Technical catalogue
panel radiators

PURMO
POLAND 2014

°CLEVER
LOW TEMPERATURE RADIATORS

PURMO
clever heating solutions

table of contents

panel radiators

panel radiators

additional information

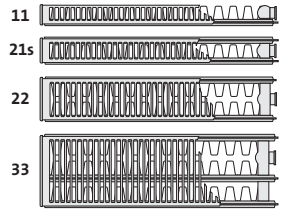
Type overview

types

Compact

4 connections

height [mm]: 300, 450, 500, 550, 600, 900
length [mm]: 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000

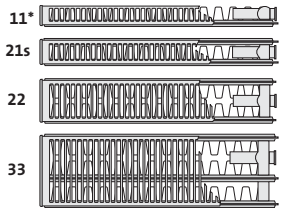


Ventil Compact

6 connections

height [mm]: 200, 300, 450, 500, 600, 900
length [mm]: 400*, 500*, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000

* except for the Ventil Compact model of height 200 mm; more information about the radiators of height 200 mm is available starting from page 88,

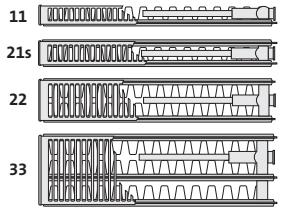


Ventil Compact M

6 connections

height [mm]: 300, 500, 600, 900
length [mm]: 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300*, 2600*, 3000*

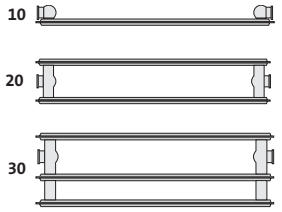
* except for the Ventil Compact M model of height 900 mm



Hygiene

4 connections

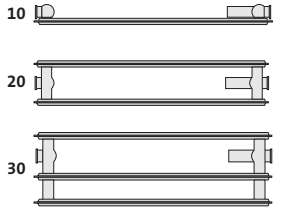
height [mm]: 300, 450, 500, 600, 900
length [mm]: 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000



Ventil Hygiene

6 connections

height [mm]: 300, 450, 500, 600, 900
length [mm]: 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000

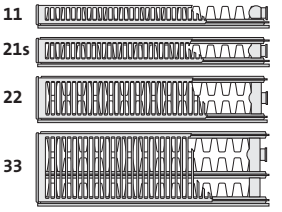


Plan Compact

4 connections

height [mm]: 300, 500, 600, 900
length [mm]: 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300*, 2600*, 3000*

* except for the Plan Compact model of height 900 mm

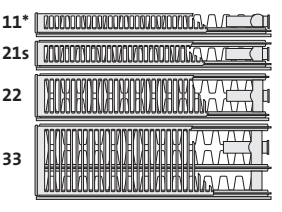


Plan Ventil Compact

6 connections

height [mm]: 200, 300, 500, 600, 900
length [mm]: 400*, 500*, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300**, 2600**, 3000**

* except for the Plan Ventil Compact model of height 200 mm, ** except for the Plan Ventil Compact model of height 900 mm, (more information about the radiators of height 200 mm is available starting from page 88)



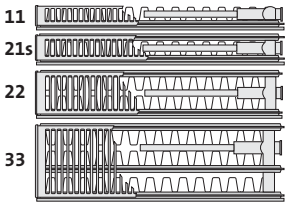
types

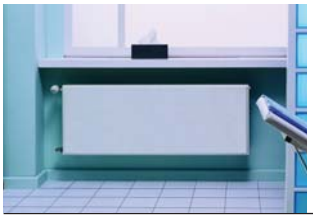
Plan Ventil Compact M

6 connections

height [mm]: 300, 500, 600, 900
length [mm]: 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300*, 2600*, 3000*

* except for the Plan Ventil Compact M model of height 900 mm



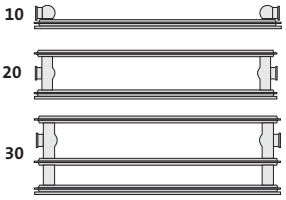


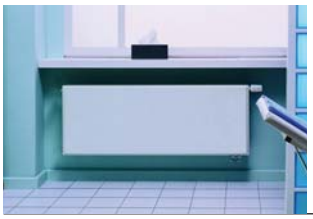
Plan Hygiene

4 connections

height [mm]: 300, 500, 600, 900
length [mm]: 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300*, 2600*, 3000*

* except for the Plan Hygiene model of height 900 mm



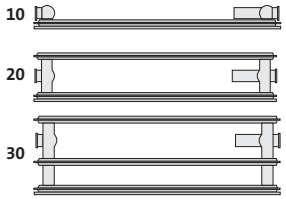


Plan Ventil Hygiene

6 connections

height [mm]: 300, 500, 600, 900
length [mm]: 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300*, 2600*, 3000*

* except for the Plan Ventil Hygiene model of height 900 mm

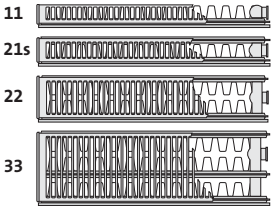


Ramo Compact

4 connections

height [mm]: 300, 500, 600, 900
length [mm]: 400, 500, 600, 800, 1000, 1200, 1400, 1600, 1800, 2000, 2300*, 2600*, 3000*

* except for the Ramo Compact model of height 900 mm

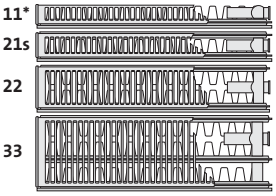


Ramo Ventil Compact

6 connections

height [mm]: 200, 300, 500, 600, 900
length [mm]: 400*, 500*, 600, 800, 1000, 1200, 1400, 1600, 1800, 2000, 2300**, 2600**, 3000**

* except for the Ramo Ventil Compact model of height 200 mm, ** except for the Ramo Ventil Compact model of height 900 mm, (more information about the radiators of height 200 mm is available starting from page 88)

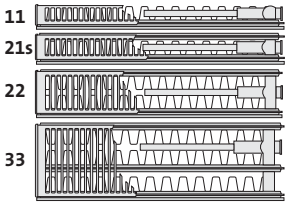


Ramo Ventil Compact M

6 connections

height [mm]: 300, 500, 600, 900
length [mm]: 400, 500, 600, 800, 1000, 1200, 1400, 1600, 1800, 2000, 2300*, 2600*, 3000*

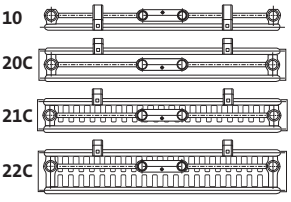
* except for the Ramo Ventil Compact M model of height 900 mm



Vertical

4 connections

height [mm]: 1500, 1800, 1950, 2100, 2300
length [mm]: 300, 450, 600, 750



Conditions for application of panel radiators

The PURMO radiators are intended for applications in forced circulation heating systems with black steel, copper or plastic piping with diffusion barrier where water is used as heating medium. They can be used in both single and double-pipe systems. These radiators can also be installed in gravity fed systems, but with restrictions due to their hydraulic resistance.

The PURMO radiators are used for heating of residential, office, commercial and other spaces where the atmosphere is free from adverse influence of corrosive substances and particularly where there is no permanent or periodic moistness of radiator surfaces. These radiators must not be used in spaces where such adverse influence takes place, e.g. in bathrooms, laundry rooms, baths, swimming pool halls, car washes, refrigeration plants and food processing plants. For the same reason the PURMO radiators must not be installed in houses which will not be heated during the first year after their construction or modernization.

The PURMO radiators should be installed in tight, sealed heating systems protected with diaphragm expansion tanks. They may also be installed in small open-vent systems of heating power up to 25 kW, provided approved corrosion inhibitors are used as well.

Systems with the PURMO radiators installed must be filled and replenished with water of appropriate quality. Main water quality indicators may not exceed the following values:

- summarized content of chloride and sulphide ions may not exceed 150 mg/l (in the case of copper piping systems it may not exceed 50 mg/l),
- oxygen content may not exceed 0.1 mg/l,
- pH value should fall within the range of 8.0 ÷ 9.5,
- general hardness may not exceed 4.0 mval/l.

Except for emergency situations, it is unacceptable to drain water from the central heating system. In case of necessity of draining water e.g. due to a repair, only parts of system, where it is necessary, should be drained. The drained parts should be re-filled with water immediately after the completion of repair works. Yearly loss of water in the central heating system should not exceed 5% and 10% of the total water volume, respectively, for closed and open-vent systems.

Using these radiators in systems where the maximal working pressure may exceed 10 bar or the maximal working temperature may exceed 110°C is forbidden. The leakproof test pressure may not exceed 12 bar.

Heating systems with the PURMO radiators installed can be powered with boilers or heat exchange centres. The radiators must not be installed in central heating systems directly connected to a high-temperature heating network e.g. through a hydroelevator or a pump mixing heat distribution centre.

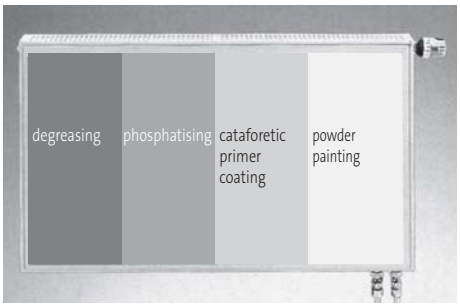
The radiators must be installed with their individual factory packaging even if the central heating system is in operation for building heating during finishing works or for building drying. It is recommended for the packaging to be removed by a user of the space after the completion of all finishing works.

The PURMO radiators must be stored indoors only, in closed and dry spaces. It is not allowed to store the radiators outdoors or in moist spaces. The radiators must be transported with due care in dry and closed cargo spaces and handled only in vertical position.

It is not allowed to use cleaning agents containing solvents, acids or other corrosive substances for cleaning the surfaces of the radiator.

production

The PURMO panel radiators are made in accordance with PN-EN 10130 and PN-EN 10131 of the DC01 cold rolled steel delivered in form of coiled strips. Heating panels are produced from sheets of thickness in accordance with PN-EN 442. Forming of heating panels with vertical water channels spaced at 33.3 mm (in the Vertical model – 50 mm) is performed on fully automated, computer controlled production lines where one process line (interconnected with roller conveyors) delivers products ready for painting and packing. The processes of coating and packing are automated as well.
The Plan Compact, Plan Ventil Compact, Plan Ventil Compact M, Plan Hygiene and Plan Ventil Hygiene models of panel radiators are equipped with an additional, decorative front panel glued to the front heating panel. The Plan Ventil Compact D model of height 200 mm also has an additional, decorative panel glued to the rear heating panel.
The Ramo Compact, Ramo Ventil Compact, Ramo Ventil Compact M model of panel radiators are equipped with an additional flat front panel, but with subtle horizontal ribbing, also glued to the front heating panel. The Ramo Ventil Compact D model of height 200 mm has similar decorative panel glued to the rear heating panel.



Radiator surface preparation

painting

After passing through the first stages of process line, the raw radiators are subjected to further processing providing a surface ready for varnishing. This processing consists of:

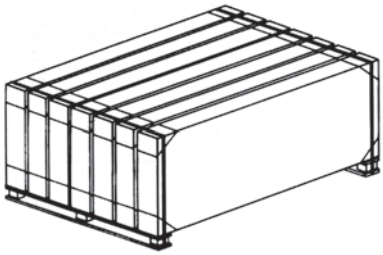
- preparing the surface (washing, degreasing, iron phosphatising, flushing) in a pass through a washer with a special chemical showering system,
- priming with the use of the second generation cataforetic KTL II method by complete submerging of the radiators in a white priming paint ensuring an excellent corrosion protection,
- after-priming drying in a dripping chamber and a gas tunnel dryer,
- powder painting with an epoxy paint by electrostatic coating in a painting chamber, with the use of special painting tools,
- polymerization (curing) of the powder paint coat during a pass through a gas furnace in a temperature of ~190°C.

As a standard, all the panel radiators with a profiled or flat front panel are finished in white RAL 9016 colour. Other colours in accordance with the RAL colour chart are available at an additional charge.

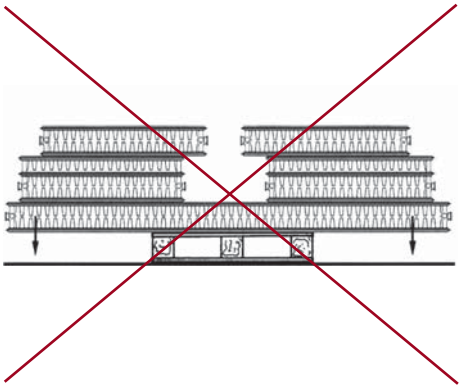

The RAL colour palette radiators

A radiator packaging

Radiator type	Quantity on a pallet
type 10	12 pieces
type 11	12 pieces
type 20	7 pieces
type 21s	10 pieces
type 22	7 pieces
type 30	5 pieces
type 33	5 pieces



Palletizing of radiators



An example of improper, storage possibly leading to a radiator damage

packaging

The panel radiators with profiled and flat front panels are delivered in a protective packaging allowing for installation without unpacking. The radiators are factory wrapped in a heat-shrinkable film. Additional protection of edges is provided by two durable, corrugated board sheets placed longitudinally on the top and bottom of the radiator. Corners are additionally protected with four plastic guards.
During installation, the packaging should be opened in the designated place only. The whole packaging can be removed after the completion of all works that could cause to a damage of the radiator. During heating, the packaging must be completely removed.
Single radiators are vertically placed on wooden pallets and bound with a band in order to prevent uncontrolled movement during storage and transport.

transport and storage

The radiators must be transported with due care in dry and closed cargo spaces and handled only in vertical position.
Both pallets and single radiators in transport must be secured in a manner preventing their movement. Loading and unloading of the radiators should be carried in a manner preventing from damaging their paint coating or deforming the radiator on impact.
The radiators must be stored indoors in closed and dry spaces and protected from moisture or caustic agents that could cause a damage of their paint coating. The radiators must not be stored outdoors, even when they are protected with a film or a canvas cover. If traces of moisture are found inside packaging, they must be immediately removed and the affected radiator must be dried.
The radiators must be stored on pallets, and when removed from pallets, they should be stored vertically, with special attention to protection of bottom edges from any damage. The radiators must not be thrown or dragged.
Improper transport or storage of the radiators can cause deformation leading to the loss of their tightness. Long radiators, in particular, should not be stored or transported on small pallets in horizontal position. The same pertains to a situation where protruding ends of a longer radiator are loaded by stacks of smaller radiators causing bending and deformation of the bottom radiator.

10 YEAR QUALITY GUARANTEE

HEIZKÖRPER RAL GÜTEZEICHEN AUS STAHL 371013

BS EN442
KM 32532

CE 05

bsi. ISO 9001 Quality Management FM 32533

bsi. ISO 14001 Environmental Management EMS 75685

EN EURONORM 442

	Compact	Ventil Compact	Ventil Compact M	Hygiene	Ventil Hygiene	Plan Compact	Plan Ventil Compact	Plan Ventil Compact M	Plan Hygiene	Plan Ventil Hygiene	Ramo Compact	Ramo Ventil Compact	Ramo Ventil Compact M	Vertical
profiled front panel	x	x	x	x	x	-	-	-	-	-	-	-	-	x
flat front panel	-	-	-	-	-	x	x	x	x	x	x	x	x	-
max. working pressure [bar]	10	10	10	10	10	10	10	10	10	10	10	10	10	6
no. of connectors – side + bottom	4	4 + 2	4 + 2	4	4 + 2	4	4 + 2	4 + 2	4	4 + 2	4	4 + 2	4 + 2	0 + 4
side connection – GW ½ "	x	x	x	x	x	x	x	x	x	x	x	x	x	-
bottom connection – GW ½ "	-	x	-	-	x	-	x	-	-	x	-	x	-	x
mid-bottom connection – GW ½ "	-	-	x	-	-	-	-	x	-	-	-	-	x	x
brackets bundled with the radiator	x	x	x	x[1)]	x[1)]	x	x	x	x[1)]	x[1)]	x	x	x	x
side covers	x	x	x	-	-	x	x	x	-	-	x	x	x	x
top grille	x	x	x	-	-	x	x	x	-	-	x	x	x	-
built-in thermostatic valve	-	x	x	-	x	-	x	x	-	x	-	x	x	-

Note:
[1)] The Hygiene, Ventil Hygiene, Plan Hygiene and Plan Ventil Hygiene radiators are not bundled with mounting brackets. The special Monclac MCK type hospital mountings must be ordered separately. For more information see pages 30, 36, 60, 66.

thermal output of the radiators

Thermal output of the radiators was determined in accordance with PN-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 PN-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:

$$\Delta t = \frac{t_z - t_p}{\ln\left((t_z - t_i) / (t_p - t_i)\right)}$$

where:
t_z - supply water temperature [°C]
t_p - return water temperature [°C]
t_i - room temperature [°C]

All the PURMO radiators have a declaration of conformity with PN-EN 442. Every radiator is factory marked at the bottom of a panel with the following data: the name of manufacturer, country of origin, type, PN-EN 442 conformity register number, maximal working pressure and date and time of production.

These are some examples of conformity register numbers printed inside the individual radiators types:
type 10 = 0810, type 11 = 0811, type 21s = 0812, type 22 = 0813, type 33 = 0814

Compact *(Purmo C)*

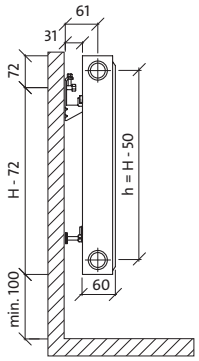
The PURMO Compact panel radiators with profiled heating panels and convection fins are equipped with side covers and a top grille. Four G ½ " threaded female connectors allow for side connection on both right and left side.

technical specifications

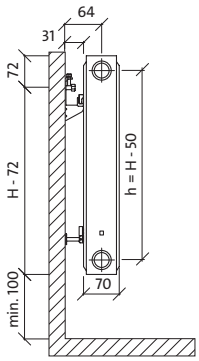
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator: brackets, plug, air vent.

side views

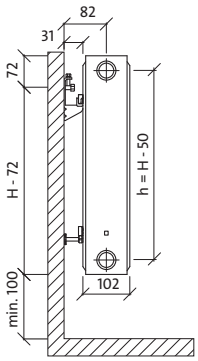
type C 11



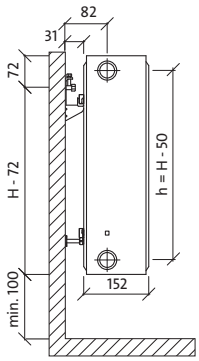
type C 21s



type C 22



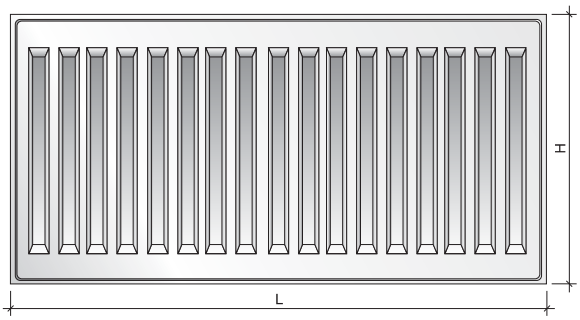
type C 33



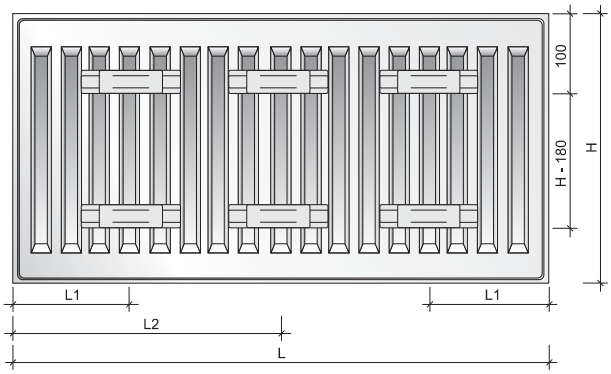
dimensions in mm

H = *height*
L = *length*
h = *spacing of connectors*

front view



rear view



water volume, weight and mounting distances

water volume : l/m

height / type	300	450	500	550	600	900
11	1,7	2,5	2,7	3,0	3,2	4,5
21s	3,4	5,0	5,5	6,1	6,6	9,0
22	3,4	5,0	5,5	6,1	6,6	9,0
33	5,1	7,5	8,2	9,0	9,8	13,3

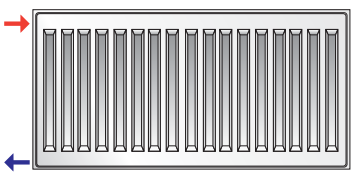
weight : kg/m

height / type	300	450	500	550	600	900
11	9,1	13,9	15,5	17,1	18,7	28,3
21s	14,0	21,2	23,5	25,9	28,3	42,3
22	16,3	24,9	27,7	30,6	33,4	50,7
33	24,5	37,4	41,6	45,9	50,2	75,8

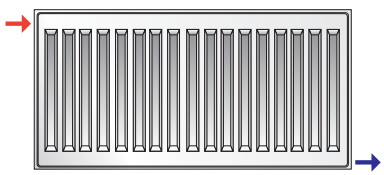
mounting distances : mm

type	C 11		C 21s, C 22, C 33	
L	**L1**	**L2**	**L1**	**L2**
400-1600	117	-	133	-
1800	117	917	133	900
2000	117	1017	133	1000
2300	117	1150	133	1167
2600	117	1317	133	1300
3000	117	1517	133	1500

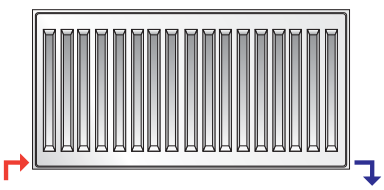
recommended connections



same end connection



flow-through connection



opposite ends connection

↑ - *supply* ↓ - *return*

Compact *type 11*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO C 11 600 x 1200

name
type
height
length

PURMO C 11

length [mm]	parameters t_z / t_p / t_i	height [mm]					
		300	450	500	550	600	900
400	**75/65/20 °C**	**218**	**316**	**347**	**378**	**407**	**571**
	55/45/20 °C	112	161	177	192	207	289
500	**75/65/20 °C**	**273**	**395**	**434**	**472**	**509**	**714**
	55/45/20 °C	140	201	221	240	258	361
600	**75/65/20 °C**	**328**	**474**	**521**	**566**	**611**	**856**
	55/45/20 °C	167	241	265	288	310	433
700	**75/65/20 °C**	**382**	**553**	**608**	**661**	**713**	**999**
	55/45/20 °C	195	282	309	336	362	506
800	**75/65/20 °C**	**437**	**632**	**694**	**755**	**814**	**1142**
	55/45/20 °C	223	322	353	384	413	578
900	**75/65/20 °C**	**491**	**711**	**781**	**850**	**916**	**1284**
	55/45/20 °C	251	362	398	432	465	650
1000	**75/65/20 °C**	**546**	**790**	**868**	**944**	**1018**	**1427**
	55/45/20 °C	279	402	442	480	517	722
1100	**75/65/20 °C**	**601**	**869**	**955**	**1038**	**1120**	**1570**
	55/45/20 °C	307	443	486	528	569	795
1200	**75/65/20 °C**	**655**	**948**	**1042**	**1133**	**1222**	**1712**
	55/45/20 °C	335	483	530	576	620	867
1400	**75/65/20 °C**	**764**	**1106**	**1215**	**1322**	**1425**	**1998**
	55/45/20 °C	391	563	618	672	724	1011
1600	**75/65/20 °C**	**874**	**1264**	**1389**	**1510**	**1629**	**2283**
	55/45/20 °C	447	644	707	768	827	1156
1800	**75/65/20 °C**	**983**	**1422**	**1562**	**1699**	**1832**	**2569**
	55/45/20 °C	502	724	795	864	930	1300
2000	**75/65/20 °C**	**1092**	**1580**	**1736**	**1888**	**2036**	**2854**
	55/45/20 °C	558	805	883	960	1034	1445
2300	**75/65/20 °C**	**1256**	**1817**	**1996**	**2171**	**2341**	**3282**
	55/45/20 °C	642	926	1016	1104	1189	1662
2600	**75/65/20 °C**	**1420**	**2054**	**2257**	**2454**	**2647**	**3710**
	55/45/20 °C	726	1046	1148	1248	1344	1878
3000	**75/65/20 °C**	**1638**	**2370**	**2604**	**2832**	**3054**	**4281**
	55/45/20 °C	837	1207	1325	1439	1551	2167

