528	5867 2884
2400	75/65/20 °C 55/45/20 °C	2366 1308	3653 1919	5525 2758	6401 3147
2600	75/65/20 °C 55/45/20 °C	2564 1418	3957 2079	5985 2988	6934 3409
2800	75/65/20 °C 55/45/20 °C	2761 1527	4262 2239	6446 3218	7468 3671
3000	75/65/20 °C 55/45/20 °C				
3200	75/65/20 °C 55/45/20 °C				
3400	75/65/20 °C 55/45/20 °C				
3600	75/65/20 °C 55/45/20 °C				
3800	75/65/20 °C 55/45/20 °C				
4000	75/65/20 °C 55/45/20 °C				

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.16	1.26	1.36	1.39
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 58 70 1600**

name

type

height

length

depth [mm]		339 mm			
length [mm]	height [mm]	70	142	214	286
	$t_z / t_p / t_i$	NA 58	NA 58	NA 58	NA 58
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	512 285	830 438	1296 650	1511 743
600	75/65/20 °C 55/45/20 °C	614 341	995 525	1555 780	1813 891
700	75/65/20 °C 55/45/20 °C	716 398	1161 613	1814 910	2115 1040
800	75/65/20 °C 55/45/20 °C	818 455	1327 701	2074 1041	2418 1189
900	75/65/20 °C 55/45/20 °C	921 512	1493 788	2333 1171	2720 1337
1000	75/65/20 °C 55/45/20 °C	1023 569	1659 876	2592 1301	3022 1486
1100	75/65/20 °C 55/45/20 °C	1125 625	1825 964	2851 1431	3324 1634
1200	75/65/20 °C 55/45/20 °C	1228 682	1991 1051	3110 1561	3626 1783
1300	75/65/20 °C 55/45/20 °C	1330 739	2157 1139	3370 1691	3929 1932
1400	75/65/20 °C 55/45/20 °C	1432 796	2323 1227	3629 1821	4231 2080
1600	75/65/20 °C 55/45/20 °C	1637 910	2654 1401	4147 2081	4835 2377
1800	75/65/20 °C 55/45/20 °C	1841 1023	2986 1577	4666 2341	5440 2674
2000	75/65/20 °C 55/45/20 °C	2046 1137	3318 1752	5184 2601	6044 2971
2200	75/65/20 °C 55/45/20 °C	2251 1251	3650 1927	5702 2861	6648 3268
2400	75/65/20 °C 55/45/20 °C				
2600	75/65/20 °C 55/45/20 °C				
2800	75/65/20 °C 55/45/20 °C				
3000	75/65/20 °C 55/45/20 °C				
3200	75/65/20 °C 55/45/20 °C				
3400	75/65/20 °C 55/45/20 °C				
3600	75/65/20 °C 55/45/20 °C				
3800	75/65/20 °C 55/45/20 °C				
4000	75/65/20 °C 55/45/20 °C				

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.15	1.25	1.35	1.39
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 10 358 1600**

name
type
height
length



depth [mm]		68 mm 					
length [mm]	height [mm]	358	430	502	574	646	790
	$t_z / t_p / t_i$	NA 10	NA 10	NA 10	NA 10	NA 10	NA 10
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	197 105	229 122	262 138	294 155	328 172	398 208
600	75/65/20 °C 55/45/20 °C	236 125	275 146	314 166	353 186	393 206	477 249
700	75/65/20 °C 55/45/20 °C	276 146	321 170	366 193	412 218	459 241	557 291
800	75/65/20 °C 55/45/20 °C	315 167	366 194	418 221	470 248	524 275	636 332
900	75/65/20 °C 55/45/20 °C	355 188	412 219	471 249	529 279	590 310	716 374
1000	75/65/20 °C 55/45/20 °C	394 209	458 243	523 276	588 311	655 344	795 416
1100	75/65/20 °C 55/45/20 °C	433 230	504 268	575 304	647 342	721 379	875 457
1200	75/65/20 °C 55/45/20 °C	473 251	550 292	628 332	706 373	786 413	954 499
1300	75/65/20 °C 55/45/20 °C	512 272	595 316	680 359	764 403	852 448	1034 540
1400	75/65/20 °C 55/45/20 °C	552 293	641 340	732 387	823 435	917 482	1113 582
1600	75/65/20 °C 55/45/20 °C	630 334	733 389	837 442	941 497	1048 551	1272 665
1800	75/65/20 °C 55/45/20 °C	709 376	824 437	941 497	1058 559	1179 619	1431 748
2000	75/65/20 °C 55/45/20 °C	788 418	916 486	1046 552	1176 621	1310 688	1590 831
2200	75/65/20 °C 55/45/20 °C	867 460	1008 535	1151 608	1294 683	1441 757	1749 914
2400	75/65/20 °C 55/45/20 °C	946 502	1099 583	1255 663	1411 745	1572 826	1908 997
2600	75/65/20 °C 55/45/20 °C	1024 544	1191 632	1360 718	1529 807	1703 895	2067 1080
2800	75/65/20 °C 55/45/20 °C	1103 585	1282 680	1464 773	1646 869	1834 964	2226 1164
3000	75/65/20 °C 55/45/20 °C	1182 627	1374 729	1569 829	1764 932	1965 1032	2385 1247
3200	75/65/20 °C 55/45/20 °C	1261 669	1466 778	1674 884	1882 994	2096 1101	
3400	75/65/20 °C 55/45/20 °C	1340 711	1557 826	1778 939	1999 1056	2227 1170	
3600	75/65/20 °C 55/45/20 °C	1418 753	1649 875	1883 994	2117 1118	2358 1239	
3800	75/65/20 °C 55/45/20 °C	1497 795	1740 924	1987 1049	2234 1180	2489 1308	
4000	75/65/20 °C 55/45/20 °C	1576 836	1832 972	2092 1105	2352 1242	2620 1376	

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.24	1.24	1.25	1.25	1.26	1.27
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 11 358 1600**

name

type

height

length

depth [mm]		68 mm 					
length [mm]	height [mm]	358	430	502	574	646	790
	$t_z / t_p / t_i$	NA 11	NA 11	NA 11	NA 11	NA 11	NA 11
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	334 172	380 196	423 217	461 235	495 252	553 279
600	75/65/20 °C 55/45/20 °C	400 206	456 235	507 260	553 282	593 302	663 334
700	75/65/20 °C 55/45/20 °C	467 240	532 274	592 303	645 329	692 353	774 390
800	75/65/20 °C 55/45/20 °C	534 275	608 313	676 346	737 376	791 403	884 446
900	75/65/20 °C 55/45/20 °C	600 309	684 352	761 390	829 422	890 453	995 502
1000	75/65/20 °C 55/45/20 °C	667 343	760 391	845 433	921 469	989 504	1105 557
1100	75/65/20 °C 55/45/20 °C	734 378	836 430	930 476	1013 516	1088 554	1216 613
1200	75/65/20 °C 55/45/20 °C	800 412	912 469	1014 519	1105 563	1187 605	1326 669
1300	75/65/20 °C 55/45/20 °C	867 446	988 509	1099 563	1197 610	1286 655	1437 725
1400	75/65/20 °C 55/45/20 °C	934 481	1064 548	1183 606	1289 657	1385 706	1547 780
1600	75/65/20 °C 55/45/20 °C	1067 549	1216 626	1352 692	1474 751	1582 806	1768 892
1800	75/65/20 °C 55/45/20 °C	1201 618	1368 704	1521 779	1658 845	1780 907	1989 1003
2000	75/65/20 °C 55/45/20 °C	1334 687	1520 782	1690 865	1842 939	1978 1008	2210 1115
2200	75/65/20 °C 55/45/20 °C	1467 755	1672 861	1859 952	2026 1032	2176 1109	2431 1226
2400	75/65/20 °C 55/45/20 °C	1601 824	1824 939	2028 1039	2210 1126	2374 1210	2652 1338
2600	75/65/20 °C 55/45/20 °C	1734 893	1976 1017	2197 1125	2395 1220	2571 1310	2873 1449
2800	75/65/20 °C 55/45/20 °C	1868 962	2128 1095	2366 1212	2579 1314	2769 1411	3094 1560
3000	75/65/20 °C 55/45/20 °C	2001 1030	2280 1174	2535 1298	2763 1408	2967 1512	3315 1672
3200	75/65/20 °C 55/45/20 °C	2134 1098	2432 1252	2704 1385	2947 1502	3165 1613	
3400	75/65/20 °C 55/45/20 °C	2268 1167	2584 1330	2873 1471	3131 1595	3363 1714	
3600	75/65/20 °C 55/45/20 °C	2401 1236	2736 1408	3042 1558	3316 1690	3560 1814	
3800	75/65/20 °C 55/45/20 °C	2535 1356	2888 1487	3211 1644	3500 1783	3758 1915	
4000	75/65/20 °C 55/45/20 °C	2668 1373	3040 1565	3380 1731	3684 1877	3956 2016	

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.30	1.30	1.31	1.32	1.32	1.34
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE 22 358 1600**

name _____
type _____
height _____
length _____



depth [mm]		93 mm 					
length [mm]	height [mm]	358	430	502	574	646	790
	$t_z / t_p / t_i$	NA 22	NA 22	NA 22	NA 22	NA 22	NA 22
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C	599	672	737	796	850	943
	55/45/20 °C	302	337	368	395	420	459
600	75/65/20 °C	718	806	884	955	1019	1132
	55/45/20 °C	362	404	441	474	504	551
700	75/65/20 °C	838	940	1032	1114	1189	1320
	55/45/20 °C	423	472	515	553	588	642
800	75/65/20 °C	958	1074	1179	1274	1359	1509
	55/45/20 °C	483	539	589	633	672	734
900	75/65/20 °C	1077	1209	1327	1433	1529	1697
	55/45/20 °C	543	607	662	712	756	826
1000	75/65/20 °C	1197	1343	1474	1592	1699	1886
	55/45/20 °C	604	674	736	791	840	918
1100	75/65/20 °C	1317	1477	1621	1751	1869	2075
	55/45/20 °C	664	741	809	870	924	1010
1200	75/65/20 °C	1436	1612	1769	1910	2039	2263
	55/45/20 °C	724	809	883	949	1008	1101
1300	75/65/20 °C	1556	1746	1916	2070	2209	2452
	55/45/20 °C	785	876	956	1028	1092	1193
1400	75/65/20 °C	1676	1880	2064	2229	2379	2640
	55/45/20 °C	845	943	1030	1107	1176	1285
1600	75/65/20 °C	1915	2149	2358	2547	2718	3018
	55/45/20 °C	966	1078	1177	1265	1343	1469
1800	75/65/20 °C	2155	2417	2653	2866	3058	3395
	55/45/20 °C	1087	1213	1324	1423	1511	1652
2000	75/65/20 °C	2394	2686	2948	3184	3398	3772
	55/45/20 °C	1207	1348	1472	1581	1679	1836
2200	75/65/20 °C	2633	2955	3243	3502	3738	4149
	55/45/20 °C	1328	1483	1619	1739	1847	2019
2400	75/65/20 °C	2873	3223	3538	3821	4078	4526
	55/45/20 °C	1449	1617	1766	1898	2015	2202
2600	75/65/20 °C	3112	3492	3832	4139	4417	4904
	55/45/20 °C	1570	1752	1913	2056	2183	2386
2800	75/65/20 °C	3352	3760	4127	4458	4757	5281
	55/45/20 °C	1691	1887	2060	2214	2351	2570
3000	75/65/20 °C	3591	4029	4422	4776	5097	5658
	55/45/20 °C	1811	2022	2208	2372	2519	2753
3200	75/65/20 °C	3830	4298	4717	5094	5437	
	55/45/20 °C	1932	2157	2355	2530	2687	
3400	75/65/20 °C	4070	4566	5012	5413	5777	
	55/45/20 °C	2053	2291	2502	2688	2855	
3600	75/65/20 °C	4309	4835	5306	5731	6116	
	55/45/20 °C	2173	2426	2649	2846	3022	
3800	75/65/20 °C	4549	5103	5601	6050	6456	
	55/45/20 °C	2294	2561	2796	3005	3190	
4000	75/65/20 °C	4788	5372	5896	6368	6796	
	55/45/20 °C	2415	2696	2943	3163	3358	

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.34	1.35	1.36	1.37	1.38	1.41
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NARBONNE VT

Narbonne VT radiators are composed of several interconnected profiled steel heating elements of rectangular cross sections. Each radiator has two bottom connecting openings with G ¾" male threads that enable bottom connection. Three side openings with G ½" female threads are used as a standard to install a Danfoss thermostatic valve insert with pre-regulation, an air vent, and a blanking plug. Narbonne VT radiators have two side covers and a top masking grille.

Up to and including the height of 286 mm, Narbonne VT radiators are delivered without hangers, while models 358 mm to 790 mm high have, as a standard, installation hangers welded on the back of the radiator.

Narbonne VT radiators in the WVO version, up to 286 mm high, type NA-S 22, 34, and 47, are equipped with a protective screen that reduces emission of heat towards the external partition located behind the radiator.

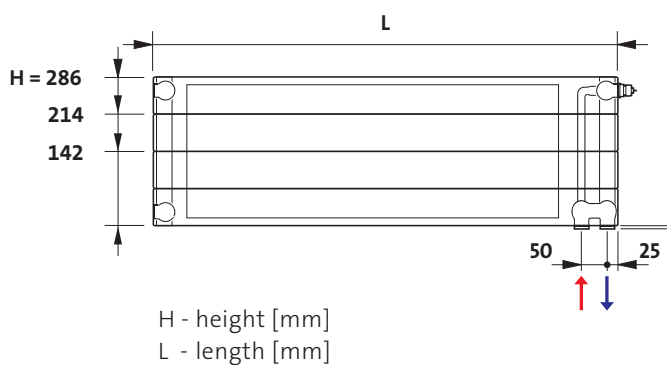
technical specification

- Material : high quality steel profiles of a rectangular cross section, dimensions: 70 x 11 x 1.5 mm (high pressure version: 70 x 11 x 2.0 mm)
- Height : 142, 214, 286, 358, 430, 502, 574, 646, 790 mm
- Length : from 500 up to 4000 mm
- Depth : from 68 up to 327 mm
- Connections : 2 x G ¾" bottom, 3 x G ½" side
- Max. operating pressure : 5 bar for the standard version, 8 bar for the high pressure version
- Max. temperature : 110°C
- Colour : RAL 9016, other RAL colours available, surcharge at each order
- Brackets : wall or floor – ordered separately, at Client's preference
- Accessories : plug and air vent, Danfoss thermostatic valve insert included in the radiator's kit

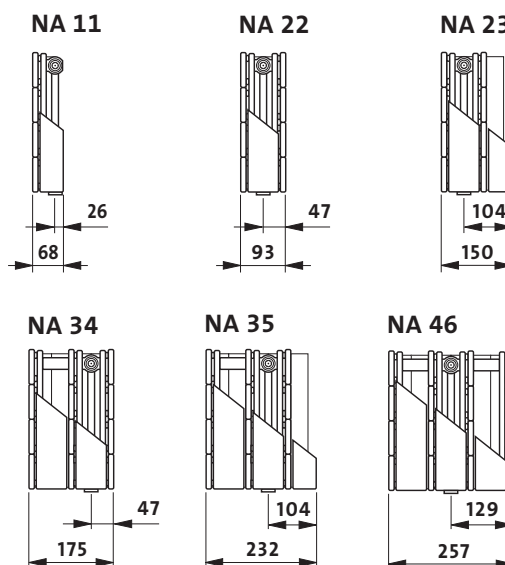


height from 142 up to 286 mm

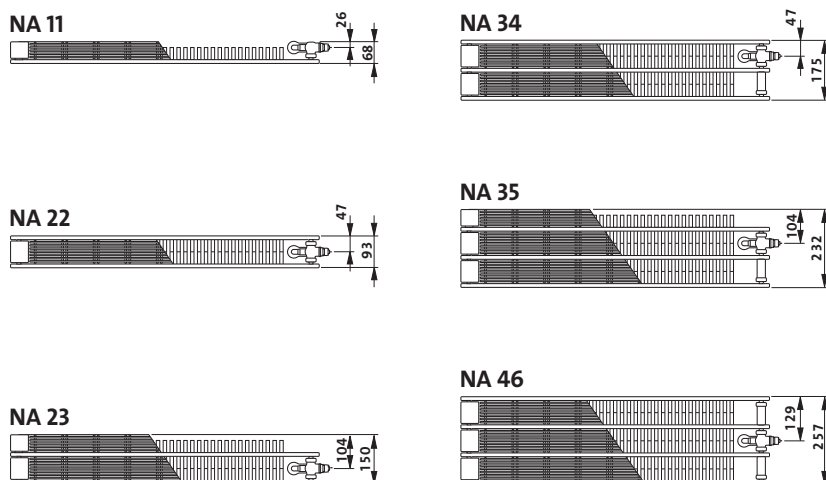
front view



example side views



top view



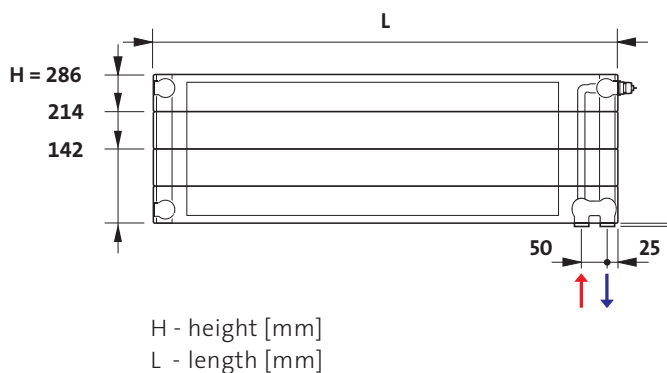
Note: The diagrams show the right-hand side versions of the radiators.

When an NA 34 radiator is turned and used as a left-hand side version radiator, the distance from the back wall of the radiator to the centers of the connection ports is equal to **129 mm**.

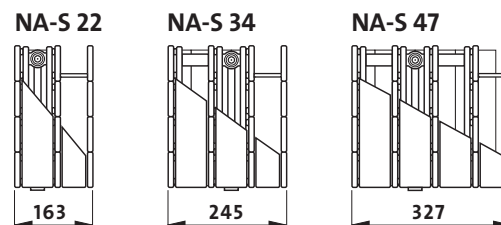
type	NA 11	NA 22	NA 23	NA 34	NA 35	NA 46
height [mm]	214; 286	142; 214; 286	142; 214; 286	142; 214; 286	142; 214; 286	142; 214; 286
length [mm]	500 - 4000 mm (depending on the type)					
step	100 mm (200 mm from the length of 1400 mm)					

height from 142 up to 286 mm
a version with a protective screen

front view



example side views

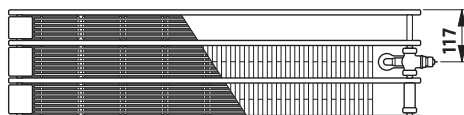


top view

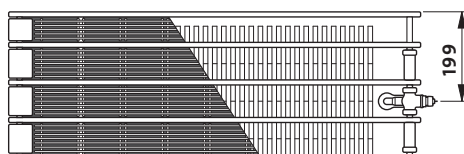
NA-S 22



NA-S 34



NA-S 47

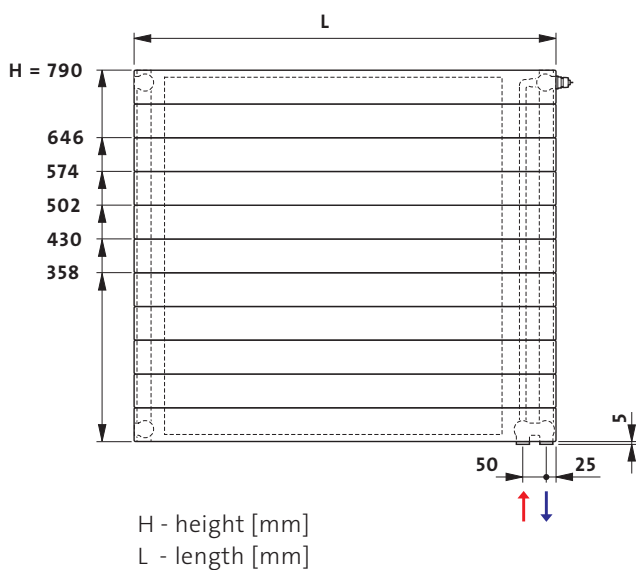


Radiators in the WVO version have a waterless protective screen welded to their backs; as a result of convection between the radiator and the protective screen, a large part of heat that would otherwise be wasted returns to the room.

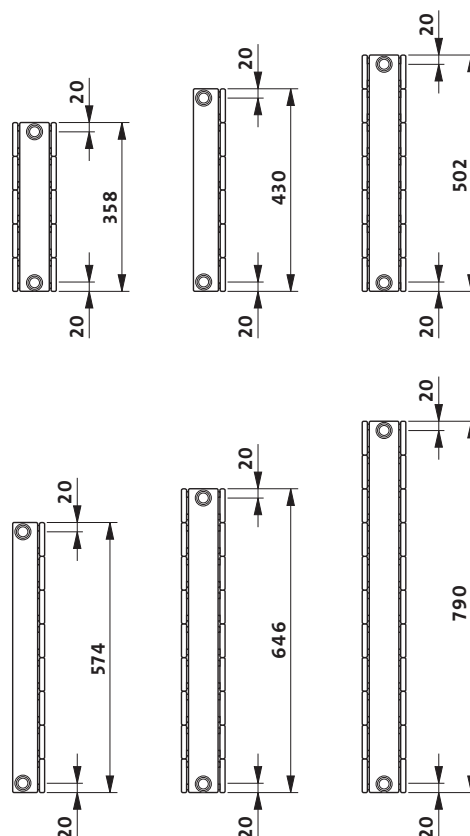
type	NA-S 22	NA-S 34	NA-S 47
height [mm]	142; 214; 286	142; 214; 286	142; 214; 286
length [mm]	500 - 4000 mm (in the case of NA-S 47 up to 2800 mm)		
step	100 mm (200 mm from the length of 1400 mm)		

height from 358 up to 790 mm

front view



example side views

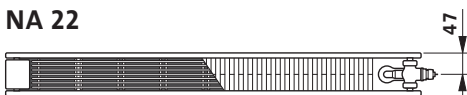


top view

NA 11



NA 22



Note: The diagrams show the right-hand side versions of the radiators.

When an NA 34 radiator is turned and used as a left-hand side version radiator, the distance from the back wall of the radiator to the centers of the connection ports is equal to **129 mm**.

type	NA 11	NA 22
height [mm]	358, 430; 502; 574; 646; 790	358, 430; 502; 574; 646; 790
length [mm]	500 - 4000 mm (depending on the type)	
step	100 mm (200 mm from the length of 1400 mm)	

weight and water volume

weight : kg/m

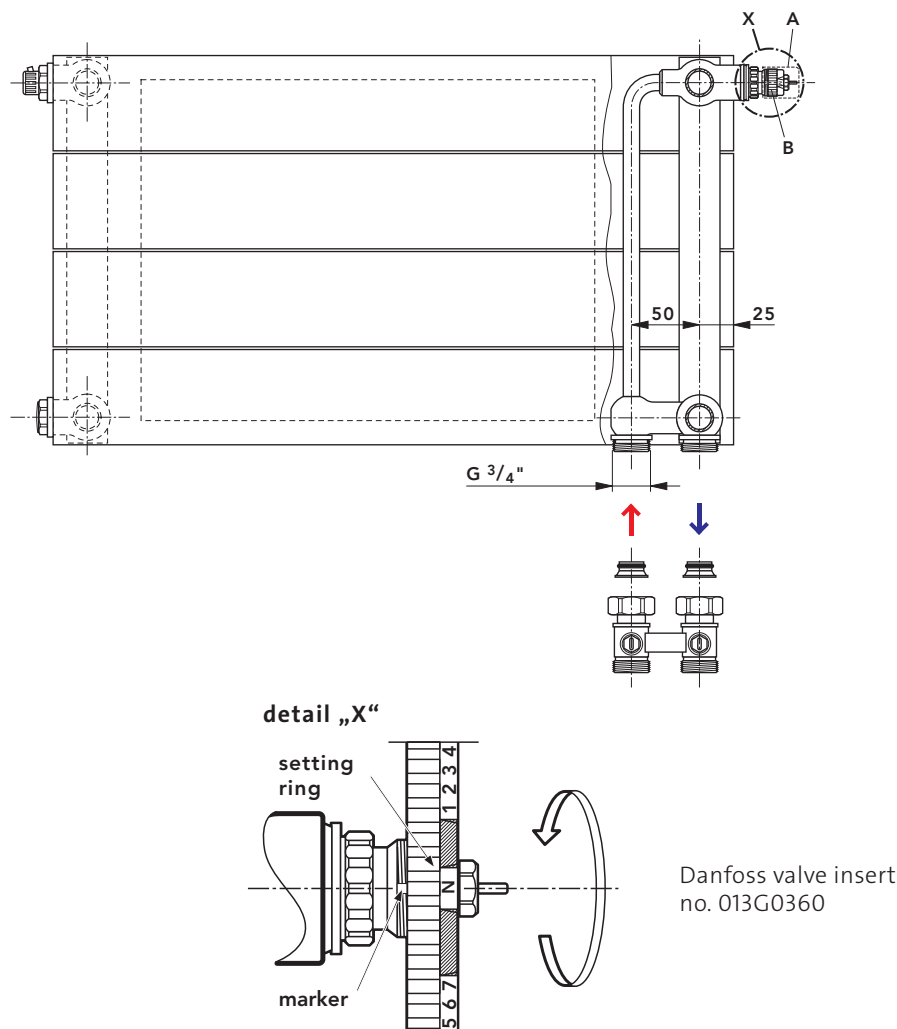
type	height [mm]								
	142	214	286	358	430	502	574	646	790
NA 11	-	11.14	14.51	16.71	19.85	22.99	26.15	29.29	33.55
NA 22	13.97	20.59	27.23	30.89	36.93	42.96	49.01	55.05	63.06
NA-S 22	19.43	28.34	37.24	-	-	-	-	-	-
NA 23	17.02	24.84	32.66	-	-	-	-	-	-
NA 34	23.93	35.18	46.42	-	-	-	-	-	-
NA-S 34	29.39	42.92	56.44	-	-	-	-	-	-
NA 35	26.98	39.42	51.86	-	-	-	-	-	-
NA 46	33.89	49.76	65.62	-	-	-	-	-	-
NA-S 47	41.27	60.50	79.74	-	-	-	-	-	-

water volume : l/m

type	height [mm]								
	142	214	286	358	430	502	574	646	790
NA 11	-	1.67	2.22	2.78	3.33	3.87	4.44	4.99	6.12
NA 22	2.18	3.34	4.44	5.55	6.66	7.77	8.88	9.99	12.22
NA-S 22	2.18	3.34	4.44	-	-	-	-	-	-
NA 23	2.18	3.34	4.44	-	-	-	-	-	-
NA 34	3.33	4.99	6.66	-	-	-	-	-	-
NA-S 34	3.33	4.99	6.66	-	-	-	-	-	-
NA 35	3.33	4.99	6.66	-	-	-	-	-	-
NA 46	4.53	6.79	9.06	-	-	-	-	-	-
NA-S 47	4.53	6.79	9.06	-	-	-	-	-	-

NARBONNE VT

Proper initial preset can be easily and precisely obtained with no necessity of using any dedicated tools (see the diagrams below).



After the valve's masking cover has been removed (pos. A), a built-in valve insert (not included in the radiator's set) will be mounted (pos. B):

Danfoss (RA 2994, RAW 5115), **Oventrop Uni XD**, **Heimeier VK**, **Herz D**, **Honeywell thera-DA**.

Tips for setting:

- remove the plastic valve's masking cover;
- rotate the setting ring to achieve the required setting (1, 2,...7, N) opposite the marker;
- the preset can be adjusted in the range between 1 and 7, with the resolution of 0.5 of the scale. The factory default preset values correspond to the highest kv value, which in turn corresponds to the "N" setting.

Note: adjustment of preset values between the scale's elements, in the crossed-out area, is not allowed!



RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE VT 11 214 1600**

name

type

height

length

depth [mm]		68 mm					
length [mm]	height [mm]	142	214	286			
	$t_z / t_p / t_i$	NA 11	NA 11	NA 11			
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	-	232 118	289 146			
600	75/65/20 °C 55/45/20 °C	-	278 142	346 175			
700	75/65/20 °C 55/45/20 °C	-	325 166	404 204			
800	75/65/20 °C 55/45/20 °C	-	371 189	462 233			
900	75/65/20 °C 55/45/20 °C	-	418 213	519 262			
1000	75/65/20 °C 55/45/20 °C	-	464 236	577 291			
1100	75/65/20 °C 55/45/20 °C	-	510 260	635 320			
1200	75/65/20 °C 55/45/20 °C	-	557 284	692 349			
1300	75/65/20 °C 55/45/20 °C	-	603 307	750 378			
1400	75/65/20 °C 55/45/20 °C	-	650 331	808 408			
1600	75/65/20 °C 55/45/20 °C	-	742 378	923 466			
1800	75/65/20 °C 55/45/20 °C	-	835 425	1039 524			
2000	75/65/20 °C 55/45/20 °C	-	928 473	1154 582			
2200	75/65/20 °C 55/45/20 °C	-	1021 520	1269 640			
2400	75/65/20 °C 55/45/20 °C	-	1114 568	1385 699			
2600	75/65/20 °C 55/45/20 °C	-	1206 614	1500 757			
2800	75/65/20 °C 55/45/20 °C	-	1299 662	1616 815			
3000	75/65/20 °C 55/45/20 °C	-	1392 709	1731 873			
3200	75/65/20 °C 55/45/20 °C	-	1485 757	1846 931			
3400	75/65/20 °C 55/45/20 °C	-	1578 804	1962 990			
3600	75/65/20 °C 55/45/20 °C	-	1670 851	2077 1048			
3800	75/65/20 °C 55/45/20 °C	-	1763 898	2193 1106			
4000	75/65/20 °C 55/45/20 °C	-	1856 946	2308 1164			

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	-	1.32	1.34			
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE VT 22 142 1600**

name _____
type _____
height _____
length _____



depth [mm]		93 mm 			163 mm 		
length [mm]	height [mm]	142	214	286	142	214	286
	$t_z / t_p / t_i$	NA 22	NA 22	NA 22	NA-S 22	NA-S 22	NA-S 22
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	321 165	419 211	516 255	321 165	419 211	516 255
600	75/65/20 °C 55/45/20 °C	385 198	503 254	619 306	385 198	503 254	619 306
700	75/65/20 °C 55/45/20 °C	449 231	587 296	722 357	449 231	587 296	722 357
800	75/65/20 °C 55/45/20 °C	513 264	670 338	826 408	513 264	670 338	826 408
900	75/65/20 °C 55/45/20 °C	577 297	754 380	929 459	577 297	754 380	929 459
1000	75/65/20 °C 55/45/20 °C	641 330	838 423	1032 510	641 330	838 423	1032 510
1100	75/65/20 °C 55/45/20 °C	705 363	922 465	1135 561	705 363	922 465	1135 561
1200	75/65/20 °C 55/45/20 °C	769 396	1006 507	1238 612	769 396	1006 507	1238 612
1300	75/65/20 °C 55/45/20 °C	833 429	1089 549	1342 663	833 429	1089 549	1342 663
1400	75/65/20 °C 55/45/20 °C	897 462	1173 592	1445 714	897 462	1173 592	1445 714
1600	75/65/20 °C 55/45/20 °C	1026 528	1341 676	1651 816	1026 528	1341 676	1651 816
1800	75/65/20 °C 55/45/20 °C	1154 594	1508 761	1858 918	1154 594	1508 761	1858 918
2000	75/65/20 °C 55/45/20 °C	1282 660	1676 845	2064 1020	1282 660	1676 845	2064 1020
2200	75/65/20 °C 55/45/20 °C	1410 726	1844 930	2270 1122	1410 726	1844 930	2270 1122
2400	75/65/20 °C 55/45/20 °C	1538 792	2011 1014	2477 1224	1538 792	2011 1014	2477 1224
2600	75/65/20 °C 55/45/20 °C	1667 858	2179 1099	2683 1326	1667 858	2179 1099	2683 1326
2800	75/65/20 °C 55/45/20 °C	1795 924	2346 1183	2890 1428	1795 924	2346 1183	2890 1428
3000	75/65/20 °C 55/45/20 °C	1923 990	2514 1268	3096 1530	1923 990	2514 1268	3096 1530
3200	75/65/20 °C 55/45/20 °C	2051 1056	2682 1353	3302 1632	2051 1056	2682 1353	3302 1632
3400	75/65/20 °C 55/45/20 °C	2179 1122	2849 1437	3509 1734	2179 1122	2849 1437	3509 1734
3600	75/65/20 °C 55/45/20 °C	2308 1188	3017 1522	3715 1836	2308 1188	3017 1522	3715 1836
3800	75/65/20 °C 55/45/20 °C	2436 1254	3184 1606	3922 1938	2436 1254	3184 1606	3922 1938
4000	75/65/20 °C 55/45/20 °C	2564 1320	3352 1691	4128 2040	2564 1320	3352 1691	4128 2040

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.30	1.34	1.38	1.30	1.34	1.38
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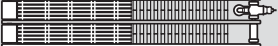
RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE VT 23 142 1600**

name

type

height

length

depth [mm]		150 mm 			175 mm 		
length [mm]	height [mm]	142	214	286	142	214	286
	$t_z / t_p / t_i$	NA 23	NA 23	NA 23	NA 34	NA 34	NA 34
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	399 205	518 261	631 312	525 276	697 353	862 426
600	75/65/20 °C 55/45/20 °C	478 246	621 313	757 374	630 331	836 424	1034 511
700	75/65/20 °C 55/45/20 °C	558 287	725 366	883 436	735 386	976 495	1206 596
800	75/65/20 °C 55/45/20 °C	638 328	828 418	1009 499	840 441	1115 565	1378 681
900	75/65/20 °C 55/45/20 °C	717 369	932 470	1135 561	945 496	1255 636	1551 766
1000	75/65/20 °C 55/45/20 °C	797 410	1035 522	1261 623	1050 552	1394 707	1723 851
1100	75/65/20 °C 55/45/20 °C	877 451	1139 574	1387 685	1155 607	1533 777	1895 936
1200	75/65/20 °C 55/45/20 °C	956 492	1242 626	1513 748	1260 662	1673 848	2068 1022
1300	75/65/20 °C 55/45/20 °C	1036 533	1346 679	1639 810	1365 717	1812 919	2240 1107
1400	75/65/20 °C 55/45/20 °C	1116 574	1449 731	1765 872	1470 772	1952 990	2412 1192
1600	75/65/20 °C 55/45/20 °C	1275 656	1656 835	2018 997	1680 883	2230 1130	2757 1362
1800	75/65/20 °C 55/45/20 °C	1435 739	1863 940	2270 1122	1890 993	2509 1272	3101 1532
2000	75/65/20 °C 55/45/20 °C	1594 821	2070 1044	2522 1246	2100 1103	2788 1413	3446 1703
2200	75/65/20 °C 55/45/20 °C	1753 902	2277 1148	2774 1371	2310 1214	3067 1555	3791 1873
2400	75/65/20 °C 55/45/20 °C	1913 985	2484 1253	3026 1495	2520 1324	3346 1696	4135 2043
2600	75/65/20 °C 55/45/20 °C	2072 1067	2691 1357	3279 1620	2730 1434	3624 1837	4480 2214
2800	75/65/20 °C 55/45/20 °C	2232 1149	2898 1462	3531 1745	2940 1545	3903 1979	4824 2384
3000	75/65/20 °C 55/45/20 °C	2391 1231	3105 1566	3783 1869	3150 1655	4182 2120	5169 2554
3200	75/65/20 °C 55/45/20 °C	2550 1313	3312 1670	4035 1994	3360 1765	4461 2261	5514 2725
3400	75/65/20 °C 55/45/20 °C	2710 1395	3519 1775	4287 2118	3570 1876	4740 2403	5858 2895
3600	75/65/20 °C 55/45/20 °C	2869 1477	3726 1879	4540 2243	3780 1986	5018 2544	6203 3065
3800	75/65/20 °C 55/45/20 °C	3029 1559	3933 1984	4792 2368	3990 2096	5297 2685	6547 3235
4000	75/65/20 °C 55/45/20 °C	3188 1641	4140 2088	5044 2492	4200 2207	5576 2827	6892 3406

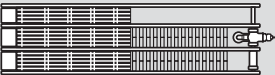
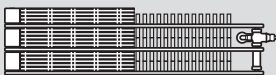
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.30	1.34	1.38	1.26	1.33	1.38
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE VT 34 142 1600**

name _____
type _____
height _____
length _____



depth [mm]		245 mm 			232 mm 		
length [mm]	height [mm]	142	214	286	142	214	286
	$t_z / t_p / t_i$	NA-S 34	NA-S 34	NA-S 34	NA 35	NA 35	NA 35
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	525 276	697 353	862 426	599 310	826 414	986 482
600	75/65/20 °C 55/45/20 °C	630 331	836 424	1034 511	718 371	991 497	1183 579
700	75/65/20 °C 55/45/20 °C	735 386	976 495	1206 596	838 434	1156 580	1380 675
800	75/65/20 °C 55/45/20 °C	840 441	1115 565	1378 681	958 496	1321 663	1577 771
900	75/65/20 °C 55/45/20 °C	945 496	1255 636	1551 766	1077 557	1486 746	1774 868
1000	75/65/20 °C 55/45/20 °C	1050 552	1394 707	1723 851	1197 619	1651 828	1971 964
1100	75/65/20 °C 55/45/20 °C	1155 607	1533 777	1895 936	1317 681	1816 911	2168 1060
1200	75/65/20 °C 55/45/20 °C	1260 662	1673 848	2068 1022	1436 743	1981 994	2365 1157
1300	75/65/20 °C 55/45/20 °C	1365 717	1812 919	2240 1107	1556 805	2146 1077	2562 1253
1400	75/65/20 °C 55/45/20 °C	1470 772	1952 990	2412 1192	1676 867	2311 1160	2759 1349
1600	75/65/20 °C 55/45/20 °C	1680 883	2230 1130	2757 1362	1915 991	2642 1326	3154 1543
1800	75/65/20 °C 55/45/20 °C	1890 993	2509 1272	3101 1532	2155 1115	2972 1491	3548 1735
2000	75/65/20 °C 55/45/20 °C	2100 1103	2788 1413	3446 1703	2394 1239	3302 1657	3942 1928
2200	75/65/20 °C 55/45/20 °C	2310 1214	3067 1555	3791 1873	2633 1362	3632 1822	4336 2121
2400	75/65/20 °C 55/45/20 °C	2520 1324	3346 1696	4135 2043	2873 1486	3962 1988	4730 2314
2600	75/65/20 °C 55/45/20 °C	2730 1434	3624 1837	4480 2214	3112 1610	4293 2154	5125 2507
2800	75/65/20 °C 55/45/20 °C	2940 1545	3903 1979	4824 2384	3352 1734	4623 2320	5519 2699
3000	75/65/20 °C 55/45/20 °C	3150 1655	4182 2120	5169 2554	3591 1858	4953 2485	5913 2892
3200	75/65/20 °C 55/45/20 °C	3360 1765	4461 2261	5514 2725	3830 1982	5283 2651	6307 3085
3400	75/65/20 °C 55/45/20 °C	3570 1876	4740 2403	5858 2895	4070 2106	5613 2816	6701 3278
3600	75/65/20 °C 55/45/20 °C	3780 1986	5018 2544	6203 3065	4309 2229	5944 2983	7096 3471
3800	75/65/20 °C 55/45/20 °C	3990 2096	5297 2685	6547 3235	4549 2354	6274 3148	7490 3663
4000	75/65/20 °C 55/45/20 °C	4200 2207	5576 2827	6892 3406	4788 2477	6604 3314	7884 3856

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.26	1.33	1.38	1.29	1.35	1.40
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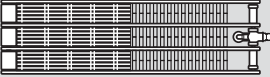
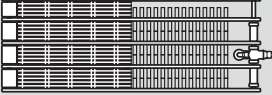
RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE VT 46 142 1600**

name

type

height

length

depth [mm]		257 mm 			327 mm 		
length [mm]	height [mm]	142	214	286	142	214	286
	$t_z / t_p / t_i$	NA 46	NA 46	NA 46	NA-S 47	NA-S 47	NA-S 47
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	727 374	1036 517	1224 599	761 400	1151 575	1334 656
600	75/65/20 °C 55/45/20 °C	872 449	1243 621	1468 718	913 480	1381 689	1600 787
700	75/65/20 °C 55/45/20 °C	1018 524	1450 724	1713 838	1065 560	1611 804	1867 918
800	75/65/20 °C 55/45/20 °C	1163 599	1658 828	1958 958	1218 640	1842 920	2134 1049
900	75/65/20 °C 55/45/20 °C	1309 674	1865 931	2202 1077	1370 720	2072 1034	2400 1180
1000	75/65/20 °C 55/45/20 °C	1454 748	2072 1034	2447 1197	1522 800	2302 1149	2667 1311
1100	75/65/20 °C 55/45/20 °C	1599 823	2279 1138	2692 1317	1674 879	2532 1264	2934 1442
1200	75/65/20 °C 55/45/20 °C	1745 898	2486 1241	2936 1436	1826 959	2762 1379	3200 1573
1300	75/65/20 °C 55/45/20 °C	1890 973	2694 1345	3181 1556	1979 1040	2993 1494	3467 1704
1400	75/65/20 °C 55/45/20 °C	2036 1048	2901 1448	3426 1676	2131 1120	3223 1609	3734 1836
1600	75/65/20 °C 55/45/20 °C	2326 1197	3315 1655	3915 1915	2435 1279	3683 1839	4267 2098
1800	75/65/20 °C 55/45/20 °C	2617 1347	3730 1862	4405 2155	2740 1440	4144 2069	4801 2360
2000	75/65/20 °C 55/45/20 °C	2908 1497	4144 2069	4894 2394	3044 1599	4604 2298	5334 2622
2200	75/65/20 °C 55/45/20 °C	3199 1647	4558 2275	5383 2633	3348 1759	5064 2528	5867 2884
2400	75/65/20 °C 55/45/20 °C	3490 1796	4973 2483	5873 2873	3653 1919	5525 2758	6401 3147
2600	75/65/20 °C 55/45/20 °C	3780 1946	5387 2689	6362 3112	3957 2079	5985 2988	6934 3409
2800	75/65/20 °C 55/45/20 °C	4071 2096	5802 2896	6852 3351	4262 2239	6446 3218	7468 3671
3000	75/65/20 °C 55/45/20 °C	4362 2245	6216 3103	7341 3591			
3200	75/65/20 °C 55/45/20 °C						
3400	75/65/20 °C 55/45/20 °C						
3600	75/65/20 °C 55/45/20 °C						
3800	75/65/20 °C 55/45/20 °C						
4000	75/65/20 °C 55/45/20 °C						

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.29	1.35	1.40	1.26	1.36	1.39
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE VT 11 358 1600**

name _____
type _____
height _____
length _____



depth [mm]		68 mm 					
length [mm]	height [mm]	358	430	502	574	646	790
	$t_z / t_p / t_i$	NA 11	NA 11	NA 11	NA 11	NA 11	NA 11
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C	334	380	423	461	495	553
	55/45/20 °C	172	196	217	235	252	279
600	75/65/20 °C	400	456	507	553	593	663
	55/45/20 °C	206	235	260	282	302	334
700	75/65/20 °C	467	532	592	645	692	774
	55/45/20 °C	240	274	303	329	353	390
800	75/65/20 °C	534	608	676	737	791	884
	55/45/20 °C	275	313	346	376	403	446
900	75/65/20 °C	600	684	761	829	890	995
	55/45/20 °C	309	352	390	422	453	502
1000	75/65/20 °C	667	760	845	921	989	1105
	55/45/20 °C	343	391	433	469	504	557
1100	75/65/20 °C	734	836	930	1013	1088	1216
	55/45/20 °C	378	430	476	516	554	613
1200	75/65/20 °C	800	912	1014	1105	1187	1326
	55/45/20 °C	412	469	519	563	605	669
1300	75/65/20 °C	867	988	1099	1197	1286	1437
	55/45/20 °C	446	509	563	610	655	725
1400	75/65/20 °C	934	1064	1183	1289	1385	1547
	55/45/20 °C	481	548	606	657	706	780
1600	75/65/20 °C	1067	1216	1352	1474	1582	1768
	55/45/20 °C	549	626	692	751	806	892
1800	75/65/20 °C	1201	1368	1521	1658	1780	1989
	55/45/20 °C	618	704	779	845	907	1003
2000	75/65/20 °C	1334	1520	1690	1842	1978	2210
	55/45/20 °C	687	782	865	939	1008	1115
2200	75/65/20 °C	1467	1672	1859	2026	2176	2431
	55/45/20 °C	755	861	952	1032	1109	1226
2400	75/65/20 °C	1601	1824	2028	2210	2374	2652
	55/45/20 °C	824	939	1039	1126	1210	1338
2600	75/65/20 °C	1734	1976	2197	2395	2571	2873
	55/45/20 °C	893	1017	1125	1220	1310	1449
2800	75/65/20 °C	1868	2128	2366	2579	2769	3094
	55/45/20 °C	962	1095	1212	1314	1411	1560
3000	75/65/20 °C	2001	2280	2535	2763	2967	3315
	55/45/20 °C	1030	1174	1298	1408	1512	1672
3200	75/65/20 °C	2134	2432	2704	2947	3165	
	55/45/20 °C	1098	1252	1385	1502	1613	
3400	75/65/20 °C	2268	2584	2873	3131	3363	
	55/45/20 °C	1167	1330	1471	1595	1714	
3600	75/65/20 °C	2401	2736	3042	3316	3560	
	55/45/20 °C	1236	1408	1558	1690	1814	
3800	75/65/20 °C	2535	2888	3211	3500	3758	
	55/45/20 °C	1356	1487	1644	1783	1915	
4000	75/65/20 °C	2668	3040	3380	3684	3956	
	55/45/20 °C	1373	1565	1731	1877	2016	

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.30	1.30	1.31	1.32	1.32	1.34
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE VT 22 358 1600**

name

type

height

length

depth [mm]							
length [mm]	height [mm]	358	430	502	574	646	790
	$t_z / t_p / t_i$	NA 22	NA 22	NA 22	NA 22	NA 22	NA 22
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	599 302	672 337	737 368	796 395	850 420	943 459
600	75/65/20 °C 55/45/20 °C	718 362	806 404	884 441	955 474	1019 504	1132 551
700	75/65/20 °C 55/45/20 °C	838 423	940 472	1032 515	1114 553	1189 588	1320 642
800	75/65/20 °C 55/45/20 °C	958 483	1074 539	1179 589	1274 633	1359 672	1509 734
900	75/65/20 °C 55/45/20 °C	1077 543	1209 607	1327 662	1433 712	1529 756	1697 826
1000	75/65/20 °C 55/45/20 °C	1197 604	1343 674	1474 736	1592 791	1699 840	1886 918
1100	75/65/20 °C 55/45/20 °C	1317 664	1477 741	1621 809	1751 870	1869 924	2075 1010
1200	75/65/20 °C 55/45/20 °C	1436 724	1612 809	1769 883	1910 949	2039 1008	2263 1101
1300	75/65/20 °C 55/45/20 °C	1556 785	1746 876	1916 956	2070 1028	2209 1092	2452 1193
1400	75/65/20 °C 55/45/20 °C	1676 845	1880 943	2064 1030	2229 1107	2379 1176	2640 1285
1600	75/65/20 °C 55/45/20 °C	1915 966	2149 1078	2358 1177	2547 1265	2718 1343	3018 1469
1800	75/65/20 °C 55/45/20 °C	2155 1087	2417 1213	2653 1324	2866 1423	3058 1511	3395 1652
2000	75/65/20 °C 55/45/20 °C	2394 1207	2686 1348	2948 1472	3184 1581	3398 1679	3772 1836
2200	75/65/20 °C 55/45/20 °C	2633 1328	2955 1483	3243 1619	3502 1739	3738 1847	4149 2019
2400	75/65/20 °C 55/45/20 °C	2873 1449	3223 1617	3538 1766	3821 1898	4078 2015	4526 2202
2600	75/65/20 °C 55/45/20 °C	3112 1570	3492 1752	3832 1913	4139 2056	4417 2183	4904 2386
2800	75/65/20 °C 55/45/20 °C	3352 1691	3760 1887	4127 2060	4458 2214	4757 2351	5281 2570
3000	75/65/20 °C 55/45/20 °C	3591 1811	4029 2022	4422 2208	4776 2372	5097 2519	5658 2753
3200	75/65/20 °C 55/45/20 °C	3830 1932	4298 2157	4717 2355	5094 2530	5437 2687	
3400	75/65/20 °C 55/45/20 °C	4070 2053	4566 2291	5012 2502	5413 2688	5777 2855	
3600	75/65/20 °C 55/45/20 °C	4309 2173	4835 2426	5306 2649	5731 2846	6116 3022	
3800	75/65/20 °C 55/45/20 °C	4549 2294	5103 2561	5601 2796	6050 3005	6456 3190	
4000	75/65/20 °C 55/45/20 °C	4788 2415	5372 2696	5896 2943	6368 3163	6796 3358	

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.34	1.35	1.36	1.37	1.38	1.41
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Notes

[illegible]

NARBONNE V

Narbonne V are composed of several interconnected profiled steel heating elements of a rectangular cross section. Each radiator has got four connecting openings, each with internal thread G ½", enabling side connection, both from the left- and the right-hand side. Narbonne radiators are equipped with two side covers, but no top masking grille.

Narbonne V radiators have, as a standard, mounting hangers welded on their backs. Most models are equipped with convection elements, increasing the heating efficiency of the radiators.

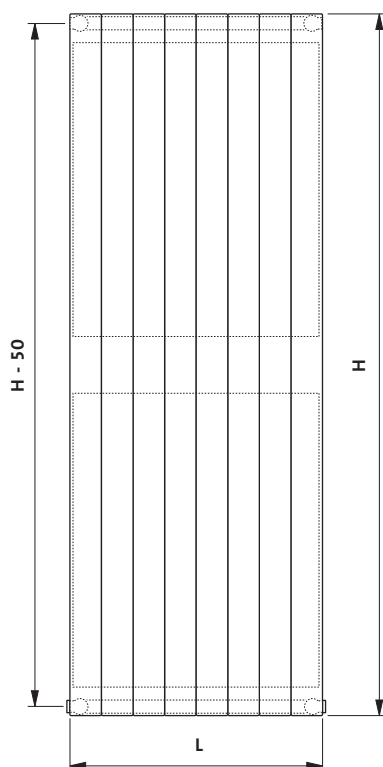
technical specification

- Material : high quality steel profiles of a rectangular cross section, dimensions: 70 x 11 x 1.5 mm (high pressure version: 70 x 11 x 2.0 mm)
- Height : 1600, 1800, 2000, 2200 mm
- Width : from 142 up to 862 mm
- Depth : from 68 up to 93 mm
- Connections : 4 x G ½", side connectors
- Max. operating pressure : 5 bar for the standard version, 8 bar for the high pressure version
- Max. temperature : 110°C
- Colour : RAL 9016, other RAL colours available, surcharge at each order
- Accessories : plug and air vent, included in the radiator's kit



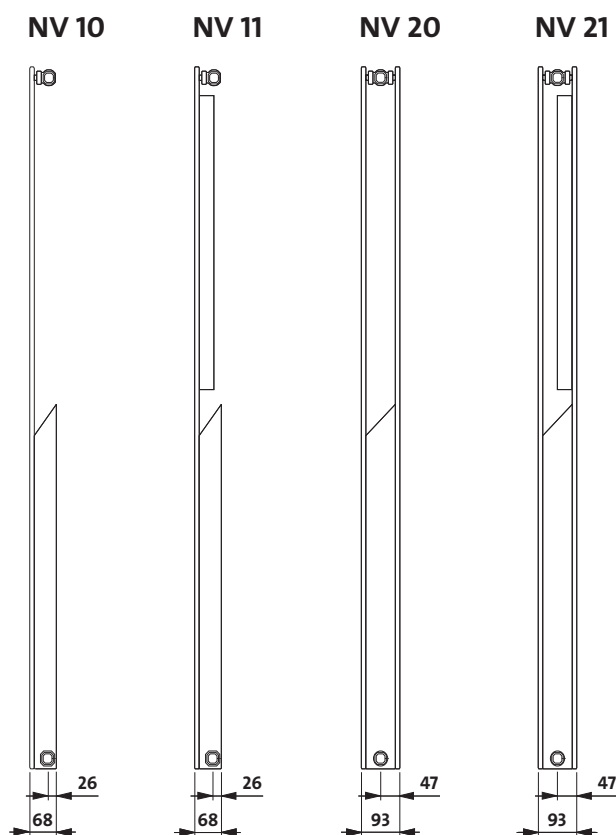
NARBONNE V

front view

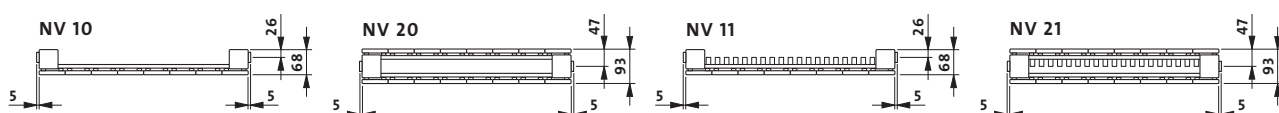


H - height [mm]
L - width [mm]

side view



top view



weight and water volume

weight : kg/m

type	height [mm]			
	1600	1800	2000	2200
NV 10	44.45	49.60	54.75	59.70
NV 11	63.39	68.53	73.69	78.83
NV 20	85.44	95.46	105.48	115.50
NV 21	104.37	114.39	124.42	134.44

water volume : l/m

type	height [mm]			
	1600	1800	2000	2200
NV 10	11.37	12.47	13.85	15.24
NV 11	11.37	12.47	13.85	15.24
NV 20	22.74	24.34	27.71	30.48
NV 21	22.74	24.34	27.71	30.48

type	NV 10	NV 11	NV 20	NV 21
height [mm]	1600; 1800; 2000; 2200	1600; 1800; 2000; 2200	1600; 1800; 2000; 2200	1600; 1800; 2000; 2200
width [mm]	142 - 862			
step	72 mm			



RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE V 10 1600 430**

name

type

height

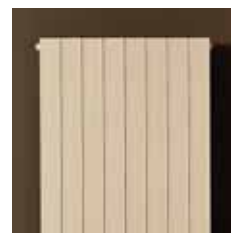
width

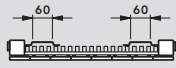
depth [mm]		68 mm 			
width [mm]	height [mm]	1600	1800	2000	2200
	$t_z / t_p / t_i$	NV 10	NV 10	NV 10	NV 10
		[W]	[W]	[W]	[W]
142 (2)	75/65/20 °C 55/45/20 °C	247 121	281 137	317 156	354 175
214 (3)	75/65/20 °C 55/45/20 °C	372 182	424 207	478 235	534 264
286 (4)	75/65/20 °C 55/45/20 °C	497 243	566 277	638 314	714 353
358 (5)	75/65/20 °C 55/45/20 °C	622 304	708 346	799 393	893 441
430 (6)	75/65/20 °C 55/45/20 °C	747 365	851 416	960 472	1073 530
502 (7)	75/65/20 °C 55/45/20 °C	872 427	993 486	1120 551	1253 619
574 (8)	75/65/20 °C 55/45/20 °C	998 488	1136 556	1281 630	1432 708
646 (9)	75/65/20 °C 55/45/20 °C	1123 549	1278 625	1442 709	1612 797
718 (10)	75/65/20 °C 55/45/20 °C	1248 610	1421 695	1603 788	1791 885
790 (11)	75/65/20 °C 55/45/20 °C	1373 672	1563 764	1763 867	1971 974
862 (12)	75/65/20 °C 55/45/20 °C	1498 733	1706 834	1924 946	2151 1063
exponent n		1.40	1.40	1.39	1.38

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE V 10 1600 430**

name _____
type _____
height _____
width _____



depth [mm]		68 mm 			
width [mm]	height [mm]	1600	1800	2000	2200
	$t_z / t_p / t_i$	NV 11	NV 11	NV 11	NV 11
		[W]	[W]	[W]	[W]
142 (2)	75/65/20 °C 55/45/20 °C	281 140	314 156	348 174	384 194
214 (3)	75/65/20 °C 55/45/20 °C	424 211	473 235	524 262	578 292
286 (4)	75/65/20 °C 55/45/20 °C	566 281	632 314	701 350	773 389
358 (5)	75/65/20 °C 55/45/20 °C	708 352	791 393	877 438	967 488
430 (6)	75/65/20 °C 55/45/20 °C	851 423	950 472	1054 526	1161 586
502 (7)	75/65/20 °C 55/45/20 °C	993 493	1109 551	1230 614	1356 684
574 (8)	75/65/20 °C 55/45/20 °C	1136 564	1268 630	1406 702	1550 782
646 (9)	75/65/20 °C 55/45/20 °C	1278 635	1427 709	1583 790	1745 880
718 (10)	75/65/20 °C 55/45/20 °C	1421 706	1586 788	1759 878	1939 978
790 (11)	75/65/20 °C 55/45/20 °C	1563 776	1745 867	1936 966	2134 1076
862 (12)	75/65/20 °C 55/45/20 °C	1706 847	1904 946	2112 1054	2328 1174

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.37	1.37	1.36	1.34
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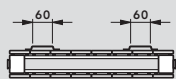
RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE V 20 1600 430**

name

type

height

width

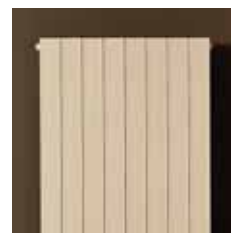
depth [mm]		93 mm 			
width [mm]	height [mm]	1600	1800	2000	2200
	$t_z / t_p / t_i$	NV 20	NV 20	NV 20	NV 20
		[W]	[W]	[W]	[W]
142 (2)	75/65/20 °C 55/45/20 °C	416 202	469 229	521 256	575 284
214 (3)	75/65/20 °C 55/45/20 °C	627 305	706 345	786 386	866 428
286 (4)	75/65/20 °C 55/45/20 °C	839 408	944 462	1050 516	1157 572
358 (5)	75/65/20 °C 55/45/20 °C	1050 511	1182 578	1315 646	1449 716
430 (6)	75/65/20 °C 55/45/20 °C	1261 614	1419 694	1579 776	1740 860
502 (7)	75/65/20 °C 55/45/20 °C	1472 716	1657 810	1843 906	2031 1004
574 (8)	75/65/20 °C 55/45/20 °C	1683 819	1895 927	2108 1036	2322 1147
646 (9)	75/65/20 °C 55/45/20 °C	1894 922	2132 1043	2372 1166	2614 1292
718 (10)	75/65/20 °C 55/45/20 °C	2105 1024	2370 1159	2636 1296	2905 1435
790 (11)	75/65/20 °C 55/45/20 °C	2316 1127	2608 1276	2901 1426	3196 1579
862 (12)	75/65/20 °C 55/45/20 °C	2527 1230	2845 1392	3165 1556	3488 1724

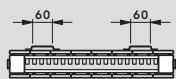
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.41	1.40	1.39	1.38
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE V 21 1600 430**

name
type
height
width



depth [mm]		93 mm 			
width [mm]	height [mm]	1600	1800	2000	2200
	$t_z / t_p / t_i$	NV 21	NV 21	NV 21	NV 21
		[W]	[W]	[W]	[W]
142 (2)	75/65/20 °C 55/45/20 °C	452 221	510 249	570 282	633 316
214 (3)	75/65/20 °C 55/45/20 °C	681 333	768 376	859 424	953 476
286 (4)	75/65/20 °C 55/45/20 °C	911 446	1026 502	1147 567	1274 636
358 (5)	75/65/20 °C 55/45/20 °C	1140 558	1285 629	1436 710	1595 796
430 (6)	75/65/20 °C 55/45/20 °C	1369 670	1543 755	1725 852	1916 956
502 (7)	75/65/20 °C 55/45/20 °C	1598 782	1801 881	2014 995	2236 1116
574 (8)	75/65/20 °C 55/45/20 °C	1828 894	2060 1008	2303 1138	2557 1276
646 (9)	75/65/20 °C 55/45/20 °C	2057 1006	2318 1134	2592 1281	2879 1437
718 (10)	75/65/20 °C 55/45/20 °C	2286 1118	2576 1260	2881 1424	3199 1597
790 (11)	75/65/20 °C 55/45/20 °C	2515 1230	2835 1387	3169 1566	3520 1757
862 (12)	75/65/20 °C 55/45/20 °C	2745 1343	3093 1513	3458 1709	3840 1917
exponent n		1.40	1.40	1.38	1.36

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

NARBONNE V VT

Narbonne V VT are composed of several interconnected profiled steel heating elements of a rectangular cross section. Each radiator has got two bottom connecting openings, each with external thread G ¾", enabling bottom connection. Four side openings with internal thread G ½" are normally designed for mounting the Danfoss thermostatic valve insert with pre-regulation, plus the air vent and closing plugs. Narbonne V VT radiators are equipped with two side covers, but no top masking grille.

Narbonne V VT radiators have, as a standard, mounting hangers welded on their backs.

Most models are equipped with convection elements, increasing the heating efficiency of the radiators.

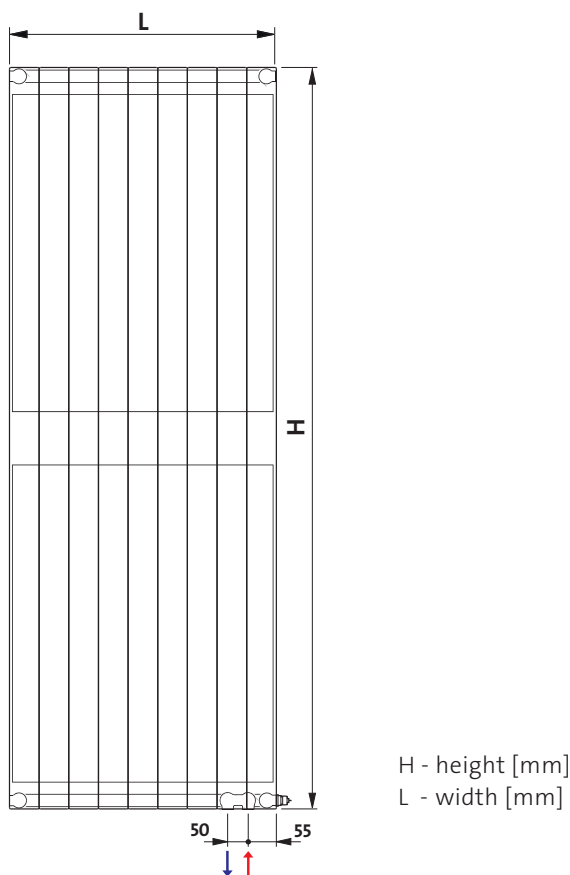
technical specification

- Material : high quality steel profiles of a rectangular cross section, dimensions: 70 x 11 x 1.5 mm (high pressure version: 70 x 11 x 2.0 mm)
- Height : 1600, 1800, 2000 mm
- Width : from 214 up to 862 mm
- Depth : from 68 up to 93 mm
- Connections : 2 x G ¾" bottom, 4 x G ½" side
- Max. operating pressure : 5 bar for the standard version, 8 bar for the high pressure version
- Max. temperature : 110°C
- Colour : RAL 9016, other RAL colours available, surcharge at each order
- Accessories : plug and air vent, Danfoss thermostatic valve insert included in the radiator's kit

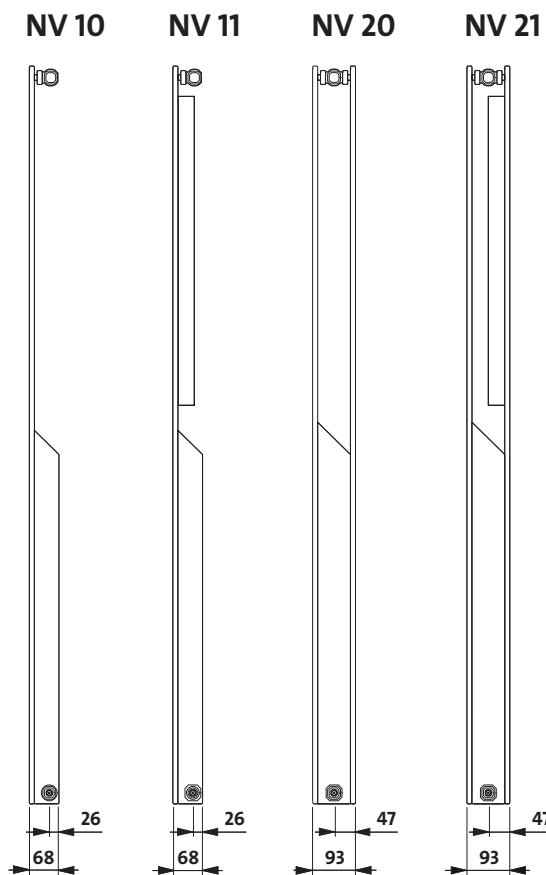


NARBONNE V VT

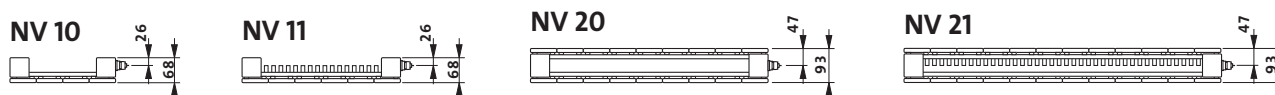
front view



side view



top view



Note: the diagrams show the right-hand side versions of the radiators.

weight and water volume

weight : kg/m

type	height [mm]		
	1600	1800	2000
NV 10	44.45	49.60	54.75
NV 11	63.39	68.53	73.69
NV 20	85.44	95.46	105.48
NV 21	104.37	114.39	124.42

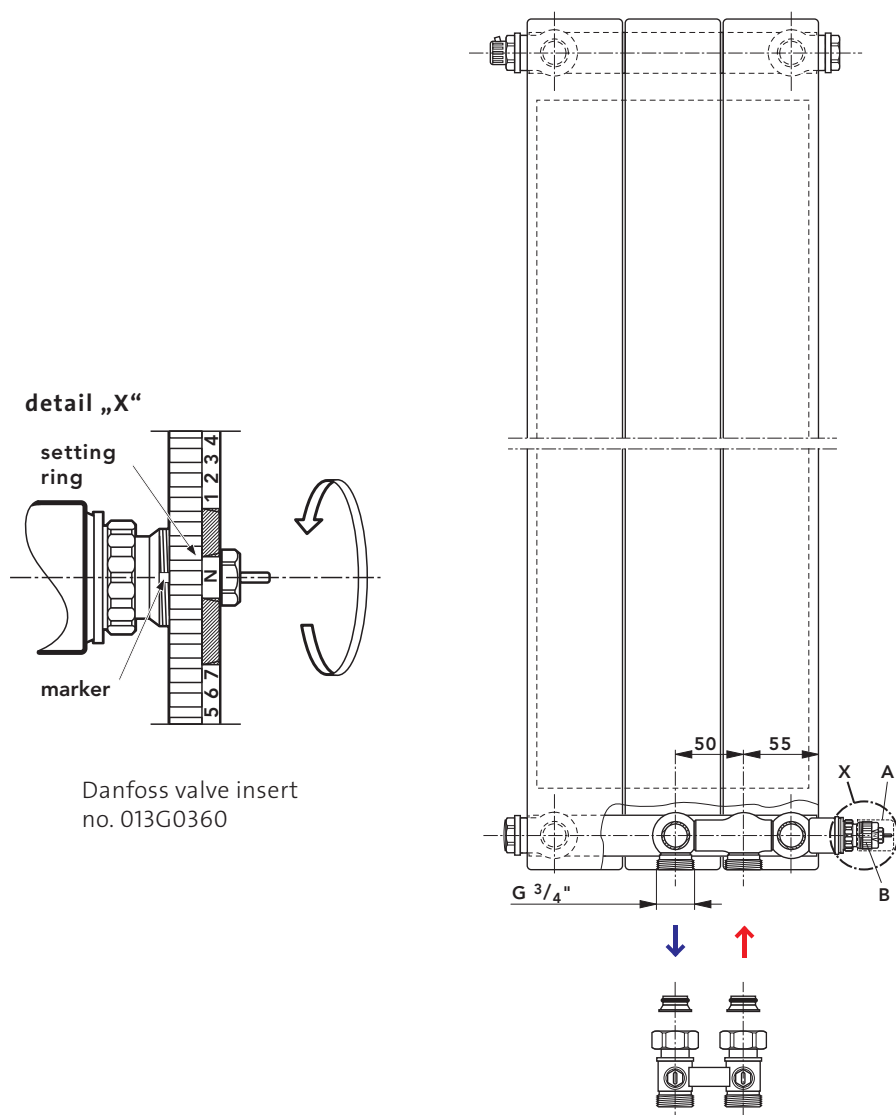
water volume : l/m

type	height [mm]		
	1600	1800	2000
NV 10	11.37	12.47	13.85
NV 11	11.37	12.47	13.85
NV 20	22.74	24.34	27.71
NV 21	22.74	24.34	27.71

type	NV 10	NV 11	NV 20	NV 21
height [mm]	1600; 1800; 2000	1600; 1800; 2000	1600; 1800; 2000	1600; 1800; 2000
width [mm]	214 – 862			
step	72 mm			

NARBONNE V VT

Proper initial preset can be easily and precisely obtained with no necessity of using any dedicated tools (see the diagrams below).