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

[W/m] 90/70/20 °C	**686**	**994**	**1093**	**1189**	**1283**	**1800**
exponent n	**1,2981**	**1,3048**	**1,3070**	**1,3093**	**1,3115**	**1,3170**

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO C 21s 600 x 1200

name
type
height
length

PURMO C 21s

length [mm]	parameters t_z / t_p / t_i	height [mm]					
		300	450	500	550	600	900
400	**75/65/20 °C**	**304**	**424**	**462**	**500**	**536**	**744**
	55/45/20 °C	157	216	235	253	271	373
500	**75/65/20 °C**	**381**	**530**	**578**	**625**	**670**	**931**
	55/45/20 °C	196	271	294	317	338	466
600	**75/65/20 °C**	**457**	**636**	**694**	**749**	**804**	**1117**
	55/45/20 °C	236	325	353	380	406	559
700	**75/65/20 °C**	**533**	**742**	**809**	**874**	**938**	**1303**
	55/45/20 °C	275	379	412	443	474	652
800	**75/65/20 °C**	**609**	**848**	**925**	**999**	**1072**	**1489**
	55/45/20 °C	314	433	470	507	542	745
900	**75/65/20 °C**	**685**	**954**	**1040**	**1124**	**1206**	**1675**
	55/45/20 °C	353	487	529	570	609	838
1000	**75/65/20 °C**	**761**	**1060**	**1156**	**1249**	**1340**	**1861**
	55/45/20 °C	393	541	588	633	677	932
1100	**75/65/20 °C**	**837**	**1166**	**1272**	**1374**	**1474**	**2047**
	55/45/20 °C	432	595	647	696	745	1025
1200	**75/65/20 °C**	**913**	**1272**	**1387**	**1499**	**1608**	**2233**
	55/45/20 °C	471	649	706	760	812	1118
1400	**75/65/20 °C**	**1065**	**1484**	**1618**	**1749**	**1876**	**2605**
	55/45/20 °C	550	758	823	886	948	1304
1600	**75/65/20 °C**	**1218**	**1696**	**1850**	**1998**	**2144**	**2978**
	55/45/20 °C	628	866	941	1013	1083	1490
1800	**75/65/20 °C**	**1370**	**1908**	**2081**	**2248**	**2412**	**3350**
	55/45/20 °C	707	974	1059	1140	1218	1677
2000	**75/65/20 °C**	**1522**	**2120**	**2312**	**2498**	**2680**	**3722**
	55/45/20 °C	785	1082	1176	1266	1354	1863
2300	**75/65/20 °C**	**1750**	**2438**	**2659**	**2873**	**3082**	**4280**
	55/45/20 °C	903	1245	1353	1456	1557	2142
2600	**75/65/20 °C**	**1979**	**2756**	**3006**	**3247**	**3484**	**4839**
	55/45/20 °C	1021	1407	1529	1646	1760	2422
3000	**75/65/20 °C**	**2283**	**3180**	**3468**	**3747**	**4020**	**5583**
	55/45/20 °C	1178	1623	1764	1899	2031	2795

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

[W/m] 90/70/20 °C	**954**	**1333**	**1456**	**1575**	**1691**	**2356**
exponent n	**1,2803**	**1,3008**	**1,3076**	**1.3145**	**1,3213**	**1,3390**

Compact *type 22*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO C 22 600 x 1200

name
type
height
length

PURMO C 22

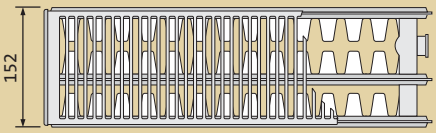
length [mm]	parameters t_z / t_p / t_i	height [mm]					
		300	450	500	550	600	900
400	**75/65/20 °C**	**384**	**539**	**588**	**636**	**684**	**955**
	55/45/20 °C	195	272	296	320	343	474
500	**75/65/20 °C**	**481**	**674**	**735**	**796**	**855**	**1194**
	55/45/20 °C	244	340	370	400	428	592
600	**75/65/20 °C**	**577**	**808**	**882**	**955**	**1025**	**1433**
	55/45/20 °C	293	408	444	480	514	711
700	**75/65/20 °C**	**673**	**943**	**1029**	**1114**	**1196**	**1672**
	55/45/20 °C	342	476	518	560	600	829
800	**75/65/20 °C**	**769**	**1078**	**1176**	**1273**	**1367**	**1910**
	55/45/20 °C	391	544	592	640	685	948
900	**75/65/20 °C**	**865**	**1212**	**1323**	**1432**	**1538**	**2149**
	55/45/20 °C	440	612	666	720	771	1066
1000	**75/65/20 °C**	**961**	**1347**	**1470**	**1591**	**1709**	**2388**
	55/45/20 °C	488	680	740	799	857	1185
1100	**75/65/20 °C**	**1057**	**1482**	**1617**	**1750**	**1880**	**2627**
	55/45/20 °C	537	748	814	879	943	1303
1200	**75/65/20 °C**	**1153**	**1616**	**1764**	**1909**	**2051**	**2866**
	55/45/20 °C	586	816	888	959	1028	1422
1400	**75/65/20 °C**	**1345**	**1886**	**2058**	**2227**	**2393**	**3343**
	55/45/20 °C	684	952	1037	1119	1200	1659
1600	**75/65/20 °C**	**1538**	**2155**	**2352**	**2546**	**2734**	**3821**
	55/45/20 °C	781	1088	1185	1279	1371	1896
1800	**75/65/20 °C**	**1730**	**2425**	**2646**	**2864**	**3076**	**4298**
	55/45/20 °C	879	1224	1333	1439	1542	2133
2000	**75/65/20 °C**	**1922**	**2694**	**2940**	**3182**	**3418**	**4776**
	55/45/20 °C	977	1360	1481	1599	1714	2370
2300	**75/65/20 °C**	**2210**	**3098**	**3381**	**3659**	**3931**	**5492**
	55/45/20 °C	1123	1564	1703	1839	1971	2725
2600	**75/65/20 °C**	**2499**	**3502**	**3822**	**4137**	**4443**	**6209**
	55/45/20 °C	1270	1768	1925	2079	2228	3080
3000	**75/65/20 °C**	**2883**	**4041**	**4410**	**4773**	**5127**	**7164**
	55/45/20 °C	1465	2040	2221	2398	2571	3554

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

[W/m] 90/70/20 °C	**1211**	**1701**	**1857**	**2012**	**2163**	**3033**
exponent n	**1,3094**	**1,3226**	**1,3270**	**1,3314**	**1,3358**	**1,3561**

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO C 33 600 x 1200

PURMO C 33



name
type
height
length

length [mm]	parameters t_z / t_p / t_i	height [mm]					
		300	450	500	550	600	900
400	**75/65/20 °C**	**539**	**748**	**814**	**879**	**942**	**1304**
	55/45/20 °C	273	376	408	439	469	646
500	**75/65/20 °C**	**674**	**935**	**1018**	**1099**	**1178**	**1630**
	55/45/20 °C	341	470	510	549	587	807
600	**75/65/20 °C**	**808**	**1121**	**1221**	**1318**	**1414**	**1956**
	55/45/20 °C	410	564	612	659	704	968
700	**75/65/20 °C**	**943**	**1308**	**1425**	**1538**	**1649**	**2282**
	55/45/20 °C	478	657	714	768	821	1130
800	**75/65/20 °C**	**1078**	**1495**	**1628**	**1758**	**1885**	**2608**
	55/45/20 °C	546	751	816	878	939	1291
900	**75/65/20 °C**	**1212**	**1682**	**1832**	**1977**	**2120**	**2934**
	55/45/20 °C	615	845	918	988	1056	1453
1000	**75/65/20 °C**	**1347**	**1869**	**2035**	**2197**	**2356**	**3260**
	55/45/20 °C	683	939	1020	1098	1173	1614
1100	**75/65/20 °C**	**1482**	**2056**	**2239**	**2417**	**2592**	**3586**
	55/45/20 °C	751	1033	1122	1207	1291	1776
1200	**75/65/20 °C**	**1616**	**2243**	**2442**	**2636**	**2827**	**3912**
	55/45/20 °C	820	1127	1224	1317	1408	1937
1400	**75/65/20 °C**	**1886**	**2617**	**2849**	**3076**	**3298**	**4564**
	55/45/20 °C	956	1315	1427	1537	1643	2260
1600	**75/65/20 °C**	**2155**	**2990**	**3256**	**3515**	**3770**	**5216**
	55/45/20 °C	1093	1503	1631	1756	1877	2583
1800	**75/65/20 °C**	**2425**	**3364**	**3663**	**3955**	**4241**	**5868**
	55/45/20 °C	1229	1691	1835	1976	2112	2905
2000	**75/65/20 °C**	**2694**	**3738**	**4070**	**4394**	**4712**	**6520**
	55/45/20 °C	1366	1878	2039	2195	2347	3228
2300	**75/65/20 °C**	**3098**	**4299**	**4681**	**5053**	**5419**	**7498**
	55/45/20 °C	1571	2160	2345	2524	2699	3713
2600	**75/65/20 °C**	**3502**	**4859**	**5291**	**5712**	**6126**	**8476**
	55/45/20 °C	1776	2442	2651	2854	3051	4197
3000	**75/65/20 °C**	**4041**	**5607**	**6105**	**6591**	**7068**	**9780**
	55/45/20 °C	2049	2818	3059	3293	3520	4842

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

[W/m] 90/70/20 °C	**1698**	**2363**	**2576**	**2784**	**2988**	**4143**
exponent n	**1,3140**	**1,3313**	**1,3371**	**1,3428**	**1,3486**	**1,3600**

Ventil Compact *(Purmo CV)*

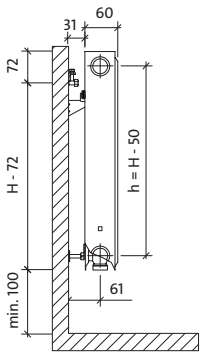
The versatile PURMO Ventil Compact panel radiators with profiled heating panels and convection fins are equipped with side covers and a top grille. Two bottom and four side G ½ " threaded female connectors allow for bottom or side connection. The radiator is also equipped with a built-in thermostatic Oventrop valve insert providing pre-setting.

technical specifications

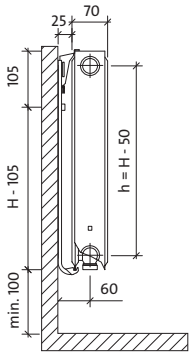
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 2 x G ½ " bottom, right side connectors (left side - available on request)
  4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 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.

side views

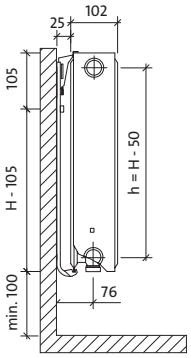
type CV 11



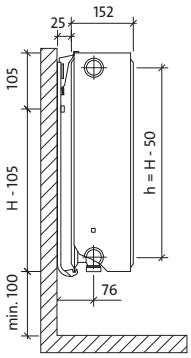
type CV 21 s



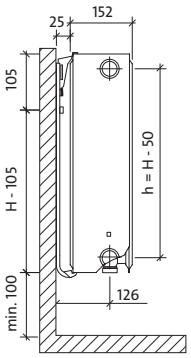
type CV 22



type CV 33



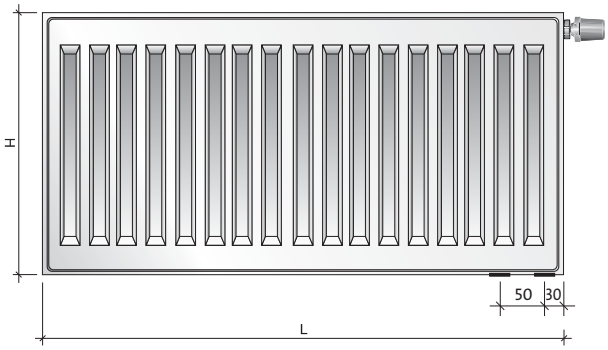
type CV 33 (after conversion to the left side)



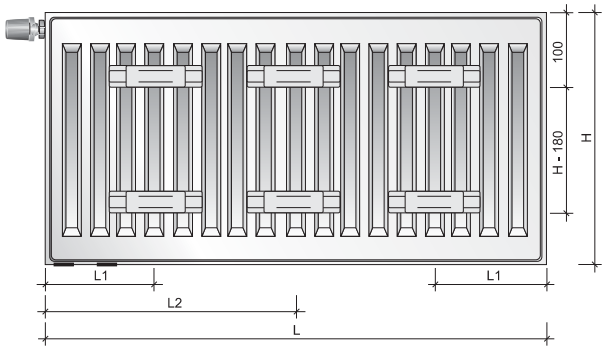
dimensions in mm

H *= height*
L *= length*
h *= spacing of connectors*

front view



rear view - CV 11 type only



water volume, weight and mounting distances

water volume : l/m

height / type	300	450	500	550	600	900
11	1,7	2,5	2,7	3,0	3,2	4,5
21s	3,4	5,0	5,5	6,1	6,6	9,0
22	3,4	5,0	5,5	6,1	6,6	9,0
33	5,1	7,5	8,2	9,0	9,8	13,3

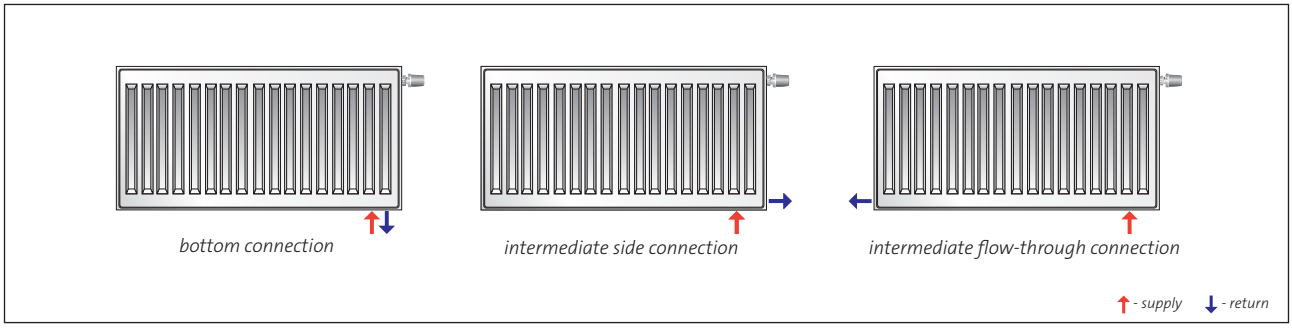
weight : kg/m

height / type	300	450	500	550	600	900
11	9,1	13,9	15,5	17,1	18,7	28,3
21s	14,0	21,2	23,5	25,9	28,3	42,3
22	16,3	24,9	27,7	30,6	33,4	50,7
33	24,5	37,4	41,6	45,9	50,2	75,8

mounting distances : mm

type	CV 11	
L	**L1**	**L2**
400-1600	117	-
1800	117	917
2000	117	1017
2300	117	1150
2600	117	1317
3000	117	1517

recommended connections



Ventil Compact *type 11*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO CV 11 600 x 1200 L

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

PURMO CV 11

length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	450	500	600	900
400	**75/65/20 °C**	**218**	**316**	**347**	**407**	**571**
	55/45/20 °C	112	161	177	207	289
500	**75/65/20 °C**	**273**	**395**	**434**	**509**	**714**
	55/45/20 °C	140	201	221	258	361
600	**75/65/20 °C**	**328**	**474**	**521**	**611**	**856**
	55/45/20 °C	167	241	265	310	433
700	**75/65/20 °C**	**382**	**553**	**608**	**713**	**999**
	55/45/20 °C	195	282	309	362	506
800	**75/65/20 °C**	**437**	**632**	**694**	**814**	**1142**
	55/45/20 °C	223	322	353	413	578
900	**75/65/20 °C**	**491**	**711**	**781**	**916**	**1284**
	55/45/20 °C	251	362	398	465	650
1000	**75/65/20 °C**	**546**	**790**	**868**	**1018**	**1427**
	55/45/20 °C	279	402	442	517	722
1100	**75/65/20 °C**	**601**	**869**	**955**	**1120**	**1570**
	55/45/20 °C	307	443	486	569	795
1200	**75/65/20 °C**	**655**	**948**	**1042**	**1222**	**1712**
	55/45/20 °C	335	483	530	620	867
1400	**75/65/20 °C**	**764**	**1106**	**1215**	**1425**	**1998**
	55/45/20 °C	391	563	618	724	1011
1600	**75/65/20 °C**	**874**	**1264**	**1389**	**1629**	**2283**
	55/45/20 °C	447	644	707	827	1156
1800	**75/65/20 °C**	**983**	**1422**	**1562**	**1832**	**2569**
	55/45/20 °C	502	724	795	930	1300
2000	**75/65/20 °C**	**1092**	**1580**	**1736**	**2036**	**2854**
	55/45/20 °C	558	805	883	1034	1445
2300	**75/65/20 °C**	**1256**	**1817**	**1996**	**2341**	**3282**
	55/45/20 °C	642	926	1016	1189	1662
2600	**75/65/20 °C**	**1420**	**2054**	**2257**	**2647**	**3710**
	55/45/20 °C	726	1046	1148	1344	1878
3000	**75/65/20 °C**	**1638**	**2370**	**2604**	**3054**	**4281**
	55/45/20 °C	837	1207	1325	1551	2167

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

[W/m] 90/70/20 °C	**686**	**994**	**1093**	**1283**	**1800**
exponent n	**1,2981**	**1,3048**	**1,3070**	**1,3115**	**1,3170**

Ventil Compact *type 21s*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO CV 21s 600 x 1200

name
type
height
length

PURMO CV 21s

length [mm]	parameters $t_z / t_p / t_i$	height [mm]				
		300	450	500	600	900
400	**75/65/20 °C**	**304**	**424**	**462**	**536**	**744**
	55/45/20 °C	157	216	235	271	373
500	**75/65/20 °C**	**381**	**530**	**578**	**670**	**931**
	55/45/20 °C	196	271	294	338	466
600	**75/65/20 °C**	**457**	**636**	**694**	**804**	**1117**
	55/45/20 °C	236	325	353	406	559
700	**75/65/20 °C**	**533**	**742**	**809**	**938**	**1303**
	55/45/20 °C	275	379	412	474	652
800	**75/65/20 °C**	**609**	**848**	**925**	**1072**	**1489**
	55/45/20 °C	314	433	470	542	745
900	**75/65/20 °C**	**685**	**954**	**1040**	**1206**	**1675**
	55/45/20 °C	353	487	529	609	838
1000	**75/65/20 °C**	**761**	**1060**	**1156**	**1340**	**1861**
	55/45/20 °C	393	541	588	677	932
1100	**75/65/20 °C**	**837**	**1166**	**1272**	**1474**	**2047**
	55/45/20 °C	432	595	647	745	1025
1200	**75/65/20 °C**	**913**	**1272**	**1387**	**1608**	**2233**
	55/45/20 °C	471	649	706	812	1118
1400	**75/65/20 °C**	**1065**	**1484**	**1618**	**1876**	**2605**
	55/45/20 °C	550	758	823	948	1304
1600	**75/65/20 °C**	**1218**	**1696**	**1850**	**2144**	**2978**
	55/45/20 °C	628	866	941	1083	1490
1800	**75/65/20 °C**	**1370**	**1908**	**2081**	**2412**	**3350**
	55/45/20 °C	707	974	1059	1218	1677
2000	**75/65/20 °C**	**1522**	**2120**	**2312**	**2680**	**3722**
	55/45/20 °C	785	1082	1176	1354	1863
2300	**75/65/20 °C**	**1750**	**2438**	**2659**	**3082**	**4280**
	55/45/20 °C	903	1245	1353	1557	2142
2600	**75/65/20 °C**	**1979**	**2756**	**3006**	**3484**	**4839**
	55/45/20 °C	1021	1407	1529	1760	2422
3000	**75/65/20 °C**	**2283**	**3180**	**3468**	**4020**	**5583**
	55/45/20 °C	1178	1623	1764	2031	2795

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

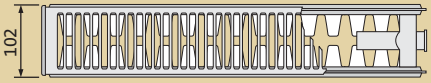
[W/m] 90/70/20 °C	**954**	**1333**	**1456**	**1691**	**2356**
exponent n	**1,2803**	**1,3008**	**1,3076**	**1,3213**	**1,3390**

Ventil Compact *type 22*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO CV 22 600 x 1200

name
type
height
length

PURMO CV 22



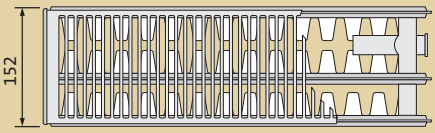
length [mm]	parameters $t_z / t_p / t_i$	height				
		300	450	500	600	900
400	**75/65/20 °C**	**384**	**539**	**588**	**684**	**955**
	55/45/20 °C	195	272	296	343	474
500	**75/65/20 °C**	**481**	**674**	**735**	**855**	**1194**
	55/45/20 °C	244	340	370	428	592
600	**75/65/20 °C**	**577**	**808**	**882**	**1025**	**1433**
	55/45/20 °C	293	408	444	514	711
700	**75/65/20 °C**	**673**	**943**	**1029**	**1196**	**1672**
	55/45/20 °C	342	476	518	600	829
800	**75/65/20 °C**	**769**	**1078**	**1176**	**1367**	**1910**
	55/45/20 °C	391	544	592	685	948
900	**75/65/20 °C**	**865**	**1212**	**1323**	**1538**	**2149**
	55/45/20 °C	440	612	666	771	1066
1000	**75/65/20 °C**	**961**	**1347**	**1470**	**1709**	**2388**
	55/45/20 °C	488	680	740	857	1185
1100	**75/65/20 °C**	**1057**	**1482**	**1617**	**1880**	**2627**
	55/45/20 °C	537	748	814	943	1303
1200	**75/65/20 °C**	**1153**	**1616**	**1764**	**2051**	**2866**
	55/45/20 °C	586	816	888	1028	1422
1400	**75/65/20 °C**	**1345**	**1886**	**2058**	**2393**	**3343**
	55/45/20 °C	684	952	1037	1200	1659
1600	**75/65/20 °C**	**1538**	**2155**	**2352**	**2734**	**3821**
	55/45/20 °C	781	1088	1185	1371	1896
1800	**75/65/20 °C**	**1730**	**2425**	**2646**	**3076**	**4298**
	55/45/20 °C	879	1224	1333	1542	2133
2000	**75/65/20 °C**	**1922**	**2694**	**2940**	**3418**	**4776**
	55/45/20 °C	977	1360	1481	1714	2370
2300	**75/65/20 °C**	**2210**	**3098**	**3381**	**3931**	**5492**
	55/45/20 °C	1123	1564	1703	1971	2725
2600	**75/65/20 °C**	**2499**	**3502**	**3822**	**4443**	**6209**
	55/45/20 °C	1270	1768	1925	2228	3080
3000	**75/65/20 °C**	**2883**	**4041**	**4410**	**5127**	**7164**
	55/45/20 °C	1465	2040	2221	2571	3554

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

[W/m] 90/70/20 °C	**1211**	**1701**	**1857**	**2163**	**3033**
exponent n	**1,3094**	**1,3226**	**1,3270**	**1,3358**	**1,3561**

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO CV 33 600 x 1200 L

PURMO CV 33



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

length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	450	500	600	900
400	**75/65/20 °C**	**539**	**748**	**814**	**942**	**1304**
	55/45/20 °C	273	376	408	469	646
500	**75/65/20 °C**	**674**	**935**	**1018**	**1178**	**1630**
	55/45/20 °C	341	470	510	587	807
600	**75/65/20 °C**	**808**	**1121**	**1221**	**1414**	**1956**
	55/45/20 °C	410	564	612	704	968
700	**75/65/20 °C**	**943**	**1308**	**1425**	**1649**	**2282**
	55/45/20 °C	478	657	714	821	1130
800	**75/65/20 °C**	**1078**	**1495**	**1628**	**1885**	**2608**
	55/45/20 °C	546	751	816	939	1291
900	**75/65/20 °C**	**1212**	**1682**	**1832**	**2120**	**2934**
	55/45/20 °C	615	845	918	1056	1453
1000	**75/65/20 °C**	**1347**	**1869**	**2035**	**2356**	**3260**
	55/45/20 °C	683	939	1020	1173	1614
1100	**75/65/20 °C**	**1482**	**2056**	**2239**	**2592**	**3586**
	55/45/20 °C	751	1033	1122	1291	1776
1200	**75/65/20 °C**	**1616**	**2243**	**2442**	**2827**	**3912**
	55/45/20 °C	820	1127	1224	1408	1937
1400	**75/65/20 °C**	**1886**	**2617**	**2849**	**3298**	**4564**
	55/45/20 °C	956	1315	1427	1643	2260
1600	**75/65/20 °C**	**2155**	**2990**	**3256**	**3770**	**5216**
	55/45/20 °C	1093	1503	1631	1877	2583
1800	**75/65/20 °C**	**2425**	**3364**	**3663**	**4241**	**5868**
	55/45/20 °C	1229	1691	1835	2112	2905
2000	**75/65/20 °C**	**2694**	**3738**	**4070**	**4712**	**6520**
	55/45/20 °C	1366	1878	2039	2347	3228
2300	**75/65/20 °C**	**3098**	**4299**	**4681**	**5419**	**7498**
	55/45/20 °C	1571	2160	2345	2699	3713
2600	**75/65/20 °C**	**3502**	**4859**	**5291**	**6126**	**8476**
	55/45/20 °C	1776	2442	2651	3051	4197
3000	**75/65/20 °C**	**4041**	**5607**	**6105**	**7068**	**9780**
	55/45/20 °C	2049	2818	3059	3520	4842

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

[W/m] 90/70/20 °C	**1698**	**2363**	**2576**	**2988**	**4143**
exponent n	**1,3140**	**1,3313**	**1,3371**	**1,3486**	**1,3600**

Ventil Compact M *(Purmo CVM)*

The PURMO Ventil Compact M panel radiators with mid-bottom connectors, profiled heating panels and convection fins are equipped with side covers and a top grille. Two mid-bottom and four side G ½ " threaded female connectors allow for central bottom or side connection. The radiator is also equipped with a built-in thermostatic Oventrop valve insert providing pre-setting.
The main advantage of the central bottom connection relies of the fact that regardless of the length, height and depth of the radiator, the layout of heating system connections can be defined at the building shell stage and it will not change as a result of the selection of a specific size and type of the radiator.