Note!!!: Narbonne V VT connection (supply and return) is opposite to Narbonne VT!

After the valve's masking cover has been removed (pos. A), a built-in valve insert (not included in the radiator's set) will be mounted (pos. B):

Danfoss (RA 2994, RAW 5115), **Oventrop Uni XD**, **Heimeier VK**, **Herz D**, **Honeywell thera-DA**.

Tips for setting:

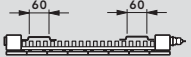
- remove the plastic valve's masking cover;
- rotate the setting ring to achieve the required setting (1, 2,...7, N) opposite the marker;
- the preset can be adjusted in the range between 1 and 7, with the resolution of 0.5 of the scale. The factory default preset values correspond to the highest kv value, which in turn corresponds to the "N" setting.

Note: adjustment of preset values between the scale's elements, in the crossed-out area, is not allowed!

RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE V VT 10 1600 430**

name _____
type _____
height _____
width _____



depth [mm]		68 mm 			68 mm 		
width [mm]	height [mm]	1600	1800	2000	1600	1800	2000
	$t_z / t_p / t_i$	NV 10	NV 10	NV 10	NV 11	NV 11	NV 11
		[W]	[W]	[W]	[W]	[W]	[W]
214 (3)	75/65/20 °C 55/45/20 °C	372 182	424 207	478 235	424 211	473 235	524 262
286 (4)	75/65/20 °C 55/45/20 °C	497 243	566 277	638 314	566 281	632 314	701 350
358 (5)	75/65/20 °C 55/45/20 °C	622 304	708 346	799 393	708 352	791 393	877 438
430 (6)	75/65/20 °C 55/45/20 °C	747 365	851 416	960 472	851 423	950 472	1054 526
502 (7)	75/65/20 °C 55/45/20 °C	872 427	993 486	1120 551	993 493	1109 551	1230 614
574 (8)	75/65/20 °C 55/45/20 °C	998 488	1136 556	1281 630	1136 564	1268 630	1406 702
646 (9)	75/65/20 °C 55/45/20 °C	1123 549	1278 625	1442 709	1278 635	1427 709	1583 790
718 (10)	75/65/20 °C 55/45/20 °C	1248 610	1421 695	1603 788	1421 706	1586 788	1759 878
790 (11)	75/65/20 °C 55/45/20 °C	1373 672	1563 764	1763 867	1563 776	1745 867	1936 966
862 (12)	75/65/20 °C 55/45/20 °C	1498 733	1706 834	1924 946	1706 847	1904 946	2112 1054

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.40	1.40	1.39	1.37	1.37	1.36
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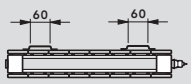
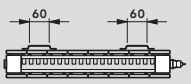
RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE V VT 20 1600 430**

name

type

height

width

depth [mm]		93 mm 			93 mm 		
width [mm]	height [mm]	1600	1800	2000	1600	1800	2000
	$t_z / t_p / t_i$	NV 20	NV 20	NV 20	NV 21	NV 21	NV 21
		[W]	[W]	[W]	[W]	[W]	[W]
214 (3)	75/65/20 °C 55/45/20 °C	627 305	706 345	786 386	681 333	768 376	859 424
286 (4)	75/65/20 °C 55/45/20 °C	839 408	944 462	1050 516	911 446	1026 502	1147 567
358 (5)	75/65/20 °C 55/45/20 °C	1050 511	1182 578	1315 646	1140 558	1285 629	1436 710
430 (6)	75/65/20 °C 55/45/20 °C	1261 614	1419 694	1579 776	1369 670	1543 755	1725 852
502 (7)	75/65/20 °C 55/45/20 °C	1472 716	1657 810	1843 906	1598 782	1801 881	2014 995
574 (8)	75/65/20 °C 55/45/20 °C	1683 819	1895 927	2108 1036	1828 894	2060 1008	2303 1138
646 (9)	75/65/20 °C 55/45/20 °C	1894 922	2132 1043	2372 1166	2057 1006	2318 1134	2592 1281
718 (10)	75/65/20 °C 55/45/20 °C	2105 1024	2370 1159	2636 1296	2286 1118	2576 1260	2881 1424
790 (11)	75/65/20 °C 55/45/20 °C	2316 1127	2608 1276	2901 1426	2515 1230	2835 1387	3169 1566
862 (12)	75/65/20 °C 55/45/20 °C	2527 1230	2845 1392	3165 1556	2745 1343	3093 1513	3458 1709

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.41	1.40	1.39	1.40	1.40	1.38
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Notes

[illegible]

NARBONNE M

Narbonne M radiators are composed of several interconnected profiled steel heating elements of rectangular cross sections. Each radiator has two centrally located bottom connecting openings with G ¾" male threads that enable bottom connection. Three side openings with G ½" female threads are used as a standard to install a Danfoss thermostatic valve insert with pre-regulation, an air vent, and a blanking plug. Narbonne M radiators have two side covers and a top masking grille.

Up to and including the height of 286 mm, Narbonne M radiators are delivered without hangers, while models 358 mm to 790 mm high have, as a standard, installation hangers welded on the back of the radiator.

Narbonne M radiators in the WVO version, up to 286 mm high, type NA-S 22, 34, and 47, are equipped with a protective screen that reduces emission of heat towards the external partition located behind the radiator.

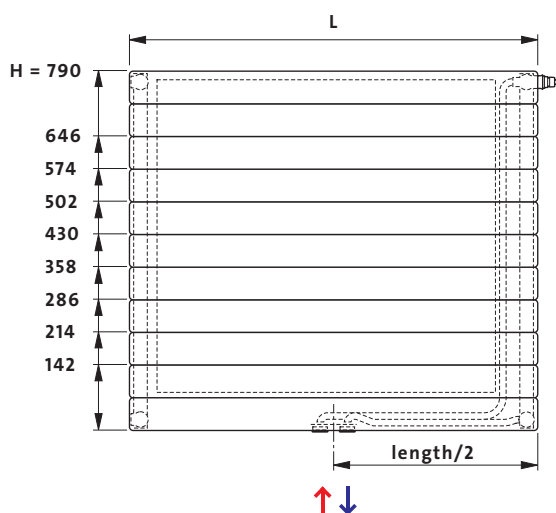
technical specification

- Material : high quality steel profiles of a rectangular cross section, dimensions: 70 x 11 x 1.5 mm (high pressure version: 70 x 11 x 2.0 mm)
- Height : 142, 214, 286, 358, 430, 502, 574, 646, 790 mm
- Length : from 500 up to 2400 mm
- Depth : from 68 up to 257 mm
- Connections : 2 x G ¾" bottom, middle; 3 x G ½" side
- Max. operating pressure : 5 bar for the standard version, 8 bar for the high pressure version
- Max. temperature : 110°C
- Colour : RAL 9016, other RAL colours available, surcharge at each order
- Brackets : wall or floor – ordered separately, at Client's preference
- Accessories : plug and air vent, Danfoss thermostatic valve insert included in the radiator's kit

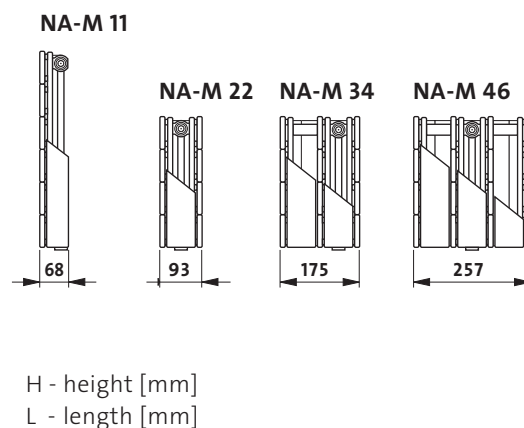


NARBONNE M

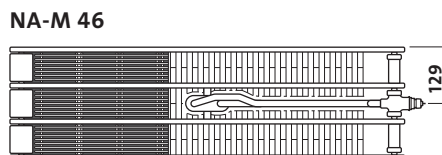
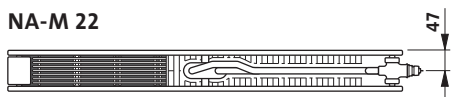
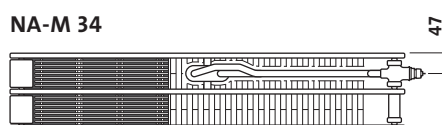
front view



example side views



top view



Note: the diagrams show the right-hand side versions of the radiators.

weight and water volume

weight : kg/m

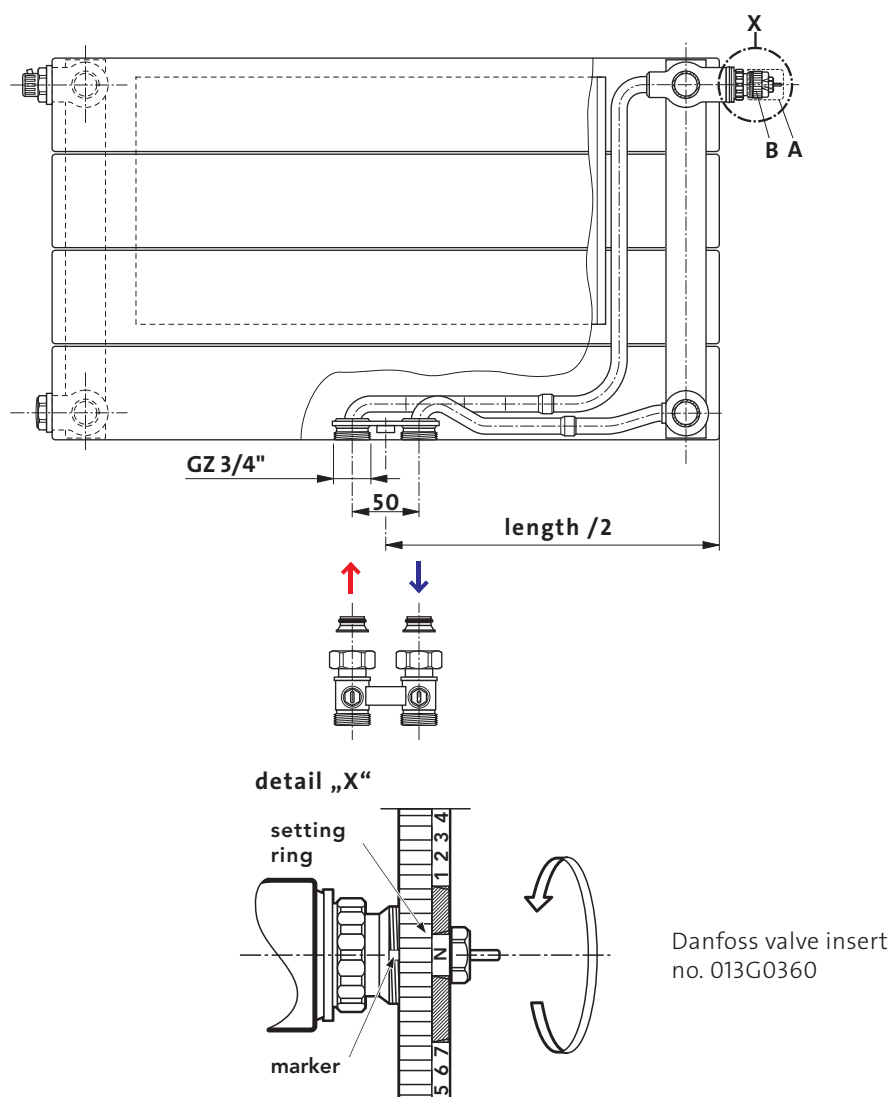
type	height [mm]								
	142	214	286	358	430	502	574	646	790
NA-M 11	-	-	-	16.71	19.85	22.99	26.15	29.29	33.55
NA-M 22	-	20.59	27.23	30.89	36.93	42.96	49.01	55.05	63.06
NA-M 34	23.93	35.18	46.42	-	-	-	-	-	-
NA-M 46	33.89	49.76	65.62	-	-	-	-	-	-

water volume : l/m

type	height [mm]								
	142	214	286	358	430	502	574	646	790
NA-M 11	-	-	-	2.78	3.33	3.87	4.44	4.99	6.12
NA-M 22	-	3.34	4.44	5.55	6.66	7.77	8.88	9.99	12.22
NA-M 34	3.33	4.99	6.66	-	-	-	-	-	-
NA-M 46	4.53	6.79	9.06	-	-	-	-	-	-

type	NA-M 11	NA 22	NA 34	NA 46
height [mm]	358, 430; 502; 574; 646; 790	214; 286; 358, 430; 502; 574; 646; 790	142; 214; 286	142; 214; 286
length [mm]	500 - 2400 mm			
step	100 mm (200 mm from the length of 1400 mm)			

Proper initial preset can be easily and precisely obtained with no necessity of using any dedicated tools (see the diagrams below).



After the valve's masking cover has been removed (pos. A), a built-in valve insert (not included in the radiator's set) will be mounted (pos. B):

Danfoss (RA 2994, RAW 5115), Oventrop Uni XD, Heimeier VK, Herz D, Honeywell thera-DA.

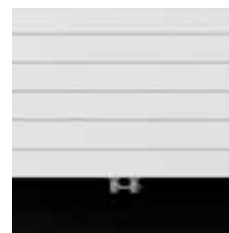
Tips for setting:

- remove the plastic valve's masking cover;
- rotate the setting ring to achieve the required setting (1, 2,...7, N) opposite the marker;
- the preset can be adjusted in the range between 1 and 7, with the resolution of 0.5 of the scale. The factory default preset values correspond to the highest kv value, which in turn corresponds to the "N" setting.

Note: adjustment of preset values between the scale's elements, in the crossed-out area, is not allowed!

RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE M 11 358 1600**

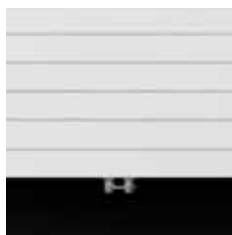
name
type
height
length



depth [mm]		68 mm 					
length [mm]	height [mm]	358	430	502	574	646	790
	$t_z / t_p / t_i$	NA-M 11	NA-M 11	NA-M 11	NA-M 11	NA-M 11	NA-M 11
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	313 160	359 186	402 208	443 228	483 249	553 279
600	75/65/20 °C 55/45/20 °C	375 192	431 223	482 249	532 274	579 298	663 334
700	75/65/20 °C 55/45/20 °C	438 224	503 260	563 291	620 319	676 348	774 390
800	75/65/20 °C 55/45/20 °C	500 256	574 297	643 333	709 365	772 397	884 446
900	75/65/20 °C 55/45/20 °C	563 288	646 334	724 375	797 410	869 447	995 502
1000	75/65/20 °C 55/45/20 °C	625 320	718 371	804 416	886 456	965 497	1105 557
1100	75/65/20 °C 55/45/20 °C	688 352	790 409	884 457	975 502	1062 547	1216 613
1200	75/65/20 °C 55/45/20 °C	750 384	862 446	965 499	1063 547	1158 596	1326 669
1300	75/65/20 °C 55/45/20 °C	813 416	933 483	1045 541	1152 593	1255 646	1437 725
1400	75/65/20 °C 55/45/20 °C	875 448	1005 520	1126 583	1240 638	1351 695	1547 780
1600	75/65/20 °C 55/45/20 °C	1000 512	1149 594	1286 665	1418 730	1544 795	1768 892
1800	75/65/20 °C 55/45/20 °C	1125 576	1292 668	1447 749	1595 821	1737 894	1989 1003
2000	75/65/20 °C 55/45/20 °C	1250 640	1436 743	1608 832	1772 912	1930 993	2210 1115
2200	75/65/20 °C 55/45/20 °C	1375 704	1580 817	1769 915	1949 1003	2123 1093	2431 1226
2400	75/65/20 °C 55/45/20 °C	1500 768	1723 891	1930 999	2126 1094	2316 1192	2652 1338

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.31	1.29	1.29	1.30	1.30	1.34
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE M 22 214 1600**

name

type

height

length

depth [mm]		93 mm 		93 mm 	
length [mm]	height [mm]	214	286	358	430
	$t_z / t_p / t_i$	NA-M 22	NA-M 22	NA-M 22	NA-M 22
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	385 197	469 239	550 277	634 321
600	75/65/20 °C 55/45/20 °C	461 236	563 287	660 333	761 386
700	75/65/20 °C 55/45/20 °C	538 276	657 335	770 388	888 450
800	75/65/20 °C 55/45/20 °C	615 315	750 382	880 444	1014 514
900	75/65/20 °C 55/45/20 °C	692 354	844 430	990 499	1141 578
1000	75/65/20 °C 55/45/20 °C	769 394	938 478	1100 555	1268 643
1100	75/65/20 °C 55/45/20 °C	846 433	1032 526	1210 610	1395 707
1200	75/65/20 °C 55/45/20 °C	923 473	1126 574	1320 666	1522 772
1300	75/65/20 °C 55/45/20 °C	1000 512	1219 621	1430 721	1648 835
1400	75/65/20 °C 55/45/20 °C	1077 552	1313 669	1540 777	1775 900
1600	75/65/20 °C 55/45/20 °C	1230 630	1501 765	1760 888	2029 1029
1800	75/65/20 °C 55/45/20 °C	1384 709	1688 860	1980 999	2282 1157
2000	75/65/20 °C 55/45/20 °C	1538 788	1876 956	2200 1110	2536 1286
2200	75/65/20 °C 55/45/20 °C	1692 867	2064 1052	2420 1221	2790 1414
2400	75/65/20 °C 55/45/20 °C	1846 945	2251 1147	2640 1331	3043 1543

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.31	1.32	1.34	1.33
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE M 22 502 1600**

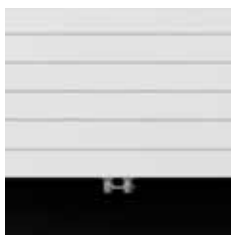
name
type
height
length



depth [mm]		93 mm 			
length [mm]	height [mm]	502	574	646	790
	$t_z / t_p / t_i$	NA-M 22	NA-M 22	NA-M 22	NA-M 22
		[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	703 355	767 385	827 413	943 459
600	75/65/20 °C 55/45/20 °C	843 425	920 462	992 495	1132 551
700	75/65/20 °C 55/45/20 °C	984 496	1074 539	1158 578	1320 642
800	75/65/20 °C 55/45/20 °C	1124 567	1227 616	1323 660	1509 734
900	75/65/20 °C 55/45/20 °C	1265 638	1381 693	1489 743	1697 826
1000	75/65/20 °C 55/45/20 °C	1405 709	1534 770	1654 826	1886 918
1100	75/65/20 °C 55/45/20 °C	1546 780	1687 846	1819 908	2075 1010
1200	75/65/20 °C 55/45/20 °C	1686 850	1841 924	1985 991	2263 1101
1300	75/65/20 °C 55/45/20 °C	1827 921	1994 1001	2150 1073	2452 1193
1400	75/65/20 °C 55/45/20 °C	1967 992	2148 1078	2316 1156	2640 1285
1600	75/65/20 °C 55/45/20 °C	2248 1134	2454 1231	2646 1321	3018 1469
1800	75/65/20 °C 55/45/20 °C	2529 1275	2761 1385	2977 1486	3395 1652
2000	75/65/20 °C 55/45/20 °C	2810 1417	3068 1539	3308 1651	3772 1836
2200	75/65/20 °C 55/45/20 °C	3091 1559	3375 1693	3639 1817	4149 2019
2400	75/65/20 °C 55/45/20 °C	3372 1701	3682 1848	3970 1982	4526 2202

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.34	1.35	1.36	1.41
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE M 34 142 1600**

name _____
type _____
height _____
length _____

depth [mm]		175 mm 			257 mm 		
length [mm]	height [mm]	142	214	286	142	214	286
	$t_z / t_p / t_i$	NA-M 34	NA-M 34	NA-M 34	NA-M 46	NA-M 46	NA-M 46
		[W]	[W]	[W]	[W]	[W]	[W]
500	75/65/20 °C 55/45/20 °C	477 247	679 346	808 403	717 369	948 478	1179 586
600	75/65/20 °C 55/45/20 °C	572 296	814 415	970 484	860 494	1137 573	1414 702
700	75/65/20 °C 55/45/20 °C	667 345	950 484	1131 565	1003 516	1327 669	1650 820
800	75/65/20 °C 55/45/20 °C	762 394	1086 553	1293 645	1146 590	1516 765	1886 937
900	75/65/20 °C 55/45/20 °C	858 444	1221 622	1454 726	1290 664	1706 860	2121 1053
1000	75/65/20 °C 55/45/20 °C	953 493	1357 691	1616 807	1433 738	1895 956	2357 1171
1100	75/65/20 °C 55/45/20 °C	1048 542	1493 761	1778 888	1576 811	2085 1052	2593 1288
1200	75/65/20 °C 55/45/20 °C	1144 592	1628 829	1939 968	1720 885	2274 1147	2828 1405
1300	75/65/20 °C 55/45/20 °C	1239 641	1764 899	2101 1049	1863 959	2464 1243	3064 1522
1400	75/65/20 °C 55/45/20 °C	1334 690	1900 968	2262 1129	2006 1033	2653 1338	3300 1639
1600	75/65/20 °C 55/45/20 °C	1525 789	2171 1106	2586 1291	2293 1180	3032 1529	3771 1873
1800	75/65/20 °C 55/45/20 °C	1715 887	2443 1245	2909 1452	2579 1328	3411 1720	4243 2107
2000	75/65/20 °C 55/45/20 °C	1906 986	2714 1383	3232 1613	2866 1475	3790 1911	4714 2341
2200	75/65/20 °C 55/45/20 °C	2097 1085	2985 1521	3555 1775	3153 1623	4169 2103	5185 2575
2400	75/65/20 °C 55/45/20 °C	2287 1183	3257 1660	3878 1936	3439 1770	4548 2294	5657 2810

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.29	1.32	1.36	1.30	1.34	1.37
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Notes

[illegible]

NARBONNE V M

Narbonne V M radiators are composed of several interconnected profiled steel heating elements of rectangular cross sections. Each radiator has two centrally located bottom connecting openings with G ½" female threads that enable bottom connection. Four side openings with G ½" female threads are used as a standard to install a vent and blanking plugs. Narbonne V M radiators have two side covers and no top cover.

Narbonne V M radiators have, as a standard, mounting hangers welded on their backs.

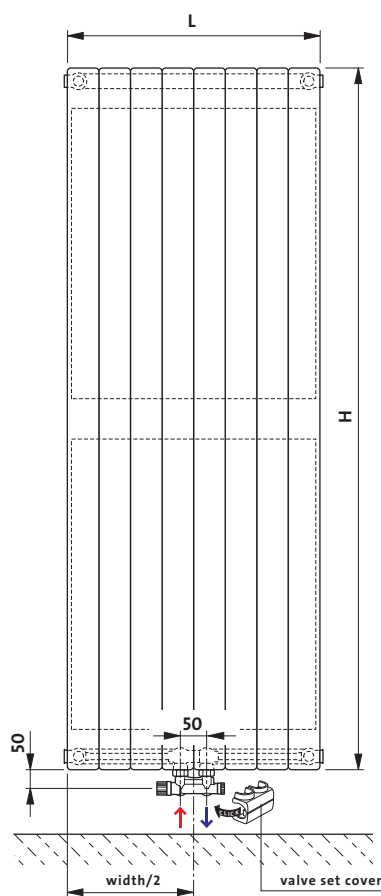
technical specification

- Material : high quality steel profiles of a rectangular cross section, dimensions: 70 x 11 x 1.5 mm (high pressure version: 70 x 11 x 2.0 mm)
- Height : 1600, 1800, 2000 mm
- Width : from 214 up to 862 mm
- Depth : 68 and 93 mm
- Connections : 2 x G ½" bottom, 4 x G ½" side
- Max. operating pressure : 5 bar for the standard version, 8 bar for the high pressure version
- Max. temperature : 110°C
- Colour : RAL 9016, other RAL colours available, surcharge at each order
- Accessories : plug and air vent, Danfoss thermostatic valve insert included in the radiator's kit

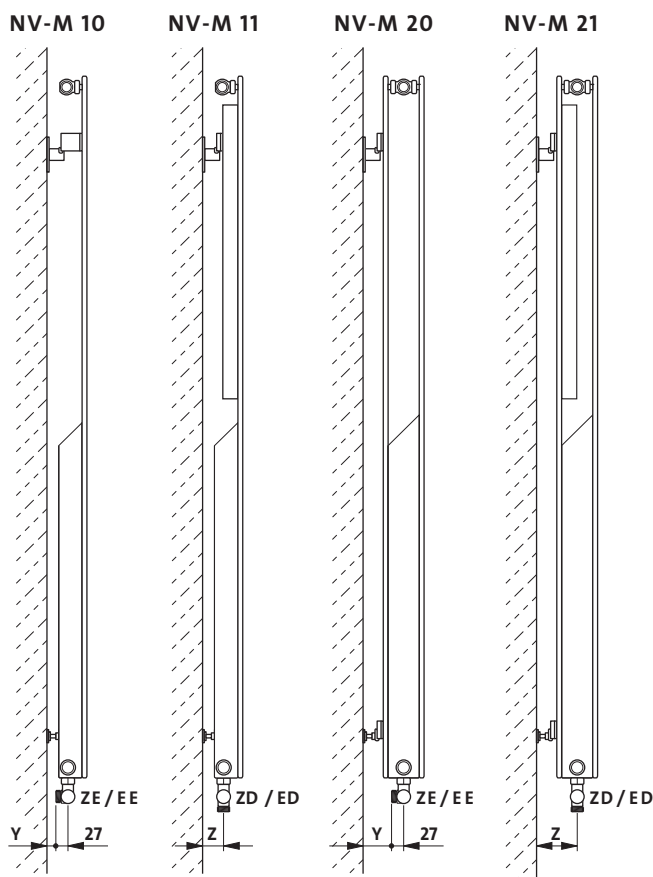


NARBONNE V M

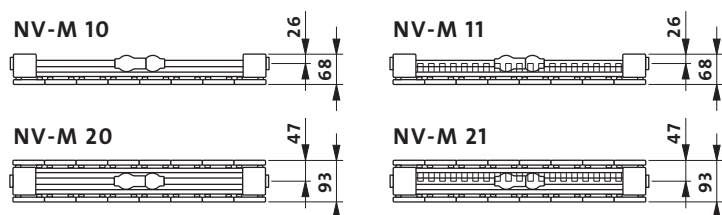
front view



side view



top view



connection

- ZE angle connection to a two-pipe system
- ZD flow-through connection to a two-pipe system
- EE angle connection to a one-pipe system
- ED flow-through connection to a one-pipe system

H - height [mm]
L - width [mm]

angle connection		
hanger	type	dimension Y [mm]
*	NV-M 10	*
WA 10	NV-M 20/21	53
*	NV-M 11	*
WA 11	NV-M 20/21	63

flow-through connection		
hanger	type	dimension Z [mm]
WA 10	NV-M 10/11*	35
WA 10	NV-M 20/21	79
WA 11	NV-M 10/11*	45
WA 11	NV-M 20/21	89

* **Tip:** When installing NV-M 10 and NV-M 11 radiators with angle connection (ZE, EE), use appropriate wall plugs or wall brackets to achieve the required distance from the wall.

type	NV-M 10	NV-M 11	NV-M 20	NV-M 21
height [mm]	1600; 1800; 2000	1600; 1800; 2000	1600; 1800; 2000	1600; 1800; 2000
width [mm]	214 – 862			
step	72 mm			

NARBONNE V M

weight and water volume

weight : kg/m

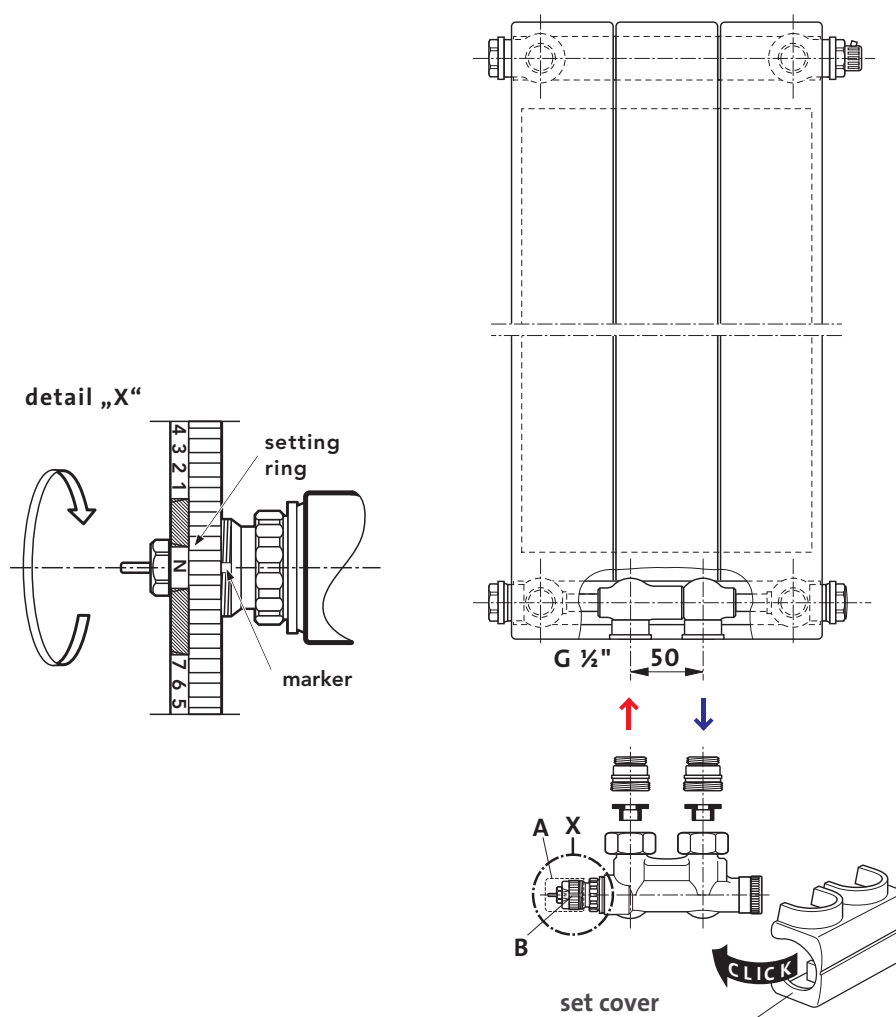
type	height [mm]		
	1600	1800	2000
NV-M 10	44.45	49.60	54.75
NV-M 11	63.39	68.53	73.69
NV-M 20	85.44	95.46	105.48
NV-M 21	104.37	114.39	124.42

water volume : l/m

type	height [mm]		
	1600	1800	2000
NV-M 10	11.37	12.47	13.85
NV-M 11	11.37	12.47	13.85
NV-M 20	22.74	24.34	27.71
NV-M 21	22.74	24.34	27.71

NARBONNE V M

Proper initial preset can be easily and precisely obtained with no necessity of using any dedicated tools (see the diagrams below).



Vertical Narbonne V M radiators are delivered with a thermostatic valve (straight or angular) with a valve masking cover in the same colour as the radiator. When placing an order, define the valve type and the type of system (one- or two-pipe) in which the radiator will be installed.

After the valve's masking cover has been removed (pos. A), a built-in valve insert (not included in the radiator's set) will be mounted (pos. B):

Danfoss (RA 2994, RAW 5115), **Oventrop Uni XD**, **Heimeier VK**, **Herz D**, **Honeywell thera-DA**.

Tips for setting:

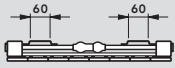
- remove the plastic valve's masking cover;
- rotate the setting ring to achieve the required setting (1, 2,...7, N) opposite the marker;
- the preset can be adjusted in the range between 1 and 7, with the resolution of 0.5 of the scale. The factory default preset values correspond to the highest kv value, which in turn corresponds to the "N" setting.

Note: adjustment of preset values between the scale's elements, in the crossed-out area, is not allowed!



RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE V M 10 1600 430**

name
type
height
width

depth [mm]		68 mm 			68 mm 		
width [mm]	height [mm]	1600	1800	2000	1600	1800	2000
	$t_z / t_p / t_i$	NV-M 10	NV-M 10	NV-M 10	NV-M 11	NV-M 11	NV-M 11
		[W]	[W]	[W]	[W]	[W]	[W]
214 (3)	75/65/20 °C 55/45/20 °C	372 182	424 207	478 235	424 211	473 235	524 262
286 (4)	75/65/20 °C 55/45/20 °C	497 243	566 277	638 314	566 281	632 314	701 350
358 (5)	75/65/20 °C 55/45/20 °C	622 304	708 346	799 393	708 352	791 393	877 438
430 (6)	75/65/20 °C 55/45/20 °C	747 365	851 416	960 472	851 423	950 472	1054 526
502 (7)	75/65/20 °C 55/45/20 °C	872 427	993 486	1120 551	993 493	1109 551	1230 614
574 (8)	75/65/20 °C 55/45/20 °C	998 488	1136 556	1281 630	1136 564	1268 630	1406 702
646 (9)	75/65/20 °C 55/45/20 °C	1123 549	1278 625	1442 709	1278 635	1427 709	1583 790
718 (10)	75/65/20 °C 55/45/20 °C	1248 610	1421 695	1603 788	1421 706	1586 788	1759 878
790 (11)	75/65/20 °C 55/45/20 °C	1373 672	1563 764	1763 867	1563 776	1745 867	1936 966
862 (12)	75/65/20 °C 55/45/20 °C	1498 733	1706 834	1924 946	1706 847	1904 946	2112 1054

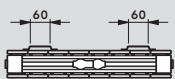
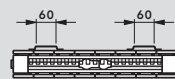
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.40	1.40	1.39	1.37	1.37	1.36
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RADIATOR DESCRIPTION - AN EXAMPLE : **NARBONNE V M 20 1600 430**

name _____
type _____
height _____
width _____



depth [mm]		93 mm 			93 mm 		
width [mm]	height [mm]	1600	1800	2000	1600	1800	2000
	$t_z / t_p / t_i$	NV-M 20	NV-M 20	NV-M 20	NV-M 21	NV-M 21	NV-M 21
		[W]	[W]	[W]	[W]	[W]	[W]
214 (3)	75/65/20 °C 55/45/20 °C	627 305	706 345	786 386	681 333	768 376	859 424
286 (4)	75/65/20 °C 55/45/20 °C	839 408	944 462	1050 516	911 446	1026 502	1147 567
358 (5)	75/65/20 °C 55/45/20 °C	1050 511	1182 578	1315 646	1140 558	1285 629	1436 710
430 (6)	75/65/20 °C 55/45/20 °C	1261 614	1419 694	1579 776	1369 670	1543 755	1725 852
502 (7)	75/65/20 °C 55/45/20 °C	1472 716	1657 810	1843 906	1598 782	1801 881	2014 995
574 (8)	75/65/20 °C 55/45/20 °C	1683 819	1895 927	2108 1036	1828 894	2060 1008	2303 1138
646 (9)	75/65/20 °C 55/45/20 °C	1894 922	2132 1043	2372 1166	2057 1006	2318 1134	2592 1281
718 (10)	75/65/20 °C 55/45/20 °C	2105 1024	2370 1159	2636 1296	2286 1118	2576 1260	2881 1424
790 (11)	75/65/20 °C 55/45/20 °C	2316 1127	2608 1276	2901 1426	2515 1230	2835 1387	3169 1566
862 (12)	75/65/20 °C 55/45/20 °C	2527 1230	2845 1392	3165 1556	2745 1343	3093 1513	3458 1709

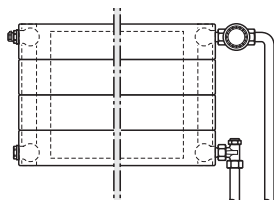
Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

exponent n	1.41	1.40	1.39	1.40	1.40	1.38
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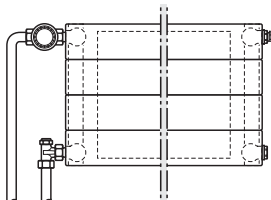
Connections

Types NA and NA-S - two-pipe system

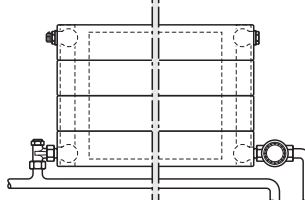
one-side connection
on the right side



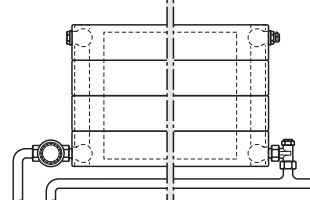
one-side connection
on the left side



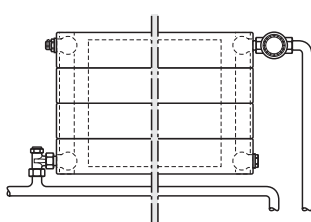
bottom connection on the right side
Note: reduced efficiency



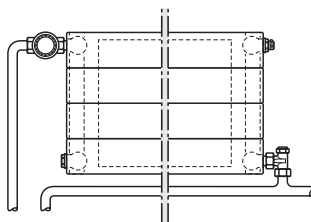
bottom connection on the left side
Note: reduced efficiency



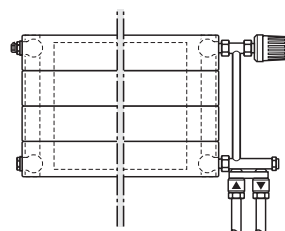
cross connection
on the right side



cross connection
on the left side



Types NA and NA-S - one-pipe system

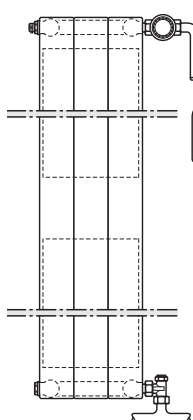


Narbonne decorative radiators can be easily connected to one-pipe systems using special sets with four-way valves and a bypass.

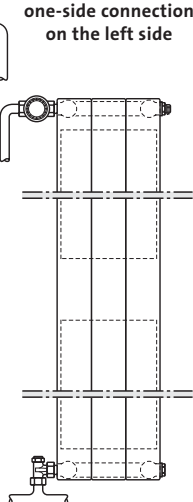
Types NV - two-pipe system

Note: radiators in the vertical version cannot be installed in one-pipe systems!

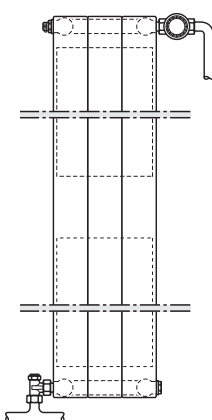
one-side connection
on the right side



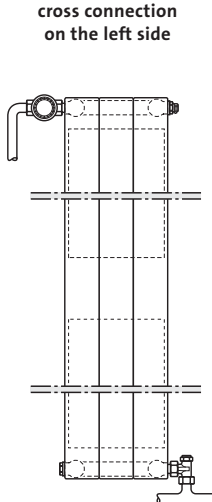
one-side connection
on the left side



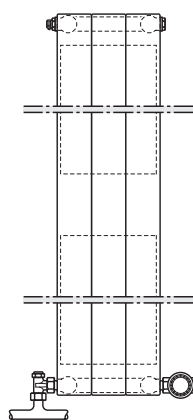
cross connection
on the right side



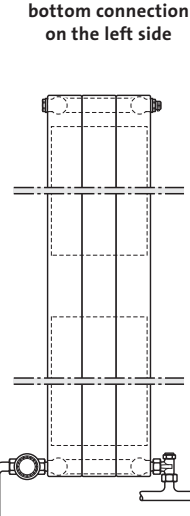
cross connection
on the left side



bottom connection
on the right side



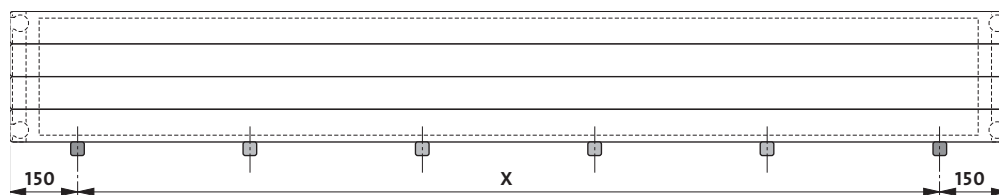
bottom connection
on the left side



Note: When ordering Narbonne radiators, make sure to provide information on the location of the connection ports. After a purchase order is accepted, no changes are possible!

Brackets for Narbonne of the height up to 286 mm

WK 10-13 wall brackets: positioning for Narbonne radiators



Note: When using more than two wall brackets, additional brackets should be evenly placed within the X segment

WK 10 wall brackets	WK 10-M wall brackets	WK 11-M wall brackets	WK 11-M wall brackets
NA 11	NA 22	NA 23	NA 34
WK 12 wall brackets	WK 13 wall brackets		
NA 35	NA 46	NA 58	

Selection tables for brackets

Tables to assist in the selection of the number and type of brackets for a Narbonne decorative radiator

WK wall hangers for NA radiators up to and including 286 mm high

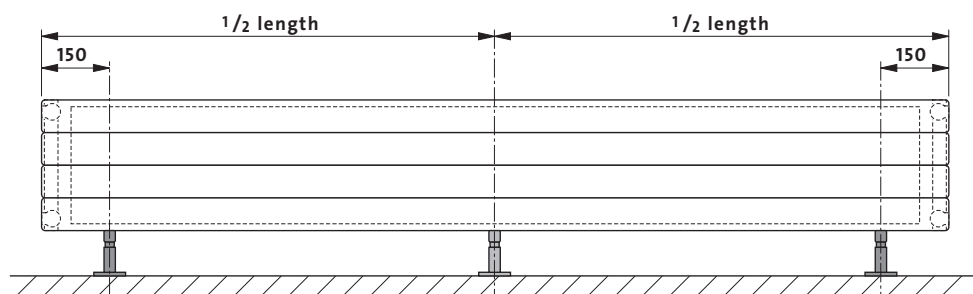
radiator's type brackets type length [mm]		NA 11		NA 22		NA 23		NA 34	
		WK 10		WK 10-M		WK 11-M		WK 11-M	
		500 up to 2000	2200 up to 4000	500 up to 2000	2200 up to 4000	500 up to 2000	2200 up to 4000	500 up to 2000	2200 up to 4000
height [mm]	70			2	3	2	3	2	3
	142			2	3	2	3	2	3
	214	2	3	2	3	2	3	2	3
	286	2	3	2	3	2	3	2	3

radiator's type brackets type length [mm]		NA 35		NA 35		NA 35		NA 46		NA 46	
		WK 12		WK 12		WK 12		WK 12		WK 12	
		500 up to 2000	2200 up to 4000	500 up to 1800	2200 up to 2600	2800 up to 3600	3800 up to 4000	500 up to 2000	2200 up to 3000	500 up to 1800	2000 up to 2800
height [mm]	70	2	3					2	3		
	142	2	3					2	3		
	214	2	3							2	3
	286			2	3	4	5				

radiator's type brackets type length [mm]		NA 46		NA 46		NA 58		NA 58		NA 58	
		WK 12		WK 12		WK 13		WK 13		WK 13	
		3000	500 up to 1400	1600 up to 2200	2400 up to 2800	500 up to 2000	2200	500 up to 1600	1800 up to 2200	500 up to 1100	1200 up to 1600
height [mm]	70					2	3				
	142							2	3		
	214	4								2	3
	286	5	2	3	4		6				

Stands for Narbonne of the height up to 286 mm

SK 10-19 stands: positioning for Narbonne radiators



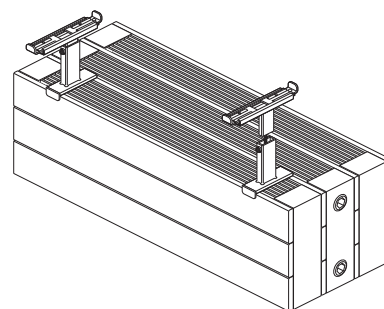
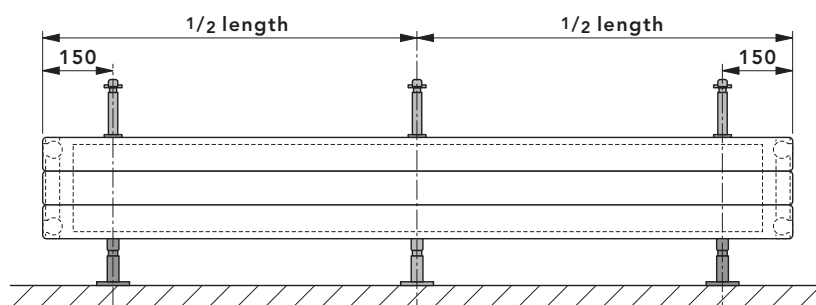
Note: For length values exceeding 2200 mm, it is necessary to apply the additional **third** SK stand!

SK 10 / SK 11	SK 12 / SK 13		SK 14 / SK 15	
NA 11	NA 22	NA 23	NA-S 22	NA 34
SK 14 / SK 15	SK 16 / SK 17		SK 18 / SK 19	
NA 35	NA-S 34	NA 46	NA-S 47	NA 58

X dimension: the required distance from the wall, or glass surface, as measured from the rear wall of the radiator

FBT 20 window sill support: position for NA and NA-S radiators

Window sill supports for later installation on **NA** and **NA-S 22 - 58** type radiators



Note: For length values exceeding 2200 mm, it is necessary to apply the additional **third** SK stand!

Selection tables for stands

SK stands type and quantity selection table for the Narbonne radiators

SK stands for NA and NA-S radiators of the height up to 286 mm (included)

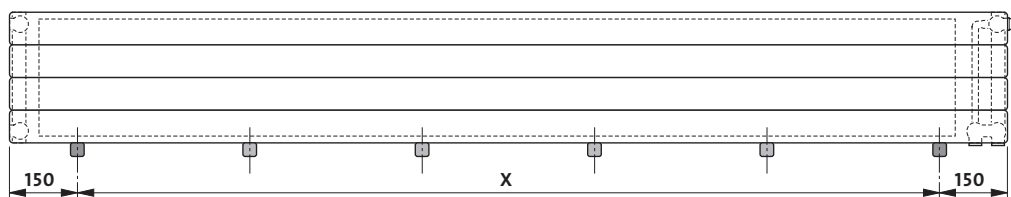
radiator's type stand / radiator's length [mm]	NA 11		NA 22		NA-S 22	
	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200
SK 10 for the finished floor	2	3				
SK 11 for the unfinished floor	2	3				
SK 12 for the finished floor			2	3		
SK 13 for the unfinished floor			2	3		
SK 14 for the finished floor					2	3
SK 15 for the unfinished floor					2	3

radiator's type stand / radiator's length [mm]	NA 23		NA 34		NA-S 34		NA 35	
	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200
SK 12 for the finished floor	2	3						
SK 13 for the unfinished floor	2	3						
SK 14 for the finished floor			2	3	2	3	2	3
SK 15 for the unfinished floor			2	3	2	3	2	3

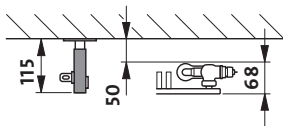
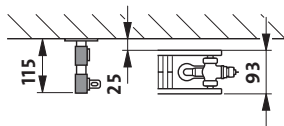
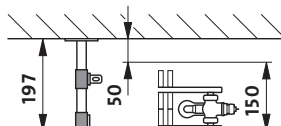
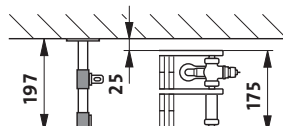
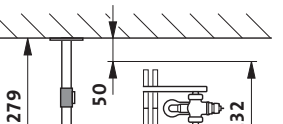
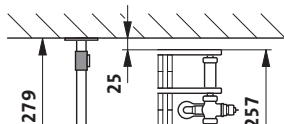
radiator's type stand / radiator's length [mm]	NA 46		NA-S 47		NA 58	
	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200
SK 16 for the finished floor	2	3				
SK 17 for the unfinished floor	2	3				
SK 18 for the finished floor			2	3	2	3
SK 19 for the unfinished floor			2	3	2	3

Brackets for Narbonne VT of the height up to 286 mm

WK 10-12 wall brackets: positioning for Narbonne VT radiators (up to 286 mm)

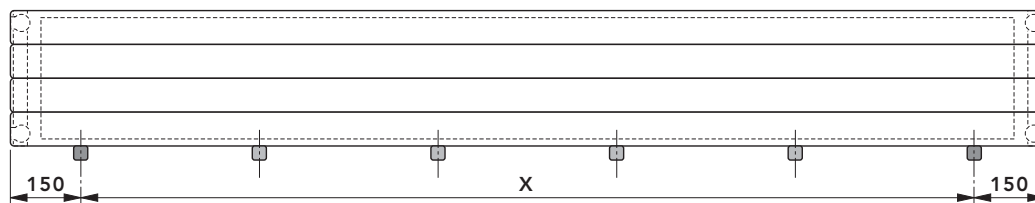


Note: When using more than **two** wall brackets, additional brackets should be evenly placed within the **X** segment.

WK 10 wall brackets		WK 10-M wall brackets		WK 11-M wall brackets	
NA 11		NA 22		NA 23	
					
NA 34					
					
WK 12 wall brackets					
NA 35		NA 46			
					

Brackets for Narbonne M of the height up to 286 mm

Wall brackets: positioning for Narbonne M radiators (up to 286 mm)



Note: When using more than **two** wall brackets, additional brackets should be evenly placed within the **X** segment.

WK 10-M wall brackets	WK 11-M wall brackets	WK 12 wall brackets
NA-M 22 for height 214 - 286 mm	NA-M 34	NA-M 46

Selection tables for brackets

Tables to assist in the selection of the number and type of brackets for Narbonne VT and Narbonne M decorative radiators with central connection

WK brackets for NA radiators of the height up to 286 mm (included)

radiator's type brackets type length [mm]		NA 11		NA 22		NA 23	
		WK 10		WK 10-M		WK 11-M	
		500 up to 2000	2200 up to 4000	500 up to 2000	2200 up to 4000	500 up to 2000	2200 up to 4000
height [mm]	142			2	3	2	3
	214	2	3	2	3	2	3
	286	2	3	2	3	2	3

radiator's type brackets type length [mm]		NA 34		NA 35		NA 35		NA 35	
		WK 11-M		WK 12		WK 12		WK 12	
		500 up to 2000	2200 up to 4000	500 up to 2000	2200 up to 4000	500 up to 1800	2200 up to 2600	2800 up to 3600	3800 up to 4000
height [mm]	142	2	3	2	3				
	214	2	3	2	3				
	286	2	3			2	3	4	5

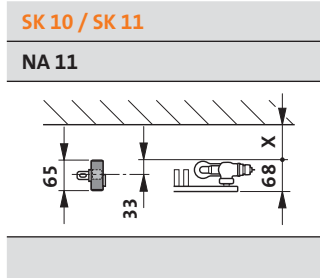
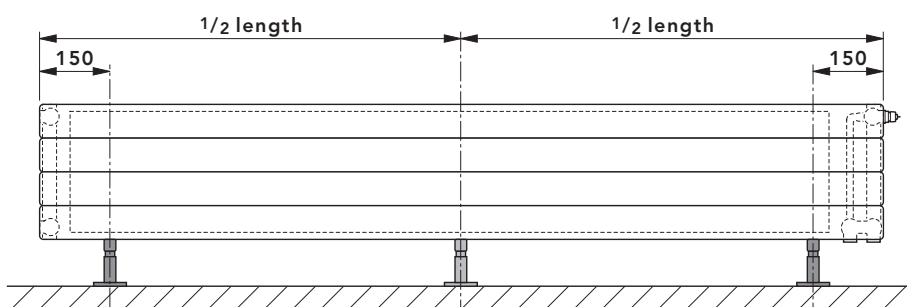
radiator's type brackets type length [mm]		NA 46		NA 46		NA 46		NA 46	
		WK 12		WK 12		WK 12		WK 12	
		500 up to 2000	2200 up to 3000	500 up to 1800	2000 up to 2800	3000	500 up to 1400	1600 up to 2200	2400 up to 2800
height [mm]	142	2	3						
	214			2	3	4			
	286					5	2	3	4

WK brackets for NA-M radiators of the height up to 286 mm (included)

radiator's type brackets type length [mm]		NA-M 22		NA-M 34		NA-M 46	
		WK 10-M		WK 11-M		WK 12	
		500 up to 2000	2200 up to 4000	500 up to 2000	2200 up to 4000	500 up to 2000	2200 up to 4000
height [mm]	142			2	3	2	3
	214	2	3	2	3	2	3
	286	2	3	2	3	2	3

Stands for Narbonne VT of the height up to 286 mm

SK 10 - 19 stands: positioning for NA/NA-S radiators (up to 286 mm)

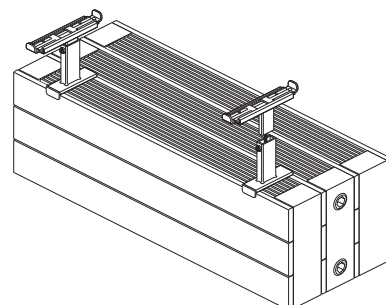
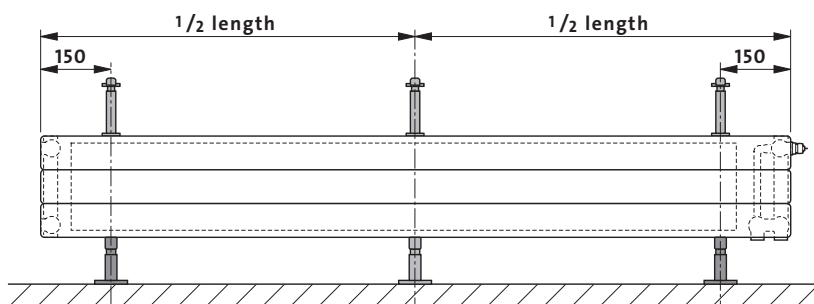


Note: For length values exceeding 2200 mm, it is necessary to apply the additional **third** SK stand!

SK 12 / SK 13		SK 14 / SK 15	
NA 22	NA 23	NA-S 22	NA 34
SK 14 / SK 15		SK 16 / SK 17	SK 18 / SK 19
NA 35	NA-S 34	NA 46	NA-S 47

FBT 20 window sill support: position for NA and NA-S radiators (up to the height of 286 mm)

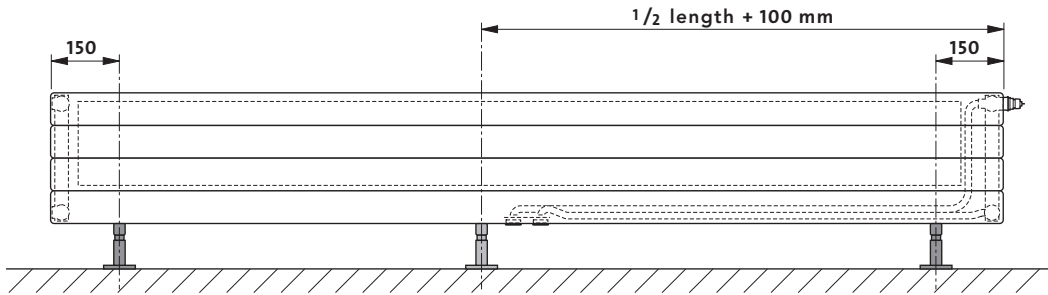
Window sill supports for later installation on NA and NA-S 22 - 47 type radiators (up to the height of 286 mm)



Note: For length values exceeding 2200 mm, it is necessary to apply the additional **third** SK stand!

Stands for Narbonne M of the height up to 286 mm

SK 12 - 17 stands: positioning for NA-M radiators (up to 286 mm)

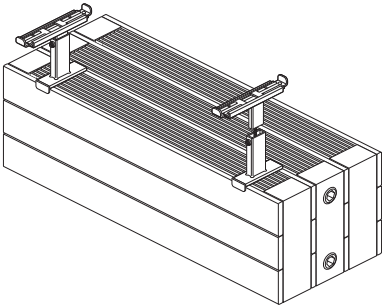
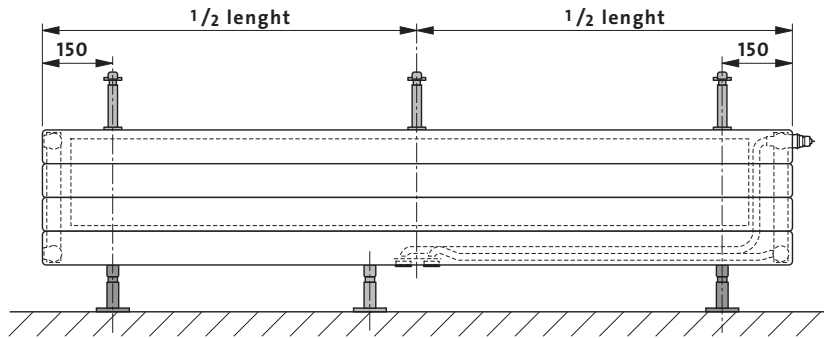


Note: For length values exceeding 2200 mm, it is necessary to apply the additional **third** SK stand!

SK 12 / SK 13 stand	SK 14 / SK 15 stand	SK 16 / SK 17 stand
NA-M 22	NA-M 34	NA-M 46

FBT 20 window sill support: positioning for NA-M radiators (up to 286 mm)

Window sill supports for installation on Narbonne M radiators: central connection for NA-M 22 - 46 types (up to the height of 286 mm)



Note: For length values exceeding 2200 mm, it is necessary to apply the additional **third** SK stand!

Selection tables for stands

SK stands type and quantity selection table for the Narbonne radiators VT and Narbonne M with middle connection

SK stands for NA and NA-S radiators of the height up to 286 mm

radiator's type stand / radiator's length [mm]	NA 11		NA 22		NA-S 22		NA 23	
	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200
SK 10 for the finished floor	2	3						
SK 11 for the unfinished floor	2	3						
SK 12 for the finished floor			2	3			2	3
SK 13 for the unfinished floor			2	3			2	3
SK 14 for the finished floor					2	3		
SK 15 for the unfinished floor					2	3		

radiator's type stand / radiator's length [mm]	NA 34		NA-S 34		NA 35		NA 46		NA-S 47	
	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200
SK 14 for the finished floor	2	3	2	3	2	3				
SK 15 for the unfinished floor	2	3	2	3	2	3				
SK 16 for the finished floor							2	3		
SK 17 for the unfinished floor							2	3		
SK 18 for the finished floor									2	3
SK 19 for the unfinished floor									2	3

SK stands for NA-M radiators of the height up to 286 mm

radiator's type stand / radiator's length [mm]	NA-M 22		NA-M 34		NA-M 46	
	up to 2000	from 2200	up to 2000	from 2200	up to 2000	from 2200
SK 12 for the finished floor	2	3				
SK 13 for the unfinished floor	2	3				
SK 14 for the finished floor			2	3		
SK 15 for the unfinished floor			2	3		
SK 16 for the finished floor					2	3
SK 17 for the unfinished floor					2	3

Position of hangers for Narbonne radiators with the height of 358-790 mm

type	NA 10/11 - bracket WA 11 - 40, NA 22 - bracket WA 11 - 30	
height 358 mm up to 502 mm		
type	NA 10/11 - bracket WA 11 - 40, NA 22 - bracket WA 11 - 30	
height 574 mm up to 790 mm		

* 3000 mm to 4000 mm long radiators are equipped with additional installation hangers nos 4 and 5, placed symmetrically relative to the vertical axis of the radiator.

Horizontal NARBONNE radiators (358 to 790 mm high) **with hangers** are installed using brackets **WA 11**, **NA 10/11** radiators – using brackets **WA 11 – 40**, and **NA 22** radiators – using brackets **WA 11 - 30**.

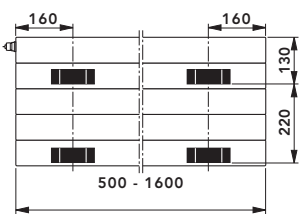
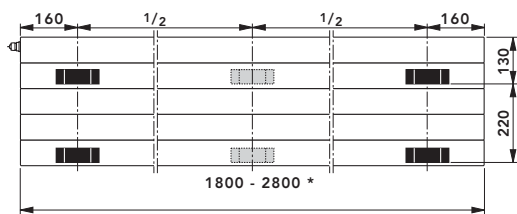
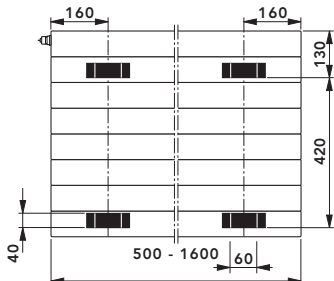
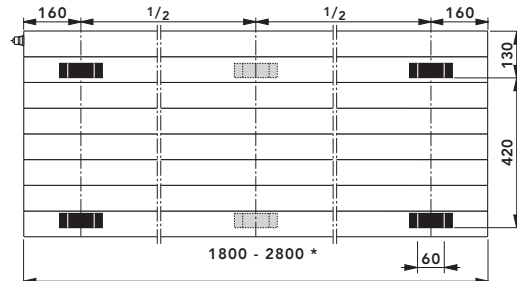
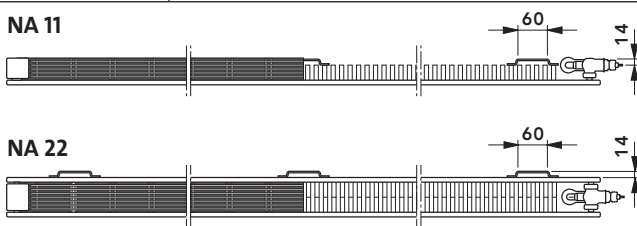
Brackets WA 11 for radiators with hangers enable a quick, professional and stable installation of NARBONNE radiators without the necessity to remove the protective packaging.

Hanger position – 4 and 5

L [mm]	R ** [mm]
3000	670
3200	720
3400	770
3600	820
3800	870
4000	920

** R - The distance from the vertical axis of the radiator to the axis of hangers 4 and 5

Position of hangers for Narbonne VT radiators with the height of 358-790 mm

type	NA 11 - bracket WA 11 - 40, NA 22 - bracket WA 11 - 30	
height 358 mm up to 502 mm		
height 574 mm up to 790 mm		
		

* 3000 mm to 4000 mm long radiators are equipped with additional installation hangers nos 4 and 5, placed symmetrically relative to the vertical axis of the radiator.

Horizontal NARBONNE VT radiators (358 to 790 mm high) **with hangers** are installed using brackets **WA 11, NA 11** radiators – using brackets **WA 11 – 40**, and **NA 22** radiators – using brackets **WA 11 - 30**.

Brackets WA 11 for radiators with hangers enable a quick, professional and stable installation of NARBONNE VT radiators without the necessity to remove the protective packaging.

Hanger position – 4 and 5

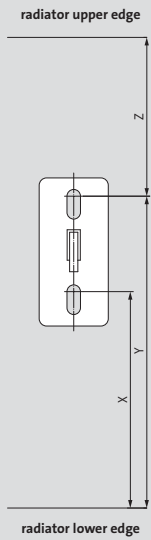
L [mm]	R ** [mm]
3000	670
3200	720
3400	770
3600	820
3800	870
4000	920

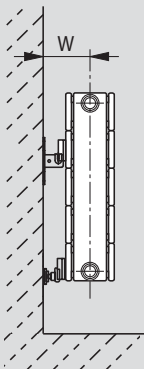
** R - The distance from the vertical axis of the radiator to the axis of hangers 4 and 5

Installation of brackets for the height of 358 - 790 mm

WA11 brackets are intended for **NA 10**, **NA 11**, and **NA 22** radiators with hangers (height 358 mm to 790 mm). They enable professional, quick, and stable installation of **Narbonne** and **Narbonne VT** decorative radiators without the need to remove the protective packaging.

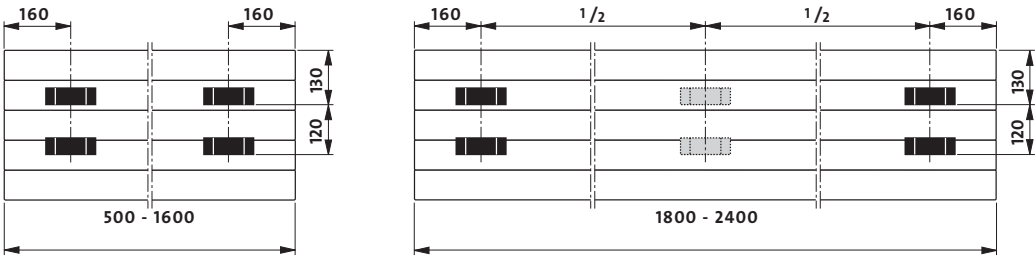
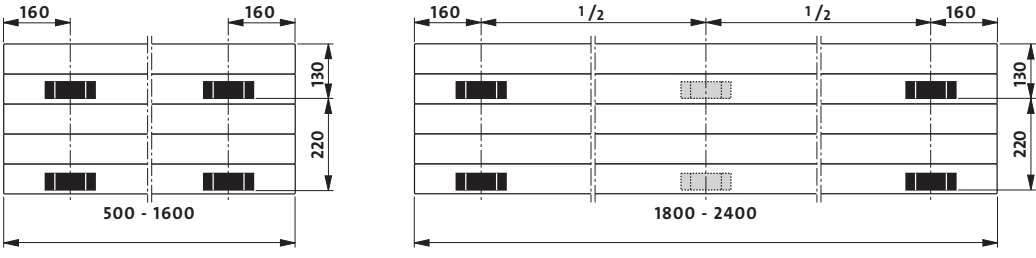
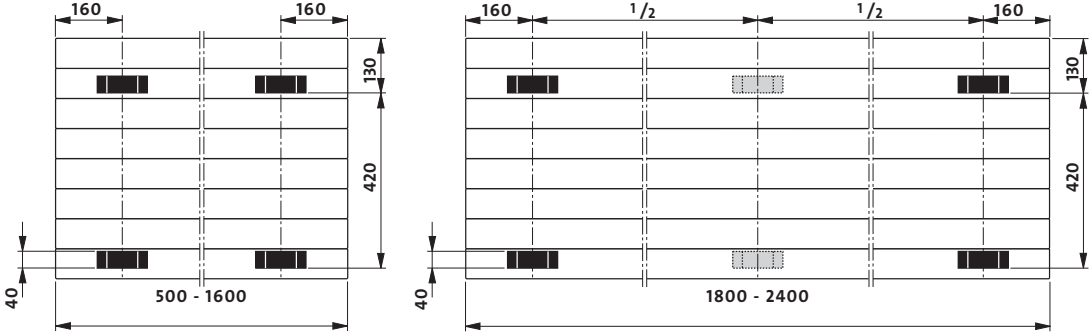
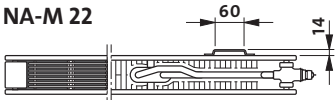
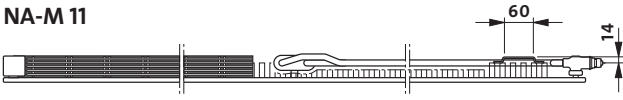
Brackets for 358 mm to 790 mm high radiators

Installation dimensions for the WA11 brackets				
Bracket for 358 mm to 790 mm high radiators	radiator height [mm]	dimension X [mm]	dimension Y [mm]	dimension Z [mm]
	358	203	261	97
	430	275	333	97
	502	347	405	97
	574	419	477	97
	646	491	549	97
	790	635	693	97

Distance from the wall				
	bracket type	radiator's type	height [mm]	dimension W [mm]
	WA 11 - 40	NA 10/11	358 - 790	55
	WA 11 - 30	NA 22	358 - 790	89

Bracket selection table on page 114

Position of hangers for the height of 358 mm to 790 mm

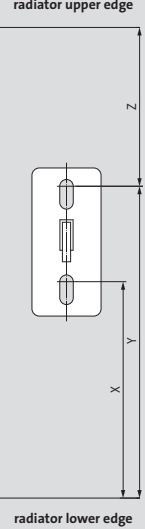
type	NA-M 11 - bracket WA 11 - 40, NA-M 22 - bracket WA 11 - 30	
height 358 mm		
type	NA-M 11 - bracket WA 11 - 40, NA-M 22 - bracket WA 11 - 30	
height 430-574 mm NA-M 11, 358-502 mm NA-M 22		
type	NA-M 11 - bracket WA 11 - 40, NA-M 22 - bracket WA 11 - 30	
height 646-790 mm NA-M 11, 574-790 mm NA-M 22		
		

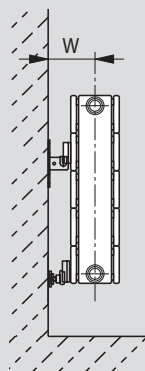
Note! Horizontal versions of NA-M 11 and NA-M 22 radiators (height from 358 mm to 790 mm) are delivered **with hangers** as a standard.