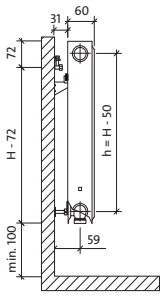
technical specifications

- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 2 x G ½ " mid-bottom connectors,
  4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator : brackets, plugs, air vent.

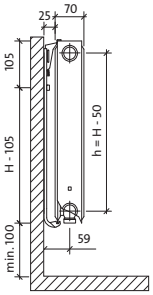
NOTE: the CVM radiator is available in the right side version only.

side views

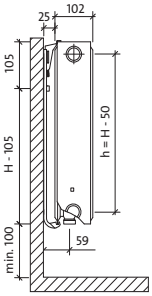
type CVM 11



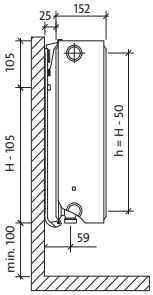
type CVM 21s



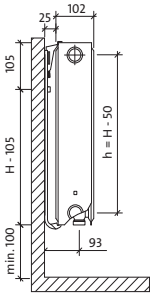
type CVM 22



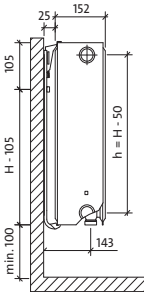
type CVM 33



type CVM 22 (after conversion to the left side)



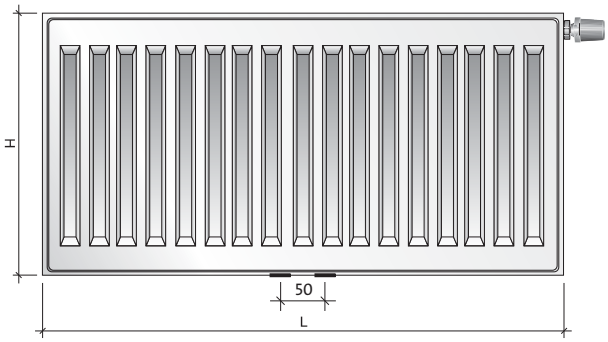
type CVM 33 (after conversion to the left side)



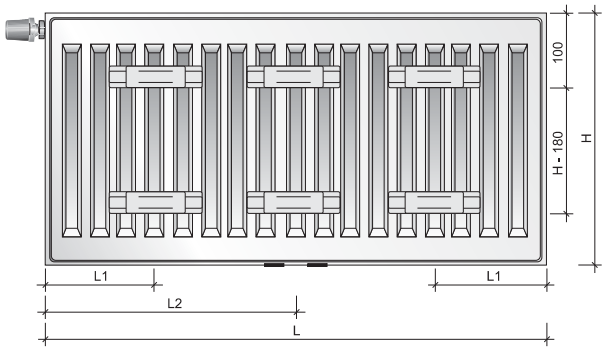
dimensions in mm

H *= height*
L *= length*
h *= spacing of connectors*

front view



rear view – CVM 11 type only



water volume, weight and mounting distances

water volume : l/m

height / type	300	500	600	900
11	1,7	2,7	3,2	4,5
21s	3,4	5,5	6,6	9,0
22	3,4	5,5	6,6	9,0
33	5,1	8,2	9,8	13,3

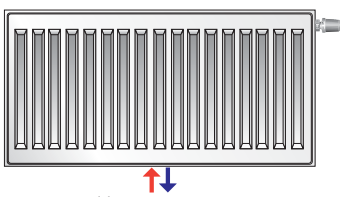
weight : kg/m

height / type	300	500	600	900
11	9,1	15,5	18,7	28,3
21s	14,0	23,5	28,3	42,3
22	16,3	27,7	33,4	50,7
33	24,5	41,6	50,2	75,8

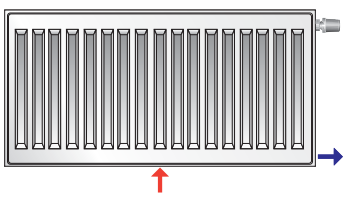
mounting distances : mm

type	CVM 11	
L	**L1**	**L2**
400-1600	117	-
1800	117	917
2000	117	1017
2300	117	1150
2600	117	1317
3000	117	1517

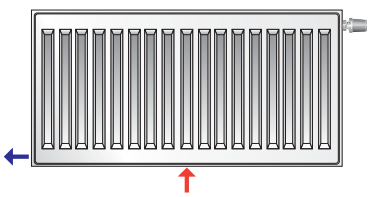
recommended connections



central bottom connection



intermediate side connection



intermediate flow-through connection

↑ - *supply* ↓ - *return*

Ventil Compact M *type 11*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO CVM 11 600 x 1200

name
type
height
length

PURMO CVM 11

NOTE: the CVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**218**	**347**	**407**	**571**
	55/45/20 °C	112	177	207	289
500	**75/65/20 °C**	**273**	**434**	**509**	**714**
	55/45/20 °C	140	221	258	361
600	**75/65/20 °C**	**328**	**521**	**611**	**856**
	55/45/20 °C	167	265	310	433
700	**75/65/20 °C**	**382**	**608**	**713**	**999**
	55/45/20 °C	195	309	362	506
800	**75/65/20 °C**	**437**	**694**	**814**	**1142**
	55/45/20 °C	223	353	413	578
900	**75/65/20 °C**	**491**	**781**	**916**	**1284**
	55/45/20 °C	251	398	465	650
1000	**75/65/20 °C**	**546**	**868**	**1018**	**1427**
	55/45/20 °C	279	442	517	722
1100	**75/65/20 °C**	**601**	**955**	**1120**	**1570**
	55/45/20 °C	307	486	569	795
1200	**75/65/20 °C**	**655**	**1042**	**1222**	**1712**
	55/45/20 °C	335	530	620	867
1400	**75/65/20 °C**	**764**	**1215**	**1425**	**1998**
	55/45/20 °C	391	618	724	1011
1600	**75/65/20 °C**	**874**	**1389**	**1629**	**2283**
	55/45/20 °C	447	707	827	1156
1800	**75/65/20 °C**	**983**	**1562**	**1832**	**2569**
	55/45/20 °C	502	795	930	1300
2000	**75/65/20 °C**	**1092**	**1736**	**2036**	**2854**
	55/45/20 °C	558	883	1034	1445
2300	**75/65/20 °C**	**1256**	**1996**	**2341**	
	55/45/20 °C	642	1016	1189	
2600	**75/65/20 °C**	**1420**	**2257**	**2647**	
	55/45/20 °C	726	1148	1344	
3000	**75/65/20 °C**	**1638**	**2604**	**3054**	
	55/45/20 °C	837	1325	1551	

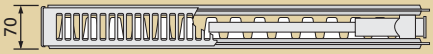
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**686**	**1093**	**1283**	**1800**
exponent n	**1,2981**	**1,3070**	**1,3115**	**1,3170**

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO CVM 21s 600 x 1200

name
type
height
length

PURMO CVM 21s



NOTE: the CVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**304**	**462**	**536**	**744**
	55/45/20 °C	157	235	271	373
500	**75/65/20 °C**	**381**	**578**	**670**	**931**
	55/45/20 °C	196	294	338	466
600	**75/65/20 °C**	**457**	**694**	**804**	**1117**
	55/45/20 °C	236	353	406	559
700	**75/65/20 °C**	**533**	**809**	**938**	**1303**
	55/45/20 °C	275	412	474	652
800	**75/65/20 °C**	**609**	**925**	**1072**	**1489**
	55/45/20 °C	314	470	542	745
900	**75/65/20 °C**	**685**	**1040**	**1206**	**1675**
	55/45/20 °C	353	529	609	838
1000	**75/65/20 °C**	**761**	**1156**	**1340**	**1861**
	55/45/20 °C	393	588	677	932
1100	**75/65/20 °C**	**837**	**1272**	**1474**	**2047**
	55/45/20 °C	432	647	745	1025
1200	**75/65/20 °C**	**913**	**1387**	**1608**	**2233**
	55/45/20 °C	471	706	812	1118
1400	**75/65/20 °C**	**1065**	**1618**	**1876**	**2605**
	55/45/20 °C	550	823	948	1304
1600	**75/65/20 °C**	**1218**	**1850**	**2144**	**2978**
	55/45/20 °C	628	941	1083	1490
1800	**75/65/20 °C**	**1370**	**2081**	**2412**	**3350**
	55/45/20 °C	707	1059	1218	1677
2000	**75/65/20 °C**	**1522**	**2312**	**2680**	**3722**
	55/45/20 °C	785	1176	1354	1863
2300	**75/65/20 °C**	**1750**	**2659**	**3082**	
	55/45/20 °C	903	1353	1557	
2600	**75/65/20 °C**	**1979**	**3006**	**3484**	
	55/45/20 °C	1021	1529	1760	
3000	**75/65/20 °C**	**2283**	**3468**	**4020**	
	55/45/20 °C	1178	1764	2031	

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

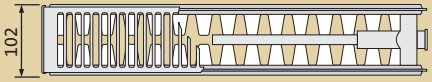
[W/m] 90/70/20 °C	**954**	**1456**	**1691**	**2356**
exponent n	**1,2803**	**1,3076**	**1,3213**	**1,3390**

Ventil Compact M *type 22*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO CVM 22 600 x 1200

name
type
height
length

PURMO CVM 22



NOTE: the CVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**384**	**588**	**684**	**955**
	55/45/20 °C	195	296	343	474
500	**75/65/20 °C**	**481**	**735**	**855**	**1194**
	55/45/20 °C	244	370	428	592
600	**75/65/20 °C**	**577**	**882**	**1025**	**1433**
	55/45/20 °C	293	444	514	711
700	**75/65/20 °C**	**673**	**1029**	**1196**	**1672**
	55/45/20 °C	342	518	600	829
800	**75/65/20 °C**	**769**	**1176**	**1367**	**1910**
	55/45/20 °C	391	592	685	948
900	**75/65/20 °C**	**865**	**1323**	**1538**	**2149**
	55/45/20 °C	440	666	771	1066
1000	**75/65/20 °C**	**961**	**1470**	**1709**	**2388**
	55/45/20 °C	488	740	857	1185
1100	**75/65/20 °C**	**1057**	**1617**	**1880**	**2627**
	55/45/20 °C	537	814	943	1303
1200	**75/65/20 °C**	**1153**	**1764**	**2051**	**2866**
	55/45/20 °C	586	888	1028	1422
1400	**75/65/20 °C**	**1345**	**2058**	**2393**	**3343**
	55/45/20 °C	684	1037	1200	1659
1600	**75/65/20 °C**	**1538**	**2352**	**2734**	**3821**
	55/45/20 °C	781	1185	1371	1896
1800	**75/65/20 °C**	**1730**	**2646**	**3076**	**4298**
	55/45/20 °C	879	1333	1542	2133
2000	**75/65/20 °C**	**1922**	**2940**	**3418**	**4776**
	55/45/20 °C	977	1481	1714	2370
2300	**75/65/20 °C**	**2210**	**3381**	**3931**	
	55/45/20 °C	1123	1703	1971	
2600	**75/65/20 °C**	**2499**	**3822**	**4443**	
	55/45/20 °C	1270	1925	2228	
3000	**75/65/20 °C**	**2883**	**4410**	**5127**	
	55/45/20 °C	1465	2221	2571	

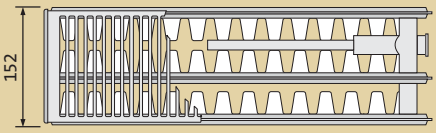
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**1211**	**1857**	**2163**	**3033**
exponent n	**1,3094**	**1,3270**	**1,3358**	**1,3561**

Ventil Compact M *type 33*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO CVM 33 600 x 1200

PURMO CVM 33



name
type
height
length

NOTE: the CVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**539**	**814**	**942**	**1304**
	55/45/20 °C	273	408	469	646
500	**75/65/20 °C**	**674**	**1018**	**1178**	**1630**
	55/45/20 °C	341	510	587	807
600	**75/65/20 °C**	**808**	**1221**	**1414**	**1956**
	55/45/20 °C	410	612	704	968
700	**75/65/20 °C**	**943**	**1425**	**1649**	**2282**
	55/45/20 °C	478	714	821	1130
800	**75/65/20 °C**	**1078**	**1628**	**1885**	**2608**
	55/45/20 °C	546	816	939	1291
900	**75/65/20 °C**	**1212**	**1832**	**2120**	**2934**
	55/45/20 °C	615	918	1056	1453
1000	**75/65/20 °C**	**1347**	**2035**	**2356**	**3260**
	55/45/20 °C	683	1020	1173	1614
1100	**75/65/20 °C**	**1482**	**2239**	**2592**	**3586**
	55/45/20 °C	751	1122	1291	1776
1200	**75/65/20 °C**	**1616**	**2442**	**2827**	**3912**
	55/45/20 °C	820	1224	1408	1937
1400	**75/65/20 °C**	**1886**	**2849**	**3298**	**4564**
	55/45/20 °C	956	1427	1643	2260
1600	**75/65/20 °C**	**2155**	**3256**	**3770**	**5216**
	55/45/20 °C	1093	1631	1877	2583
1800	**75/65/20 °C**	**2425**	**3663**	**4241**	**5868**
	55/45/20 °C	1229	1835	2112	2905
2000	**75/65/20 °C**	**2694**	**4070**	**4712**	**6520**
	55/45/20 °C	1366	2039	2347	3228
2300	**75/65/20 °C**	**3098**	**4681**	**5419**	
	55/45/20 °C	1571	2345	2699	
2600	**75/65/20 °C**	**3502**	**5291**	**6126**	
	55/45/20 °C	1776	2651	3051	
3000	**75/65/20 °C**	**4041**	**6105**	**7068**	
	55/45/20 °C	2049	3059	3520	

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

[W/m] 90/70/20 °C	**1698**	**2576**	**2988**	**4143**
exponent n	**1,3140**	**1,3371**	**1,3486**	**1,3600**

Hygiene *(Purmo H)*

The PURMO Hygiene panel radiators with profiled heating panels are not equipped with convection fins. Due to the absence of side covers and a top grille, they are intended for applications in health care and other facilities of elevated hygienic requirements. Four side G ½ " threaded female connectors allow for side connection on both right and left side.

technical specifications

- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator: plug, air vent.

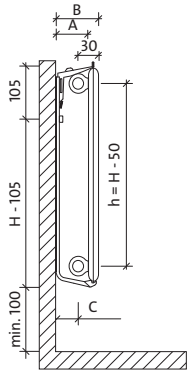
NOTE:

Mounting brackets must be ordered separately. For the method of selecting and ordering see page 30

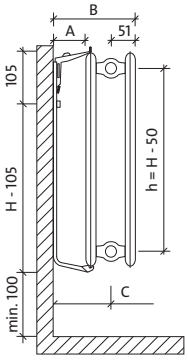
The Hygiene radiators are also available in a special version with additional corrosion protection.

side views

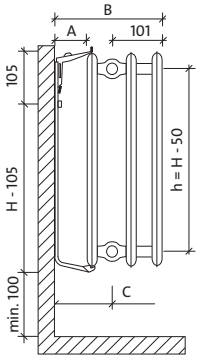
type H 10



type H 20



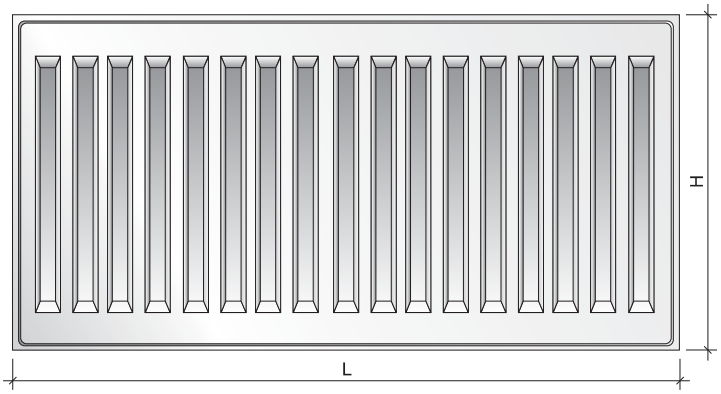
type H 30



dimensions in mm

H *= height*
L *= length*
h *= spacing of connectors*

front view



mounting distances : mm

type	H 10	H 20	H 30
radiator depth	47	102	152
A-mounting depth	100	100	100
B-total depth	114	202	252
C-connection axis*	84	151	151

* 201 mm in case of the H 30 type radiator after conversion to the left side

water volume and weight

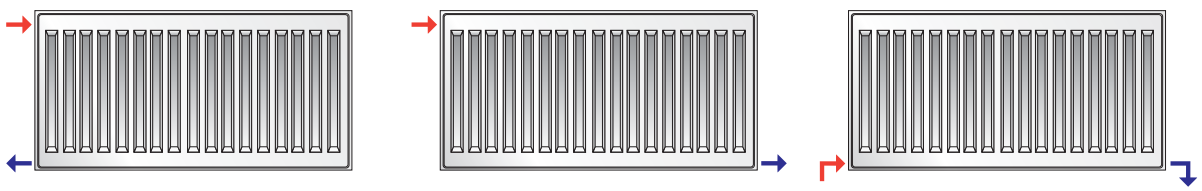
water volume : l/m

type \ height	300	450	500	600	900
10	1,7	2,5	2,7	3,2	4,5
20	3,4	5,0	5,5	6,6	9,0
30	5,1	7,5	8,2	9,8	13,3

weight : kg/m

type \ height	300	450	500	600	900
10	5,9	8,8	9,8	11,7	17,2
20	11,8	17,6	19,5	23,4	34,1
30	17,6	26,3	29,2	35,0	51,0

recommended connections



same end connection *flow-through connection* *opposite ends connection*

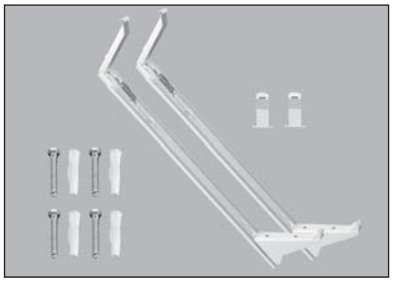
↑ - supply ↓ - return

Required quantities of the Monclac MCK 108 hospital brackets for various types and heights of the PURMO hygienic radiators.