Installation of brackets for Narbonne M 358 to 790 mm high

WA11 brackets are intended for the horizontal version of **NA-M 11** and **NA-M 22** radiators (height from 358mm to 790mm) **with hangers**. They enable professional, quick, and stable installation of **Narbonne M** decorative radiators without the need to remove the protective packaging.

Brackets for 358 mm to 790 mm high radiators

Distances between openings in WA11 brackets					
Bracket for 358 mm to 790 mm high radiators	type	radiator height [mm]	dimension X [mm]	dimension Y [mm]	dimension Z [mm]
	NA-M 11, 22	358	203	261	97
	NA-M 11, 22	430	275	333	97
	NA-M 11, 22	502	347	405	97
	NA-M 11, 22	574	419	477	97
	NA-M 11, 22	646	491	549	97
	NA-M 11, 22	790	635	693	97

Distance from the wall				
	bracket type	radiator's type	height [mm]	dimension W [mm]
	WA 11 - 40	NA-M 11	358 - 790	55
	WA 11 - 30	NA-M 22	358 - 790	89

Bracket selection table on page 114

Bracket selection table

A table intended to assist in the selection of the number and type of brackets for Narbonne, Narbonne VT, and Narbonne M decorative radiators, 358 mm to 790 mm high

Table for the selection of the number of **WA 11 - 40** brackets for 358 mm to 790 mm high NA and NA-M radiators with hangers

radiator's type		NA 10			NA and NA-M 11		
length [mm]		up to 1600	from 1800 up to 2800	from 3000 up to 4000	up to 1600	from 1800 up to 2800	from 3000 up to 4000
height [mm]	double set for 358	1	2	3	1	2	3
	double set for 430	1	2	3	1	2	3
	double set for 502	1	2	3	1	2	3
	double set for 574	1	2	3	1	2	3
	double set for 646	1	2	3	1	2	3
	double set for 790	1	2	3	1	2	3

Table for the selection of the number of **WA 11 - 30** brackets for 358 mm to 790 mm high NA and NA-M radiators with hangers

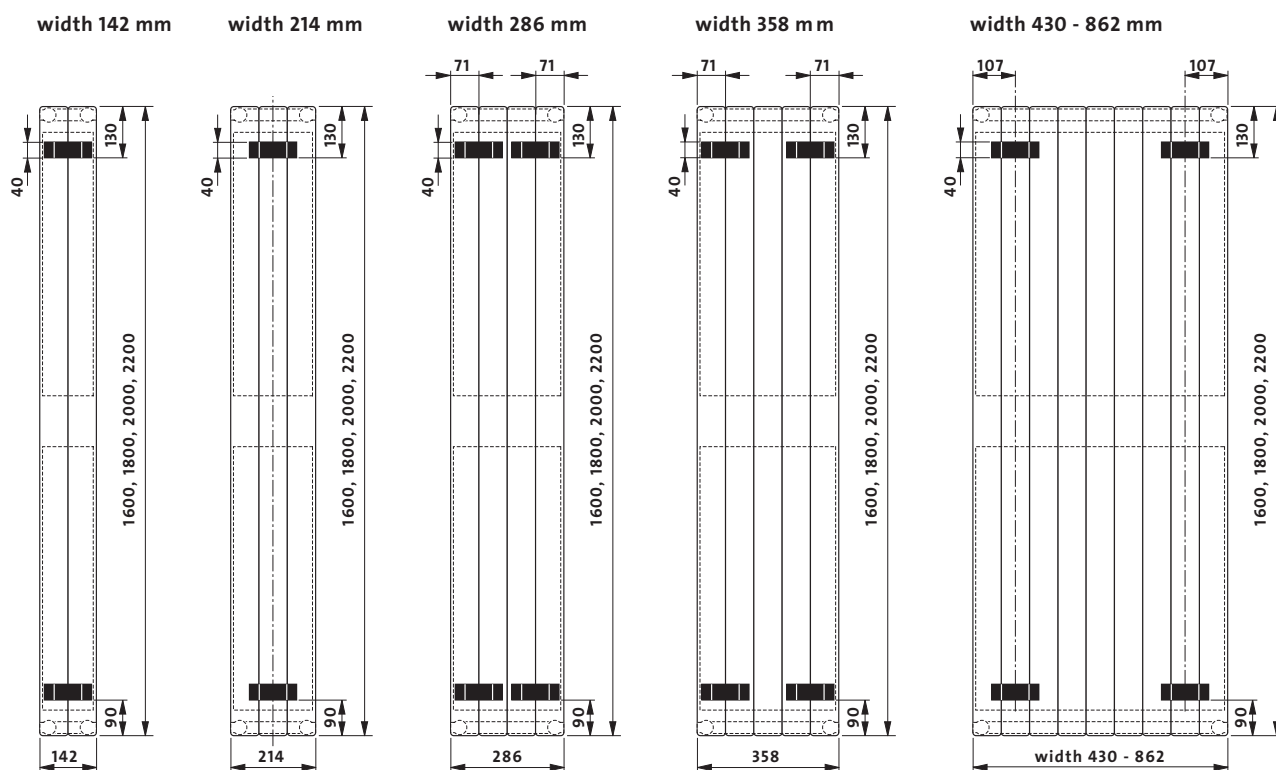
radiator's type		NA and NA-M 22		
length [mm]		up to 1600	from 1800 up to 2800	from 3000 up to 4000
height [mm]	double set for 358	1	2	3
	double set for 430	1	2	3
	double set for 502	1	2	3
	double set for 574	1	2	3
	double set for 646	1	2	3
	double set for 790	1	2	3

Auxiliary table for the selection of the number and type of brackets for the decorative vertical radiators Narbonne V, Narbonne V VT and Narbonne V M

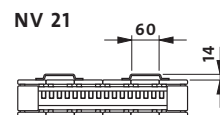
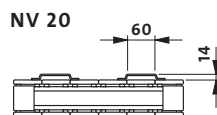
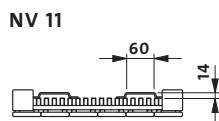
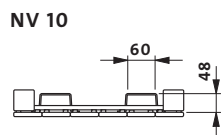
radiator's type	NV, NV VT, NV-M 10		NV, NV VT, NV-M 11		NV, NV VT, NV-M 20		NV, NV VT, NV-M 21	
width [mm]	up to 214	from 286	up to 214	from 286	up to 214	from 286	up to 214	from 286
WA 10 - 40	1		1					
WA 10 - 20					1		1	
WA 11 - 40		1		1				
WA 11 - 30						1		1

Position of hangers for Narbonne V radiators

back view

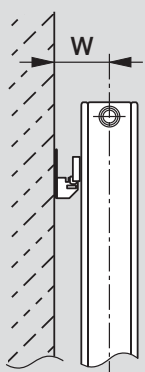


top view



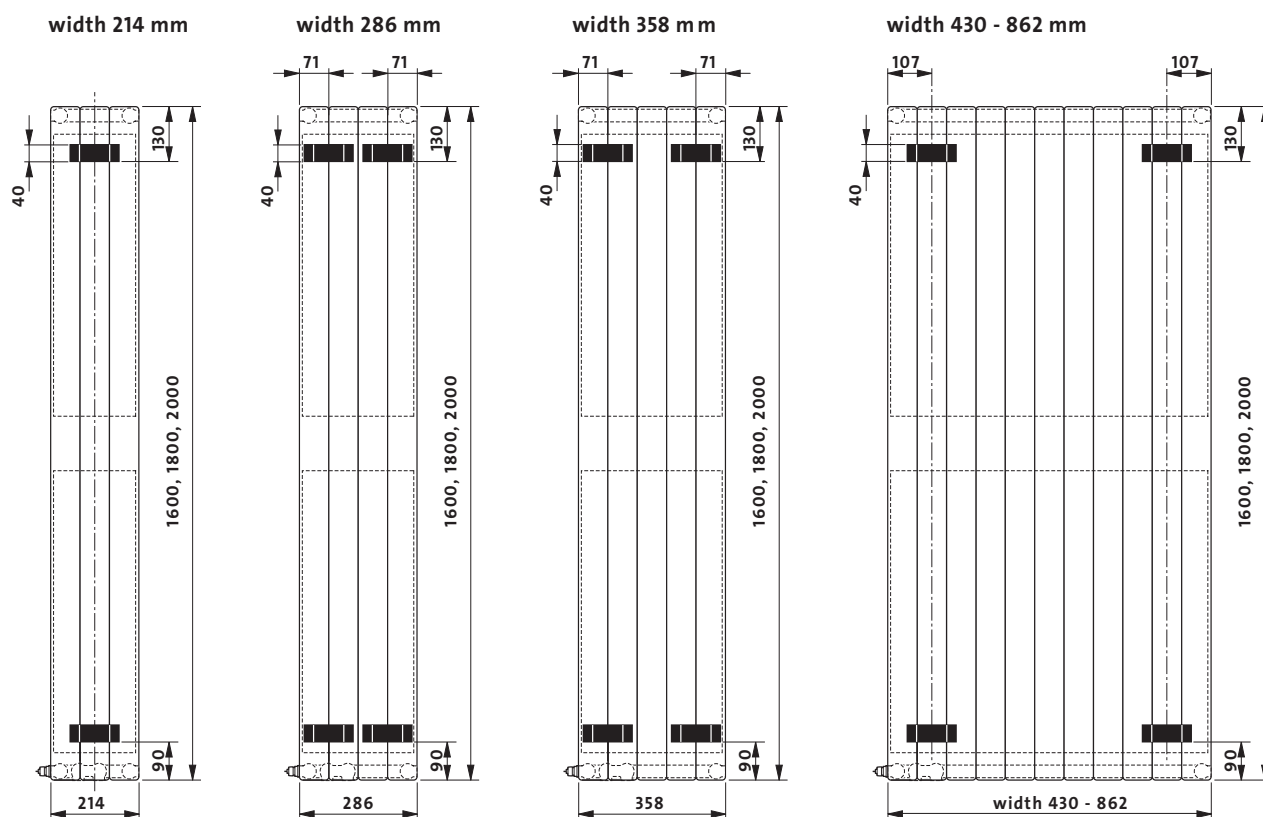
Distance from the wall: **wall bracket WA10 and WA11** for Narbonne V radiators

Distance from the wall

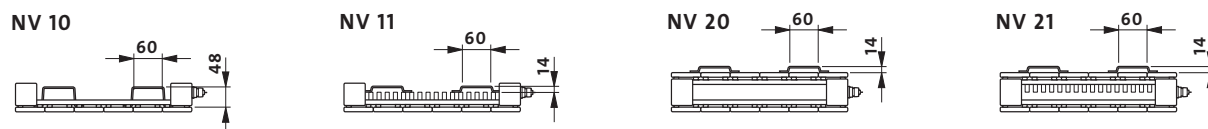
	brackets type	radiator's type	radiator's width [mm]	dimension W [mm]	number of brackets
	WA 10 - 40	NV 10/11	142, 214	55	1 set
	WA 10 - 30	NV 20/21	142, 214	79	1 set
	WA 11 - 40	NV 10/11	286 up to 862	55	1 set
	WA 11 - 30	NV 20/21	286 up to 862	89	1 set

Position of hangers for Narbonne V VT radiators

back view

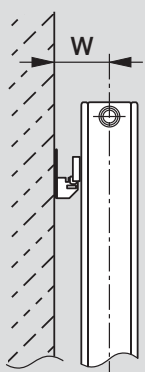


top view



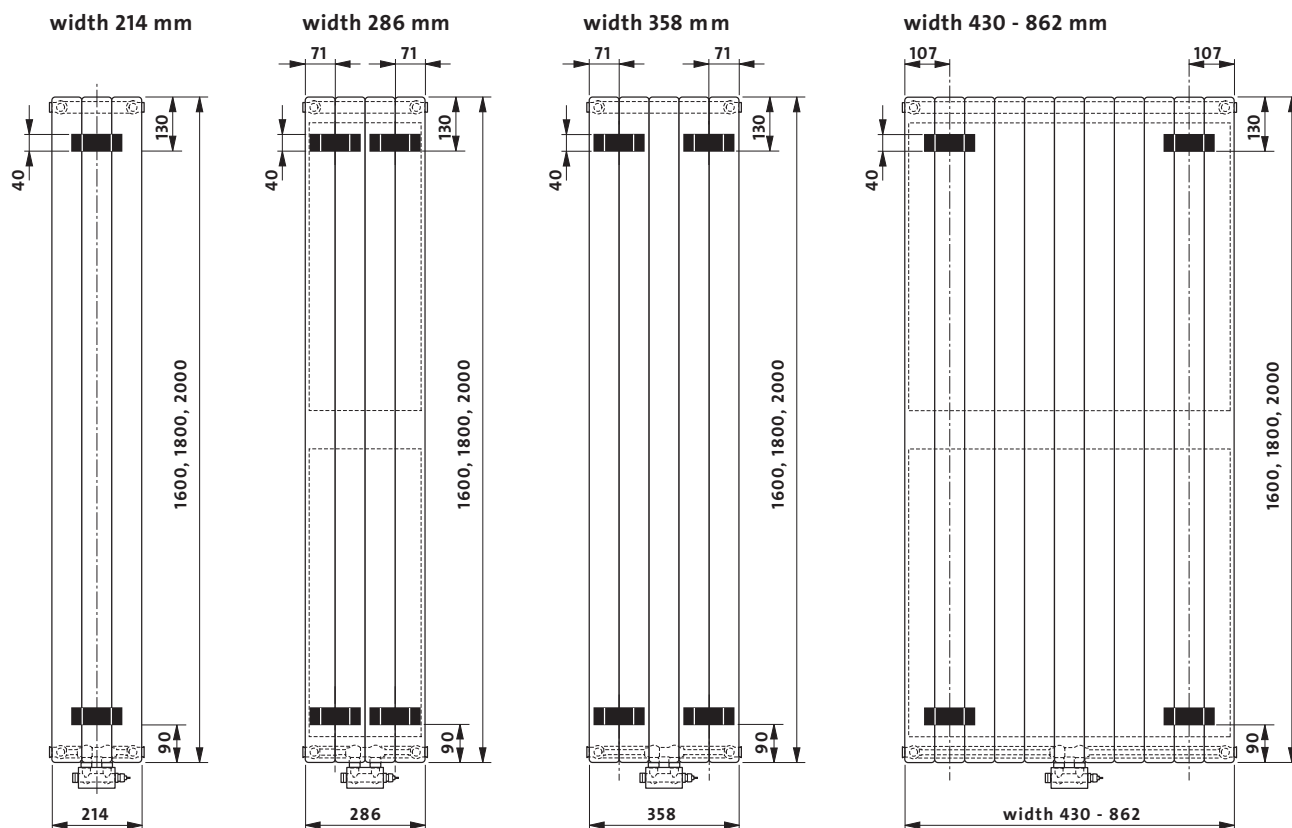
Distance from the wall: **wall bracket WA10 and WA11** for NV radiators

Distance from the wall

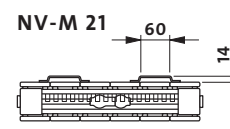
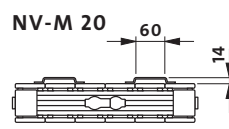
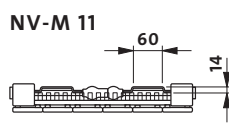
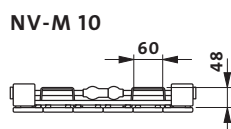
	brackets type	radiator's type	radiator's width [mm]	dimension W [mm]	number of brackets
	WA 10 - 40	NV 10/11	142, 214	55	1 set
	WA 10 - 20	NV 20/21	142, 214	79	1 set
	WA 11 - 40	NV 10/11	286 up to 862	55	1 set
	WA 11 - 30	NV 20/21	286 up to 862	89	1 set

Position of hangers for Narbonne V M radiators

back view

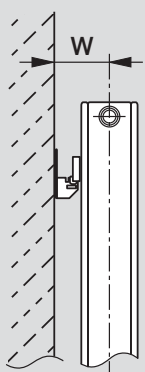


top view



Distance from the wall: **wall bracket WA10 and WA11** for NV-M radiators

Distance from the wall

	brackets type	radiator's type	radiator's width [mm]	dimension W [mm]	number of brackets
	WA 10 - 40	NV-M 10/11	142, 214	55	1 set
	WA 10 - 20	NV-M 20/21	142, 214	79	1 set
	WA 11 - 40	NV-M 10/11	286 up to 862	55	1 set
	WA 11 - 30	NV-M 20/21	286 up to 862	89	1 set

Installation tips

Horizontal version of Narbonne VT, Narbonne M, and Narbonne radiators

Location of radiators

behind a curtain

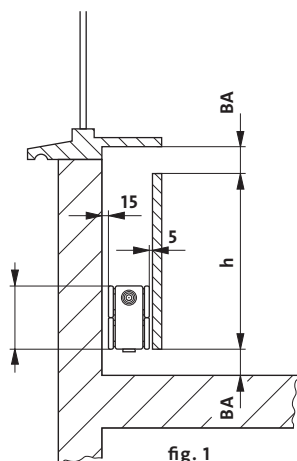


fig. 1

behind a desk

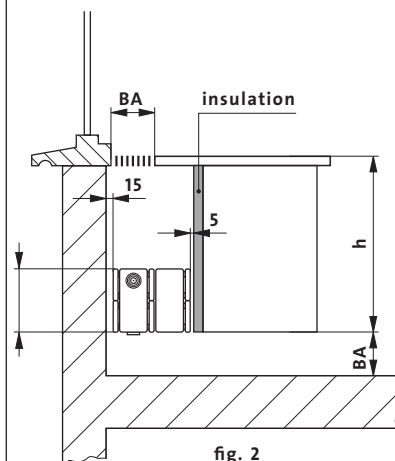


fig. 2

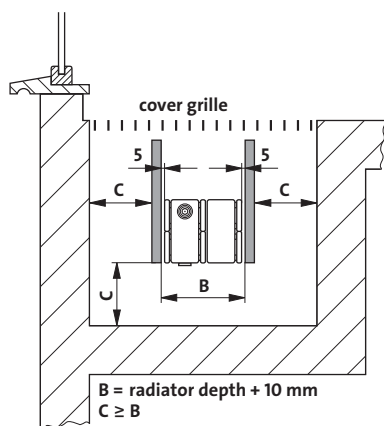
Note:

It is recommended to use covers and desks that are easily to disassemble so as to enable keeping the channels clean.

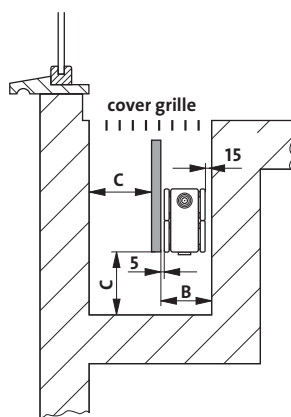
h [mm]	Increase of the heating output of Narbonne in [%]			
	hight 70 mm	hight 142 mm	hight 214 mm	hight 286 mm
150	14	-	-	-
200	20	8	-	-
250	26	12	2	-
300	30	15	6	-
350	33	19	9	3
400	36	22	12	6
450	39	25	15	9
500	41	28	17	11
600	46	32	21	14
700	50	35	24	18
800	-	38	27	21

The percentage increase of the heating output of the radiators as a result of the stack effect in the position shown in fig. 1 and fig. 2

Location of radiators in floor channels



B = radiator depth + 10 mm
C ≥ B



B = radiator depth + 20 mm
C ≥ B

The covers between the channel walls and the radiator must be made from materials that do not conduct heat (e.g. wood, plastic, etc.). The lower edge of the screen must be on the same level with the lower edge of the radiator and the upper edge of the screen must be as close as possible to the channel cover grille (see the figure). The cover grille of the channel must be such that the surface area of the openings is equal to at least 60% of the total surface area of the grille. It is recommended to use grilles that are easily to disassemble so as to enable keeping the channels clean. Installation of radiators in a channel results in a reduction of their heating output by approx. 20% compared to the values given in the heating output table for the relevant radiator type.

Installation tips

Horizontal version of Narbonne VT, Narbonne M, and Narbonne radiators

Location of radiators	
under a window sill	under a bench
$X + Y = BA$	thermal insulation $\frac{BA}{2}$ BA
near a glazed surface	under a display window
$X + Y = BA$	$B = BA$ 5 BA

Recommended minimum distance from the floor							
BA = distance from the floor [mm] The recommended minimum distances from the floor apply to all the figures on pages 116 and 117	BA [mm]	Narbonne VT		Narbonne M		Narbonne	
		type	height [mm]	type	height [mm]	type	height [mm]
	60	NA 11	214, 286	NA-M 11	214, 286	NA 11	214, 286
	60	NA 22	142	NA-M 22	142	NA 22	70, 142
	70	NA 23	142	NA-M 23	142	NA 23	70, 142
	80	NA 22	214, 286	NA-M 22	214, 286	NA 22	214, 286
	90	NA 23	214, 286	NA-M 23	214, 286	NA 23	214, 286
	100	NA 34	142	NA-M 34	142	NA 34	70, 142
	110	NA 34	214, 286	NA-M 34	214, 286	NA 34	214, 286
	120	NA 35	142	NA-M 35	142	NA 35	70, 142
	130	NA 35	214, 286	NA-M 35	214, 286	NA 35	214, 286
	130	NA 46	142	NA-M 46	142	NA 46	70, 142
	130	-	-	-	-	NA 58	70
	140	-	-	-	-	NA 46	214, 286
	140	-	-	-	-	NA 58	142
	150	-	-	-	-	NA 58	214, 286

Correction factors

heating medium temperature [°C]		value of the factor for selecting the heat output of the radiator at temperatures other than 75/65/20 °C							
		t _i air temperature in the heated room [°C]							
t _s	t _r	5	8	12	16	18	20	22	24
95	90	0.48	0.50	0.54	0.57	0.59	0.61	0.64	0.66
	85	0.50	0.52	0.56	0.60	0.62	0.64	0.67	0.70
	80	0.52	0.55	0.59	0.63	0.65	0.68	0.70	0.73
	75	0.54	0.57	0.61	0.66	0.69	0.72	0.75	0.78
	70	0.57	0.60	0.65	0.70	0.73	0.76	0.79	0.83
90	85	0.52	0.55	0.58	0.63	0.65	0.67	0.70	0.73
	80	0.54	0.57	0.61	0.66	0.68	0.71	0.74	0.77
	75	0.57	0.60	0.64	0.69	0.72	0.75	0.78	0.82
	70	0.59	0.63	0.67	0.73	0.76	0.80	0.83	0.87
	65	0.62	0.66	0.71	0.77	0.81	0.85	0.89	0.93
85	80	0.56	0.59	0.64	0.69	0.72	0.75	0.78	0.81
	75	0.59	0.62	0.67	0.72	0.75	0.79	0.82	0.86
	70	0.62	0.65	0.70	0.77	0.80	0.84	0.88	0.92
	65	0.65	0.69	0.75	0.81	0.85	0.89	0.94	0.99
	60	0.68	0.73	0.79	0.87	0.91	0.96	1.01	1.07
80	75	0.61	0.65	0.70	0.76	0.79	0.83	0.87	0.91
	70	0.64	0.68	0.74	0.81	0.84	0.88	0.93	0.97
	65	0.68	0.72	0.78	0.86	0.90	0.94	0.99	1.05
	60	0.72	0.76	0.83	0.91	0.96	1.01	1.07	1.13
	55	0.76	0.81	0.89	0.98	1.04	1.10	1.16	1.24
75	70	0.67	0.72	0.78	0.85	0.89	0.94	0.98	1.04
	65	0.71	0.75	0.82	0.90	0.95	1.00	1.05	1.12
	60	0.75	0.80	0.88	0.97	1.02	1.08	1.14	1.21
	55	0.80	0.85	0.94	1.04	1.10	1.17	1.24	1.32
	50	0.85	0.91	1.01	1.13	1.20	1.28	1.37	1.47
70	65	0.75	0.79	0.87	0.96	1.01	1.07	1.13	1.19
	60	0.79	0.84	0.93	1.03	1.08	1.15	1.22	1.30
	55	0.84	0.90	0.99	1.11	1.17	1.25	1.33	1.42
	50	0.89	0.96	1.07	1.20	1.28	1.37	1.47	1.58
65	60	0.83	0.89	0.98	1.10	1.16	1.23	1.31	1.40
	55	0.88	0.95	1.05	1.18	1.26	1.34	1.43	1.54
	50	0.94	1.02	1.14	1.29	1.37	1.47	1.59	1.71
60	55	0.94	1.01	1.13	1.27	1.36	1.45	1.56	1.68
	50	1.00	1.08	1.22	1.39	1.48	1.60	1.73	1.87
	45	1.08	1.17	1.33	1.53	1.65	1.78	1.94	2.13
55	50	1.07	1.16	1.31	1.50	1.62	1.75	1.90	2.07
	45	1.15	1.26	1.43	1.66	1.80	1.96	2.15	2.37
	40	1.25	1.37	1.59	1.86	2.03	2.24	2.48	2.78
50	45	1.23	1.36	1.56	1.82	1.98	2.17	2.40	2.67
	40	1.34	1.48	1.73	2.05	2.25	2.50	2.79	3.15
	35	1.47	1.65	1.94	2.36	2.63	2.96	3.38	3.92
45	40	1.45	1.62	1.90	2.28	2.53	2.83	3.19	3.66
	35	1.60	1.80	2.15	2.64	2.96	3.37	3.89	4.58
40	35	1.75	1.98	2.40	3.00	3.41	3.93	4.62	5.54
	30	1.96	2.25	2.79	3.61	4.21	5.01	6.14	7.87

The table has been prepared for n = 1.3

example:

The calculated room heat demand is 800 W. For the supply water the designed temperature is 55 °C, and for the return water it is 45°C. The designed air temperature in the room is 20 °C. For the values of parameters 55/45/20 °C, the correction factor value of 1.96 is red off.

As a result of multiplying heat demand (800 W) by the correction factor (1.96), the value of heat output (800 W) by the correction factor (1.96), the value of heat output is found (1568 W). This value is used for selection of the radiator for the values of parameters 75/65/20 °C.

Hydraulic characteristics

Pressure loss diagram for the radiators Narbonne VT, Narbonne V VT, and Narbonne M with Danfoss valve inserts and Narbonne V M with a Danfoss thermostatic valve

Initial preset value

Base:
supply temperature **70 °C**

return temperature **55 °C**

room temperature **20 °C**

initial preset **1** $k_v = 0.13$
for the radiators up to approx. 500 W

initial preset **2** $k_v = 0.21$
for the radiators up to approx. 800 W

initial preset **3** $k_v = 0.26$
for the radiators up to approx. 1000 W

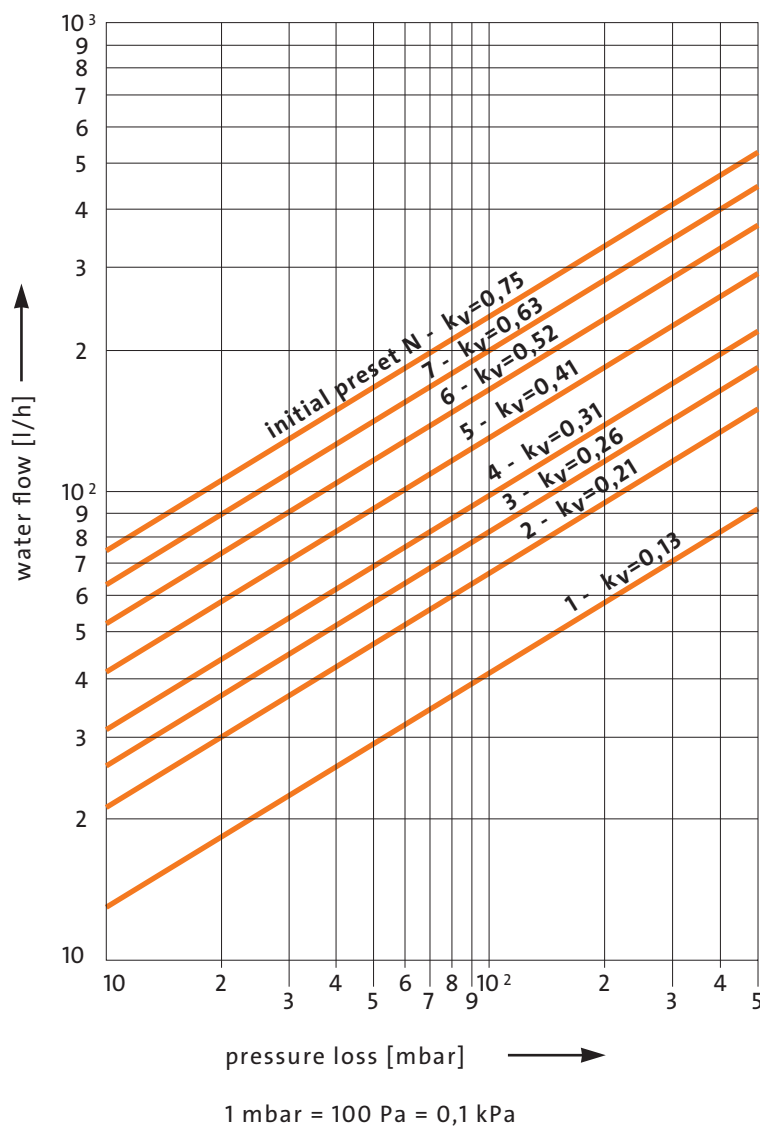
initial preset **4** $k_v = 0.31$
for the radiators up to approx. 1200 W

initial preset **5** $k_v = 0.41$
for the radiators up to approx. 1600 W

initial preset **6** $k_v = 0.52$
for the radiators up to approx. 2000 W

initial preset **7** $k_v = 0.63$
for the radiators up to approx. 2400 W

initial preset **N** $k_v = 0.75$
for the radiators from 2400 W



Pressure loss [mbar] – double-pipe system with proportional band 2K.

Corrections of the valve initial presets can also be entered in operating conditions (under working pressure).

Hydraulic characteristics

example of preset setpoint selection

given:

heat demand

$$Q_c = 1160 \text{ W}$$

temperature difference

$$\Delta t = 20 \text{ K (np: 80/60 °C)}$$

pressure drop

$$\Delta p = 6 \text{ kPa} = 6000 \text{ Pa}$$

calculation constant

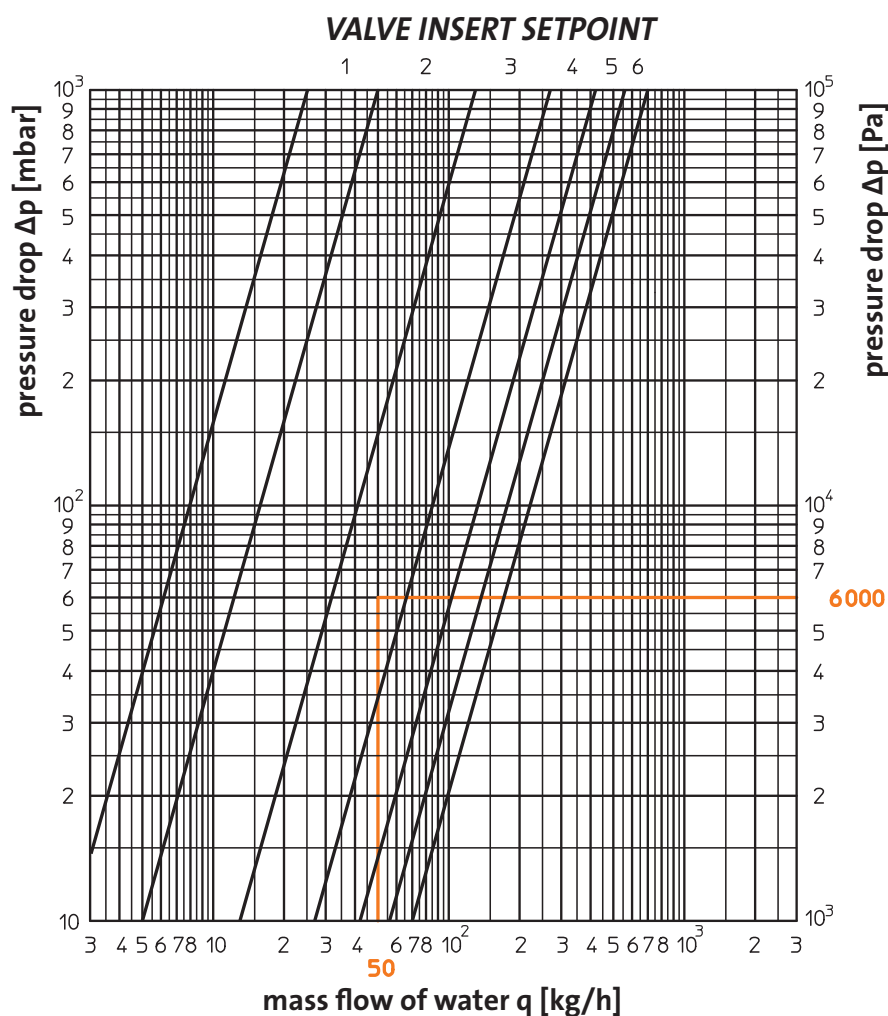
$$C = 1.163$$

calculations:

mass flow of water

$$q = \frac{Q_c}{C \times \Delta t} = \frac{1160}{1.163 \times 20} = 50 \text{ kg/h}$$

For the flow $q = 50 \text{ kg/h}$ and the pressure flow 6000 Pa the preset setpoint value 3 is red off the nomogram.