Brackets of outreach 108 mm – max. vertical load of 125 kg per single bracket.
(new brackets with reinforced foot structure)

NOTE: Mounting brackets for hygienic radiators must be ordered separately. Mounting brackets are packed in sets of 2 or 3 pieces. In the table, there are presented quantities of single mounting brackets, not sets!!!

height	300			450			500			600			900		
length [mm]	10	20	30	10	20	30	10	20	30	10	20	30	10	20	30
	quantity			quantity			quantity			quantity			quantity		
400	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
500	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
600	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
700	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
800	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
900	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1000	2	2	2	2	2	2	2	2	2	2	2 [1)]	2	2	2	3
1100	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3
1200	2	2	3	2	2	3	2	2	3	2	2	2	2	2	3
1400	2	3	3	2	2	3	2	2	3	2	2	3	2	3	3
1600	3	3	3	2	3	3	2	3	3	2	2	3	3	3	3
1800	3	3	4	3	3	3	3	3	3	2	3	3	3	3	4
2000	3	3	4	3	3	4	3	3	4	3	3 [2)]	3	3	3	4
2300	4	4	4	3	3	4	3	3	4	3	3	4	3	4	4
2600	4	4	5	4	4	4	4	4	5	3	3	4	4	4	5
3000	5	5	6	4	4	5	4	4	5	4	4 [3)]	5	4	4	5



Rules for selecting sets of the Monclac MCK 108 mounting brackets, using the example of the type 20 hygienic radiator of 600 mm height:

[1)] For the length of 1000 mm - 1 double set AZ02BW2MC601080R9016
[2)] For the length of 2000 mm - 1 triple set AZ02BW3MC601080R9016
[3)] For the length of 3000 mm - 2 double sets AZ02BW2MC601080R9016

description	order code
2-element Monclac MCK-108 set for radiators of 300 mm height	AZ02BW2MC301080R9016
3-element Monclac MCK-108 set for radiators of 300 mm height	AZ02BW3MC301080R9016
2-element Monclac MCK-108 set for radiators of 450 mm height	AZ02BW2MC451080R9016
3-element Monclac MCK-108 set for radiators of 450 mm height	AZ02BW3MC451080R9016
2-element Monclac MCK-108 set for radiators of 500 mm height	AZ02BW2MC501080R9016
3-element Monclac MCK-108 set for radiators of 500 mm height	AZ02BW3MC501080R9016
2-element Monclac MCK-108 set for radiators of 600 mm height	AZ02BW2MC601080R9016
3-element Monclac MCK-108 set for radiators of 600 mm height	AZ02BW3MC601080R9016
2-element Monclac MCK-108 set for radiators of 900 mm height	AZ02BW2MC901080R9016
3-element Monclac MCK-108 set for radiators of 900 mm height	AZ02BW3MC901080R9016

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO H 10 600 x 1200

name
type
height
length

PURMO H 10

length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	450	500	600	900
400	**75/65/20 °C**	**139**	**199**	**218**	**256**	**361**
	55/45/20 °C	70	101	111	131	185
500	**75/65/20 °C**	**174**	**249**	**273**	**320**	**452**
	55/45/20 °C	87	126	139	164	231
600	**75/65/20 °C**	**209**	**299**	**328**	**383**	**542**
	55/45/20 °C	104	151	167	197	277
700	**75/65/20 °C**	**244**	**349**	**382**	**447**	**632**
	55/45/20 °C	122	176	194	229	323
800	**75/65/20 °C**	**278**	**398**	**437**	**511**	**722**
	55/45/20 °C	139	202	222	262	369
900	**75/65/20 °C**	**313**	**448**	**491**	**575**	**813**
	55/45/20 °C	156	227	250	295	415
1000	**75/65/20 °C**	**348**	**498**	**546**	**639**	**903**
	55/45/20 °C	174	252	278	328	461
1100	**75/65/20 °C**	**383**	**548**	**601**	**703**	**993**
	55/45/20 °C	191	277	305	361	508
1200	**75/65/20 °C**	**418**	**598**	**655**	**767**	**1084**
	55/45/20 °C	209	303	333	393	554
1400	**75/65/20 °C**	**487**	**697**	**764**	**895**	**1264**
	55/45/20 °C	243	353	389	459	646
1600	**75/65/20 °C**	**557**	**797**	**874**	**1022**	**1445**
	55/45/20 °C	278	403	444	524	738
1800	**75/65/20 °C**	**626**	**896**	**983**	**1150**	**1625**
	55/45/20 °C	313	454	500	590	831
2000	**75/65/20 °C**	**696**	**996**	**1092**	**1278**	**1806**
	55/45/20 °C	348	504	555	656	923
2300	**75/65/20 °C**	**800**	**1145**	**1256**	**1470**	**2077**
	55/45/20 °C	400	580	639	754	1061
2600	**75/65/20 °C**	**905**	**1295**	**1420**	**1661**	**2348**
	55/45/20 °C	452	655	722	852	1200
3000	**75/65/20 °C**	**1044**	**1494**	**1638**	**1917**	**2709**
	55/45/20 °C	522	756	833	983	1384

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

[W/m] 90/70/20 °C	**441**	**628**	**688**	**802**	**1135**
exponent n	**1,3425**	**1,3171**	**1,3086**	**1,2916**	**1,2988**

Hygiene *type 20*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO H 20 600 x 1200

name
type
height
length

PURMO H 20

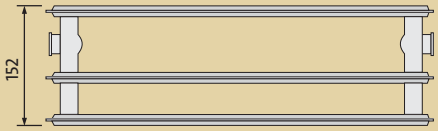
length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	450	500	600	900
400	**75/65/20 °C**	**252**	**345**	**375**	**434**	**606**
	55/45/20 °C	130	178	193	223	309
500	**75/65/20 °C**	**315**	**432**	**469**	**543**	**758**
	55/45/20 °C	162	222	241	279	386
600	**75/65/20 °C**	**378**	**518**	**563**	**651**	**910**
	55/45/20 °C	195	267	290	335	464
700	**75/65/20 °C**	**441**	**604**	**657**	**760**	**1061**
	55/45/20 °C	227	311	338	390	541
800	**75/65/20 °C**	**504**	**690**	**750**	**868**	**1213**
	55/45/20 °C	260	355	386	446	618
900	**75/65/20 °C**	**567**	**777**	**844**	**977**	**1364**
	55/45/20 °C	292	400	434	502	695
1000	**75/65/20 °C**	**630**	**863**	**938**	**1085**	**1516**
	55/45/20 °C	325	444	483	558	773
1100	**75/65/20 °C**	**693**	**949**	**1032**	**1194**	**1668**
	55/45/20 °C	357	489	531	613	850
1200	**75/65/20 °C**	**756**	**1036**	**1126**	**1302**	**1819**
	55/45/20 °C	390	533	579	669	927
1400	**75/65/20 °C**	**882**	**1208**	**1313**	**1519**	**2122**
	55/45/20 °C	455	622	676	781	1082
1600	**75/65/20 °C**	**1008**	**1381**	**1501**	**1736**	**2426**
	55/45/20 °C	520	711	772	892	1236
1800	**75/65/20 °C**	**1134**	**1553**	**1688**	**1953**	**2729**
	55/45/20 °C	585	800	869	1004	1391
2000	**75/65/20 °C**	**1260**	**1726**	**1876**	**2170**	**3032**
	55/45/20 °C	650	889	965	1115	1545
2300	**75/65/20 °C**	**1449**	**1985**	**2157**	**2496**	**3487**
	55/45/20 °C	747	1022	1110	1283	1777
2600	**75/65/20 °C**	**1638**	**2244**	**2439**	**2821**	**3942**
	55/45/20 °C	845	1155	1255	1450	2009
3000	**75/65/20 °C**	**1890**	**2589**	**2814**	**3255**	**4548**
	55/45/20 °C	975	1333	1448	1673	2318

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

[W/m] 90/70/20 °C	**790**	**1082**	**1177**	**1361**	**1908**
exponent n	**1,2815**	**1,2846**	**1,2856**	**1,2876**	**1,3042**

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO H 30 600 x 1200

PURMO H 30



name
type
height
length

length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	450	500	600	900
400	**75/65/20 °C**	**350**	**482**	**524**	**604**	**828**
	55/45/20 °C	179	246	267	307	414
500	**75/65/20 °C**	**437**	**549**	**655**	**755**	**1035**
	55/45/20 °C	224	307	333	384	517
600	**75/65/20 °C**	**524**	**723**	**785**	**906**	**1241**
	55/45/20 °C	268	369	400	460	620
700	**75/65/20 °C**	**612**	**844**	**916**	**1057**	**1448**
	55/45/20 °C	313	430	467	537	724
800	**75/65/20 °C**	**699**	**964**	**1047**	**1208**	**1655**
	55/45/20 °C	358	492	533	614	827
900	**75/65/20 °C**	**787**	**1085**	**1178**	**1359**	**1862**
	55/45/20 °C	403	553	600	691	931
1000	**75/65/20 °C**	**874**	**1205**	**1309**	**1510**	**2069**
	55/45/20 °C	447	615	667	767	1034
1100	**75/65/20 °C**	**961**	**1326**	**1440**	**1661**	**2276**
	55/45/20 °C	492	676	733	844	1138
1200	**75/65/20 °C**	**1049**	**1446**	**1571**	**1812**	**2483**
	55/45/20 °C	537	737	800	921	1241
1400	**75/65/20 °C**	**1224**	**1687**	**1833**	**2114**	**2897**
	55/45/20 °C	626	860	933	1074	1448
1600	**75/65/20 °C**	**1398**	**1928**	**2094**	**2416**	**3310**
	55/45/20 °C	716	983	1067	1228	1655
1800	**75/65/20 °C**	**1573**	**2169**	**2356**	**2718**	**3724**
	55/45/20 °C	805	1106	1200	1381	1861
2000	**75/65/20 °C**	**1748**	**2410**	**2618**	**3020**	**4138**
	55/45/20 °C	895	1229	1334	1535	2068
2300	**75/65/20 °C**	**2010**	**2772**	**3011**	**3473**	**4759**
	55/45/20 °C	1029	1413	1534	1765	2378
2600	**75/65/20 °C**	**2272**	**3133**	**3403**	**3926**	**5379**
	55/45/20 °C	1163	1598	1734	1995	2689
3000	**75/65/20 °C**	**2622**	**3615**	**3927**	**4530**	**6207**
	55/45/20 °C	1342	1844	2000	2302	3102

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

[W/m] 90/70/20 °C	**1098**	**1516**	**1648**	**1902**	**2621**
exponent n	**1,2957**	**1,3028**	**1,3051**	**1,3098**	**1,3418**

Ventil Hygiene *(Purmo HV)*

The PURMO Ventil Hygiene panel radiators with profiled heating panels are not equipped with convection fins. Due to the absence of side covers and a top grille, they are intended for applications in health care and other facilities of elevated hygienic requirements. Two bottom and four side G ½ " threaded female connectors allow for bottom or side connection. The radiator is also equipped with a built-in thermostatic Oventrop valve insert providing pre-setting.

technical specifications

- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 2 x G ½ " bottom, right side connectors (left side - available on request)
  4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator : plugs, air vent.

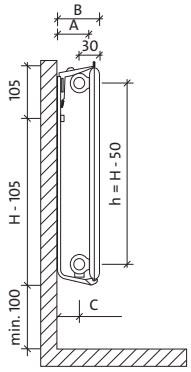
NOTE:

Mounting brackets must be ordered separately. For the method of selecting and ordering see page 36

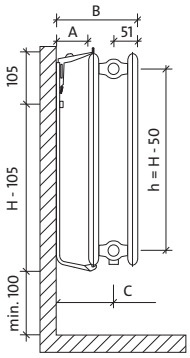
The Ventil Hygiene radiators are also available in a special version with additional corrosion protection.

side views

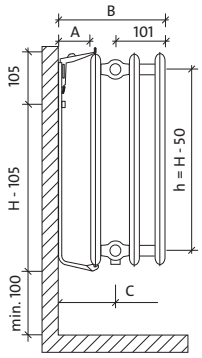
type HV 10



type HV 20



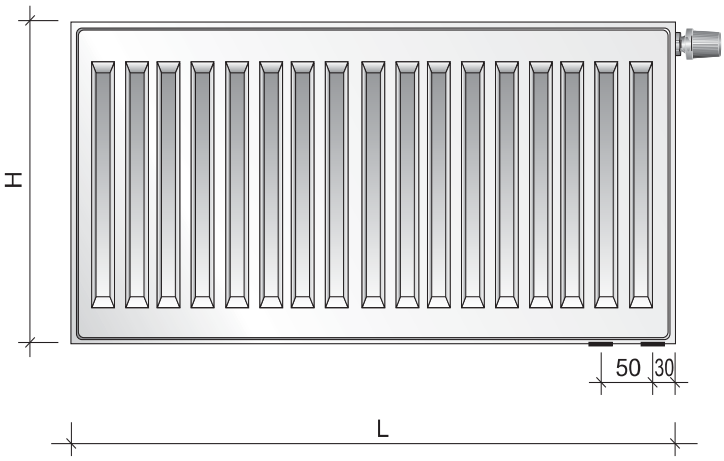
type HV 30



dimensions in mm

H *= height*
L *= length*
h *= spacing of connectors*

front view



mounting distances : mm

type	HV 10	HV 20	HV 30
radiator depth	47	102	152
A-mounting depth	100	100	100
B-total depth	114	202	252
C-connection axis*	84	151	151

* 201 mm in case of the HV 30 type radiator after conversion to the left side

water volume and weight

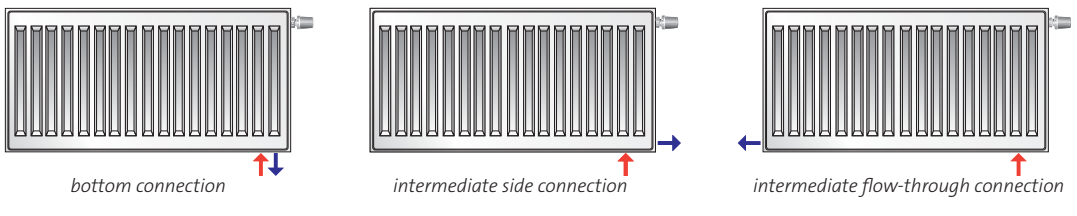
water volume : l/m

type \ height	300	450	500	600	900
10	1,7	2,5	2,7	3,2	4,5
20	3,4	5,0	5,5	6,6	9,0
30	5,1	7,5	8,2	9,8	13,3

weight : kg/m

type \ height	300	450	500	600	900
10	5,9	8,8	9,8	11,7	17,2
20	11,8	17,6	19,5	23,4	34,1
30	17,6	26,3	29,2	35,0	51,0

recommended connections



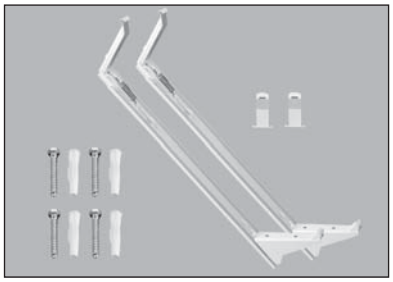
Ventil Hygiene

Required quantities of the Monclac MCK 108 hospital brackets for various types and heights of the PURMO hygienic radiators.

Brackets of outreach 108 mm – max. vertical load of 125 kg per single bracket.
(new brackets with reinforced foot structure)

NOTE: Mounting brackets for hygienic radiators must be ordered separately. Mounting brackets are packed in sets of 2 or 3 pieces. In the table, there are presented quantities of single mounting brackets, not sets!!!

height	300			450			500			600			900		
length [mm]	10	20	30	10	20	30	10	20	30	10	20	30	10	20	30
	quantity			quantity			quantity			quantity			quantity		
400	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
500	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
600	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
700	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
800	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
900	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1000	2	2	2	2	2	2	2	2	2	2	2 [1)]	2	2	2	3
1100	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3
1200	2	2	3	2	2	3	2	2	3	2	2	2	2	2	3
1400	2	3	3	2	2	3	2	2	3	2	2	3	2	3	3
1600	3	3	3	2	3	3	2	3	3	2	2	3	3	3	3
1800	3	3	4	3	3	3	3	3	3	2	3	3	3	3	4
2000	3	3	4	3	3	4	3	3	4	3	3 [2)]	3	3	3	4
2300	4	4	4	3	3	4	3	3	4	3	3	4	3	4	4
2600	4	4	5	4	4	4	4	4	5	3	3	4	4	4	5
3000	5	5	6	4	4	5	4	4	5	4	4 [3)]	5	4	4	5



Rules for selecting sets of the Monclac MCK 108 mounting brackets, using the example of the type 20 hygienic radiator of 600 mm height:

[1)] For the length of 1000 mm - 1 double set	AZ02BW2MC601080R9016
[2)] For the length of 2000 mm - 1 triple set	AZ02BW3MC601080R9016
[3)] For the length of 3000 mm - 2 double sets	AZ02BW2MC601080R9016

description	order code
2-element Monclac MCK-108 set for radiators of 300 mm height	AZ02BW2MC301080R9016
3-element Monclac MCK-108 set for radiators of 300 mm height	AZ02BW3MC301080R9016
2-element Monclac MCK-108 set for radiators of 450 mm height	AZ02BW2MC451080R9016
3-element Monclac MCK-108 set for radiators of 450 mm height	AZ02BW3MC451080R9016
2-element Monclac MCK-108 set for radiators of 500 mm height	AZ02BW2MC501080R9016
3-element Monclac MCK-108 set for radiators of 500 mm height	AZ02BW3MC501080R9016
2-element Monclac MCK-108 set for radiators of 600 mm height	AZ02BW2MC601080R9016
3-element Monclac MCK-108 set for radiators of 600 mm height	AZ02BW3MC601080R9016
2-element Monclac MCK-108 set for radiators of 900 mm height	AZ02BW2MC901080R9016
3-element Monclac MCK-108 set for radiators of 900 mm height	AZ02BW3MC901080R9016

Ventil Hygiene *type 10*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO HV 10 600 x 1200 L

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

PURMO HV 10

length [mm]	parameters $t_z / t_p / t_i$	height [mm]				
		300	450	500	600	900
400	**75/65/20 °C**	**139**	**199**	**218**	**256**	**361**
	55/45/20 °C	70	101	111	131	185
500	**75/65/20 °C**	**174**	**249**	**273**	**320**	**452**
	55/45/20 °C	87	126	139	164	231
600	**75/65/20 °C**	**209**	**299**	**328**	**383**	**542**
	55/45/20 °C	104	151	167	197	277
700	**75/65/20 °C**	**244**	**349**	**382**	**447**	**632**
	55/45/20 °C	122	176	194	229	323
800	**75/65/20 °C**	**278**	**398**	**437**	**511**	**722**
	55/45/20 °C	139	202	222	262	369
900	**75/65/20 °C**	**313**	**448**	**491**	**575**	**813**
	55/45/20 °C	156	227	250	295	415
1000	**75/65/20 °C**	**348**	**498**	**546**	**639**	**903**
	55/45/20 °C	174	252	278	328	461
1100	**75/65/20 °C**	**383**	**548**	**601**	**703**	**993**
	55/45/20 °C	191	277	305	361	508
1200	**75/65/20 °C**	**418**	**598**	**655**	**767**	**1084**
	55/45/20 °C	209	303	333	393	554
1400	**75/65/20 °C**	**487**	**697**	**764**	**895**	**1264**
	55/45/20 °C	243	353	389	459	646
1600	**75/65/20 °C**	**557**	**797**	**874**	**1022**	**1445**
	55/45/20 °C	278	403	444	524	738
1800	**75/65/20 °C**	**626**	**896**	**983**	**1150**	**1625**
	55/45/20 °C	313	454	500	590	831
2000	**75/65/20 °C**	**696**	**996**	**1092**	**1278**	**1806**
	55/45/20 °C	348	504	555	656	923
2300	**75/65/20 °C**	**800**	**1145**	**1256**	**1470**	**2077**
	55/45/20 °C	400	580	639	754	1061
2600	**75/65/20 °C**	**905**	**1295**	**1420**	**1661**	**2348**
	55/45/20 °C	452	655	722	852	1200
3000	**75/65/20 °C**	**1044**	**1494**	**1638**	**1917**	**2709**
	55/45/20 °C	522	756	833	983	1384

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

[W/m] 90/70/20 °C	**441**	**628**	**688**	**802**	**1135**
exponent n	**1,3425**	**1,3171**	**1,3086**	**1,2916**	**1,2988**

Ventil Hygiene *type 20*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO HV 20 600 x 1200

name
type
height
length

PURMO HV 20

length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	450	500	600	900
400	**75/65/20 °C**	**252**	**345**	**375**	**434**	**606**
	55/45/20 °C	130	178	193	223	309
500	**75/65/20 °C**	**315**	**432**	**469**	**543**	**758**
	55/45/20 °C	162	222	241	279	386
600	**75/65/20 °C**	**378**	**518**	**563**	**651**	**910**
	55/45/20 °C	195	267	290	335	464
700	**75/65/20 °C**	**441**	**604**	**657**	**760**	**1061**
	55/45/20 °C	227	311	338	390	541
800	**75/65/20 °C**	**504**	**690**	**750**	**868**	**1213**
	55/45/20 °C	260	355	386	446	618
900	**75/65/20 °C**	**567**	**777**	**844**	**977**	**1364**
	55/45/20 °C	292	400	434	502	695
1000	**75/65/20 °C**	**630**	**863**	**938**	**1085**	**1516**
	55/45/20 °C	325	444	483	558	773
1100	**75/65/20 °C**	**693**	**949**	**1032**	**1194**	**1668**
	55/45/20 °C	357	489	531	613	850
1200	**75/65/20 °C**	**756**	**1036**	**1126**	**1302**	**1819**
	55/45/20 °C	390	533	579	669	927
1400	**75/65/20 °C**	**882**	**1208**	**1313**	**1519**	**2122**
	55/45/20 °C	455	622	676	781	1082
1600	**75/65/20 °C**	**1008**	**1381**	**1501**	**1736**	**2426**
	55/45/20 °C	520	711	772	892	1236
1800	**75/65/20 °C**	**1134**	**1553**	**1688**	**1953**	**2729**
	55/45/20 °C	585	800	869	1004	1391
2000	**75/65/20 °C**	**1260**	**1726**	**1876**	**2170**	**3032**
	55/45/20 °C	650	889	965	1115	1545
2300	**75/65/20 °C**	**1449**	**1985**	**2157**	**2496**	**3487**
	55/45/20 °C	747	1022	1110	1283	1777
2600	**75/65/20 °C**	**1638**	**2244**	**2439**	**2821**	**3942**
	55/45/20 °C	845	1155	1255	1450	2009
3000	**75/65/20 °C**	**1890**	**2589**	**2814**	**3255**	**4548**
	55/45/20 °C	975	1333	1448	1673	2318

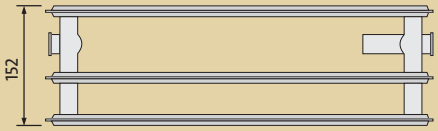
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**790**	**1082**	**1177**	**1361**	**1908**
exponent n	**1,2815**	**1,2846**	**1,2856**	**1,2876**	**1,3042**

Ventil Hygiene *type 30*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO HV 30 600 x 1200 L

PURMO HV 30



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

length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	450	500	600	900
400	**75/65/20 °C**	**350**	**482**	**524**	**604**	**828**
	55/45/20 °C	179	246	267	307	414
500	**75/65/20 °C**	**437**	**549**	**655**	**755**	**1035**
	55/45/20 °C	224	307	333	384	517
600	**75/65/20 °C**	**524**	**723**	**785**	**906**	**1241**
	55/45/20 °C	268	369	400	460	620
700	**75/65/20 °C**	**612**	**844**	**916**	**1057**	**1448**
	55/45/20 °C	313	430	467	537	724
800	**75/65/20 °C**	**699**	**964**	**1047**	**1208**	**1655**
	55/45/20 °C	358	492	533	614	827
900	**75/65/20 °C**	**787**	**1085**	**1178**	**1359**	**1862**
	55/45/20 °C	403	553	600	691	931
1000	**75/65/20 °C**	**874**	**1205**	**1309**	**1510**	**2069**
	55/45/20 °C	447	615	667	767	1034
1100	**75/65/20 °C**	**961**	**1326**	**1440**	**1661**	**2276**
	55/45/20 °C	492	676	733	844	1138
1200	**75/65/20 °C**	**1049**	**1446**	**1571**	**1812**	**2483**
	55/45/20 °C	537	737	800	921	1241
1400	**75/65/20 °C**	**1224**	**1687**	**1833**	**2114**	**2897**
	55/45/20 °C	626	860	933	1074	1448
1600	**75/65/20 °C**	**1398**	**1928**	**2094**	**2416**	**3310**
	55/45/20 °C	716	983	1067	1228	1655
1800	**75/65/20 °C**	**1573**	**2169**	**2356**	**2718**	**3724**
	55/45/20 °C	805	1106	1200	1381	1861
2000	**75/65/20 °C**	**1748**	**2410**	**2618**	**3020**	**4138**
	55/45/20 °C	895	1229	1334	1535	2068
2300	**75/65/20 °C**	**2010**	**2772**	**3011**	**3473**	**4759**
	55/45/20 °C	1029	1413	1534	1765	2378
2600	**75/65/20 °C**	**2272**	**3133**	**3403**	**3926**	**5379**
	55/45/20 °C	1163	1598	1734	1995	2689
3000	**75/65/20 °C**	**2622**	**3615**	**3927**	**4530**	**6207**
	55/45/20 °C	1342	1844	2000	2302	3102

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

[W/m] 90/70/20 °C	**1098**	**1516**	**1648**	**1902**	**2621**
exponent n	**1,2957**	**1,3028**	**1,3051**	**1,3098**	**1,3418**

Plan Compact *(Purmo FC)*

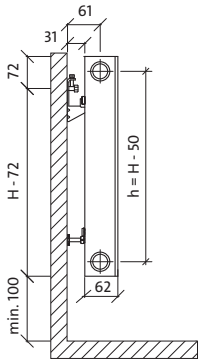
The PURMO Plan Contact panel radiators stand out due to their completely flat front panel. The panel is glued to the profiled front, base heating panel in a manner concealing any protruding edges, when looking at the radiator from the front. The radiators are equipped with side covers and a top grille. Four G ½ " threaded female connectors allow for side connection on both right and left side

technical specifications

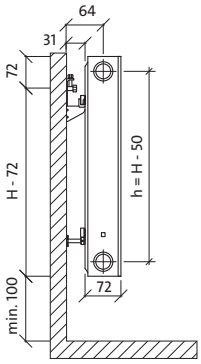
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator: brackets, plug, air vent.