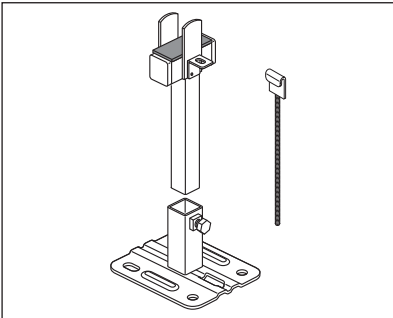
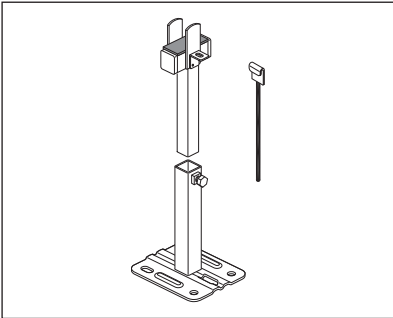
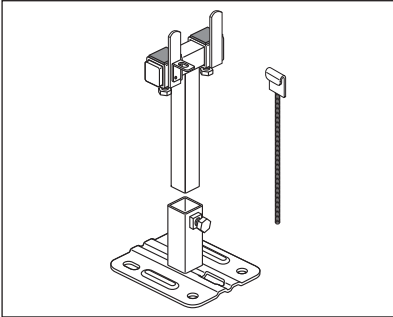
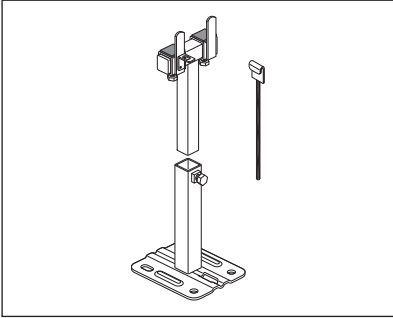
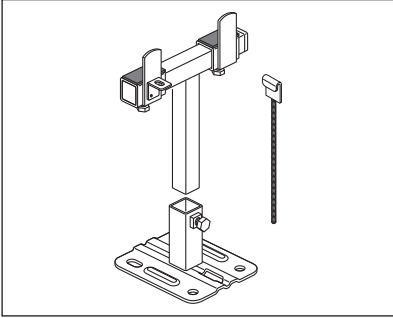
proportionality deviation	2K					
preset setpoint	1	2	3	4	5	6
kv [m³/h]	0.05	0.13	0.27	0.42	0.56	0.70

*heat loss diameter for radiators Kos H and Faro H
with an Oventrop valve insert*

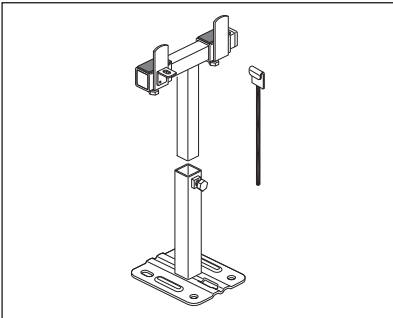
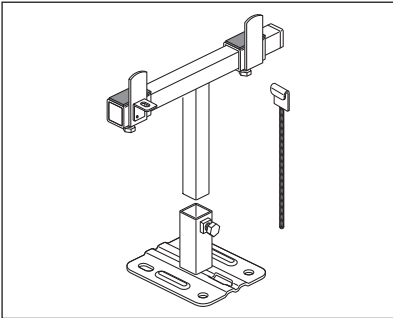
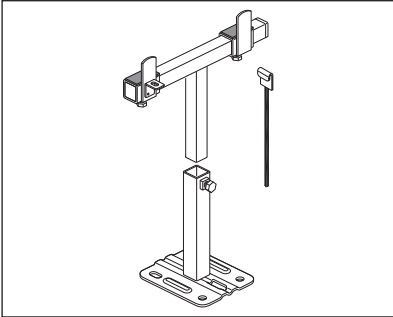
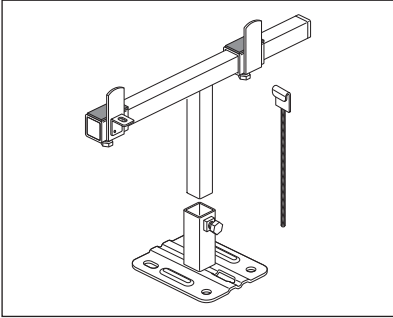
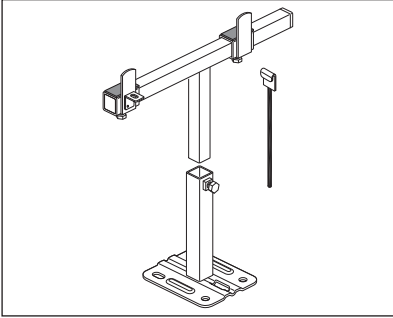
Accessories

	description	types	dimensions	order code
	towel rail for Kos V and Faro V radiators. Made of mat brushed stainless steel.	21, 22	300 mm	AZ14BTKF00030000
			450 mm	AZ14BTKF00045000
			600 mm	AZ14BTKF00060000
			750 mm	AZ14BTKF00075000
	towel rail for Tinos V radiators. Made of mat brushed stainless steel.	11	325 mm	AZ14BTTLT1132500
			475 mm	AZ14BTTLT1147500
			625 mm	AZ14BTTLT1162500
			775 mm	AZ14BTTLT1177500
		21	325 mm	AZ14BTT0T2132500
			475 mm	AZ14BTT0T2147500
			625 mm	AZ14BTT0T2162500
			775 mm	AZ14BTT0T2177500
	towel rail for Paros V radiators. Made of mat brushed stainless steel.	11	380 mm	AZ14BTPST1138000
			530 mm	AZ14BTPST1153000
			680 mm	AZ14BTPST1168000
			830 mm	AZ14BTPST1183000
		21	405 mm	AZ14BTP0T2140500
			555 mm	AZ14BTP0T2155500
			705 mm	AZ14BTP0T2170500
			855 mm	AZ14BTP0T2185500
	towel rail for Arran radiators.	open closed	514 mm	AZ1TR050C0001300
			514 mm	AZ1TR050C0002300

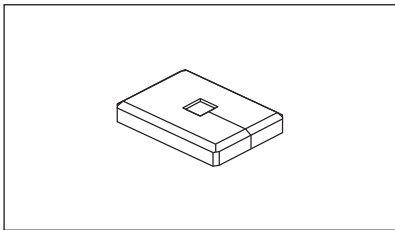
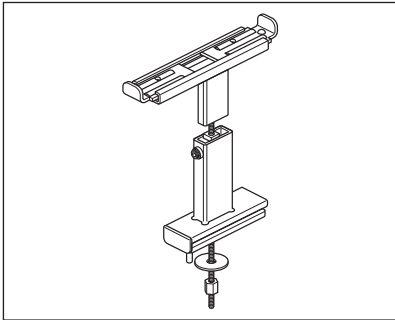
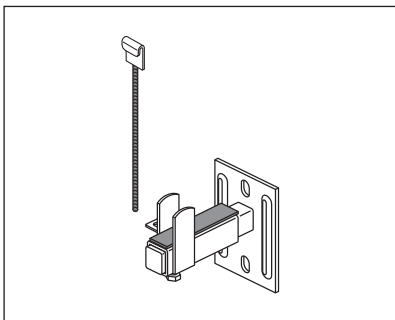
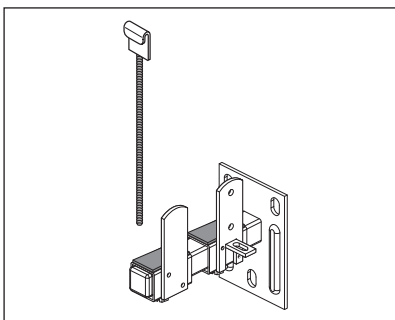
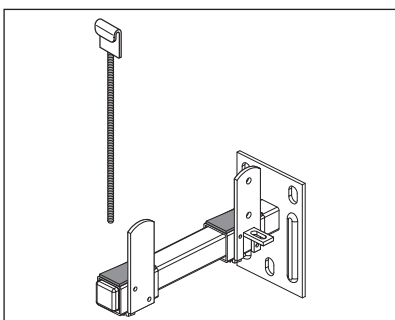
Accessories

	description	order code
	SK 10 stand (for the finished floor): Narbonne type: 11 Narbonne VT type: 11 Narbonne M type: 11 includes: - bottom foot (80 mm) - 1 pc., - upper foot (175 mm) with sound-insulated pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000F1001000
	SK 11 stand (for the unfinished floor): Narbonne type: 11 Narbonne VT type: 11 Narbonne M type: 11 includes: - bottom foot (175 mm) - 1 pc., - upper foot (200 mm) with sound-insulated pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000R1101000
	SK 12 stand (for the finished floor): Narbonne type: 22, 23 Narbonne VT type: 22, 23 Narbonne M type: 22 includes: - bottom foot (80 mm) - 1 pc., - upper foot (175 mm) with sound-insulated pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000F1201000
	SK 13 stand (for the unfinished floor): Narbonne type: 22, 23 Narbonne VT type: 22, 23 Narbonne M type: 22 includes: - bottom foot (175 mm) - 1 pc., - upper foot (200 mm) with sound-insulated pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000R1301000
	SK 14 stand (for the finished floor): Narbonne type: 34, 35 Narbonne VT type: 34, 35 Narbonne M type: 34 includes: - bottom foot (80 mm) - 1 pc., - upper foot (175 mm) with sound-insulated pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000F1401000

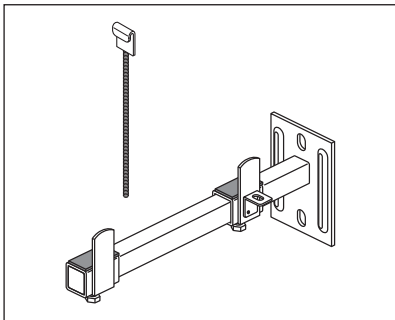
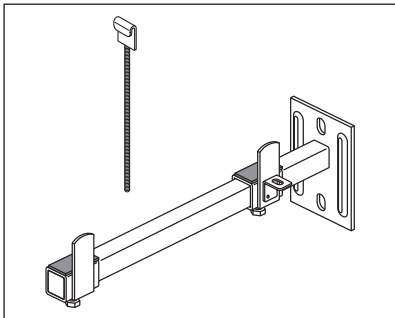
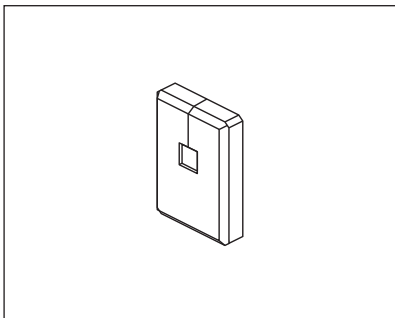
Accessories

	description	order code
	SK 15 stand (for the unfinished floor): Narbonne type: 34, 35 Narbonne VT type: 34, 35 Narbonne M type: 34 includes: - bottom foot (175 mm) - 1 pc., - upper foot (200 mm) with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000R1501000
	SK 16 stand (for the finished floor): Narbonne type: 46 Narbonne VT type: 46 Narbonne M type: 46 includes: - bottom foot (80 mm) - 1 pc., - upper foot (175 mm) with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000F1601000
	SK 17 stand (for the unfinished floor): Narbonne type: 46 Narbonne VT type: 46 Narbonne M type: 46 includes: - bottom foot (175 mm) - 1 pc., - upper foot (200 mm) with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000R1701000
	SK 18 stand (for the finished floor): Narbonne type: 47, 58 Narbonne VT type: 47 includes: - bottom foot (80 mm) - 1 pc., - upper foot (175 mm) with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000F1801000
	SK 19 stand (for the unfinished floor): Narbonne type: 47, 58 Narbonne VT type: 47 includes: - bottom foot (175 mm) - 1 pc., - upper foot (200 mm) with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BS000R1901000

Accessories

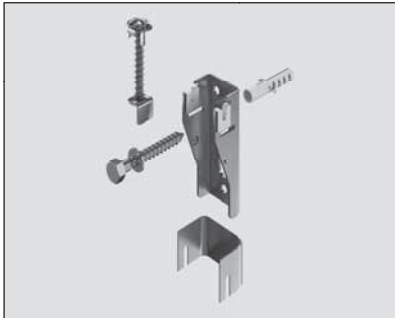
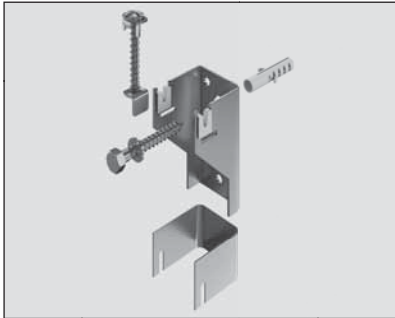
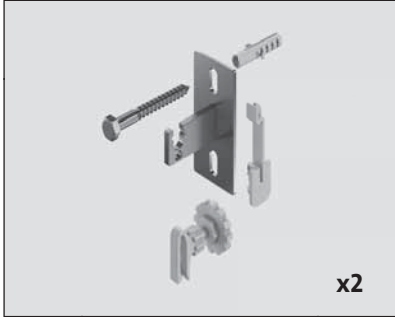
	description	order code
	Stand cover: SK 10, SK 12, SK 14, SK 16, SK 18	AZ1MS000C1001000
	Support FBT 20 Windowsill support for inter installation on radiators: Narbonne type: NA/NA-S 22 - 58 Narbonne VT type: NA/NA-S 22 - 47 Narbonne M type: NA-M 22 - 46 includes: top part, bottom part, thread bar with gasket and nut. Colour RAL 9016*	AZ1SM02900001000
	WK 10 brackets Narbonne type: 11 Narbonne VT type: 11 includes: - wall bracket - 1 pc., - detachable fixing bracket with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BW00011001000
	WK 10-M brackets Narbonne type: 22 Narbonne VT type: 22 Narbonne M type: 22 includes: - wall bracket - 1 pc., - detachable fixing bracket with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BW000110010A0
	WK 11-M brackets Narbonne type: 23, 34 Narbonne VT type: 23, 34 Narbonne M type: 34 includes: - wall bracket - 1 pc., - detachable fixing bracket with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BW000111010A0

Accessories

	description	order code
	WK 12 brackets Narbonne type: 35, 46 Narbonne VT type: 35, 46 Narbonne M type: 46 includes: - wall bracket - 1 pc., - detachable fixing bracket with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BW00011201000
	WK 13 brackets Narbonne type: 58 includes: - wall bracket - 1 pc., - detachable fixing bracket with sound-insulating pad - 1 pc., - grip protecting against accidental removal - 1 pc. Apply for radiators of height up to 286 mm (inclusive) only. Colour RAL 9016*	AZ1BW00011301000
	wall bracket cover: WK 10 up to WK 13	AZ1MW00010001000

* Brackets and wall hangers in other colours are available with special orders (with the exception of sliding elements), with an additional charge in the case of colour radiators. The method of creation of an article code is the following: depending on the ordered RAL (R) colour, the last character in the code of a white version changes to a letter that corresponds to the respective colour and the number of the code is added; e.g. the code of a WK12 bracket in the colour RAL 9005 is the following: AZ1BW0001120100**R9005**.

Accessories

	description	order code
	WA 10 - 20 bracket: for the vertical version of 142 mm and 214 mm wide radiators of the following types: Narbonne V type: 20, 21 Narbonne V M type: 20, 21 Narbonne V VT type: 20, 21 includes: - wall bracket - 1 pc., - distancing grip - 1 pc., - crew - 1 pc., wall plug - 1 pc., - overall sound-insulated	AZ1BU120A0001000
	WA 10 - 40 bracket: for the vertical version of 142 mm and 214 mm wide radiators of the following types: Narbonne V type: 10, 11 Narbonne V M type: 10, 11 Narbonne V VT type: 10, 11 includes: - wall bracket - 1 pc., - distancing grip - 1 pc., - crew - 1 pc., wall plug - 1 pc., - overall sound-insulated	AZ1BU140A0001000
	WA 11 - 30 bracket: for the vertical version of 286 mm plus wide radiators of the following types: Narbonne V type: 20, 21 Narbonne V M type: 20, 21 Narbonne V VT type: 20, 21 for the horizontal version of 358 mm plus high radiators of the following types: Narbonne type: 20, 22 Narbonne M type: 20, 22 Narbonne VT type: 20, 22 includes: - wall bracket - 2 pc., - distancing grip - 2 pc., - screws and wall plugs, - overall sound-insulated	AZ1BU130K0001000
	WA 11 - 40 bracket: for the vertical version of 286 mm plus wide radiators of the following types: Narbonne V type: 10, 11 Narbonne V M type: 10, 11 Narbonne V VT type: 10, 11 for the horizontal version of 358 mm plus high radiators of the following types: Narbonne type: 11 Narbonne M type: 11 Narbonne VT type: 11 includes: - wall bracket - 2 pc., - distancing grip - 2 pc., - screws and wall plugs, - overall sound-insulated	AZ1BU140K0001000

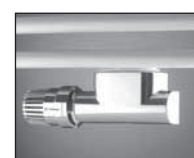
Thermostatic heads for radiators

For proper operation, the decorative radiators **Kos H** and **Faro H** with a built-in valve insert require an appropriate thermostatic head. Examples of types and manufacturers of thermostatic heads compatible with the new Oventrop valve inserts.

MANUFACTURER	CATALOGUE NUMBER	MANUFACTURER	CATALOGUE NUMBER
Purmo Sensor	AZ02HESENSOM3030	Herz Herzcules „H”	1 9860 98
Purmo Evosense (white)	AZ02HE5010283000	Honeywell Thera 2	T9001H(...), T9001W(...), T9001 08, T9001 20, T9001 50
Purmo Evosense (black)	AZ02HE5050283000	Honeywell Thera 3	T6001H(...), T6001W(...), T6001 08, T6001 20, T6001 50
Comap Senso RI	100 100	Honeywell Thera 4	T3001, T2001
Danfoss RAW-K 5135	013G5135	Oventrop UNI XH	101 1365
Heimeier K	6000-00.500, 6020-00.500 6040-00.500	Oventrop UNI LH	101 1465, 67, 68, 69
Heimeier DX	6700-00.500	Oventrop UNI CH	101 1265
Heimeier D	6850-00.500	Oventrop UNI DH	101 1065
Heimeier B	2500-00.500, 2502-00.500	Oventrop UNI SH	101 2065
Heimeier WK	7300-00.500	Schlosser Diamant	6001 00001
Heimeier VD	7400-00.500	Schlosser Brillant	6002 0000 (...)
Herz Classic „H”	1 7260 98, 1 9260 98, 1 7330 98, 1 9330 98	Valvex GZ 05A	4440010, 4440410
Herz Mini „H”	1 9200 68, 1 9200 38	Valvex GZ 07A	4445000

Radiators **Kos V**, **Faro V**, **Tinos V**, **Paros V** and **Arran** are not equipped with a valve insert with pre-regulation. They can be connected through specially combined thermostatic valve with 50 mm spacing. Examples of types and manufacturers are presented in the table.

MANUFACTURER	CATALOGUE NUMBER	
	VALVE	HEAD
Danfoss VHX-DUO + RAX	013G4281 – white finishing RAL9016 013G4279 – chromium plated finishing	
Heimeier Multilux	3851-02.000 3850-02.000	as for the decorative radiators with a valve insert
Herz	1 3692 91 1 3694 91	1 9260 06, 1 7260 06, 1 9200 60, 1 7260 40
Honeywell Therafix	V2474YE0015 V2474YD0015	as for the decorative radiators with a valve insert
Oventrop Multiblock T	118 40 83 118 40 84	as for the decorative radiators with a valve insert
Schlosser Duo-plex	6021 00001, 6021 00003, 6021 00005, 6021 00007	as for the decorative radiators with a valve insert



Decorative radiators **Narbonne VT**, **Narbonne V VT**, and **Narbonne M** are equipped with a Danfoss valve insert with pre-regulation. It works with the following heads

MANUFACTURER	CATALOGUE NUMBER
Danfoss RAW 5115	013G5115
Danfoss RA 2994	013G2994
Heimeier VK	9710-24.500
Honeywell Thera-4 DA	T3001DA
Oventrop Uni XD	1011374

Radiators **Narbonne**, **Narbonne V**, and **Narbonne V M** are not factory-equipped with a valve insert with pre-regulation. As a result, they can be connected to central heating systems through external thermostatic valves of any brand.

Radiators **Narbonne V M** are factory-equipped with a Danfoss thermostatic valve set with pre-regulation.

The valve set can work with thermostatic heads (not supplied with the valve) specified in the table above for radiators **Narbonne VT**, **Narbonne V VT**, and **Narbonne M**.



VIDO

The Vido fan convector has been designed to provide both pleasant warmth in the middle of the winter, as well as a refreshing chill in the middle of the summer. A built-in electronic controller regulates the parameters of the system to provide optimal comfort conditions in the room.

- Length : 800, 1000, 1200, 1400, 1600 mm
- Height : 595 mm
- Depth : 153 mm
- Exchanger composition : aluminum finned copper pipes
- Casing material : RAL 9016 white, powder coated steel sheet metal
- Connections :
 - two-pipe system 2 x GW 3/4" – internal thread
 - four-pipe system 4 x GW 3/4" – internal thread
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Accessories : 4 screws and wall plugs for wall mounting



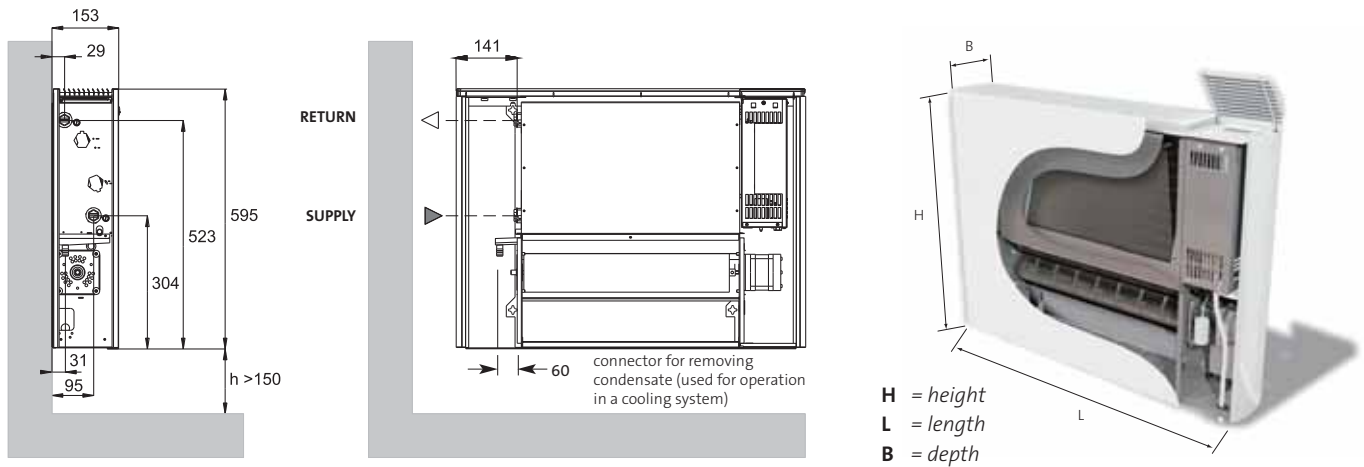
- Fan convector equipment :
 - contact temperature sensor for heating/cooling medium in the system, room air temperature sensor
- Optional equipment :
 - control and balancing valve with pressure-independent flow and 230 V actuator
- Standard electrical equipment :
 - switchboard for connecting power supply and auxiliary equipment (a module with centrifugal fans driven by a 230 V/50 Hz motor, an optional control valve with an actuator or a central BMS control system)
- Standard electronic equipment :
 - electronic controller with time programs for operation in a simplified or extended system

NOTE:

The device is delivered with factory-connected test conductors that must be replaced with proper service conductors of cross-section 0.75 mm².

two-pipe system - heating or cooling

dimensions



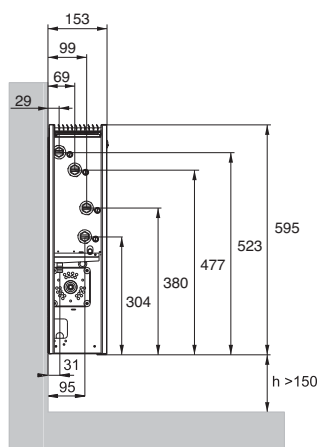
parameters $t_z / t_p / t_i$	fan speed	heat output [W]				
		K2A 080	K2A 100	K2A 120	K2A 140	K2A 160
75/65/20 °C	high	3682	5124	6521	7894	9266
	medium	2678	3661	4448	5265	6082
	low	1997	2739	3288	3867	4460
45/35/20 °C	high	1360	1892	2409	2916	3422
	medium	989	1352	1643	1945	2246
	low	738	1012	1214	1428	1647

parameters $t_z / t_p / t_i$	fan speed		cooling output [W]				
			K2A 080	K2A 100	K2A 120	K2A 140	K2A 160
7/12/27 °C	high	total	1648	2304	2918	3533	4147
		sensible	1227	1716	2173	2631	3088
	medium	total	1126	1600	1960	2320	2679
		sensible	829	1178	1442	1707	1972
	low	total	707	1011	1520	1490	1729
		sensible	527	753	931	1110	1288

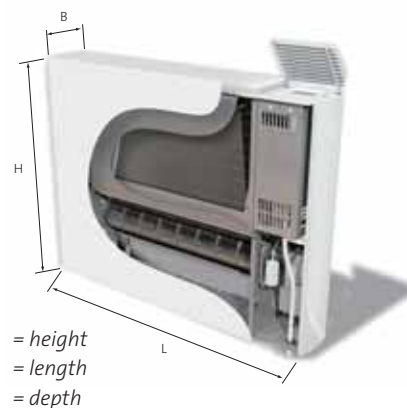
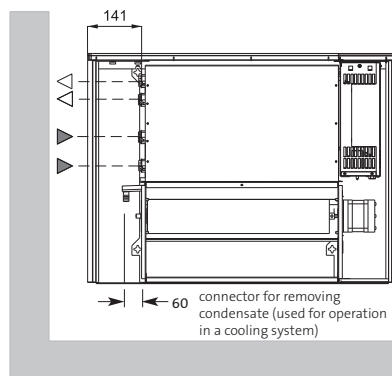
type	H [mm]	L [mm]	B [mm]	order code
K2A 080	595	800	153	F9PA02308012P340
K2A 100	595	1000	153	F9PA02310012P340
K2A 120	595	1200	153	F9PA02312012P340
K2A 140	595	1400	153	F9PA02314012P340
K2A 160	595	1600	153	F9PA02316012P340

four-pipe system - heating and cooling

dimensions



COOLING RETURN
HEATING RETURN
HEATING SUPPLY
COOLING SUPPLY



parameters $t_z / t_p / t_i$	fan speed	heat output [W]				
		K4A 080	K4A 100	K4A 120	K4A 140	K4A 160
75/65/20 °C	high	2577	3587	4565	5526	6486
	medium	1875	2563	3114	3686	4257
	low	1398	1917	2302	2707	3122
45/35/20 °C	high	952	1324	1686	2041	2395
	medium	692	946	1150	1362	1572
	low	517	708	850	1000	1153

parameters $t_z / t_p / t_i$	fan speed		cooling output [W]				
			K4A 080	K4A 100	K4A 120	K4A 140	K4A 160
7/12/27 °C	high	total	1566	2189	2772	3356	3940
		sensible	1166	1630	2064	2499	2934
	medium	total	1070	1520	1862	2204	2545
		sensible	788	1119	1370	1622	1873
	low	total	672	960	1444	1416	1643
		sensible	501	715	884	1055	1224

type	H [mm]	L [mm]	B [mm]	order code
K4A 080	595	800	153	F9PA02308014P340
K4A 100	595	1000	153	F9PA02310014P340
K4A 120	595	1200	153	F9PA02312014P340
K4A 140	595	1400	153	F9PA02314014P340
K4A 160	595	1600	153	F9PA02316014P340

Accessories

description	technical specifications	order code
Condensate Pump Kit	230V Condensate pump kit including mounting brackets, float switch, and 2m flexible tube for condensate removal	AZ57CKPUMP230V30
System Valve (2-Pipe Kit)	Pressure independent balancing and control valve with 230V actuator	AZ57CKVK2P230V30
System Valve (4-Pipe Kit)	Two pressure independent balancing and control valves with two 230V actuators	AZ57CKVK4P230V30
Outdoor temperature sensor	An outdoor temperature sensor for the two-pipe version of the fan coil operating in the cooling mode (for the four-pipe version of the fan coil, the sensor is delivered along with the heater)	AZ57CKRSKWH00

Type overview



Santorini

4 connections

height [mm]:
714, 1134, 1470, 1764

width [mm]:
400, 500, 600, 750, 900



Santorini A

6 connections

height [mm]:
714, 1134

width [mm]:
400, 500, 600, 750



Santorini C

4 connections

height [mm]:
714, 1134, 1470, 1764

width [mm]:
399, 498, 596, 742, 887



Kea

4 connections

height [mm]:
1022, 1262, 1502, 1742

width [mm]:
600, 750, 900



Ratea

2 connections

height [mm]:
796, 1196, 1756

width [mm]:
500, 600, 750



Imia

3 connections

height [mm]:
1600, 1800

width [mm]:
510, 822, 1030, 1238

Type overview



Mauritius

3 connections

height [mm]:
1194, 1754, 2154

width [mm]:
500, 600, 750, 900



Flores CH

4 connections

height [mm]:
770, 1150, 1430, 1755

width [mm]:
500, 600



Java

2 connections

height [mm]:
700, 912, 1336,
1548, 1760, 1972

width [mm]:
400, 500, 600



Flores C CH

4 connections

height [mm]:
770, 1150, 1430, 1755

width [mm]:
500, 600



Muna

2 connections

height [mm]:
530*, 680*, 905, 1205,
1650, 1730, 2030

width [mm]:
500, 600, 800,
1000*, 1200*



Elato

4 connections

height [mm]:
830, 1130, 1430, 1730

width [mm]:
450, 600

*for horizontal radiators

Type overview



Apolima

2 connections

height [mm]:
830, 1130, 1430, 1730

width [mm]:
650, 800



Apia

6 connections

height [mm]:
1196, 1756

width [mm]:
500, 600, 750, 900



Leros

6 connections

height [mm]:
1224, 1812

width [mm]:
600



Evia

2 connections

height [mm]:
1357, 1657

width [mm]:
600

	Santorini	Santorini A	Santorini C	Kea	Ratea	Imia	Mauritius	Java	Muna	Flores CH	Flores C CH	Elató	Apolima	Apia	Leros	Evia
max. working pressure [bar]	10	10	10	10	10	10	10	8	4	8	8	4	4	10	10	4
number of connections	4	6	4	4	2	3	3	2	2	4	4	4	2	6	6	2
bottom connection	x	x	x	-	-	x	-	x	x	x	x	x	x	x	x	x
bottom connection with connectors spaced at 50 mm	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	x
same end connection, right or left side	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
mid-bottom with connectors spaced at 50 mm	-	-	-	x	-	-	x	-	-	-	-	-	x	x	x	-
air vent - diameter	1/2"	1/2"	1/2"	1/4"	1/4"	1/4"	1/2"	1/8"	1/8"	1/2"	1/2"	1/8"	1/8"	1/2"	1/2"	1/2"
number of brackets in a bundle	3 or 4	3	4	4	3 or 4	4	2 or 3 + floor kit	4	4	4	4	2	2	4	4	2

thermal output of the radiators

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

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

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

$$\phi = \phi_n \left[\frac{\Delta t}{\Delta t_n} \right]^n$$

where:

ϕ - thermal output of the radiator [W]

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

Δt - logarithmic difference of temperatures [K]

Δt_n - logarithmic difference of temperatures 49.833 [K] calculated for reference temperatures 75/65/20 °C

n - exponent characteristic for a given type of radiator

The logarithmic difference of temperatures is calculated according to the following formula:

$$\Delta t = \frac{t_s - t_r}{\ln((t_s - t_i) / (t_r - t_i))}$$

where:

t_s - supply water temperature [°C]

t_r - return water temperature [°C]

t_i - room temperature [°C]



SANTORINI AND SANTORINI A

Straight lines of the Santorini model make its appearance timeless and classic. It is a perfect element of every bathroom.

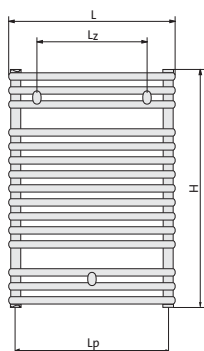
The Santorini A radiator is an excellent solution for those, who want to replace their old radiator with a new one without the need for modifications of piping. The model is available with right or left side connectors.

- Material : high quality steel round tubes
- Heating medium : water
- Connections : 4 threaded ½" female connections
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request
- Basic equipment: brackets with adjustable wall distance, ½" air vent, blanking plug (Santorini A - three blanking plugs).
- Additional equipment: round chrome plated towel hanger, C-type chrome plated hanger, electric heater.