side views

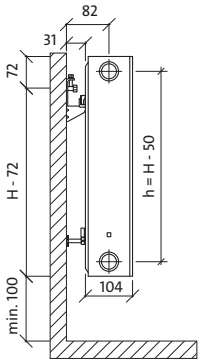
type FC 11



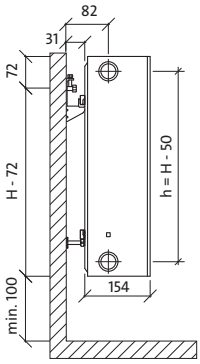
type FC 21s



type FC 22



type FC 33

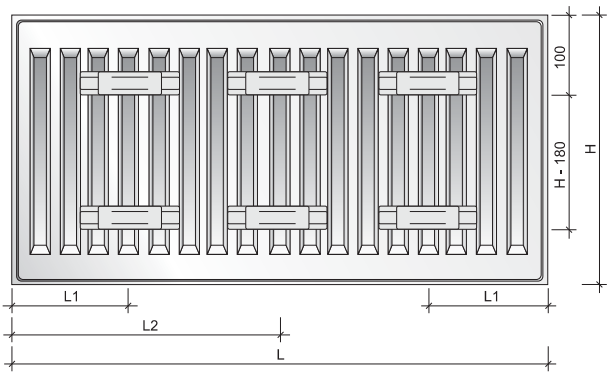


dimensions in mm

H *= height*
L *= length*
h *= spacing of connectors*

front view

rear view



water volume, weight and mounting distances

water volume : l/m

type \ height	300	500	550	600	900
11	1,7	2,7	3,0	3,2	4,5
21s	3,4	5,5	6,1	6,6	9,0
22	3,4	5,5	6,1	6,6	9,0
33	5,1	8,2	9,0	9,8	13,3

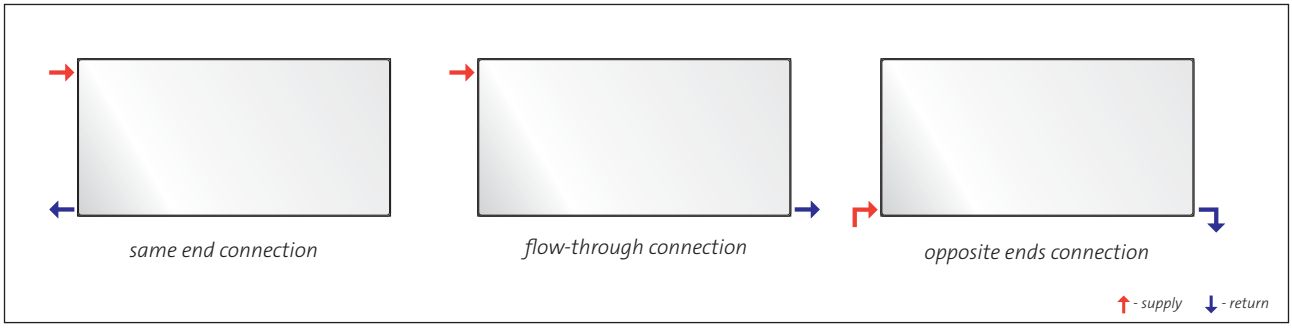
weight : kg/m

type \ height	300	500	550	600	900
11	11,7	19,9	17,1	24,0	36,2
21s	16,7	27,9	25,9	33,5	50,1
22	19,0	32,2	30,6	38,8	58,8
33	27,2	46,1	45,9	55,5	83,6

mounting distances : mm

type	FC 11		FC 21s, FC 22, FC 33	
L	**L1**	**L2**	**L1**	**L2**
400-1600	117	-	133	-
1800	117	917	133	900
2000	117	1017	133	1000
2300	117	1150	133	1167
2600	117	1317	133	1300
3000	117	1517	133	1500

recommended connections



Plan Compact *type 11*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FC 11 600 x 1200

name
type
height
length

PURMO FC 11

length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	500	550	600	900
400	**75/65/20 °C**	**212**	**329**	**357**	**384**	**539**
	55/45/20 °C	109	170	184	198	275
500	**75/65/20 °C**	**265**	**412**	**447**	**481**	**674**
	55/45/20 °C	136	212	230	248	344
600	**75/65/20 °C**	**317**	**494**	**536**	**577**	**808**
	55/45/20 °C	164	254	276	297	412
700	**75/65/20 °C**	**370**	**576**	**625**	**673**	**943**
	55/45/20 °C	191	297	322	347	481
800	**75/65/20 °C**	**423**	**658**	**714**	**769**	**1078**
	55/45/20 °C	218	339	368	396	550
900	**75/65/20 °C**	**476**	**741**	**804**	**865**	**1212**
	55/45/20 °C	245	382	414	446	619
1000	**75/65/20 °C**	**529**	**823**	**893**	**961**	**1347**
	55/45/20 °C	273	424	460	495	687
1100	**75/65/20 °C**	**582**	**905**	**982**	**1057**	**1482**
	55/45/20 °C	300	467	506	545	756
1200	**75/65/20 °C**	**635**	**988**	**1072**	**1153**	**1616**
	55/45/20 °C	327	509	552	594	825
1400	**75/65/20 °C**	**741**	**1152**	**1250**	**1345**	**1886**
	55/45/20 °C	382	594	644	693	962
1600	**75/65/20 °C**	**846**	**1317**	**1429**	**1538**	**2155**
	55/45/20 °C	436	679	736	792	1100
1800	**75/65/20 °C**	**952**	**1481**	**1607**	**1730**	**2425**
	55/45/20 °C	491	763	828	891	1237
2000	**75/65/20 °C**	**1058**	**1646**	**1786**	**1922**	**2694**
	55/45/20 °C	545	848	920	990	1375
2300	**75/65/20 °C**	**1217**	**1893**	**2054**	**2210**	
	55/45/20 °C	627	975	1058	1139	
2600	**75/65/20 °C**	**1375**	**2140**	**2322**	**2499**	
	55/45/20 °C	709	1103	1196	1287	
3000	**75/65/20 °C**	**1587**	**2469**	**2679**	**2883**	
	55/45/20 °C	818	1272	1380	1485	

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

[W/m] 90/70/20 °C	**663**	**1032**	**1120**	**1205**	**1694**
exponent n	**1,2820**	**1,2827**	**1,2829**	**1,2831**	**1,3013**

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FC 21s 600 x 1200

name
type
height
length

PURMO FC 21s

length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	500	550	600	900
400	**75/65/20 °C**	**293**	**445**	**481**	**515**	**706**
	55/45/20 °C	151	228	246	264	354
500	**75/65/20 °C**	**366**	**557**	**601**	**644**	**883**
	55/45/20 °C	189	286	308	329	442
600	**75/65/20 °C**	**439**	**668**	**721**	**773**	**1059**
	55/45/20 °C	227	343	370	395	531
700	**75/65/20 °C**	**512**	**779**	**841**	**902**	**1236**
	55/45/20 °C	265	400	431	461	619
800	**75/65/20 °C**	**586**	**890**	**962**	**1030**	**1412**
	55/45/20 °C	302	457	493	527	707
900	**75/65/20 °C**	**659**	**1002**	**1082**	**1159**	**1589**
	55/45/20 °C	340	514	554	593	796
1000	**75/65/20 °C**	**732**	**1113**	**1202**	**1288**	**1765**
	55/45/20 °C	378	571	616	659	884
1100	**75/65/20 °C**	**805**	**1224**	**1322**	**1417**	**1942**
	55/45/20 °C	416	628	677	725	973
1200	**75/65/20 °C**	**878**	**1336**	**1442**	**1546**	**2118**
	55/45/20 °C	454	685	739	791	1061
1400	**75/65/20 °C**	**1025**	**1558**	**1683**	**1803**	**2471**
	55/45/20 °C	529	800	862	923	1238
1600	**75/65/20 °C**	**1171**	**1781**	**1923**	**2061**	**2824**
	55/45/20 °C	605	914	985	1054	1415
1800	**75/65/20 °C**	**1318**	**2003**	**2164**	**2318**	**3177**
	55/45/20 °C	680	1028	1109	1186	1592
2000	**75/65/20 °C**	**1464**	**2226**	**2404**	**2576**	**3530**
	55/45/20 °C	756	1142	1232	1318	1769
2300	**75/65/20 °C**	**1684**	**2560**	**2765**	**2962**	
	55/45/20 °C	869	1314	1417	1516	
2600	**75/65/20 °C**	**1903**	**2894**	**3125**	**3349**	
	55/45/20 °C	983	1485	1601	1713	
3000	**75/65/20 °C**	**2196**	**3339**	**3606**	**3864**	
	55/45/20 °C	1134	1714	1848	1977	

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

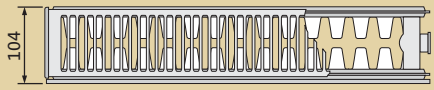
[W/m] 90/70/20 °C	**917**	**1397**	**1510**	**1619**	**2234**
exponent n	**1,2786**	**1,2907**	**1,2937**	**1,2967**	**1,3371**

Plan Compact *type 22*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FC 22 600 x 1200

name
type
height
length

PURMO FC 22

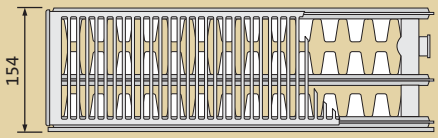


length [mm]	parameters t_z / t_p / t_i	height [mm]				
		300	500	550	600	900
400	**75/65/20 °C**	**375**	**578**	**624**	**670**	**920**
	55/45/20 °C	191	292	315	337	458
500	**75/65/20 °C**	**469**	**722**	**781**	**838**	**1151**
	55/45/20 °C	239	365	394	422	573
600	**75/65/20 °C**	**562**	**866**	**937**	**1006**	**1381**
	55/45/20 °C	287	438	472	506	688
700	**75/65/20 °C**	**656**	**1011**	**1093**	**1173**	**1611**
	55/45/20 °C	335	511	551	590	802
800	**75/65/20 °C**	**750**	**1155**	**1249**	**1341**	**1841**
	55/45/20 °C	383	584	630	674	917
900	**75/65/20 °C**	**843**	**1300**	**1405**	**1508**	**2071**
	55/45/20 °C	431	657	708	759	1031
1000	**75/65/20 °C**	**937**	**1444**	**1561**	**1676**	**2301**
	55/45/20 °C	479	730	787	843	1146
1100	**75/65/20 °C**	**1031**	**1588**	**1717**	**1844**	**2531**
	55/45/20 °C	526	803	866	927	1261
1200	**75/65/20 °C**	**1124**	**1733**	**1873**	**2011**	**2761**
	55/45/20 °C	574	876	945	1012	1375
1400	**75/65/20 °C**	**1312**	**2022**	**2185**	**2346**	**3221**
	55/45/20 °C	670	1022	1102	1180	1604
1600	**75/65/20 °C**	**1499**	**2310**	**2498**	**2682**	**3682**
	55/45/20 °C	766	1168	1259	1349	1833
1800	**75/65/20 °C**	**1687**	**2599**	**2810**	**3017**	**4142**
	55/45/20 °C	861	1314	1417	1517	2063
2000	**75/65/20 °C**	**1874**	**2888**	**3122**	**3352**	**4602**
	55/45/20 °C	957	1460	1574	1686	2292
2300	**75/65/20 °C**	**2155**	**3321**	**3590**	**3855**	
	55/45/20 °C	1101	1679	1811	1939	
2600	**75/65/20 °C**	**2436**	**3754**	**4059**	**4358**	
	55/45/20 °C	1244	1898	2047	2192	
3000	**75/65/20 °C**	**2811**	**4332**	**4683**	**5028**	
	55/45/20 °C	1436	2190	2362	2529	

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

[W/m] 90/70/20 °C	**1178**	**1822**	**1972**	**2119**	**2919**
exponent n	**1,3000**	**1,3197**	**1,3246**	**1,3295**	**1,3488**

PURMO FC 33



RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FC 33 600 x 1200

name
type
height
length

length [mm]	parameters $t_z / t_p / t_i$	height [mm]				
		300	500	550	600	900
400	**75/65/20 °C**	**526**	**798**	**861**	**924**	**1268**
	55/45/20 °C	266	400	431	462	628
500	**75/65/20 °C**	**657**	**997**	**1077**	**1155**	**1586**
	55/45/20 °C	333	501	539	577	785
600	**75/65/20 °C**	**788**	**1196**	**1292**	**1385**	**1903**
	55/45/20 °C	399	601	647	692	941
700	**75/65/20 °C**	**920**	**1396**	**1507**	**1616**	**2220**
	55/45/20 °C	466	701	755	808	1098
800	**75/65/20 °C**	**1051**	**1595**	**1722**	**1847**	**2537**
	55/45/20 °C	532	801	863	923	1255
900	**75/65/20 °C**	**1183**	**1795**	**1938**	**2078**	**2854**
	55/45/20 °C	599	901	971	1039	1412
1000	**75/65/20 °C**	**1314**	**1994**	**2153**	**2309**	**3171**
	55/45/20 °C	666	1001	1079	1154	1569
1100	**75/65/20 °C**	**1445**	**2193**	**2368**	**2540**	**3488**
	55/45/20 °C	732	1101	1186	1270	1726
1200	**75/65/20 °C**	**1577**	**2393**	**2584**	**2771**	**3805**
	55/45/20 °C	799	1201	1294	1385	1883
1400	**75/65/20 °C**	**1840**	**2792**	**3014**	**3233**	**4439**
	55/45/20 °C	932	1402	1510	1616	2197
1600	**75/65/20 °C**	**2102**	**3190**	**3445**	**3694**	**5074**
	55/45/20 °C	1065	1602	1726	1847	2511
1800	**75/65/20 °C**	**2365**	**3589**	**3875**	**4156**	**5708**
	55/45/20 °C	1198	1802	1941	2077	2824
2000	**75/65/20 °C**	**2628**	**3988**	**4306**	**4618**	**6342**
	55/45/20 °C	1331	2002	2157	2308	3138
2300	**75/65/20 °C**	**3022**	**4586**	**4952**	**5311**	
	55/45/20 °C	1531	2303	2481	2655	
2600	**75/65/20 °C**	**3416**	**5184**	**5598**	**6003**	
	55/45/20 °C	1731	2603	2804	3001	
3000	**75/65/20 °C**	**3942**	**5982**	**6459**	**6927**	
	55/45/20 °C	1997	3003	3236	3462	

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

[W/m] 90/70/20 °C	**1657**	**2525**	**2725**	**2923**	**4007**
exponent n	**1,3159**	**1,3331**	**1,3374**	**1,3417**	**1,3612**

Plan Ventil Compact *(Purmo FCV)*

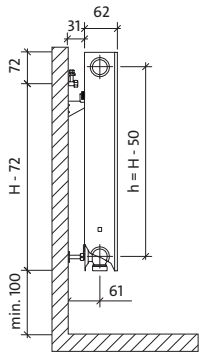
The versatile PURMO Plan Ventil Contact panel radiators stand out due to their completely flat front panel. The panel is glued to the profiled, front base heating panel in a manner concealing any protruding edges, when looking at the radiator from the front. The radiators are equipped with convection fins as well as side covers and a top grille. Two bottom and four side G ½ " threaded female connectors allow for bottom or side connection. The radiator is also equipped with a built-in thermostatic Oventrop valve insert providing presetting.

technical specifications

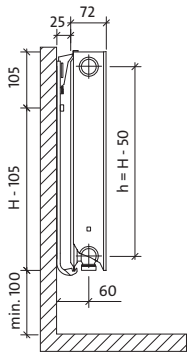
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 2 x G ½ " bottom, right side connectors (left side - available on request)
  4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator : brackets, plugs, air vent.

side views

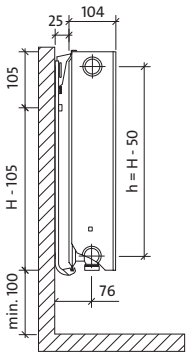
type FCV 11



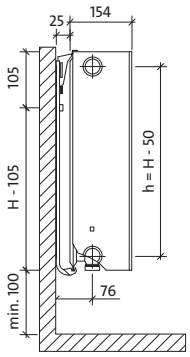
type FCV 21 s



type FCV 22



type FCV 33

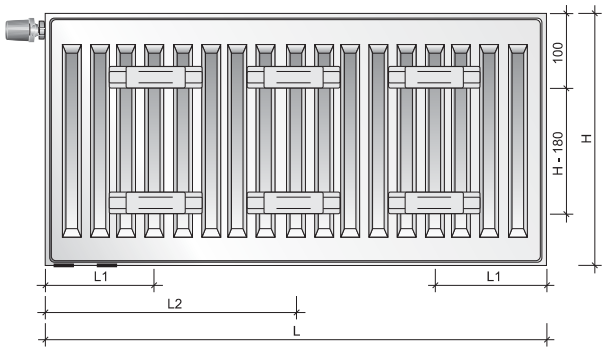


dimensions in mm

***H** = height*
***L** = length*
***h** = spacing of connectors*

front view

rear view - FCV 11 type only



water volume, weight and mounting distances

water volume : l/m

type \ height	300	500	600	900
11	1,7	2,7	3,2	4,5
21s	3,4	5,5	6,6	9,0
22	3,4	5,5	6,6	9,0
33	5,1	8,2	9,8	13,3

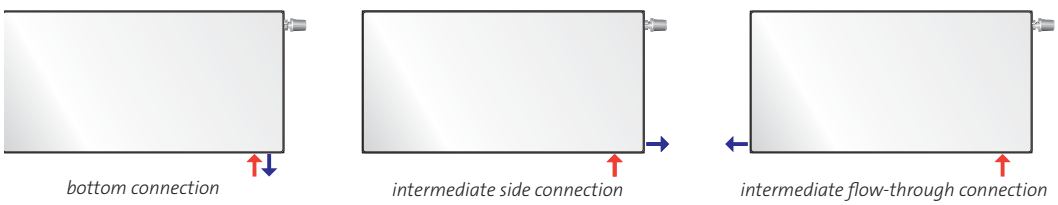
weight : kg/m

type \ height	300	500	600	900
11	11,7	19,9	24,0	36,2
21s	16,7	27,9	33,5	50,1
22	19,0	32,2	38,8	58,8
33	27,2	46,1	55,5	83,6

mounting distances : mm

type	FCV 11	
L	**L1**	**L2**
400-1600	117	-
1800	117	917
2000	117	1017
2300	117	1150
2600	117	1317
3000	117	1517

recommended connections



Plan Ventil Compact *type 11*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FCV 11 600 x 1200 L

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

PURMO FCV 11

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**212**	**329**	**384**	**539**
	55/45/20 °C	109	170	198	275
500	**75/65/20 °C**	**265**	**412**	**481**	**674**
	55/45/20 °C	136	212	248	344
600	**75/65/20 °C**	**317**	**494**	**577**	**808**
	55/45/20 °C	164	254	297	412
700	**75/65/20 °C**	**370**	**576**	**673**	**943**
	55/45/20 °C	191	297	347	481
800	**75/65/20 °C**	**423**	**658**	**769**	**1078**
	55/45/20 °C	218	339	396	550
900	**75/65/20 °C**	**476**	**741**	**865**	**1212**
	55/45/20 °C	245	382	446	619
1000	**75/65/20 °C**	**529**	**823**	**961**	**1347**
	55/45/20 °C	273	424	495	687
1100	**75/65/20 °C**	**582**	**905**	**1057**	**1482**
	55/45/20 °C	300	467	545	756
1200	**75/65/20 °C**	**635**	**988**	**1153**	**1616**
	55/45/20 °C	327	509	594	825
1400	**75/65/20 °C**	**741**	**1152**	**1345**	**1886**
	55/45/20 °C	382	594	693	962
1600	**75/65/20 °C**	**846**	**1317**	**1538**	**2155**
	55/45/20 °C	436	679	792	1100
1800	**75/65/20 °C**	**952**	**1481**	**1730**	**2425**
	55/45/20 °C	491	763	891	1237
2000	**75/65/20 °C**	**1058**	**1646**	**1922**	**2694**
	55/45/20 °C	545	848	990	1375
2300	**75/65/20 °C**	**1217**	**1893**	**2210**	
	55/45/20 °C	627	975	1139	
2600	**75/65/20 °C**	**1375**	**2140**	**2499**	
	55/45/20 °C	709	1103	1287	
3000	**75/65/20 °C**	**1587**	**2469**	**2883**	
	55/45/20 °C	818	1272	1485	

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

[W/m] 90/70/20 °C	**663**	**1032**	**1205**	**1694**
exponent n	**1,2820**	**1,2827**	**1,2831**	**1,3013**

Plan Ventil Compact *type 21s*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FCV 21s 600 x 1200 L

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

PURMO FCV 21s

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**293**	**445**	**515**	**706**
	55/45/20 °C	151	228	264	354
500	**75/65/20 °C**	**366**	**557**	**644**	**883**
	55/45/20 °C	189	286	329	442
600	**75/65/20 °C**	**439**	**668**	**773**	**1059**
	55/45/20 °C	227	343	395	531
700	**75/65/20 °C**	**512**	**779**	**902**	**1236**
	55/45/20 °C	265	400	461	619
800	**75/65/20 °C**	**586**	**890**	**1030**	**1412**
	55/45/20 °C	302	457	527	707
900	**75/65/20 °C**	**659**	**1002**	**1159**	**1589**
	55/45/20 °C	340	514	593	796
1000	**75/65/20 °C**	**732**	**1113**	**1288**	**1765**
	55/45/20 °C	378	571	659	884
1100	**75/65/20 °C**	**805**	**1224**	**1417**	**1942**
	55/45/20 °C	416	628	725	973
1200	**75/65/20 °C**	**878**	**1336**	**1546**	**2118**
	55/45/20 °C	454	685	791	1061
1400	**75/65/20 °C**	**1025**	**1558**	**1803**	**2471**
	55/45/20 °C	529	800	923	1238
1600	**75/65/20 °C**	**1171**	**1781**	**2061**	**2824**
	55/45/20 °C	605	914	1054	1415
1800	**75/65/20 °C**	**1318**	**2003**	**2318**	**3177**
	55/45/20 °C	680	1028	1186	1592
2000	**75/65/20 °C**	**1464**	**2226**	**2576**	**3530**
	55/45/20 °C	756	1142	1318	1769
2300	**75/65/20 °C**	**1684**	**2560**	**2962**	
	55/45/20 °C	869	1314	1516	
2600	**75/65/20 °C**	**1903**	**2894**	**3349**	
	55/45/20 °C	983	1485	1713	
3000	**75/65/20 °C**	**2196**	**3339**	**3864**	
	55/45/20 °C	1134	1714	1977	

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

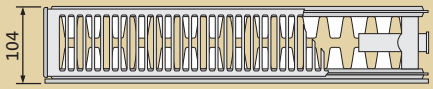
[W/m] 90/70/20 °C	**917**	**1397**	**1619**	**2234**
exponent n	**1,2786**	**1,2907**	**1,2967**	**1,3371**

Plan Ventil Compact *type 22*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FCV 22 600 x 1200 L

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

PURMO FCV 22



length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**375**	**578**	**670**	**920**
	55/45/20 °C	191	292	337	458
500	**75/65/20 °C**	**469**	**722**	**838**	**1151**
	55/45/20 °C	239	365	422	573
600	**75/65/20 °C**	**562**	**866**	**1006**	**1381**
	55/45/20 °C	287	438	506	688
700	**75/65/20 °C**	**656**	**1011**	**1173**	**1611**
	55/45/20 °C	335	511	590	802
800	**75/65/20 °C**	**750**	**1155**	**1341**	**1841**
	55/45/20 °C	383	584	674	917
900	**75/65/20 °C**	**843**	**1300**	**1508**	**2071**
	55/45/20 °C	431	657	759	1031
1000	**75/65/20 °C**	**937**	**1444**	**1676**	**2301**
	55/45/20 °C	479	730	843	1146
1100	**75/65/20 °C**	**1031**	**1588**	**1844**	**2531**
	55/45/20 °C	526	803	927	1261
1200	**75/65/20 °C**	**1124**	**1733**	**2011**	**2761**
	55/45/20 °C	574	876	1012	1375
1400	**75/65/20 °C**	**1312**	**2022**	**2346**	**3221**
	55/45/20 °C	670	1022	1180	1604
1600	**75/65/20 °C**	**1499**	**2310**	**2682**	**3682**
	55/45/20 °C	766	1168	1349	1833
1800	**75/65/20 °C**	**1687**	**2599**	**3017**	**4142**
	55/45/20 °C	861	1314	1517	2063
2000	**75/65/20 °C**	**1874**	**2888**	**3352**	**4602**
	55/45/20 °C	957	1460	1686	2292
2300	**75/65/20 °C**	**2155**	**3321**	**3855**	
	55/45/20 °C	1101	1679	1939	
2600	**75/65/20 °C**	**2436**	**3754**	**4358**	
	55/45/20 °C	1244	1898	2192	
3000	**75/65/20 °C**	**2811**	**4332**	**5028**	
	55/45/20 °C	1436	2190	2529	

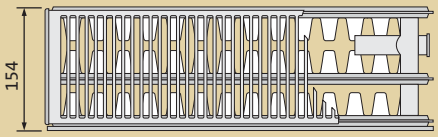
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**1178**	**1822**	**2119**	**2919**
exponent n	**1,3000**	**1,3197**	**1,3295**	**1,3488**

Plan Ventil Compact *type 33*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FCV 33 600 x 1200 L

PURMO FCV 33



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

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**526**	**798**	**924**	**1268**
	55/45/20 °C	266	400	462	628
500	**75/65/20 °C**	**657**	**997**	**1155**	**1586**
	55/45/20 °C	333	501	577	785
600	**75/65/20 °C**	**788**	**1196**	**1385**	**1903**
	55/45/20 °C	399	601	692	941
700	**75/65/20 °C**	**920**	**1396**	**1616**	**2220**
	55/45/20 °C	466	701	808	1098
800	**75/65/20 °C**	**1051**	**1595**	**1847**	**2537**
	55/45/20 °C	532	801	923	1255
900	**75/65/20 °C**	**1183**	**1795**	**2078**	**2854**
	55/45/20 °C	599	901	1039	1412
1000	**75/65/20 °C**	**1314**	**1994**	**2309**	**3171**
	55/45/20 °C	666	1001	1154	1569
1100	**75/65/20 °C**	**1445**	**2193**	**2540**	**3488**
	55/45/20 °C	732	1101	1270	1726
1200	**75/65/20 °C**	**1577**	**2393**	**2771**	**3805**
	55/45/20 °C	799	1201	1385	1883
1400	**75/65/20 °C**	**1840**	**2792**	**3233**	**4439**
	55/45/20 °C	932	1402	1616	2197
1600	**75/65/20 °C**	**2102**	**3190**	**3694**	**5074**
	55/45/20 °C	1065	1602	1847	2511
1800	**75/65/20 °C**	**2365**	**3589**	**4156**	**5708**
	55/45/20 °C	1198	1802	2077	2824
2000	**75/65/20 °C**	**2628**	**3988**	**4618**	**6342**
	55/45/20 °C	1331	2002	2308	3138
2300	**75/65/20 °C**	**3022**	**4586**	**5311**	
	55/45/20 °C	1531	2303	2655	
2600	**75/65/20 °C**	**3416**	**5184**	**6003**	
	55/45/20 °C	1731	2603	3001	
3000	**75/65/20 °C**	**3942**	**5982**	**6927**	
	55/45/20 °C	1997	3003	3462	

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

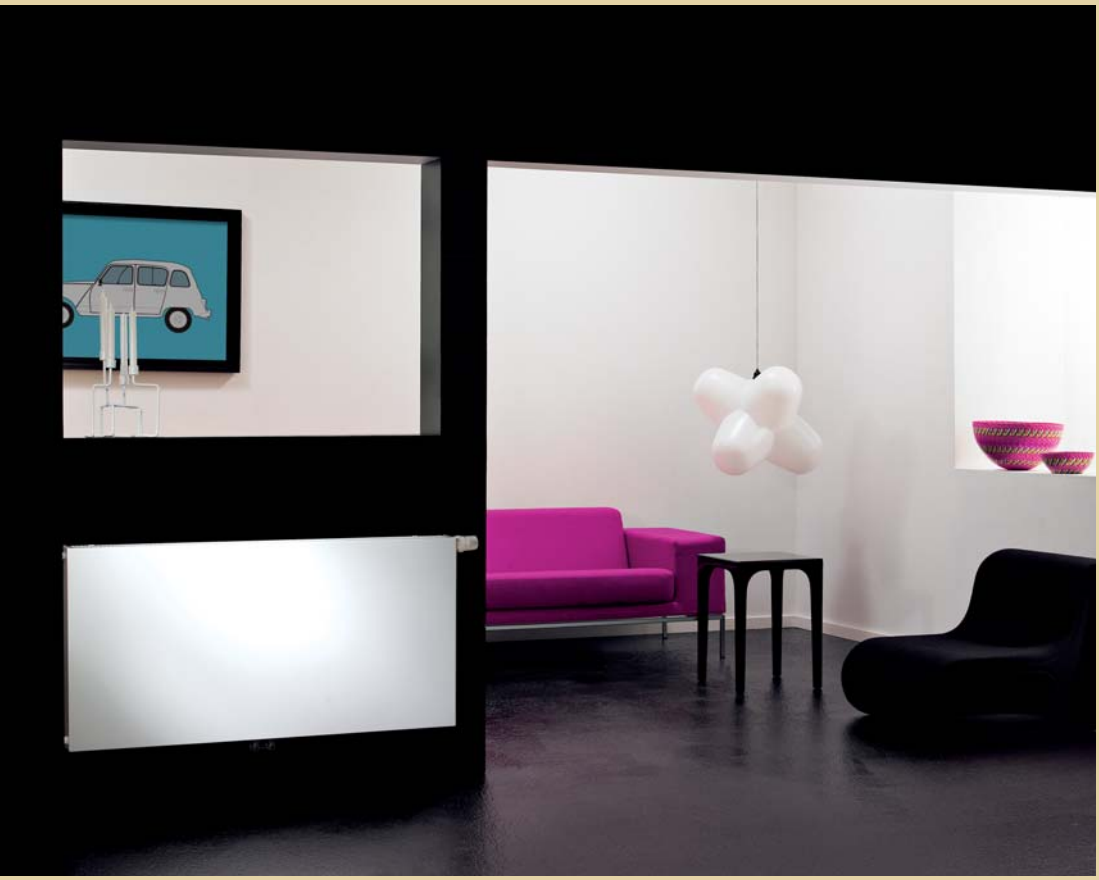
[W/m] 90/70/20 °C	**1657**	**2525**	**2923**	**4007**
exponent n	**1,3159**	**1,3331**	**1,3417**	**1,3612**

Plan Ventil Compact M *(Purmo FCVM)*

The PURMO Plan Ventil Contact M panel radiators with mid-bottom connectors stand out due to their completely flat front panel. The panel is glued to the profiled, front base heating panel in a manner concealing any protruding edges, when looking at the radiator from the front. The radiators are equipped with convection fins as well as side covers and a top grille. Two mid-bottom and four side G ½ " threaded female connectors allow for central bottom or side connection. The radiator is also equipped with a built-in thermostatic Oventrop valve insert providing pre-setting.
The main advantage of the central bottom connection relies of the fact that regardless of the length, height and depth of the radiator, the layout of heating system connections can be defined at the building shell stage and it will not change as a result of the selection of a specific size and type of the radiator.

technical specifications

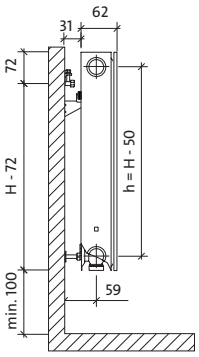
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 2 x G ½ " mid-bottom connectors,
  4 x G ½ " side connectors
- Working pressure : 10 bar • Maximal temperature : 110 °C • Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator : brackets, plugs, air vent.



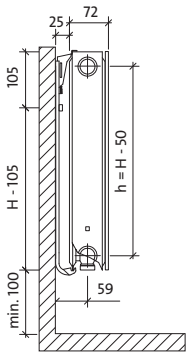
NOTE: the FCVM radiator is available in the right side version only.

side views

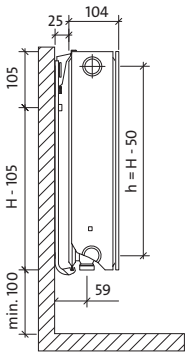
type FCVM 11



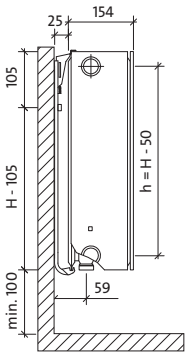
type FCVM 21s



type FCVM 22



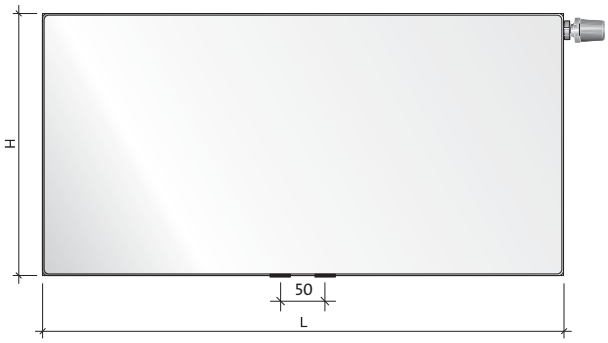
type FCVM 33



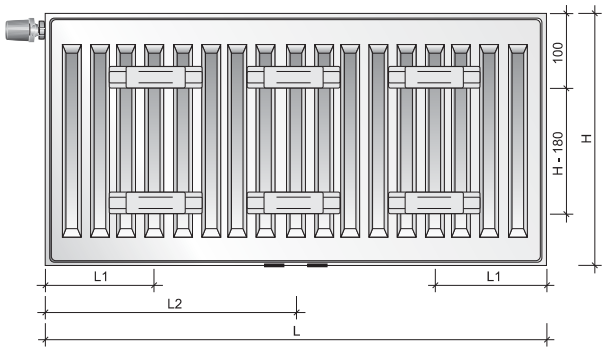
dimensions in mm

***H** = height*
***L** = length*
***h** = spacing of connectors*

front view



rear view - FCVM 11 type only



water volume, weight and mounting distances

water volume : l/m

type \ height	300	500	600	900
11	1,7	2,7	3,2	4,5
21s	3,4	5,5	6,6	9,0
22	3,4	5,5	6,6	9,0
33	5,1	8,2	9,8	13,3

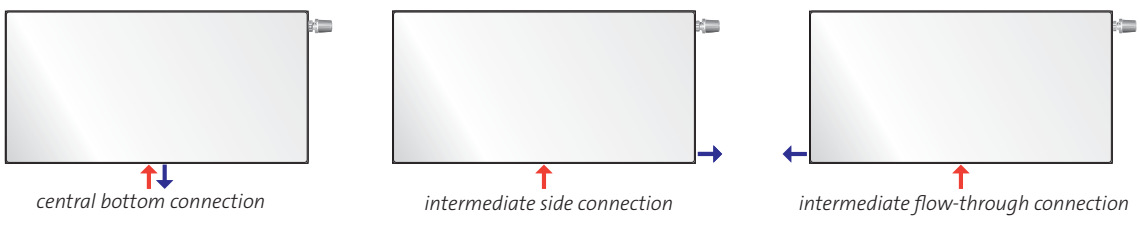
weight : kg/m

type \ height	300	500	600	900
11	11,7	19,9	24,0	36,2
21s	16,7	27,9	33,5	50,1
22	19,0	32,2	38,8	58,8
33	27,2	46,1	55,5	83,6

mounting distances : mm

type	FCVM 11	
L	**L1**	**L2**
400-1600	117	-
1800	117	917
2000	117	1017
2300	117	1150
2600	117	1317
3000	117	1517

recommended connections



Plan Ventil Compact M *type 11*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FCVM 11 600 x 1200

name
type
height
length

PURMO FCVM 11

NOTE: the FCVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**212**	**329**	**384**	**539**
	55/45/20 °C	109	170	198	275
500	**75/65/20 °C**	**265**	**412**	**481**	**674**
	55/45/20 °C	136	212	248	344
600	**75/65/20 °C**	**317**	**494**	**577**	**808**
	55/45/20 °C	164	254	297	412
700	**75/65/20 °C**	**370**	**576**	**673**	**943**
	55/45/20 °C	191	297	347	481
800	**75/65/20 °C**	**423**	**658**	**769**	**1078**
	55/45/20 °C	218	339	396	550
900	**75/65/20 °C**	**476**	**741**	**865**	**1212**
	55/45/20 °C	245	382	446	619
1000	**75/65/20 °C**	**529**	**823**	**961**	**1347**
	55/45/20 °C	273	424	495	687
1100	**75/65/20 °C**	**582**	**905**	**1057**	**1482**
	55/45/20 °C	300	467	545	756
1200	**75/65/20 °C**	**635**	**988**	**1153**	**1616**
	55/45/20 °C	327	509	594	825
1400	**75/65/20 °C**	**741**	**1152**	**1345**	**1886**
	55/45/20 °C	382	594	693	962
1600	**75/65/20 °C**	**846**	**1317**	**1538**	**2155**
	55/45/20 °C	436	679	792	1100
1800	**75/65/20 °C**	**952**	**1481**	**1730**	**2425**
	55/45/20 °C	491	763	891	1237
2000	**75/65/20 °C**	**1058**	**1646**	**1922**	**2694**
	55/45/20 °C	545	848	990	1375
2300	**75/65/20 °C**	**1217**	**1893**	**2210**	
	55/45/20 °C	627	975	1139	
2600	**75/65/20 °C**	**1375**	**2140**	**2499**	
	55/45/20 °C	709	1103	1287	
3000	**75/65/20 °C**	**1587**	**2469**	**2883**	
	55/45/20 °C	818	1272	1485	

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

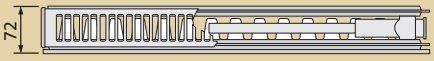
[W/m] 90/70/20 °C	**663**	**1032**	**1205**	**1694**
exponent n	**1,2820**	**1,2827**	**1,2831**	**1,3013**

Plan Ventil Compact M *type 21s*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FCVM 21s 600 x 1200

name
type
height
length

PURMO FCVM 21s



NOTE: the FCVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**293**	**445**	**515**	**706**
	55/45/20 °C	151	228	264	354
500	**75/65/20 °C**	**366**	**557**	**644**	**883**
	55/45/20 °C	189	286	329	442
600	**75/65/20 °C**	**439**	**668**	**773**	**1059**
	55/45/20 °C	227	343	395	531
700	**75/65/20 °C**	**512**	**779**	**902**	**1236**
	55/45/20 °C	265	400	461	619
800	**75/65/20 °C**	**586**	**890**	**1030**	**1412**
	55/45/20 °C	302	457	527	707
900	**75/65/20 °C**	**659**	**1002**	**1159**	**1589**
	55/45/20 °C	340	514	593	796
1000	**75/65/20 °C**	**732**	**1113**	**1288**	**1765**
	55/45/20 °C	378	571	659	884
1100	**75/65/20 °C**	**805**	**1224**	**1417**	**1942**
	55/45/20 °C	416	628	725	973
1200	**75/65/20 °C**	**878**	**1336**	**1546**	**2118**
	55/45/20 °C	454	685	791	1061
1400	**75/65/20 °C**	**1025**	**1558**	**1803**	**2471**
	55/45/20 °C	529	800	923	1238
1600	**75/65/20 °C**	**1171**	**1781**	**2061**	**2824**
	55/45/20 °C	605	914	1054	1415
1800	**75/65/20 °C**	**1318**	**2003**	**2318**	**3177**
	55/45/20 °C	680	1028	1186	1592
2000	**75/65/20 °C**	**1464**	**2226**	**2576**	**3530**
	55/45/20 °C	756	1142	1318	1769
2300	**75/65/20 °C**	**1684**	**2560**	**2962**	
	55/45/20 °C	869	1314	1516	
2600	**75/65/20 °C**	**1903**	**2894**	**3349**	
	55/45/20 °C	983	1485	1713	
3000	**75/65/20 °C**	**2196**	**3339**	**3864**	
	55/45/20 °C	1134	1714	1977	

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

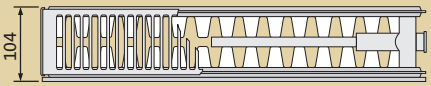
[W/m] 90/70/20 °C	**917**	**1397**	**1619**	**2234**
exponent n	**1,2786**	**1,2907**	**1,2967**	**1,3371**

Plan Ventil Compact M *type 22*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FCVM 22 600 x 1200

name
type
height
length

PURMO FCVM 22



NOTE: the FCVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**375**	**578**	**670**	**920**
	55/45/20 °C	191	292	337	458
500	**75/65/20 °C**	**469**	**722**	**838**	**1151**
	55/45/20 °C	239	365	422	573
600	**75/65/20 °C**	**562**	**866**	**1006**	**1381**
	55/45/20 °C	287	438	506	688
700	**75/65/20 °C**	**656**	**1011**	**1173**	**1611**
	55/45/20 °C	335	511	590	802
800	**75/65/20 °C**	**750**	**1155**	**1341**	**1841**
	55/45/20 °C	383	584	674	917
900	**75/65/20 °C**	**843**	**1300**	**1508**	**2071**
	55/45/20 °C	431	657	759	1031
1000	**75/65/20 °C**	**937**	**1444**	**1676**	**2301**
	55/45/20 °C	479	730	843	1146
1100	**75/65/20 °C**	**1031**	**1588**	**1844**	**2531**
	55/45/20 °C	526	803	927	1261
1200	**75/65/20 °C**	**1124**	**1733**	**2011**	**2761**
	55/45/20 °C	574	876	1012	1375
1400	**75/65/20 °C**	**1312**	**2022**	**2346**	**3221**
	55/45/20 °C	670	1022	1180	1604
1600	**75/65/20 °C**	**1499**	**2310**	**2682**	**3682**
	55/45/20 °C	766	1168	1349	1833
1800	**75/65/20 °C**	**1687**	**2599**	**3017**	**4142**
	55/45/20 °C	861	1314	1517	2063
2000	**75/65/20 °C**	**1874**	**2888**	**3352**	**4602**
	55/45/20 °C	957	1460	1686	2292
2300	**75/65/20 °C**	**2155**	**3321**	**3855**	
	55/45/20 °C	1101	1679	1939	
2600	**75/65/20 °C**	**2436**	**3754**	**4358**	
	55/45/20 °C	1244	1898	2192	
3000	**75/65/20 °C**	**2811**	**4332**	**5028**	
	55/45/20 °C	1436	2190	2529	

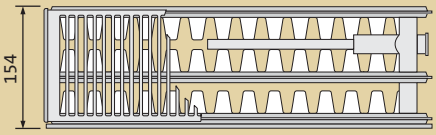
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**1178**	**1822**	**2119**	**2919**
exponent n	**1,3000**	**1,3197**	**1,3295**	**1,3488**

Plan Ventil Compact M *type 33*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FCVM 33 600 x 1200

PURMO FCVM 33



name
type
height
length

NOTE: the FCVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**526**	**798**	**924**	**1268**
	55/45/20 °C	266	400	462	628
500	**75/65/20 °C**	**657**	**997**	**1155**	**1586**
	55/45/20 °C	333	501	577	785
600	**75/65/20 °C**	**788**	**1196**	**1385**	**1903**
	55/45/20 °C	399	601	692	941
700	**75/65/20 °C**	**920**	**1396**	**1616**	**2220**
	55/45/20 °C	466	701	808	1098
800	**75/65/20 °C**	**1051**	**1595**	**1847**	**2537**
	55/45/20 °C	532	801	923	1255
900	**75/65/20 °C**	**1183**	**1795**	**2078**	**2854**
	55/45/20 °C	599	901	1039	1412
1000	**75/65/20 °C**	**1314**	**1994**	**2309**	**3171**
	55/45/20 °C	666	1001	1154	1569
1100	**75/65/20 °C**	**1445**	**2193**	**2540**	**3488**
	55/45/20 °C	732	1101	1270	1726
1200	**75/65/20 °C**	**1577**	**2393**	**2771**	**3805**
	55/45/20 °C	799	1201	1385	1883
1400	**75/65/20 °C**	**1840**	**2792**	**3233**	**4439**
	55/45/20 °C	932	1402	1616	2197
1600	**75/65/20 °C**	**2102**	**3190**	**3694**	**5074**
	55/45/20 °C	1065	1602	1847	2511
1800	**75/65/20 °C**	**2365**	**3589**	**4156**	**5708**
	55/45/20 °C	1198	1802	2077	2824
2000	**75/65/20 °C**	**2628**	**3988**	**4618**	**6342**
	55/45/20 °C	1331	2002	2308	3138
2300	**75/65/20 °C**	**3022**	**4586**	**5311**	
	55/45/20 °C	1531	2303	2655	
2600	**75/65/20 °C**	**3416**	**5184**	**6003**	
	55/45/20 °C	1731	2603	3001	
3000	**75/65/20 °C**	**3942**	**5982**	**6927**	
	55/45/20 °C	1997	3003	3462	

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

[W/m] 90/70/20 °C	**1657**	**2525**	**2923**	**4007**
exponent n	**1,3159**	**1,3331**	**1,3417**	**1,3612**

Plan Hygiene *(Purmo FH)*

The PURMO Plan Hygiene panel radiators are characterized by a completely flat front panel. The panel is glued to the profiled, front base heating panel in a manner concealing any protruding edges, when looking at the radiator from the front. Due to the absence of side covers and a top grille, they are intended for applications in health care and other facilities of elevated hygienic requirements. Four side G ½ " threaded female connectors allow for side connection on both right and left side.

technical specifications

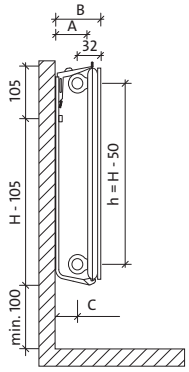
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator: plug, air vent.

NOTE:

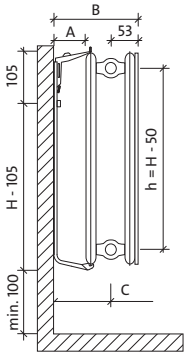
Mounting brackets must be ordered separately. For the method of selecting and ordering see page 60

side views

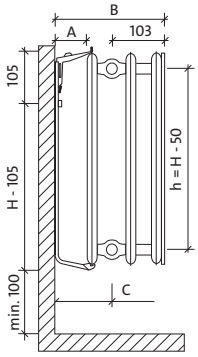
type FH 10



type FH 20



type FH 30



dimensions in mm

H *= height*
L *= length*
h *= spacing of connectors*

front view

mounting distances : mm

type	FH 10	FH 20	FH 30
radiator depth	49	104	154
A-mounting depth	100	100	100
B-total depth	116	204	254
C-connection axis	84	151	151

water volume and weight

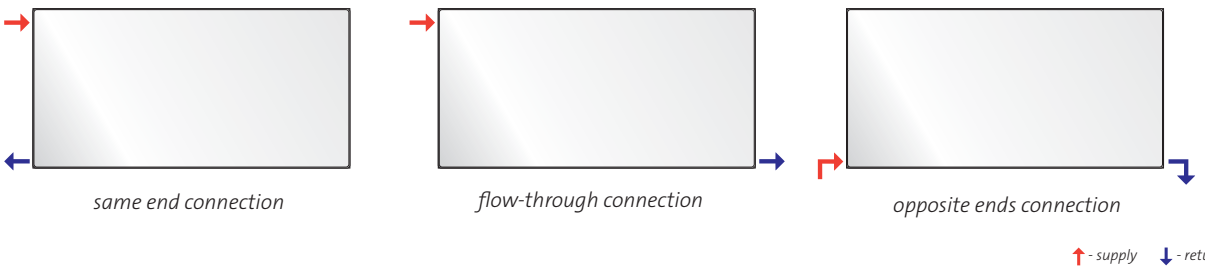
water volume : l/m

type \ height	300	500	600	900
10	1,7	2,7	3,2	4,5
20	3,4	5,5	6,6	9,0
30	5,1	8,2	9,8	13,3

weight : kg/m

type \ height	300	500	600	900
10	5,9	9,8	11,7	17,2
20	11,8	19,5	23,4	34,1
30	17,6	29,2	35,0	51,0

recommended connections



same end connection

flow-through connection

opposite ends connection

- supply *- return*

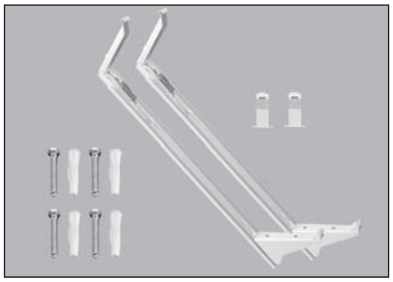
Plan Hygiene

Required quantities of the Monclac MCK 108 hospital brackets for various types and heights of the PURMO hygienic radiators.