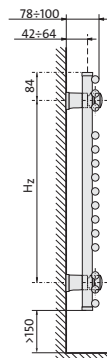
SANTORINI AND SANTORINI A

front view



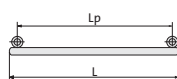
Santorini

side view



Santorini

top view

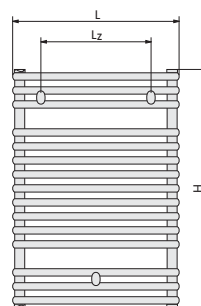


Santorini



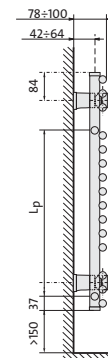
Santorini A

front view



Santorini A

side view



Santorini A

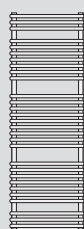
dimensions in mm



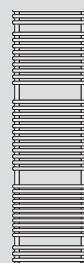
SA. 07 ..



SA. 11 ..



SAN 15 ..



SAN 18 ..

H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors

type	output [W]		H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20			Hz [mm]	Lz [mm]					
SAN 07 04	300	153	714	400	546	250	360	2.3	5.8	15	F3NA007004000000
SAN 07 05	370	189	714	500	546	350	460	2.8	6.8	15	F3NA007005000000
SAN 07 06	435	222	714	600	546	450	560	3.2	7.8	15	F3NA007006000000
SAN 07 07	529	270	714	750	546	600	710	3.9	9.2	15	F3NA007007500000
SAN 07 09	622	317	714	900	546	750	860	4.6	10.6	15	F3NA007009000000
SAN 11 04	465	237	1134	400	966	250	360	3.8	8.9	23	F3NA011004000000
SAN 11 05	569	290	1134	500	966	350	460	4.5	10.4	23	F3NA011005000000
SAN 11 06	665	339	1134	600	966	450	560	5.3	11.8	23	F3NA011006000000
SAN 11 07	805	411	1134	750	966	600	710	6.4	13.9	23	F3NA011007500000
SAN 11 09	940	480	1134	900	966	750	860	7.5	16	23	F3NA011009000000
SAN 15 05	733	374	1470	500	1302	350	460	6.1	13.3	29	F3NA015005000000
SAN 15 06	856	437	1470	600	1302	450	560	7.0	15.2	29	F3NA015006000000
SAN 15 07	1035	528	1470	750	1302	600	710	8.2	18.0	29	F3NA015007500000
SAN 15 09	1208	616	1470	900	1302	750	860	9.5	20.9	29	F3NA015009000000
SAN 18 05	894	456	1764	500	1596	350	460	7.5	15.8	36	F3NA018005000000
SAN 18 06	1038	530	1764	600	1596	450	560	8.5	18.2	36	F3NA018006000000
SAN 18 07	1246	636	1764	750	1596	600	710	9.9	21.7	36	F3NA018007500000
SAN 18 09	1447	738	1764	900	1596	750	860	11.3	25.2	36	F3NA018009000000
SAA 07 04 R	300	153	714	400	546	250	500	2.3	5.8	15	F3UAB07004000000
SAA 07 05 R	370	189	714	500	546	350	500	2.8	6.8	15	F3UAB07005000000
SAA 07 06 R	435	222	714	600	546	450	500	3.2	7.8	15	F3UAB07006000000
SAA 07 07 R	529	270	714	750	546	600	500	3.9	9.2	15	F3UAB07007500000
SAA 11 04 R	465	237	1134	400	966	250	500	3.8	8.9	23	F3UAB11004000000
SAA 11 05 R	569	290	1134	500	966	350	500	4.5	10.4	23	F3UAB11005000000
SAA 11 06 R	665	339	1134	600	966	450	500	5.3	11.8	23	F3UAB11006000000
SAA 11 07 R	805	411	1134	750	966	600	500	6.4	13.9	23	F3UAB11007500000

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



SANTORINI C

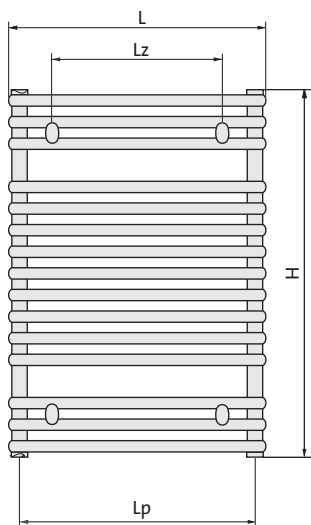
Round horizontal collectors of the Santorini C model are slightly bent to form an arc giving the radiator lightness and elegance.

- Material : high quality steel round tubes
- Heating medium : water
- Connections : 4 threaded ½" female connections
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request
- Basic equipment : brackets with adjustable wall distance, ½" air vent, blanking plug.
- Additional equipment : round chrome plated towel hanger, electric heater.

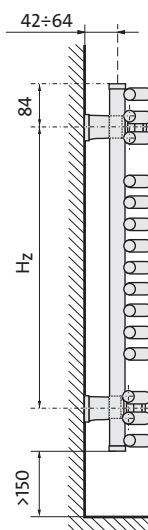


SANTORINI C

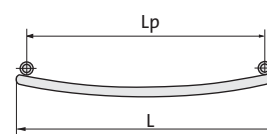
front view



side view



top view

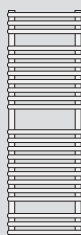


H = height
L = width
Lz = horizontal spacing of brackets
Hz = vertical spacing of brackets
Lp = spacing of connectors

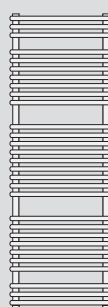
dimensions in mm



SAC 07 ..



SAC 11 ..



SAC 15 ..



SAC 18 ..

type	output [W]		H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20			Hz [mm]	Lz [mm]					
SAC 07 04	300	153	714	399	546	220	353	2.3	5.8	15	F3VA007004000000
SAC 07 05	370	189	714	498	546	320	451	2.8	6.8	15	F3VA007005000000
SAC 07 06	435	222	714	596	546	420	548	3.2	7.8	15	F3VA007006000000
SAC 07 07	529	270	714	742	546	565	691	3.9	9.2	15	F3VA007007500000
SAC 07 09	622	317	714	887	546	730	835	4.6	10.6	15	F3VA007009000000
SAC 11 04	465	237	1134	399	966	220	353	3.8	8.9	23	F3VA011004000000
SAC 11 05	569	290	1134	498	966	320	451	4.5	10.4	23	F3VA011005000000
SAC 11 06	665	339	1134	596	966	420	548	5.3	11.8	23	F3VA011006000000
SAC 11 07	805	411	1134	742	966	565	691	6.4	13.9	23	F3VA011007500000
SAC 11 09	940	480	1134	887	966	730	835	7.5	16.0	23	F3VA011009000000
SAC 15 05	733	374	1470	498	1302	320	451	6.1	13.3	29	F3VA015005000000
SAC 15 06	856	437	1470	596	1302	420	548	7.0	15.2	29	F3VA015006000000
SAC 15 07	1035	528	1470	742	1302	565	691	8.2	18.0	29	F3VA015007500000
SAC 15 09	1208	616	1470	887	1302	730	835	9.5	20.9	29	F3VA015009000000
SAC 18 05	894	456	1764	498	1596	320	451	7.5	15.8	36	F3VA018005000000
SAC 18 06	1038	530	1764	596	1596	420	548	8.5	18.2	36	F3VA018006000000
SAC 18 07	1246	636	1764	742	1596	565	691	9.9	21.7	36	F3VA018007500000
SAC 18 09	1447	738	1764	887	1596	730	835	11.3	25.2	36	F3VA018009000000

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



KEA

Horizontal collectors of the Kea model spread to both sides to form rhythmic sequences. The structure allows for hanging many towels.

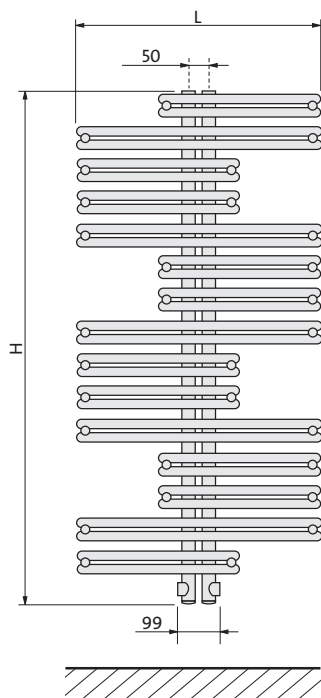
- Material : high quality steel round tubes
- Heating medium : water
- Connections : 4 threaded ½" female connections
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request



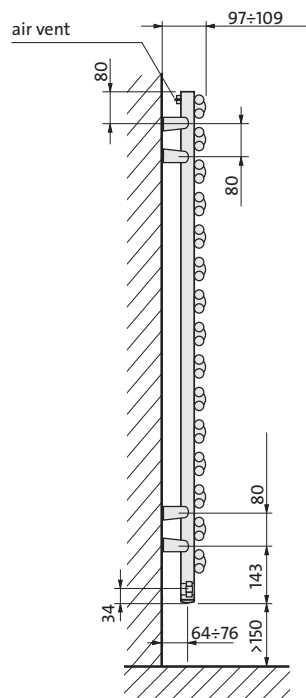
- Basic equipment : brackets with adjustable wall distance, ¼" air vent, two blanking plugs
- Additional equipment : straight chrome plated hanger, bent chrome plated hanger, glass shelf, C-type chrome plated hanger, round chrome plated towel hanger, electric heater.

KEA

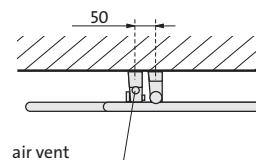
front view



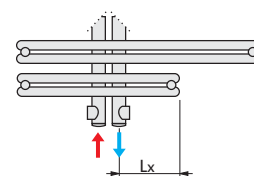
side view



top view

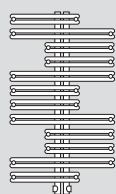


connection

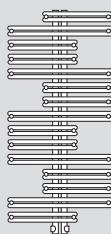


H = height
L = width

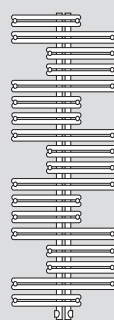
dimensions in mm



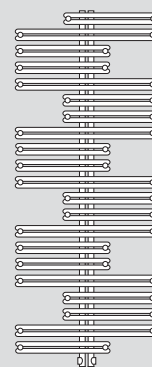
KEA 10 06



KEA 13 ..



KEA 15 ..



KEA 18 ..

type	output [W]		H [mm]	L [mm]	Lx [mm]	water volume [dm ³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20							
KEA 10 06	499	255	1022	600	75	4.4	10.6	2 x 12	F4IA010006000300
KEA 13 06	613	313	1262	600	75	5.3	13.3	2 x 15	F4IA013006000300
KEA 13 07	739	377	1262	750	100	5.7	15.7	2 x 15	F4IA013007500300
KEA 15 06	724	369	1502	600	75	6.1	16.0	2 x 18	F4IA015006000300
KEA 15 07	870	444	1502	750	100	6.7	18.7	2 x 18	F4IA015007500300
KEA 15 09	1030	526	1502	900	125	7.6	21.6	2 x 18	F4IA015009000300
KEA 18 07	1008	514	1742	750	100	7.7	21.7	2 x 21	F4IA018007500300
KEA 18 09	1194	609	1742	900	125	9.2	24.9	2 x 21	F4IA018009000300

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



RATEA

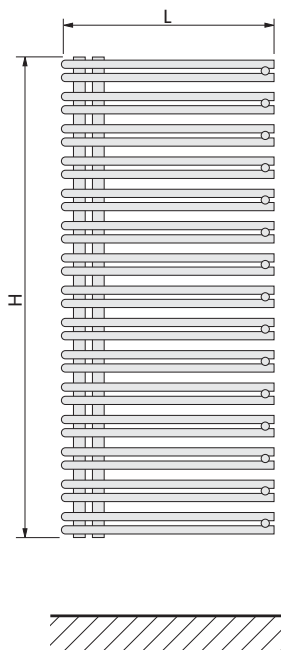
The simple yet non-standard structure of the Ratea radiator makes this model exceptionally functional. These radiators are available in both right and left side versions.

- Material : high quality steel round tubes
- Heating medium : water
- Connections : 2 threaded ½" female connections
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request
- Basic equipment : brackets with adjustable wall distance, ¼" air vent.
- Additional equipment : straight chrome plated hanger, bent chrome plated hanger, glass shelf, C-type chrome plated hanger, round chrome plated towel hanger, electric heater.

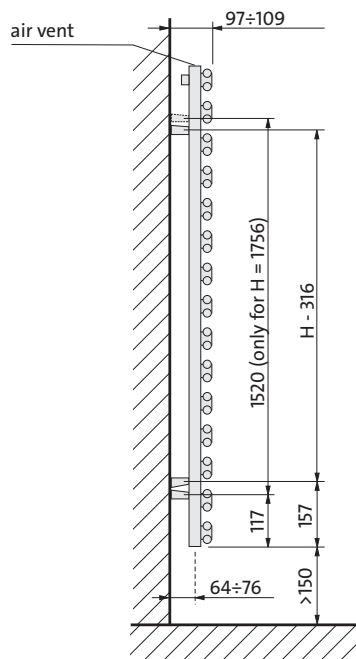


RATEA

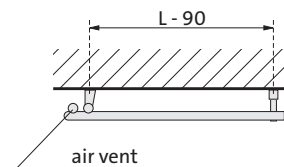
front view



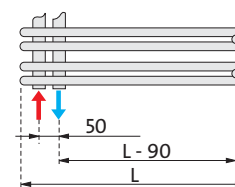
side view



top view

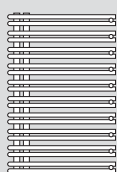


connection

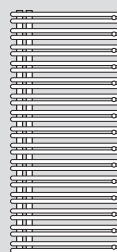


H = height
L = width

dimensions in mm



RAT 08 ..



RAT 12 ..



RAT 18 ..

type	output [W]		H [mm]	L [mm]	water volume [dm³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20						
RAT 08 05	446	228	796	500	3.8	8.8	2 x 10	F4BA00800500D300
RAT 08 06	530	270	796	600	4.3	10.0	2 x 10	F4BA00800600D300
RAT 08 07	653	333	796	750	5.0	11.9	2 x 10	F4BA00800750D300
RAT 12 05	650	332	1196	500	5.9	12.9	2 x 15	F4BA01200500D300
RAT 12 06	773	394	1196	600	6.7	14.8	2 x 15	F4BA01200600D300
RAT 12 07	955	487	1196	750	8.0	17.6	2 x 15	F4BA01200750D300
RAT 18 05	897	458	1756	500	8.0	19.2	2 x 22	F4BA01800500D300
RAT 18 06	1081	552	1756	600	9.5	21.8	2 x 22	F4BA01800600D300
RAT 18 07	1357	692	1756	750	11.7	25.7	2 x 22	F4BA01800750D300

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



IMIA

Unlike the classic bathroom radiator models, Imia has vertically oriented collectors which gives it a tall and attractive appearance.

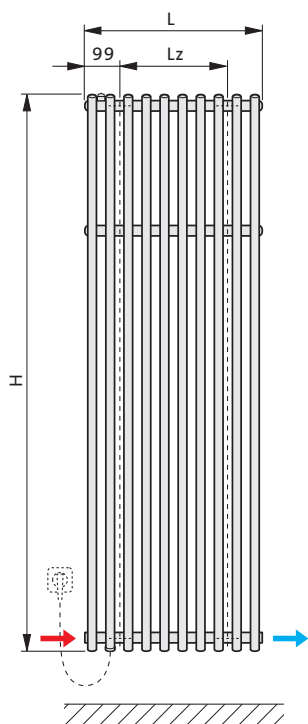
- Material : high quality steel round tubes
- Heating medium : water
- Connections : 3 threaded ½" female connections
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request



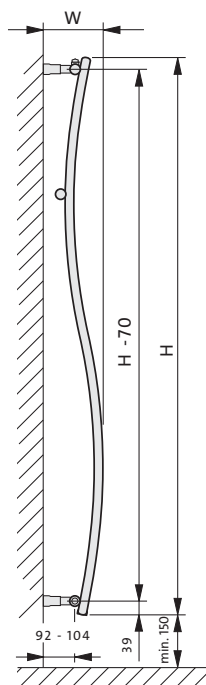
- Basic equipment : brackets with adjustable wall distance, ¼" air vent, two ¼" blanking plugs, ½" blanking plug
- Additional equipment : straight chrome plated hanger, round chrome plated hanger, clothing hanger, electric heater.

IMIA

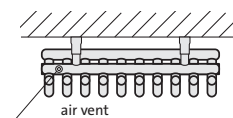
front view



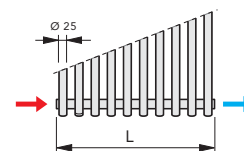
side view



top view



connection



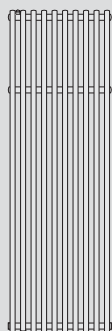
H = height

L = width

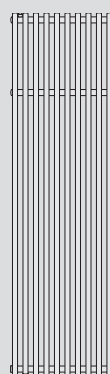
Lz = horizontal spacing of brackets

W = depth

dimensions in mm



IMI 16 ..



IMI 18 ..

type	output [W]		H [mm]	L [mm]	Lz [mm]	W [mm]	water volume [dm³]	weight [kg]	order code
	75/65/20	55/45/20							
IMI 16 05	850	434	1600	510	312	169-181	6.5	13.5	F4VA016005000300
IMI 16 08	1359	693	1600	822	624	169-181	10.4	21.6	F4VA016008000300
IMI 16 10	1699	867	1600	1030	832	169-181	13.0	27.0	F4VA016010000300
IMI 18 05	948	484	1800	510	312	177-189	7.7	15.0	F4VA018005000300
IMI 18 08	1516	773	1800	822	624	177-189	12.3	24.0	F4VA018008000300
IMI 18 10	1895	967	1800	1030	832	177-189	15.4	30.0	F4VA018010000300
IMI 18 12	2274	1160	1800	1238	1040	177-189	18.5	35.8	F4VA018012000300

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



MAURITIUS

The Mauritius model can be installed in places where there is no room for a radiator on the wall. After installation, the Mauritius radiator acts as a partition wall adding to the room arrangement.

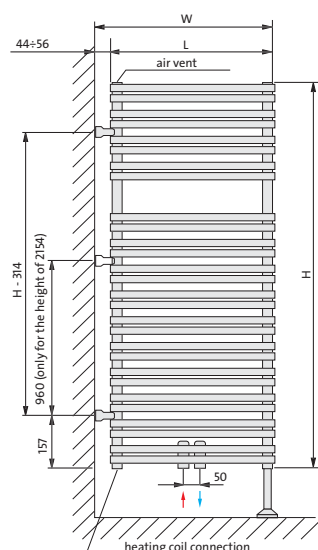
- Material : high quality steel round tubes
- Heating medium : water
- Connections : 3 threaded ½" female connections
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request



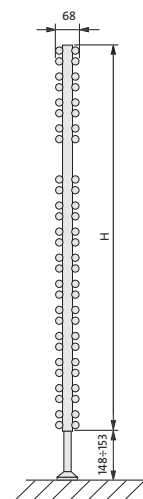
- Basic equipment : brackets with adjustable wall distance, ½" air vent, two ½" blanking plugs
- Additional equipment : straight chrome plated hanger, bent chrome plated hanger, glass shelf, C-type chrome plated hanger, round chrome plated towel hanger, electric heater.

MAURITIUS

front view

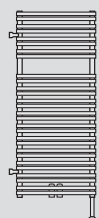


side view



H = height
L = width
W = depth

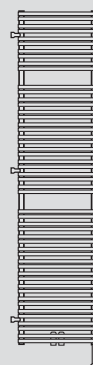
dimensions in mm



MAU 12 ..



MAU 18 ..



MAU 22 ..

type	output [W]		H [mm]	L [mm]	W [mm]	water volume [dm ³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20							
MAU 12 05	863	440	1194	500	544-556	9.4	20.8	56	F44A012005000300
MAU 12 06	1002	511	1194	600	644-656	11.2	24.2	56	F44A012006000300
MAU 12 07	1202	613	1194	750	794-806	14.0	29.4	56	F44A012007500300
MAU 12 09	1395	712	1194	900	944-956	16.6	34.4	56	F44A012009000300
MAU 18 05	1216	620	1754	500	544-556	14.2	28.8	80	F44A018005000300
MAU 18 06	1435	732	1754	600	644-656	16.6	34.9	80	F44A018006000300
MAU 18 07	1758	897	1754	750	794-806	20.0	42.1	80	F44A018007500300
MAU 18 09	2073	1058	1754	900	944-956	23.4	49.5	80	F44A018009000300
MAU 22 05	1445	737	2154	500	544-556	17.3	37.1	100	F44A022005000300
MAU 22 06	1724	880	2154	600	644-656	20.4	34.3	100	F44A022006000300
MAU 22 07	2145	1094	2154	750	794-806	25.1	52.2	100	F44A022007500300
MAU 22 09	2560	1306	2154	900	944-956	29.5	61.6	100	F44A022009000300

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



JAVA

Horizontal heating elements of the Java model have an unusual elliptic shape. Their angled positioning resembling venetian blinds gives the impression of lightness.

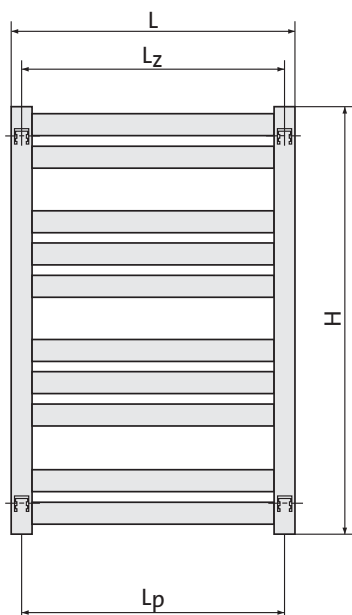
- Material : high quality steel profiles
- Heating medium : water
- Connections : 2 threaded ½" female connections
- Working pressure : 8 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request



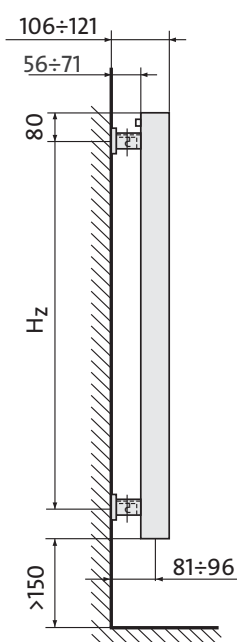
- Basic equipment : brackets with adjustable wall distance, 1/8" air vent
- Additional equipment : electric heater.

JAVA

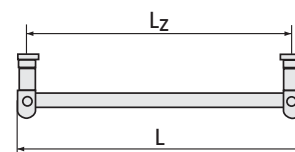
front view



side view

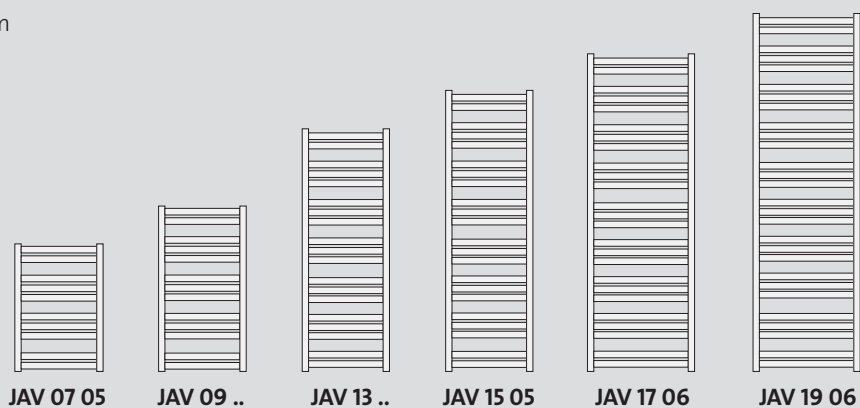


top view



H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors

dimensions in mm



type	output [W]		H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20			Hz [mm]	Lz [mm]					
JAV 07 05	358	183	700	500	520	470	470	3.2	6.6	10	F4MA007005000320
JAV 09 04	393	201	912	400	750	370	370	3.7	7.3	13	F4MA009104000320
JAV 09 05	463	236	912	500	750	470	470	4.2	8.7	13	F4MA009105000320
JAV 13 04	568	290	1336	400	1170	370	370	5.4	10.8	19	F4MA013304000320
JAV 13 05	668	341	1336	500	1170	470	470	6.1	12.3	19	F4MA013305000320
JAV 15 05	780	398	1548	500	1320	470	470	7.0	14.3	22	F4MA015405000320
JAV 17 06	1015	518	1760	600	1600	570	570	8.9	18.9	25	F4MA017606000320
JAV 19 06	1137	580	1972	600	1790	570	570	10.0	20.9	28	F4MA019706000320

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



MUNA

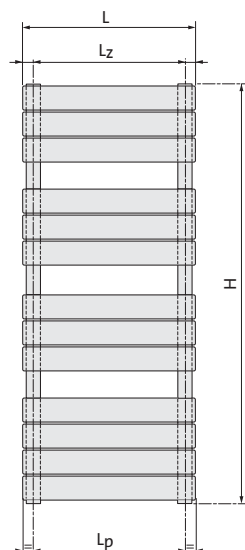
Flat heating elements of the Muna model give it a stark appearance, making it an excellent match for a minimalist interior where an attractive detail is of particular significance.

- Material : high quality steel profiles
- Heating medium : water
- Connections : 2 threaded ½" female connections
- Working pressure : 4 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request
- Basic equipment: brackets with adjustable wall distance, 1/8" air vent.
- Additional equipment: straight hanger, round hanger, V-type towel hanger, electric heater.

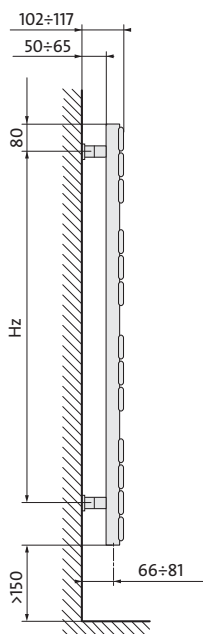


MUNA

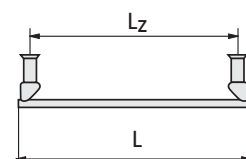
front view



side view

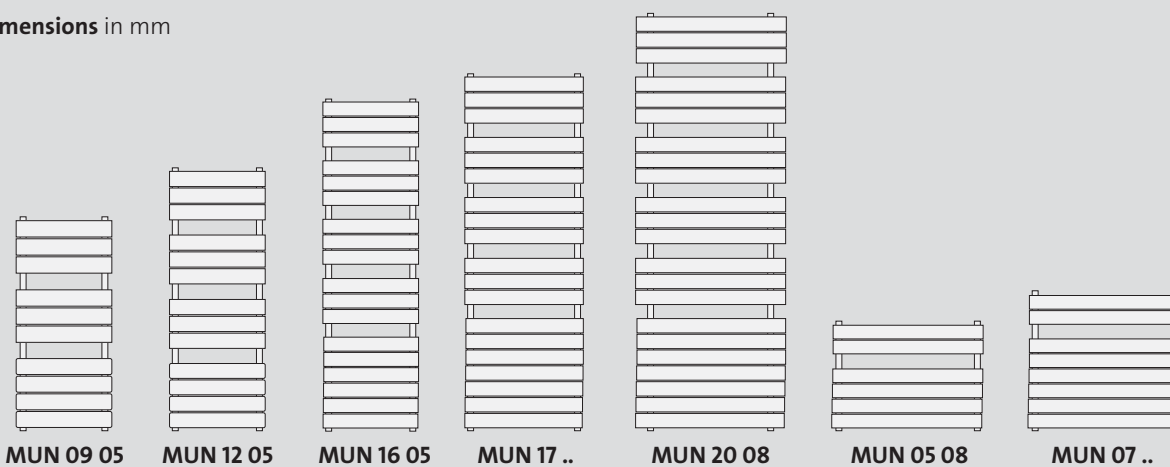


top view



H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors

dimensions in mm



type	output [W]		H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20			Hz [mm]	Lz [mm]					
MUN 09 05	470	240	905	500	620	438	447	4.8	10.8	10	F8GA009005000320
MUN 12 05	602	307	1205	500	990	438	447	6.3	14.1	13	F8GA012005000320
MUN 16 05	815	416	1650	500	1460	438	447	8.6	19.4	18	F8GA016505000320
MUN 17 06	987	504	1730	600	1460	538	547	10.3	23.1	19	F8GA017306000320
MUN 17 08	1311	669	1730	800	1460	738	747	12.3	29.1	19	F8GA017308000320
MUN 20 08	1464	747	2030	800	1790	738	747	14.3	33.9	22	F8GA020308000320
MUN 05 08	400	204	530	800	330	738	747	3.8	9.6	6	F8FA005308000320
MUN 07 10	653	333	680	1000	520	938	947	6.0	16.5	8	F8FA006810000320
MUN 07 12	784	400	680	1200	520	1138	1147	7.2	21.5	8	F8FA006812000320

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



FLORES CH

A minimalist form radiator. Captivating with the simplicity of its shape and precision of execution. High quality chrome finishing allows for arrangement of the Flores CH radiator in both classic and modern bathrooms.

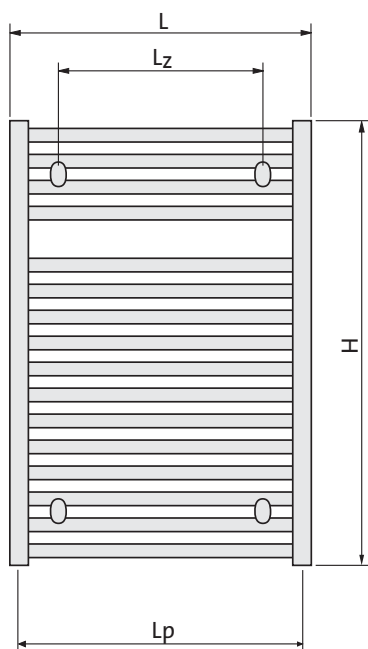
- Material : high quality steel profiles
- Heating medium : water
- Connections : 4 threaded ½" female connections
- Working pressure : 8 bar
- Maximal temperature : 110 °C
- Painting : chrome electroplating



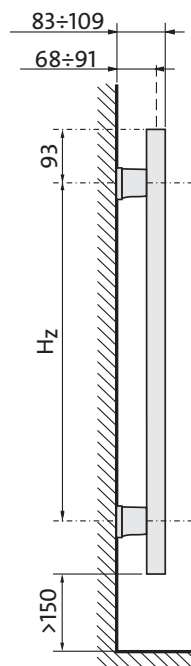
- Basic equipment : chrome plated brackets with adjustable wall distance, ½" air vent, blanking plug
- Additional equipment : round chrome plated towel hanger, electric heater.

FLORES CH

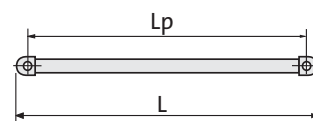
front view



side view

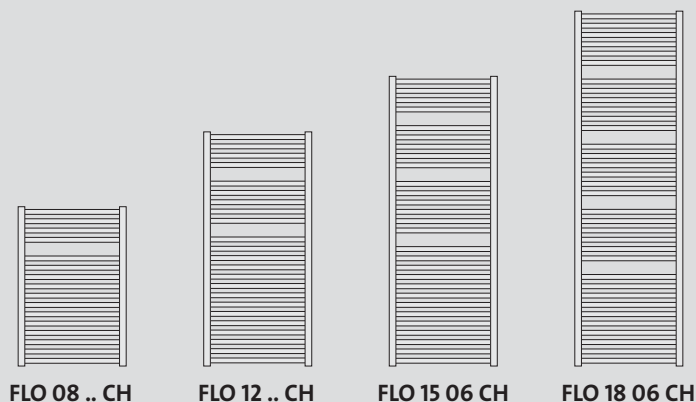


top view



H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors

dimensions in mm



FLO 08 .. CH

FLO 12 .. CH

FLO 15 06 CH

FLO 18 06 CH

type	output [W]		H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm ³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20			Hz [mm]	Lz [mm]					
FLO 08 05 CH	258	134	770	500	584	350	455	3.54	7.0	16	F35A00800500030SCHRO
FLO 12 05 CH	354	186	1150	500	964	350	455	5.20	10.1	23	F35A01200500030SCHRO
FLO 08 06 CH	296	156	770	600	584	450	555	4.04	7.7	16	F35A00800600030SCHRO
FLO 12 06 CH	423	221	1150	600	964	450	555	5.92	11.3	23	F35A01200600030SCHRO
FLO 15 06 CH	508	268	1430	600	1244	450	555	7.30	14.0	28	F35A01500600030SCHRO
FLO 18 06 CH	635	337	1755	600	1569	450	555	8.84	16.9	34	F35A01800600030SCHRO

Chrome coated radiator. Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



FLORES C CH

Subtle curvature of horizontal collectors makes the Flores C CH model exceptionally practical in daily use. Its versatility is highlighted by timeless chrome plating.

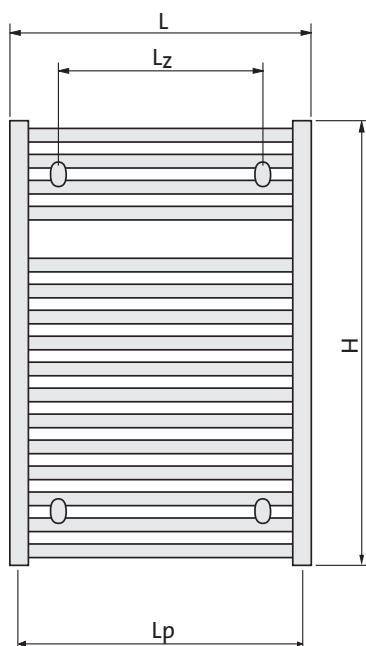
- Material : high quality steel profiles
- Heating medium : water
- Connections : 4 threaded ½" female connections
- Working pressure : 8 bar
- Maximal temperature : 110 °C
- Painting : chrome electroplating



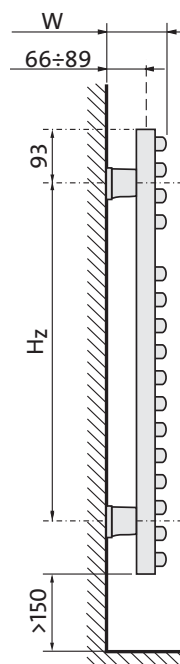
- Basic equipment : chrome plated brackets with adjustable wall distance, ½" air vent, blanking plug
- Additional equipment : round chrome plated towel hanger, electric heater.