Brackets of outreach 108 mm – max. vertical load of 125 kg per single bracket.
(new brackets with reinforced foot structure)

NOTE: Mounting brackets for hygienic radiators must be ordered separately. Mounting brackets are packed in sets of 2 or 3 pieces. In the table, there are presented quantities of single mounting brackets, not sets!!!

height	300			450			500			600			900		
length [mm]	10	20	30	10	20	30	10	20	30	10	20	30	10	20	30
	quantity			quantity			quantity			quantity			quantity		
400	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
500	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
600	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
700	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
800	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
900	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1000	2	2	2	2	2	2	2	2	2	2	2 [1)]	2	2	2	3
1100	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3
1200	2	2	3	2	2	3	2	2	3	2	2	2	2	2	3
1400	2	3	3	2	2	3	2	2	3	2	2	3	2	3	3
1600	3	3	3	2	3	3	2	3	3	2	2	3	3	3	3
1800	3	3	4	3	3	3	3	3	3	2	3	3	3	3	4
2000	3	3	4	3	3	4	3	3	4	3	3 [2)]	3	3	3	4
2300	4	4	4	3	3	4	3	3	4	3	3	4	3	4	4
2600	4	4	5	4	4	4	4	4	5	3	3	4	4	4	5
3000	5	5	6	4	4	5	4	4	5	4	4 [3)]	5	4	4	5



Rules for selecting sets of the Monclac MCK 108 mounting brackets, using the example of the type 20 hygienic radiator of 600 mm height:

[1)] For the length of 1000 mm - 1 double set AZ02BW2MC601080R9016
[2)] For the length of 2000 mm - 1 triple set AZ02BW3MC601080R9016
[3)] For the length of 3000 mm - 2 double sets AZ02BW2MC601080R9016

description	order code
2-element Monclac MCK-108 set for radiators of 300 mm height	AZ02BW2MC301080R9016
3-element Monclac MCK-108 set for radiators of 300 mm height	AZ02BW3MC301080R9016
2-element Monclac MCK-108 set for radiators of 450 mm height	AZ02BW2MC451080R9016
3-element Monclac MCK-108 set for radiators of 450 mm height	AZ02BW3MC451080R9016
2-element Monclac MCK-108 set for radiators of 500 mm height	AZ02BW2MC501080R9016
3-element Monclac MCK-108 set for radiators of 500 mm height	AZ02BW3MC501080R9016
2-element Monclac MCK-108 set for radiators of 600 mm height	AZ02BW2MC601080R9016
3-element Monclac MCK-108 set for radiators of 600 mm height	AZ02BW3MC601080R9016
2-element Monclac MCK-108 set for radiators of 900 mm height	AZ02BW2MC901080R9016
3-element Monclac MCK-108 set for radiators of 900 mm height	AZ02BW3MC901080R9016

Plan Hygiene *type 10*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FH 10 600 x 1200

name
type
height
length

PURMO FH 10

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**125**	**202**	**237**	**328**
	55/45/20 °C	64	104	123	170
500	**75/65/20 °C**	**157**	**253**	**296**	**410**
	55/45/20 °C	80	130	154	212
600	**75/65/20 °C**	**188**	**303**	**355**	**492**
	55/45/20 °C	96	156	185	254
700	**75/65/20 °C**	**219**	**354**	**414**	**574**
	55/45/20 °C	111	183	216	297
800	**75/65/20 °C**	**250**	**404**	**474**	**656**
	55/45/20 °C	127	209	246	339
900	**75/65/20 °C**	**282**	**455**	**533**	**738**
	55/45/20 °C	143	235	277	381
1000	**75/65/20 °C**	**313**	**505**	**592**	**820**
	55/45/20 °C	159	261	308	424
1100	**75/65/20 °C**	**344**	**556**	**651**	**902**
	55/45/20 °C	175	287	339	466
1200	**75/65/20 °C**	**376**	**606**	**710**	**984**
	55/45/20 °C	191	313	369	509
1400	**75/65/20 °C**	**438**	**707**	**829**	**1148**
	55/45/20 °C	223	365	431	593
1600	**75/65/20 °C**	**501**	**808**	**947**	**1312**
	55/45/20 °C	255	417	493	678
1800	**75/65/20 °C**	**563**	**909**	**1066**	**1476**
	55/45/20 °C	287	469	554	763
2000	**75/65/20 °C**	**626**	**1010**	**1184**	**1640**
	55/45/20 °C	319	521	616	848
2300	**75/65/20 °C**	**720**	**1162**	**1362**	
	55/45/20 °C	366	600	708	
2600	**75/65/20 °C**	**814**	**1313**	**1539**	
	55/45/20 °C	414	678	801	
3000	**75/65/20 °C**	**939**	**1515**	**1776**	
	55/45/20 °C	478	782	924	

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

[W/m] 90/70/20 °C	**394**	**633**	**740**	**1 027**
exponent n	**1,3073**	**1,2790**	**1,2648**	**1,2769**

Plan Hygiene *type 20*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FH 20 600 x 1200

name
type
height
length

PURMO FH 20

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**239**	**352**	**406**	**564**
	55/45/20 °C	124	182	209	292
500	**75/65/20 °C**	**299**	**440**	**508**	**706**
	55/45/20 °C	155	227	261	365
600	**75/65/20 °C**	**359**	**528**	**609**	**847**
	55/45/20 °C	186	272	313	438
700	**75/65/20 °C**	**419**	**616**	**711**	**988**
	55/45/20 °C	217	318	365	512
800	**75/65/20 °C**	**478**	**704**	**812**	**1129**
	55/45/20 °C	248	363	418	585
900	**75/65/20 °C**	**538**	**792**	**914**	**1270**
	55/45/20 °C	279	409	470	658
1000	**75/65/20 °C**	**598**	**880**	**1015**	**1411**
	55/45/20 °C	310	454	522	731
1100	**75/65/20 °C**	**658**	**968**	**1117**	**1552**
	55/45/20 °C	341	499	574	804
1200	**75/65/20 °C**	**718**	**1056**	**1218**	**1693**
	55/45/20 °C	372	545	627	877
1400	**75/65/20 °C**	**837**	**1232**	**1421**	**1975**
	55/45/20 °C	434	635	731	1023
1600	**75/65/20 °C**	**957**	**1408**	**1624**	**2258**
	55/45/20 °C	496	726	835	1169
1800	**75/65/20 °C**	**1076**	**1584**	**1827**	**2540**
	55/45/20 °C	558	817	940	1315
2000	**75/65/20 °C**	**1196**	**1760**	**2030**	**2822**
	55/45/20 °C	620	908	1044	1462
2300	**75/65/20 °C**	**1375**	**2024**	**2335**	
	55/45/20 °C	713	1044	1201	
2600	**75/65/20 °C**	**1555**	**2288**	**2639**	
	55/45/20 °C	806	1180	1358	
3000	**75/65/20 °C**	**1794**	**2640**	**3045**	
	55/45/20 °C	930	1362	1566	

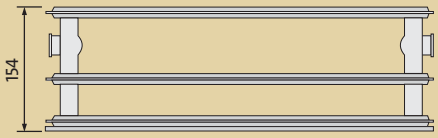
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**748**	**1 103**	**1 273**	**1 766**
exponent n	**1,2706**	**1,2809**	**1,2861**	**1,2729**

Plan Hygiene *type 30*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FH 30 600 x 1200

PURMO FH 30



name
type
height
length

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**334**	**488**	**560**	**771**
	55/45/20 °C	171	249	285	391
500	**75/65/20 °C**	**417**	**610**	**700**	**964**
	55/45/20 °C	214	311	356	488
600	**75/65/20 °C**	**500**	**731**	**840**	**1156**
	55/45/20 °C	257	373	427	586
700	**75/65/20 °C**	**584**	**853**	**980**	**1349**
	55/45/20 °C	299	435	499	683
800	**75/65/20 °C**	**667**	**975**	**1120**	**1542**
	55/45/20 °C	342	497	570	781
900	**75/65/20 °C**	**751**	**1097**	**1260**	**1734**
	55/45/20 °C	385	560	641	879
1000	**75/65/20 °C**	**834**	**1219**	**1400**	**1927**
	55/45/20 °C	428	622	712	976
1100	**75/65/20 °C**	**917**	**1341**	**1540**	**2120**
	55/45/20 °C	470	684	784	1074
1200	**75/65/20 °C**	**1001**	**1463**	**1680**	**2312**
	55/45/20 °C	513	746	855	1172
1400	**75/65/20 °C**	**1168**	**1707**	**1960**	**2698**
	55/45/20 °C	599	871	997	1367
1600	**75/65/20 °C**	**1334**	**1950**	**2240**	**3083**
	55/45/20 °C	684	995	1140	1562
1800	**75/65/20 °C**	**1501**	**2194**	**2520**	**3469**
	55/45/20 °C	770	1119	1282	1758
2000	**75/65/20 °C**	**1668**	**2438**	**2800**	**3854**
	55/45/20 °C	855	1244	1425	1953
2300	**75/65/20 °C**	**1918**	**2804**	**3220**	
	55/45/20 °C	983	1430	1638	
2600	**75/65/20 °C**	**2168**	**3169**	**3640**	
	55/45/20 °C	1112	1617	1852	
3000	**75/65/20 °C**	**2502**	**3657**	**4200**	
	55/45/20 °C	1283	1866	2137	

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

[W/m] 90/70/20 °C	**1 047**	**1 534**	**1 763**	**2 430**
exponent n	**1,2926**	**1,3023**	**1,3072**	**1,3135**

Plan Ventil Hygiene *(Purmo FHV)*

The PURMO Plan Ventil Hygiene panel radiators are characterized by a completely flat front panel. The panel is glued to the profiled, front base heating panel in a manner concealing any protruding edges, when looking at the radiator from the front. Due to the absence of side covers and a top grille, they are intended for applications in health care and other facilities of elevated hygienic requirements. Two bottom and four side G ½ " threaded female connectors allow for bottom or side connection. The radiator is also equipped with a built-in thermostatic Oventrop valve insert providing pre-setting.

technical specifications

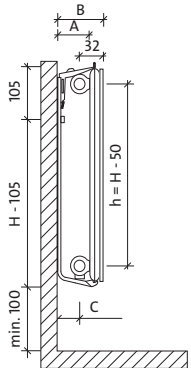
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 2 x G ½ " bottom, right side connectors (left side - available on request), 4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator : plugs, air vent.

NOTE:

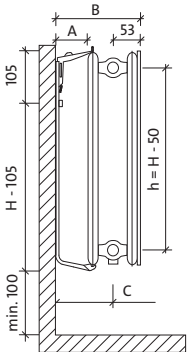
Mounting brackets must be ordered separately. For the method of selecting and ordering **see page 66**

side views

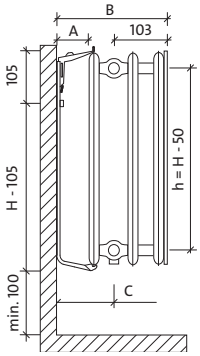
type FHV 10



type FHV 20



type FHV 30



dimensions in mm

H *= height*
L *= length*
h *= spacing of connectors*

front view

mounting distances : mm

type	FHV 10	FHV 20	FHV 30
radiator depth	49	104	154
A-mounting depth	100	100	100
B-total depth	116	204	254
C-connection axis	84	151	151

water volume and weight

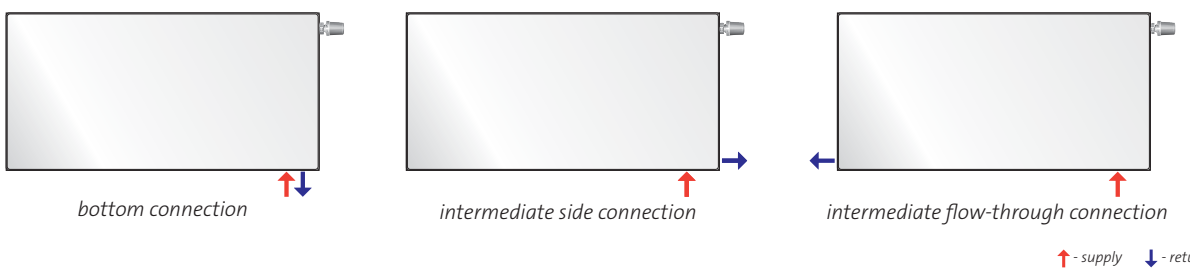
water volume : l/m

type \ height	300	500	600	900
10	1,7	2,7	3,2	4,5
20	3,4	5,5	6,6	9,0
30	5,1	8,2	9,8	13,3

weight : kg/m

type \ height	300	500	600	900
10	5,9	9,8	11,7	17,2
20	11,8	19,5	23,4	34,1
30	17,6	29,2	35,0	51,0

recommended connections



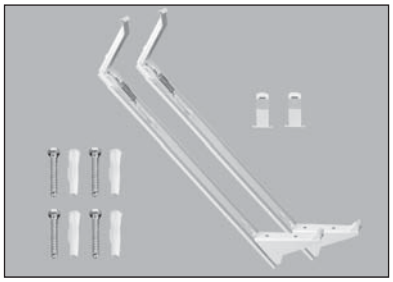
Plan Ventil Hygiene

Required quantities of the Monclac MCK 108 hospital brackets for various types and heights of the PURMO hygienic radiators.

Brackets of outreach 108 mm – max. vertical load of 125 kg per single bracket.
(new brackets with reinforced foot structure)

NOTE: Mounting brackets for hygienic radiators must be ordered separately. Mounting brackets are packed in sets of 2 or 3 pieces. In the table, there are presented quantities of single mounting brackets, not sets!!!

height	300			450			500			600			900		
length [mm]	10	20	30	10	20	30	10	20	30	10	20	30	10	20	30
	quantity			quantity			quantity			quantity			quantity		
400	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
500	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
600	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
700	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
800	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
900	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1000	2	2	2	2	2	2	2	2	2	2	2 [1)]	2	2	2	3
1100	2	2	3	2	2	2	2	2	2	2	2	2	2	2	3
1200	2	2	3	2	2	3	2	2	3	2	2	2	2	2	3
1400	2	3	3	2	2	3	2	2	3	2	2	3	2	3	3
1600	3	3	3	2	3	3	2	3	3	2	2	3	3	3	3
1800	3	3	4	3	3	3	3	3	3	2	3	3	3	3	4
2000	3	3	4	3	3	4	3	3	4	3	3 [2)]	3	3	3	4
2300	4	4	4	3	3	4	3	3	4	3	3	4	3	4	4
2600	4	4	5	4	4	4	4	4	5	3	3	4	4	4	5
3000	5	5	6	4	4	5	4	4	5	4	4 [3)]	5	4	4	5



Rules for selecting sets of the Monclac MCK 108 mounting brackets, using the example of the type 20 hygienic radiator of 600 mm height:

[1)] For the length of 1000 mm - 1 double set	AZ02BW2MC601080R9016
[2)] For the length of 2000 mm - 1 triple set	AZ02BW3MC601080R9016
[3)] For the length of 3000 mm - 2 double sets	AZ02BW2MC601080R9016

description	order code
2-element Monclac MCK-108 set for radiators of 300 mm height	AZ02BW2MC301080R9016
3-element Monclac MCK-108 set for radiators of 300 mm height	AZ02BW3MC301080R9016
2-element Monclac MCK-108 set for radiators of 450 mm height	AZ02BW2MC451080R9016
3-element Monclac MCK-108 set for radiators of 450 mm height	AZ02BW3MC451080R9016
2-element Monclac MCK-108 set for radiators of 500 mm height	AZ02BW2MC501080R9016
3-element Monclac MCK-108 set for radiators of 500 mm height	AZ02BW3MC501080R9016
2-element Monclac MCK-108 set for radiators of 600 mm height	AZ02BW2MC601080R9016
3-element Monclac MCK-108 set for radiators of 600 mm height	AZ02BW3MC601080R9016
2-element Monclac MCK-108 set for radiators of 900 mm height	AZ02BW2MC901080R9016
3-element Monclac MCK-108 set for radiators of 900 mm height	AZ02BW3MC901080R9016

Plan Ventil Hygiene *type 10*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FHV 10 600 x 1200 L

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

PURMO FHV 10

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**125**	**202**	**237**	**328**
	55/45/20 °C	64	104	123	170
500	**75/65/20 °C**	**157**	**253**	**296**	**410**
	55/45/20 °C	80	130	154	212
600	**75/65/20 °C**	**188**	**303**	**355**	**492**
	55/45/20 °C	96	156	185	254
700	**75/65/20 °C**	**219**	**354**	**414**	**574**
	55/45/20 °C	111	183	216	297
800	**75/65/20 °C**	**250**	**404**	**474**	**656**
	55/45/20 °C	127	209	246	339
900	**75/65/20 °C**	**282**	**455**	**533**	**738**
	55/45/20 °C	143	235	277	381
1000	**75/65/20 °C**	**313**	**505**	**592**	**820**
	55/45/20 °C	159	261	308	424
1100	**75/65/20 °C**	**344**	**556**	**651**	**902**
	55/45/20 °C	175	287	339	466
1200	**75/65/20 °C**	**376**	**606**	**710**	**984**
	55/45/20 °C	191	313	369	509
1400	**75/65/20 °C**	**438**	**707**	**829**	**1148**
	55/45/20 °C	223	365	431	593
1600	**75/65/20 °C**	**501**	**808**	**947**	**1312**
	55/45/20 °C	255	417	493	678
1800	**75/65/20 °C**	**563**	**909**	**1066**	**1476**
	55/45/20 °C	287	469	554	763
2000	**75/65/20 °C**	**626**	**1010**	**1184**	**1640**
	55/45/20 °C	319	521	616	848
2300	**75/65/20 °C**	**720**	**1162**	**1362**	
	55/45/20 °C	366	600	708	
2600	**75/65/20 °C**	**814**	**1313**	**1539**	
	55/45/20 °C	414	678	801	
3000	**75/65/20 °C**	**939**	**1515**	**1776**	
	55/45/20 °C	478	782	924	

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

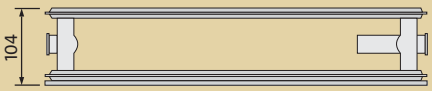
[W/m] 90/70/20 °C	**394**	**633**	**740**	**1 027**
exponent n	**1,3073**	**1,2790**	**1,2648**	**1,2769**

Plan Ventil Hygiene *type 20*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FHV 20 600 x 1200 L

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

PURMO FHV 20



length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**239**	**352**	**406**	**564**
	55/45/20 °C	124	182	209	292
500	**75/65/20 °C**	**299**	**440**	**508**	**706**
	55/45/20 °C	155	227	261	365
600	**75/65/20 °C**	**359**	**528**	**609**	**847**
	55/45/20 °C	186	272	313	438
700	**75/65/20 °C**	**419**	**616**	**711**	**988**
	55/45/20 °C	217	318	365	512
800	**75/65/20 °C**	**478**	**704**	**812**	**1129**
	55/45/20 °C	248	363	418	585
900	**75/65/20 °C**	**538**	**792**	**914**	**1270**
	55/45/20 °C	279	409	470	658
1000	**75/65/20 °C**	**598**	**880**	**1015**	**1411**
	55/45/20 °C	310	454	522	731
1100	**75/65/20 °C**	**658**	**968**	**1117**	**1552**
	55/45/20 °C	341	499	574	804
1200	**75/65/20 °C**	**718**	**1056**	**1218**	**1693**
	55/45/20 °C	372	545	627	877
1400	**75/65/20 °C**	**837**	**1232**	**1421**	**1975**
	55/45/20 °C	434	635	731	1023
1600	**75/65/20 °C**	**957**	**1408**	**1624**	**2258**
	55/45/20 °C	496	726	835	1169
1800	**75/65/20 °C**	**1076**	**1584**	**1827**	**2540**
	55/45/20 °C	558	817	940	1315
2000	**75/65/20 °C**	**1196**	**1760**	**2030**	**2822**
	55/45/20 °C	620	908	1044	1462
2300	**75/65/20 °C**	**1375**	**2024**	**2335**	
	55/45/20 °C	713	1044	1201	
2600	**75/65/20 °C**	**1555**	**2288**	**2639**	
	55/45/20 °C	806	1180	1358	
3000	**75/65/20 °C**	**1794**	**2640**	**3045**	
	55/45/20 °C	930	1362	1566	

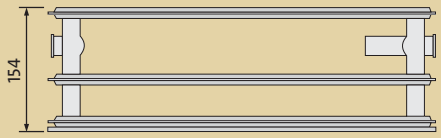
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**748**	**1 103**	**1 273**	**1 766**
exponent n	**1,2706**	**1,2809**	**1,2861**	**1,2729**

Plan Ventil Hygiene *type 30*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FHV 30 600 x 1200 L

PURMO FHV 30



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

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**334**	**488**	**560**	**771**
	55/45/20 °C	171	249	285	391
500	**75/65/20 °C**	**417**	**610**	**700**	**964**
	55/45/20 °C	214	311	356	488
600	**75/65/20 °C**	**500**	**731**	**840**	**1156**
	55/45/20 °C	257	373	427	586
700	**75/65/20 °C**	**584**	**853**	**980**	**1349**
	55/45/20 °C	299	435	499	683
800	**75/65/20 °C**	**667**	**975**	**1120**	**1542**
	55/45/20 °C	342	497	570	781
900	**75/65/20 °C**	**751**	**1097**	**1260**	**1734**
	55/45/20 °C	385	560	641	879
1000	**75/65/20 °C**	**834**	**1219**	**1400**	**1927**
	55/45/20 °C	428	622	712	976
1100	**75/65/20 °C**	**917**	**1341**	**1540**	**2120**
	55/45/20 °C	470	684	784	1074
1200	**75/65/20 °C**	**1001**	**1463**	**1680**	**2312**
	55/45/20 °C	513	746	855	1172
1400	**75/65/20 °C**	**1168**	**1707**	**1960**	**2698**
	55/45/20 °C	599	871	997	1367
1600	**75/65/20 °C**	**1334**	**1950**	**2240**	**3083**
	55/45/20 °C	684	995	1140	1562
1800	**75/65/20 °C**	**1501**	**2194**	**2520**	**3469**
	55/45/20 °C	770	1119	1282	1758
2000	**75/65/20 °C**	**1668**	**2438**	**2800**	**3854**
	55/45/20 °C	855	1244	1425	1953
2300	**75/65/20 °C**	**1918**	**2804**	**3220**	
	55/45/20 °C	983	1430	1638	
2600	**75/65/20 °C**	**2168**	**3169**	**3640**	
	55/45/20 °C	1112	1617	1852	
3000	**75/65/20 °C**	**2502**	**3657**	**4200**	
	55/45/20 °C	1283	1866	2137	

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

[W/m] 90/70/20 °C	**1 047**	**1 534**	**1 763**	**2 430**
exponent n	**1,2926**	**1,3023**	**1,3072**	**1,3135**

Ramo Compact *(Purmo RC)*

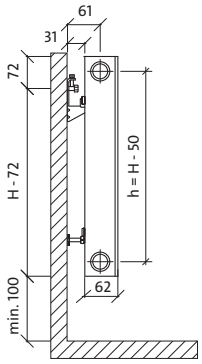
The PURMO Ramo Contact panel radiators with side connectors stand out due to their flat front panel with slight horizontal ribbing. The panel is glued to the profiled, front base heating panel in a manner concealing any protruding edges, when looking at the radiator from the front. The radiators are equipped with side covers and a top grille. Four side G ½ " threaded female connectors allow for side connection on both right and left side.