FLORES C CH

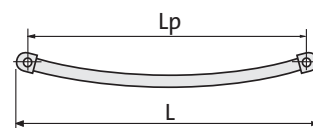
front view



side view

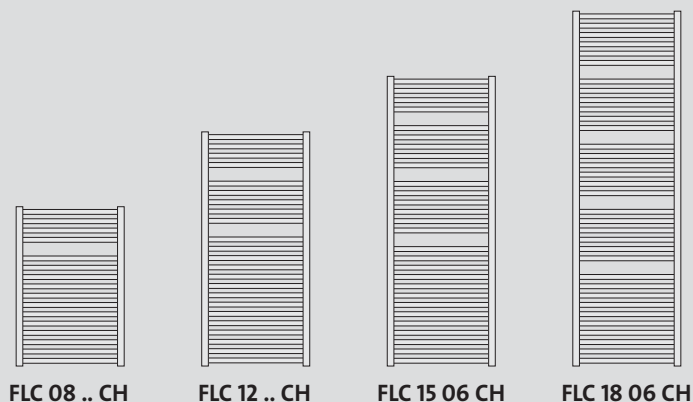


top view



H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors
W = depth

dimensions in mm



FLC 08 .. CH

FLC 12 .. CH

FLC 15 06 CH

FLC 18 06 CH

type	output [W]		H [mm]	L [mm]	W [mm]	brackets		Lp [mm]	water volume [dm³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20				Hz [mm]	Lz [mm]					
FLC 08 05 CH	258	134	770	500	100-123	584	300	455	3.54	7.0	16	F33A00800500030SCHRO
FLC 12 05 CH	354	186	1150	500	100-123	964	300	455	5.20	10.1	23	F33A01200500030SCHRO
FLC 08 06 CH	296	156	770	600	109-132	584	400	555	4.04	7.7	16	F33A00800600030SCHRO
FLC 12 06 CH	423	221	1150	600	109-132	964	400	555	5.92	11.3	23	F33A01200600030SCHRO
FLC 15 06 CH	508	268	1430	600	109-132	1264	400	555	7.30	14.0	28	F33A01500600030SCHRO
FLC 18 06 CH	635	337	1755	600	109-132	1569	400	555	8.84	16.9	34	F33A01800600030SCHRO

Chrome coated radiator. Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



ELATO

Flat heating elements located asymmetrically with respect to the vertical collectors add extravagance and, at the same time, preserve high functionality.

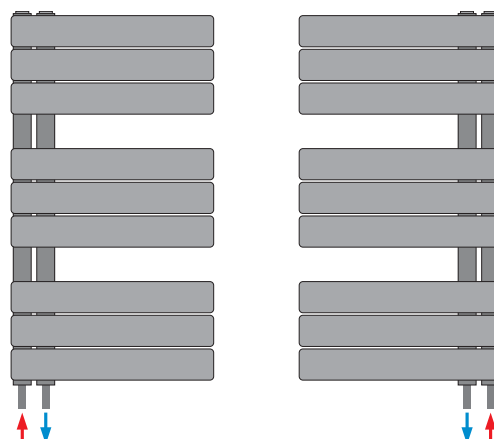
- Material : high quality steel profiles
- Heating medium : water
- Connections : 4 threaded ½" female connections
- Working pressure : 4 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request



- Basic equipment : brackets with adjustable wall distance, ½" air vent and blanking plug
- Additional equipment : straight hanger, round hanger, V-type towel hanger, electric heater.

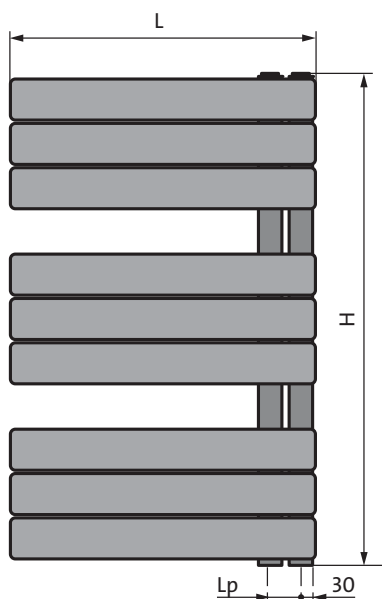
Note!

- Supply and return pipes are ALWAYS bottom-connected (can be swapped)
- The radiator is up/down reversible which allows for achieving left and right side versions.

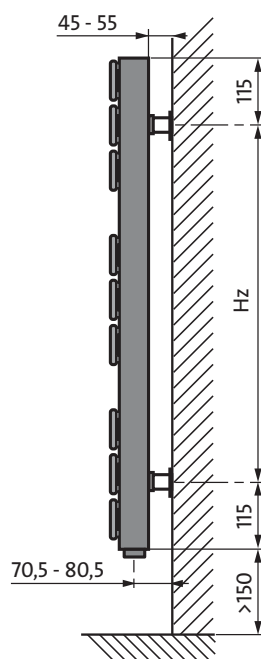


ELATO

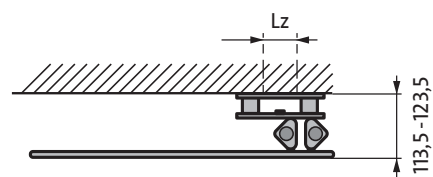
front view



side view



top view



H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors

dimensions in mm



type	output [W]		H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm ³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20			Hz [mm]	Lz [mm]					
ELA 08 04	406	207	830	450	600	50	50	4.2	9.7	9	F8MA008304500D40
ELA 11 04	528	269	1130	450	900	50	50	5.7	13.1	12	F8MA011304500D40
ELA 11 06	706	360	1130	600	900	50	50	6.7	16.1	12	F8MA011306000D40
ELA 14 04	668	341	1430	450	1200	50	50	7.2	16.4	15	F8MA014304500D40
ELA 14 06	855	436	1430	600	1200	50	50	8.5	20.2	15	F8MA014306000D40
ELA 17 06	1008	514	1730	600	1500	50	50	10.2	24.3	18	F8MA017306000D40

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



APOLIMA

Original shape of arched horizontal collectors introduces an element of balance and harmony to every space.

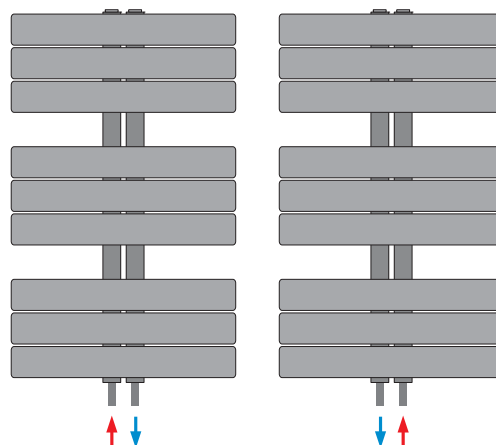
- Material : high quality steel profiles
- Heating medium : water
- Connections : 2 threaded ½" female connections
- Working pressure : 4 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request



- Basic equipment : brackets with adjustable wall distance, ½" air vent and blanking plug
- Additional equipment : straight hanger, round hanger, V-type towel hanger, electric heater.

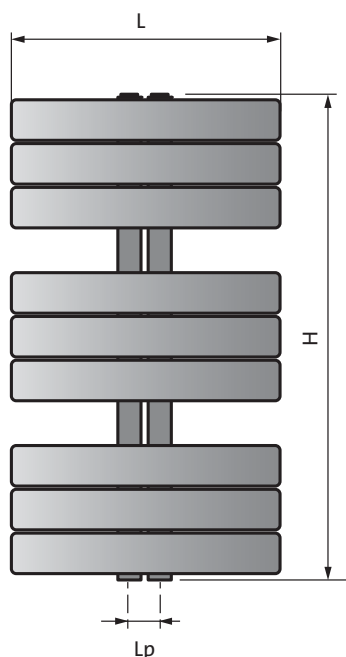
Note!

- Supply and return pipes are ALWAYS bottom-connected (can be swapped).

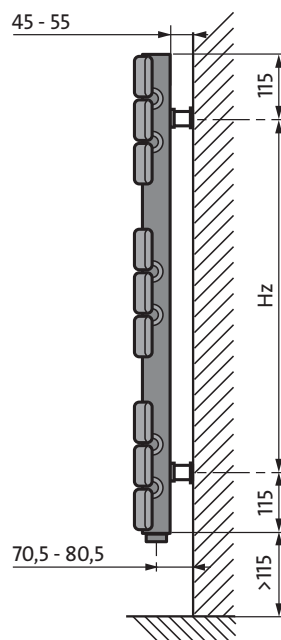


APOLIMA

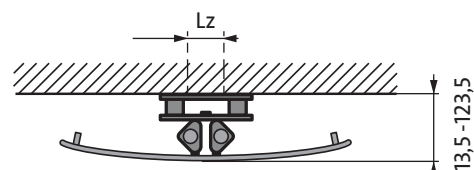
front view



side view

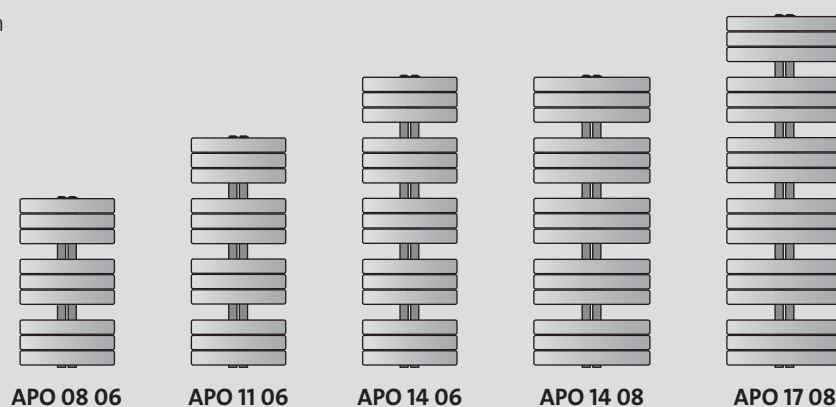


top view



H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors

dimensions in mm



APO 08 06

APO 11 06

APO 14 06

APO 14 08

APO 17 08

type	output [W]		H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20			Hz [mm]	Lz [mm]					
APO 08 06	558	285	830	650	600	50	50	5.3	12.8	9	F8JA008306500320
APO 11 06	732	373	1130	650	900	50	50	7.1	17.1	12	F8JA011306500320
APO 14 06	909	464	1430	650	1200	50	50	8.9	21.5	15	F8JA014306500320
APO 14 08	1086	554	1430	800	1200	50	50	10.2	25.3	15	F8JA014308000320
APO 17 08	1300	663	1730	800	1500	50	50	12.2	29.4	18	F8JA017308000320

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



APIA

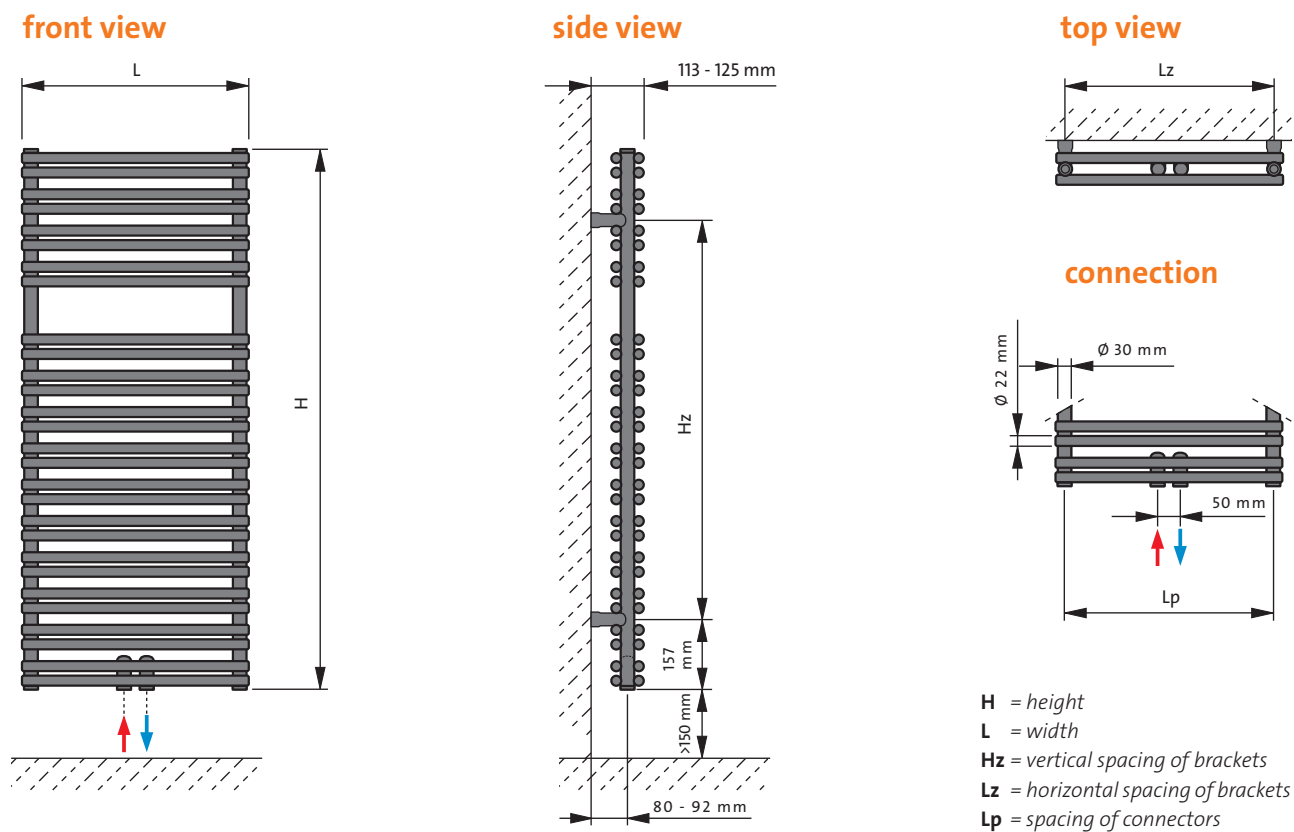
Straight lines of double horizontal collectors provide high thermal output at compact dimensions.

- Material : high quality steel round profiles
- Heating medium : water
- Connections : 2 threaded ½" female connections for central bottom connection (connectors spaced at 50 mm) and 4 threaded ½" female connections for end bottom connection.
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request



- Basic equipment : brackets with adjustable wall distance, ½" air vent and blanking plugs
- Additional equipment : straight hanger, round hanger, V-type towel hanger, electric heater.

APIA



API 11 05 M

API 11 06 M

API 18 07 M

API 18 09 M

type	output [W]		H [mm]	L [mm]	brackets		L _p [mm]	water volume [dm ³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20			H _z [mm]	L _z [mm]					
API 11 05 M	780	398	1134	500	882	460	460	7.9	18.2	48	F3VE011005000000
API 11 06 M	938	479	1134	600	882	560	560	9.3	20.7	48	F3VE011006000000
API 11 07 M	1183	604	1134	750	882	710	710	11.2	24.3	48	F3VE011007500000
API 11 09 M	1429	729	1134	900	882	860	860	13.1	28.0	48	F3VE011009000000
API 18 05 M	1243	634	1764	500	1512	460	460	13.1	27.7	72	F3VE018005000000
API 18 06 M	1474	752	1764	600	1512	560	560	14.9	31.9	72	F3VE018006000000
API 18 07 M	1794	915	1764	750	1512	710	710	17.3	38.0	72	F3VE018007500000
API 18 09 M	2127	1085	1764	900	1512	860	860	19.8	44.1	72	F3VE018009000000

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



LEROS

The Leros bathroom radiator impresses with its modern styling of a traditional product, the well thought out design inspires confidence to the latest model in the Radson range. The large diameter of the tubes (28mm) provide a solid and stylish appearance. The larger gaps not only provide for a striking design but give a practical solution to placing towels and cleaning the radiator.

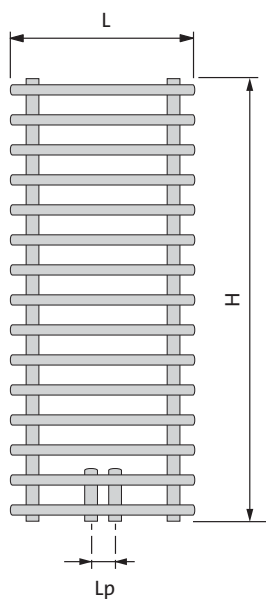
- Material : high quality steel round profiles
- Heating medium : water
- Connections : 2 threaded ½" female connections for central bottom connection (connectors spaced at 50 mm) and 4 threaded ½" female connections for end bottom connection.
- Working pressure : 10 bar
- Maximal temperature : 110 °C



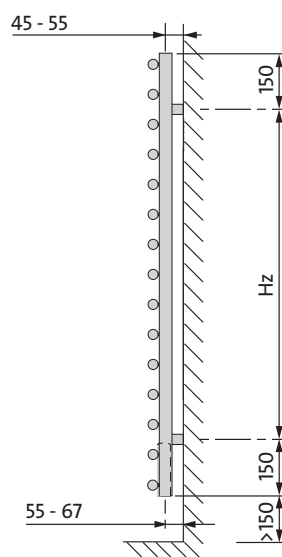
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request
- Basic equipment : brackets with adjustable wall distance, ½" air vent and blanking plugs

LEROS

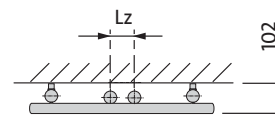
front view



side view

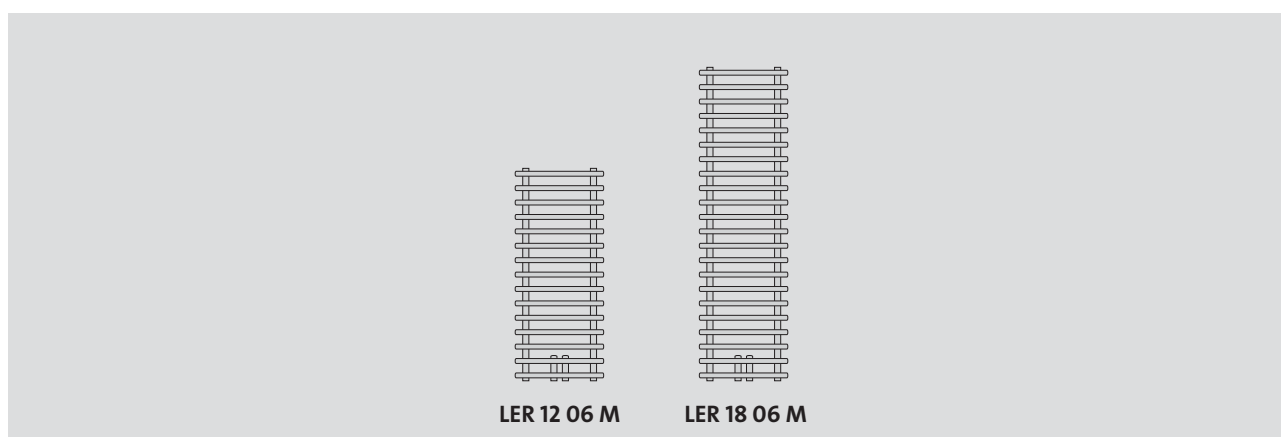


top view



H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors

dimensions in mm



type	output [W]		H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm³]	weight [kg]	number of horizontal collectors	order code
	75/65/20	55/45/20			Hz [mm]	Lz [mm]					
LER 12 06 M	607	325	1224	600	924	500	50	5.85	11.55	15	F5YA012006000300
LER 18 06 M	870	464	1812	600	1512	500	50	8.25	16.45	22	F5YA018006000300

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.



EVIA

A bathroom radiator that combines elegant design with excellent performance. A special property of this solution is that a part of the ladder elements can be tilted so as to facilitate hanging towels and other bathroom accessories.

As a standard, the colour of the collectors is the same as the colour of the radiator. As an option, one of several ready sets of colours can be chosen, where the colour of moving elements is different than the colour of the remaining part of the radiator.

- Material : high quality steel round profiles
- Heating medium : water
- Connections : 2 threaded ½" female connections
- Working pressure : 4 bary
- Maximal temperature : 110 °C
- Painting : anaphoretic priming, final painting with the use of electrostatic powder coating
- Colours : RAL 9016 white, other colours from the RAL colour chart are available on request
- Basic equipment : Basic equipment: brackets with adjustable distance from the wall, tilted horizontal collectors used as hangers, a plug, and a 1/2" air vent.

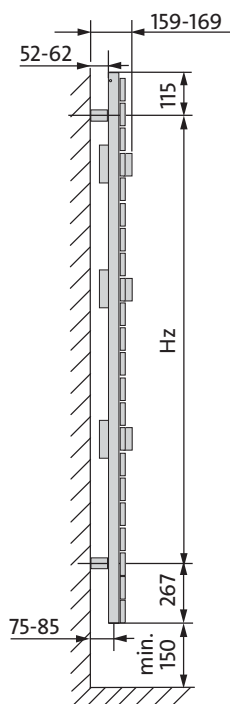


EVIA

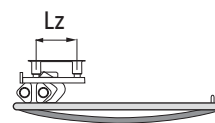
front view



side view

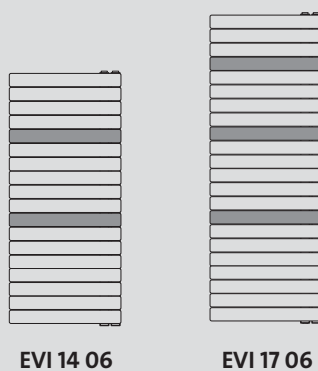


top view



H = height
L = width
Hz = vertical spacing of brackets
Lz = horizontal spacing of brackets
Lp = spacing of connectors

dimensions in mm



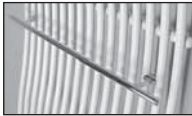
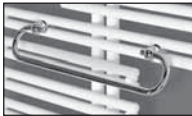
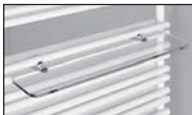
EVI 14 06

EVI 17 06

type	output [W] 75/65/20 °C	output [W] 55/45/20 °C	H [mm]	L [mm]	brackets		Lp [mm]	water volume [dm³]	weight [kg]	number of horizontal collectors	order code (left-side version)
					Hz [mm]	Lz [mm]					
EVI 14 06	758	398	1357	600	975	100	50	8.45	27.8	18	F96A0135060G0340
EVI 17 06	896	469	1657	600	1275	100	50	10.02	36.6	22	F96A0165060G0340
(right-side version)											
EVI 14 06	758	398	1357	600	975	100	50	8.45	27.8	18	F96A0135060D0340
EVI 17 06	896	469	1657	600	1275	100	50	10.02	36.6	22	F96A0165060D0340

Thermal output of the radiators [W] in accordance with EN 442 for parameters 75/65/20 °C and 55/45/20 °C.

Accessories

	description	dimensions, colours, outputs	order code
	straight chrome plated hanger		
	Kea, Ratea, Mauritius	492 mm	AZ1CR049C100100SCHRO
	Imia	492 mm	AZ1CR049C300100SCHRO
	Kea, Ratea (width 600, 750), Mauritius (width 600, 750, 900)	596 mm	AZ1CR060C100100SCHRO
	Imia (width 822, 1030, 1238)	596 mm	AZ1CR060C300100SCHRO
	Kea (width 750, 900), Mauritius (width 900)	804 mm	AZ1CR080C100100SCHRO
	Imia (width 822, 1030, 1238)	804 mm	AZ1CR080C300100SCHRO
	Imia (width 1030, 1238)	1012 mm	AZ1CR101C300100SCHRO
	bent chrome plated hanger		
	Kea, Ratea, Mauritius	500 mm	AZ1BT050C100100SCHRO
	Kea (width 750, 900), Ratea (width 750), Mauritius (width 750, 900)	650 mm	AZ1BT065C100100SCHRO
	glass shelf		
	Kea, Ratea, Mauritius	300 mm	AZ1GS030C100100SCHRO
	Kea, Ratea, Mauritius	500 mm	AZ1GS050C100100SCHRO
	Kea (width 750, 900), Ratea (width 750), Mauritius (width 750, 900)	650 mm	AZ1GS065C100100SCHRO
	C-type chrome plated hanger		
	Kea, Ratea, Mauritius		AZ1HT000C100100SCHRO
	Santorini		AZ1HT000C200100SCHRO
	round chrome plated towel hanger		
	Kea, Ratea, Mauritius		AZ1TR000C100100SCHRO
	Santorini, Santorini C		AZ1TR000C200100SCHRO
	Imia		AZ1TR000C300100SCHRO
	clothing hanger		
	Imia		AZ1BH000C000100SCHRO
	straight hanger		
	Muna	white	AZ16BTBARP40BL00
		chrome plated	AZ16BTBARP400CHSCHRO
	round hanger		
	Muna	white	AZ16HTANOPBL0000
		chrome plated	AZ16HTANOPCH000SCHRO
	V-type towel hanger - 2 pcs		
	Muna	white	AZ16BTPATVPBL000
		chrome plated	AZ16BTPATVPCH00SCHRO

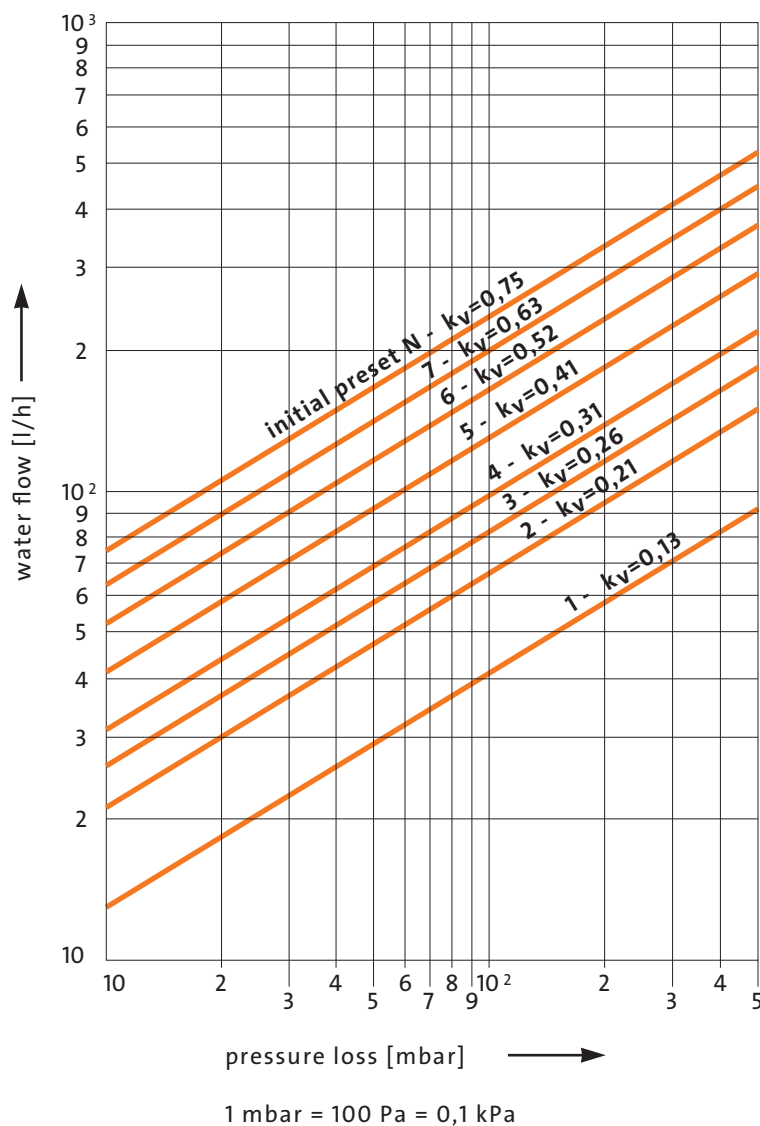
Hydraulic characteristics

Pressure loss diagram for the radiators Narbonne VT and Narbonne V VT with Danfoss valve inserts

Initial preset value

Base:
supply temperature **70 °C**
return temperature **55 °C**
room temperature **20 °C**

initial preset 1 for the radiators up to	$k_v = 0.13$ approx. 500 W
initial preset 2 for the radiators up to	$k_v = 0.21$ approx. 800 W
initial preset 3 for the radiators up to	$k_v = 0.26$ approx. 1000 W
initial preset 4 for the radiators up to	$k_v = 0.31$ approx. 1200 W
initial preset 5 for the radiators up to	$k_v = 0.41$ approx. 1600 W
initial preset 6 for the radiators up to	$k_v = 0.52$ approx. 2000 W
initial preset 7 for the radiators up to	$k_v = 0.63$ approx. 2400 W
initial preset N for the radiators from	$k_v = 0.75$ 2400 W



Pressure loss [mbar] – double-pipe system with proportional band 2K.

Corrections of the valve initial presets can also be entered in operating conditions (under working pressure).

Correction factors

heating medium temperature [°C]		value of the factor for selecting the heat output of the radiator at temperatures other than 75/65/20 °C							
		t _i air temperature in the heated room [°C]							
t _s	t _r	5	8	12	16	18	20	22	24
95	90	0.48	0.50	0.54	0.57	0.59	0.61	0.64	0.66
	85	0.50	0.52	0.56	0.60	0.62	0.64	0.67	0.70
	80	0.52	0.55	0.59	0.63	0.65	0.68	0.70	0.73
	75	0.54	0.57	0.61	0.66	0.69	0.72	0.75	0.78
	70	0.57	0.60	0.65	0.70	0.73	0.76	0.79	0.83
90	85	0.52	0.55	0.58	0.63	0.65	0.67	0.70	0.73
	80	0.54	0.57	0.61	0.66	0.68	0.71	0.74	0.77
	75	0.57	0.60	0.64	0.69	0.72	0.75	0.78	0.82
	70	0.59	0.63	0.67	0.73	0.76	0.80	0.83	0.87
	65	0.62	0.66	0.71	0.77	0.81	0.85	0.89	0.93
85	80	0.56	0.59	0.64	0.69	0.72	0.75	0.78	0.81
	75	0.59	0.62	0.67	0.72	0.75	0.79	0.82	0.86
	70	0.62	0.65	0.70	0.77	0.80	0.84	0.88	0.92
	65	0.65	0.69	0.75	0.81	0.85	0.89	0.94	0.99
	60	0.68	0.73	0.79	0.87	0.91	0.96	1.01	1.07
80	75	0.61	0.65	0.70	0.76	0.79	0.83	0.87	0.91
	70	0.64	0.68	0.74	0.81	0.84	0.88	0.93	0.97
	65	0.68	0.72	0.78	0.86	0.90	0.94	0.99	1.05
	60	0.72	0.76	0.83	0.91	0.96	1.01	1.07	1.13
	55	0.76	0.81	0.89	0.98	1.04	1.10	1.16	1.24
75	70	0.67	0.72	0.78	0.85	0.89	0.94	0.98	1.04
	65	0.71	0.75	0.82	0.90	0.95	1.00	1.05	1.12
	60	0.75	0.80	0.88	0.97	1.02	1.08	1.14	1.21
	55	0.80	0.85	0.94	1.04	1.10	1.17	1.24	1.32
	50	0.85	0.91	1.01	1.13	1.20	1.28	1.37	1.47
70	65	0.75	0.79	0.87	0.96	1.01	1.07	1.13	1.19
	60	0.79	0.84	0.93	1.03	1.08	1.15	1.22	1.30
	55	0.84	0.90	0.99	1.11	1.17	1.25	1.33	1.42
	50	0.89	0.96	1.07	1.20	1.28	1.37	1.47	1.58
65	60	0.83	0.89	0.98	1.10	1.16	1.23	1.31	1.40
	55	0.88	0.95	1.05	1.18	1.26	1.34	1.43	1.54
	50	0.94	1.02	1.14	1.29	1.37	1.47	1.59	1.71
60	55	0.94	1.01	1.13	1.27	1.36	1.45	1.56	1.68
	50	1.00	1.08	1.22	1.39	1.48	1.60	1.73	1.87
	45	1.08	1.17	1.33	1.53	1.65	1.78	1.94	2.13
55	50	1.07	1.16	1.31	1.50	1.62	1.75	1.90	2.07
	45	1.15	1.26	1.43	1.66	1.80	1.96	2.15	2.37
	40	1.25	1.37	1.59	1.86	2.03	2.24	2.48	2.78
50	45	1.23	1.36	1.56	1.82	1.98	2.17	2.40	2.67
	40	1.34	1.48	1.73	2.05	2.25	2.50	2.79	3.15
	35	1.47	1.65	1.94	2.36	2.63	2.96	3.38	3.92
45	40	1.45	1.62	1.90	2.28	2.53	2.83	3.19	3.66
	35	1.60	1.80	2.15	2.64	2.96	3.37	3.89	4.58
40	35	1.75	1.98	2.40	3.00	3.41	3.93	4.62	5.54
	30	1.96	2.25	2.79	3.61	4.21	5.01	6.14	7.87

The table has been prepared for n = 1.3

example:

The calculated room heat demand is 800 W. For the supply water the designed temperature is 55 °C, and for the return water it is 45°C. The designed air temperature in the room is 20 °C. For the values of parameters 55/45/20 °C, the correction factor value of 1.96 is red off.

As a result of multiplying heat demand (800 W) by the correction factor (1.96), the value of heat output (800 W) by the correction factor (1.96), the value of heat output is found (1568 W). This value is used for selection of the radiator for the values of parameters 75/65/20 °C.

Purmo colour palette

STANDARD COLOUR

RAL 9016 Traffic white

All prices presented in this brochure refer to products painted in a standard colour RAL 9016. Other RAL and special colours are available on request.

Surcharges for other RAL and special colours from the palette presented below:

+ 20 % - decorative, bathroom radiators

Surcharges for other RAL and special colours out of the palette presented below:

+ 50 % - decorative, bathroom radiators

RAL COLOURS

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

SPECIAL COLOURS

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

¹ textured colour

² metallic colour

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

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

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