technical specifications

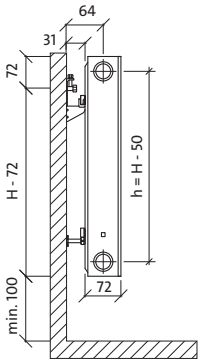
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator : brackets, plug, air vent.

side views

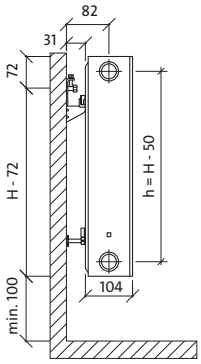
type RC 11



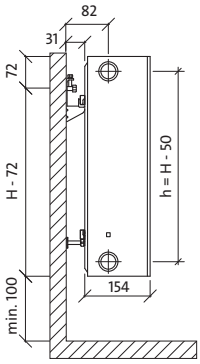
type RC 21s



type RC 22



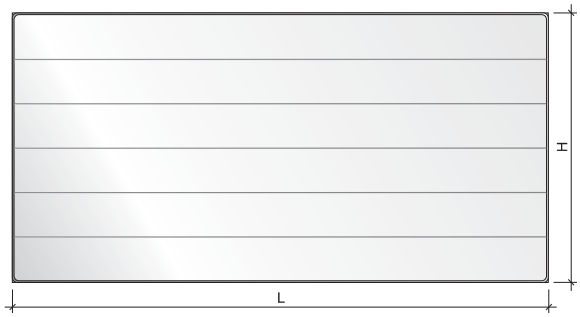
type RC 33



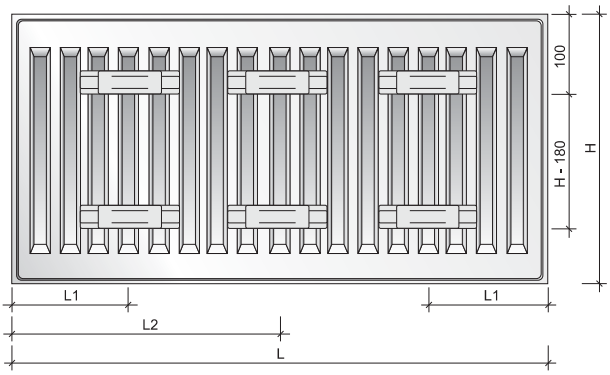
dimensions in mm

H = *height*
L = *length*
h = *spacing of connectors*

front view



rear view



water volume, weight and mounting distances

water volume : l/m

type \ height	300	500	600	900
11	1,7	2,7	3,2	4,5
21s	3,4	5,5	6,6	9,0
22	3,4	5,5	6,6	9,0
33	5,1	8,2	9,8	13,3

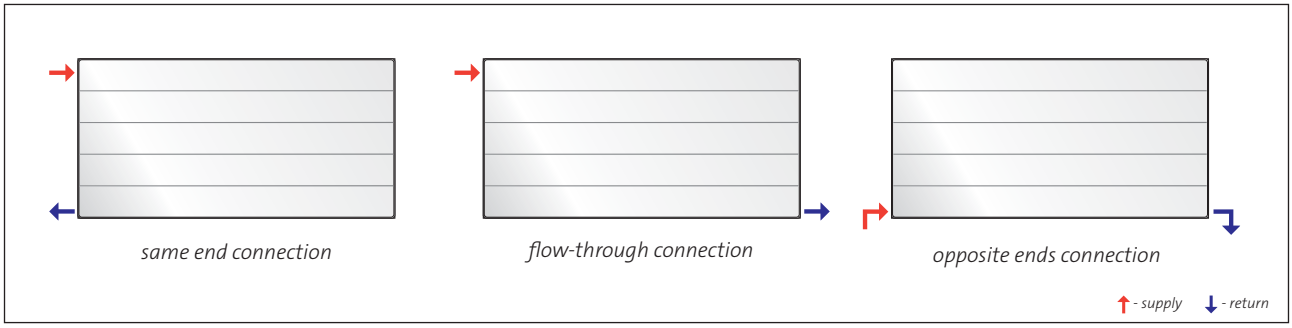
weight : kg/m

type \ height	300	500	600	900
11	11,7	19,9	24,0	36,2
21s	16,7	27,9	33,5	50,1
22	19,0	32,2	38,8	58,8
33	27,2	46,1	55,5	83,6

mounting distances : mm

type	RC 11		RC 21s, RC 22, RC 33	
L	**L1**	**L2**	**L1**	**L2**
400-1600	117	-	133	-
1800	117	917	133	900
2000	117	1017	133	1000
2300	117	1150	133	1150
2600	117	1317	133	1300
3000	117	1517	133	1500

recommended connections



Ramo Compact *type 11*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RC 11 600 x 1200

name
type
height
length

PURMO RC 11

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**212**	**329**	**384**	**539**
	55/45/20 °C	109	170	198	275
500	**75/65/20 °C**	**265**	**412**	**481**	**674**
	55/45/20 °C	136	212	248	344
600	**75/65/20 °C**	**317**	**494**	**577**	**808**
	55/45/20 °C	164	254	297	412
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**423**	**658**	**769**	**1078**
	55/45/20 °C	218	339	396	550
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**529**	**823**	**961**	**1347**
	55/45/20 °C	273	424	495	687
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**635**	**988**	**1153**	**1616**
	55/45/20 °C	327	509	594	825
1400	**75/65/20 °C**	**741**	**1152**	**1345**	**1886**
	55/45/20 °C	382	594	693	962
1600	**75/65/20 °C**	**846**	**1317**	**1538**	**2155**
	55/45/20 °C	436	679	792	1100
1800	**75/65/20 °C**	**952**	**1481**	**1730**	**2425**
	55/45/20 °C	491	763	891	1237
2000	**75/65/20 °C**	**1058**	**1646**	**1922**	**2694**
	55/45/20 °C	545	848	990	1375
2300	**75/65/20 °C**	**1217**	**1893**	**2210**	
	55/45/20 °C	627	975	1139	
2600	**75/65/20 °C**	**1375**	**2140**	**2499**	
	55/45/20 °C	709	1103	1287	
3000	**75/65/20 °C**	**1587**	**2469**	**2883**	
	55/45/20 °C	818	1272	1485	

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

[W/m] 90/70/20 °C	**663**	**1032**	**1205**	**1694**
exponent n	**1,2820**	**1,2827**	**1,2831**	**1,3013**

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RC 21s 600 x 1200

name
type
height
length

PURMO RC 21s

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**293**	**445**	**515**	**706**
	55/45/20 °C	151	228	264	354
500	**75/65/20 °C**	**366**	**557**	**644**	**883**
	55/45/20 °C	189	286	329	442
600	**75/65/20 °C**	**439**	**668**	**773**	**1059**
	55/45/20 °C	227	343	395	531
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**586**	**890**	**1030**	**1412**
	55/45/20 °C	302	457	527	707
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**732**	**1113**	**1288**	**1765**
	55/45/20 °C	378	571	659	884
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**878**	**1336**	**1546**	**2118**
	55/45/20 °C	454	685	791	1061
1400	**75/65/20 °C**	**1025**	**1558**	**1803**	**2471**
	55/45/20 °C	529	800	923	1238
1600	**75/65/20 °C**	**1171**	**1781**	**2061**	**2824**
	55/45/20 °C	605	914	1054	1415
1800	**75/65/20 °C**	**1318**	**2003**	**2318**	**3177**
	55/45/20 °C	680	1028	1186	1592
2000	**75/65/20 °C**	**1464**	**2226**	**2576**	**3530**
	55/45/20 °C	756	1142	1318	1769
2300	**75/65/20 °C**	**1684**	**2560**	**2962**	
	55/45/20 °C	869	1314	1516	
2600	**75/65/20 °C**	**1903**	**2894**	**3349**	
	55/45/20 °C	983	1485	1713	
3000	**75/65/20 °C**	**2196**	**3339**	**3864**	
	55/45/20 °C	1134	1714	1977	

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

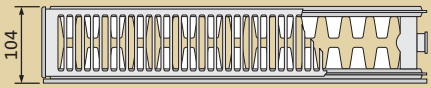
[W/m] 90/70/20 °C	**917**	**1397**	**1619**	**2234**
exponent n	**1,2786**	**1,2907**	**1,2967**	**1,3371**

Ramo Compact *type 22*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RC 22 600 x 1200

name
type
height
length

PURMO RC 22



length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**375**	**578**	**670**	**920**
	55/45/20 °C	191	292	337	458
500	**75/65/20 °C**	**469**	**722**	**838**	**1151**
	55/45/20 °C	239	365	422	573
600	**75/65/20 °C**	**562**	**866**	**1006**	**1381**
	55/45/20 °C	287	438	506	688
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**750**	**1155**	**1341**	**1841**
	55/45/20 °C	383	584	674	917
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**937**	**1444**	**1676**	**2301**
	55/45/20 °C	479	730	843	1146
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**1124**	**1733**	**2011**	**2761**
	55/45/20 °C	574	876	1012	1375
1400	**75/65/20 °C**	**1312**	**2022**	**2346**	**3221**
	55/45/20 °C	670	1022	1180	1604
1600	**75/65/20 °C**	**1499**	**2310**	**2682**	**3682**
	55/45/20 °C	766	1168	1349	1833
1800	**75/65/20 °C**	**1687**	**2599**	**3017**	**4142**
	55/45/20 °C	861	1314	1517	2063
2000	**75/65/20 °C**	**1874**	**2888**	**3352**	**4602**
	55/45/20 °C	957	1460	1686	2292
2300	**75/65/20 °C**	**2155**	**3321**	**3855**	
	55/45/20 °C	1101	1679	1939	
2600	**75/65/20 °C**	**2436**	**3754**	**4358**	
	55/45/20 °C	1244	1898	2192	
3000	**75/65/20 °C**	**2811**	**4332**	**5028**	
	55/45/20 °C	1436	2190	2529	

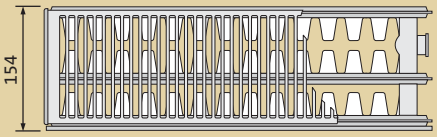
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**1178**	**1822**	**2119**	**2919**
exponent n	**1,3000**	**1,3197**	**1,3295**	**1,3488**

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RC 33 600 x 1200

name
type
height
length

PURMO RC 33



length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**526**	**798**	**924**	**1268**
	55/45/20 °C	266	400	462	628
500	**75/65/20 °C**	**657**	**997**	**1155**	**1586**
	55/45/20 °C	333	501	577	785
600	**75/65/20 °C**	**788**	**1196**	**1385**	**1903**
	55/45/20 °C	399	601	692	941
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**1051**	**1595**	**1847**	**2537**
	55/45/20 °C	532	801	923	1255
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**1314**	**1994**	**2309**	**3171**
	55/45/20 °C	666	1001	1154	1569
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**1577**	**2393**	**2771**	**3805**
	55/45/20 °C	799	1201	1385	1883
1400	**75/65/20 °C**	**1840**	**2792**	**3233**	**4439**
	55/45/20 °C	932	1402	1616	2197
1600	**75/65/20 °C**	**2102**	**3190**	**3694**	**5074**
	55/45/20 °C	1065	1602	1847	2511
1800	**75/65/20 °C**	**2365**	**3589**	**4156**	**5708**
	55/45/20 °C	1198	1802	2077	2824
2000	**75/65/20 °C**	**2628**	**3988**	**4618**	**6342**
	55/45/20 °C	1331	2002	2308	3138
2300	**75/65/20 °C**	**3022**	**4586**	**5311**	
	55/45/20 °C	1531	2303	2655	
2600	**75/65/20 °C**	**3416**	**5184**	**6003**	
	55/45/20 °C	1731	2603	3001	
3000	**75/65/20 °C**	**3942**	**5982**	**6927**	
	55/45/20 °C	1997	3003	3462	

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

[W/m] 90/70/20 °C	**1657**	**2525**	**2923**	**4007**
exponent n	**1,3159**	**1,3331**	**1,3417**	**1,3612**

Ramo Ventil Compact *(Purmo RCV)*

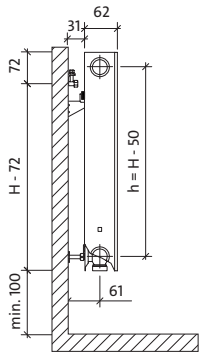
The versatile PURMO Ramo Ventil Contact panel radiators stand out due to their flat front panel with slight horizontal ribbing. The panel is glued to the profiled, front base heating panel in a manner concealing any protruding edges, when looking at the radiator from the front. The radiators are equipped with convection fins as well as side covers and a top grille. Two bottom and four side G ½ " threaded female connectors allow for bottom or side connection. The radiator is also equipped with a built-in thermostatic Oventrop valve insert providing pre-setting.

technical specifications

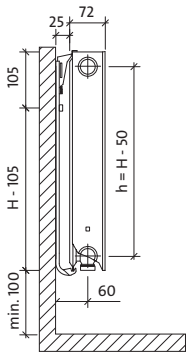
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 2 x G ½ " bottom, right side connectors (left side - available on request)
  4 x G ½ " side connectors
- Working pressure : 10 bar
- Maximal temperature : 110 °C
- Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator : brackets, plugs, air vent.

side views

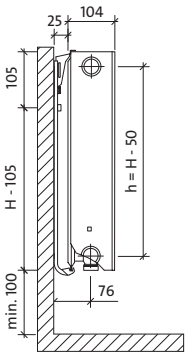
type RCV 11



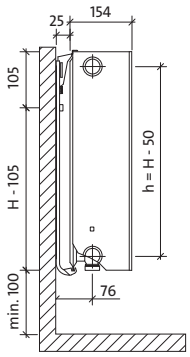
type RCV 21 s



type RCV 22



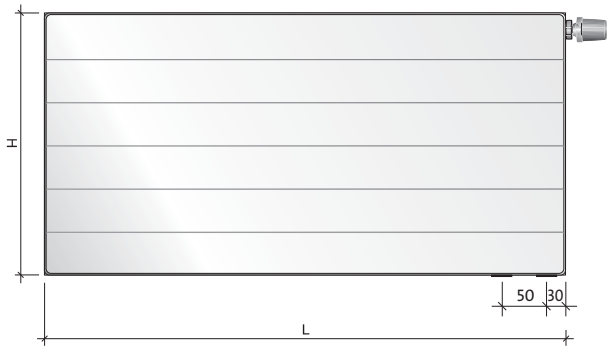
type RCV 33



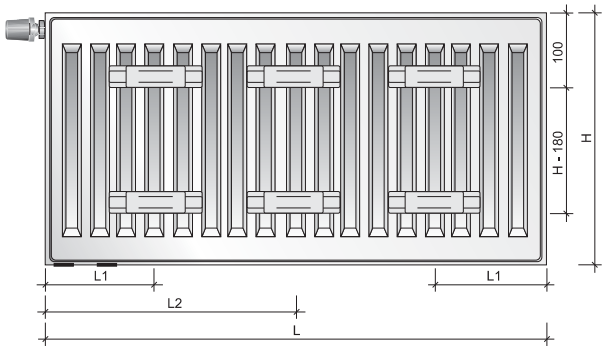
dimensions in mm

H *= height*
L *= length*
h *= spacing of connectors*

front view



rear view - RCV 11 type only



water volume, weight and mounting distances

water volume : l/m

type \ height	300	500	600	900
11	1,7	2,7	3,2	4,5
21s	3,4	5,5	6,6	9,0
22	3,4	5,5	6,6	9,0
33	5,1	8,2	9,8	13,3

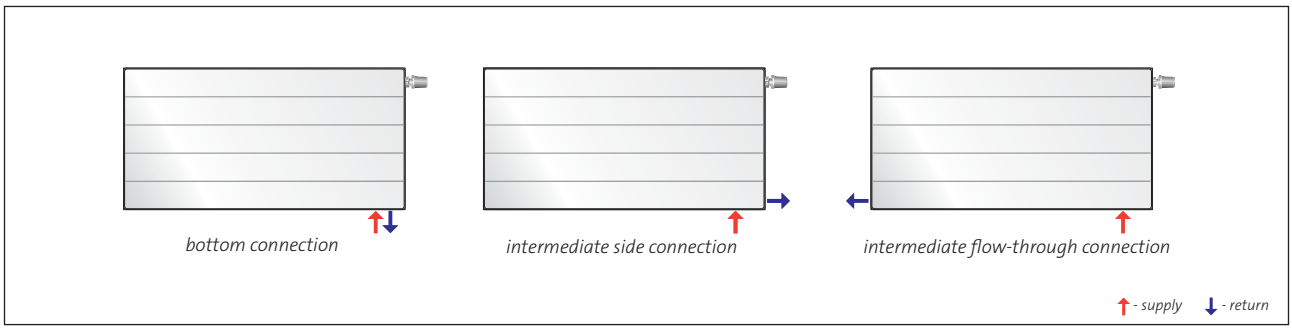
weight : kg/m

type \ height	300	500	600	900
11	11,7	19,9	24,0	36,2
21s	16,7	27,9	33,5	50,1
22	19,0	32,2	38,8	58,8
33	27,2	46,1	55,5	83,6

mounting distances : mm

type	RCV 11	
L	**L1**	**L2**
400-1600	117	-
1800	117	917
2000	117	1017
2300	117	1150
2600	117	1317
3000	117	1517

recommended connections



Ramo Ventil Compact *type 11*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RCV 11 600 x 1200 L

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

PURMO RCV 11

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**212**	**329**	**384**	**539**
	55/45/20 °C	109	170	198	275
500	**75/65/20 °C**	**265**	**412**	**481**	**674**
	55/45/20 °C	136	212	248	344
600	**75/65/20 °C**	**317**	**494**	**577**	**808**
	55/45/20 °C	164	254	297	412
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**423**	**658**	**769**	**1078**
	55/45/20 °C	218	339	396	550
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**529**	**823**	**961**	**1347**
	55/45/20 °C	273	424	495	687
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**635**	**988**	**1153**	**1616**
	55/45/20 °C	327	509	594	825
1400	**75/65/20 °C**	**741**	**1152**	**1345**	**1886**
	55/45/20 °C	382	594	693	962
1600	**75/65/20 °C**	**846**	**1317**	**1538**	**2155**
	55/45/20 °C	436	679	792	1100
1800	**75/65/20 °C**	**952**	**1481**	**1730**	**2425**
	55/45/20 °C	491	763	891	1237
2000	**75/65/20 °C**	**1058**	**1646**	**1922**	**2694**
	55/45/20 °C	545	848	990	1375
2300	**75/65/20 °C**	**1217**	**1893**	**2210**	
	55/45/20 °C	627	975	1139	
2600	**75/65/20 °C**	**1375**	**2140**	**2499**	
	55/45/20 °C	709	1103	1287	
3000	**75/65/20 °C**	**1587**	**2469**	**2883**	
	55/45/20 °C	818	1272	1485	

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

[W/m] 90/70/20 °C	**663**	**1032**	**1205**	**1694**
exponent n	**1,2820**	**1,2827**	**1,2831**	**1,3013**

Ramo Ventil Compact *type 21s*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RCV 21s 600 x 1200 L

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

PURMO RCV 21s

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**293**	**445**	**515**	**706**
	55/45/20 °C	151	228	264	354
500	**75/65/20 °C**	**366**	**557**	**644**	**883**
	55/45/20 °C	189	286	329	442
600	**75/65/20 °C**	**439**	**668**	**773**	**1059**
	55/45/20 °C	227	343	395	531
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**586**	**890**	**1030**	**1412**
	55/45/20 °C	302	457	527	707
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**732**	**1113**	**1288**	**1765**
	55/45/20 °C	378	571	659	884
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**878**	**1336**	**1546**	**2118**
	55/45/20 °C	454	685	791	1061
1400	**75/65/20 °C**	**1025**	**1558**	**1803**	**2471**
	55/45/20 °C	529	800	923	1238
1600	**75/65/20 °C**	**1171**	**1781**	**2061**	**2824**
	55/45/20 °C	605	914	1054	1415
1800	**75/65/20 °C**	**1318**	**2003**	**2318**	**3177**
	55/45/20 °C	680	1028	1186	1592
2000	**75/65/20 °C**	**1464**	**2226**	**2576**	**3530**
	55/45/20 °C	756	1142	1318	1769
2300	**75/65/20 °C**	**1684**	**2560**	**2962**	
	55/45/20 °C	869	1314	1516	
2600	**75/65/20 °C**	**1903**	**2894**	**3349**	
	55/45/20 °C	983	1485	1713	
3000	**75/65/20 °C**	**2196**	**3339**	**3864**	
	55/45/20 °C	1134	1714	1977	

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

[W/m] 90/70/20 °C	**917**	**1397**	**1619**	**2234**
exponent n	**1,2786**	**1,2907**	**1,2967**	**1,3371**

Ramo Ventil Compact *type 22*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RCV 22 600 x 1200 L

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

PURMO RCV 22

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**375**	**578**	**670**	**920**
	55/45/20 °C	191	292	337	458
500	**75/65/20 °C**	**469**	**722**	**838**	**1151**
	55/45/20 °C	239	365	422	573
600	**75/65/20 °C**	**562**	**866**	**1006**	**1381**
	55/45/20 °C	287	438	506	688
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**750**	**1155**	**1341**	**1841**
	55/45/20 °C	383	584	674	917
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**937**	**1444**	**1676**	**2301**
	55/45/20 °C	479	730	843	1146
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**1124**	**1733**	**2011**	**2761**
	55/45/20 °C	574	876	1012	1375
1400	**75/65/20 °C**	**1312**	**2022**	**2346**	**3221**
	55/45/20 °C	670	1022	1180	1604
1600	**75/65/20 °C**	**1499**	**2310**	**2682**	**3682**
	55/45/20 °C	766	1168	1349	1833
1800	**75/65/20 °C**	**1687**	**2599**	**3017**	**4142**
	55/45/20 °C	861	1314	1517	2063
2000	**75/65/20 °C**	**1874**	**2888**	**3352**	**4602**
	55/45/20 °C	957	1460	1686	2292
2300	**75/65/20 °C**	**2155**	**3321**	**3855**	
	55/45/20 °C	1101	1679	1939	
2600	**75/65/20 °C**	**2436**	**3754**	**4358**	
	55/45/20 °C	1244	1898	2192	
3000	**75/65/20 °C**	**2811**	**4332**	**5028**	
	55/45/20 °C	1436	2190	2529	

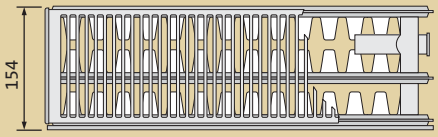
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**1178**	**1822**	**2119**	**2919**
exponent n	**1,3000**	**1,3197**	**1,3295**	**1,3488**

Ramo Ventil Compact *type 33*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RCV 33 600 x 1200 L

PURMO RCV 33



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

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**526**	**798**	**924**	**1268**
	55/45/20 °C	266	400	462	628
500	**75/65/20 °C**	**657**	**997**	**1155**	**1586**
	55/45/20 °C	333	501	577	785
600	**75/65/20 °C**	**788**	**1196**	**1385**	**1903**
	55/45/20 °C	399	601	692	941
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**1051**	**1595**	**1847**	**2537**
	55/45/20 °C	532	801	923	1255
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**1314**	**1994**	**2309**	**3171**
	55/45/20 °C	666	1001	1154	1569
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**1577**	**2393**	**2771**	**3805**
	55/45/20 °C	799	1201	1385	1883
1400	**75/65/20 °C**	**1840**	**2792**	**3233**	**4439**
	55/45/20 °C	932	1402	1616	2197
1600	**75/65/20 °C**	**2102**	**3190**	**3694**	**5074**
	55/45/20 °C	1065	1602	1847	2511
1800	**75/65/20 °C**	**2365**	**3589**	**4156**	**5708**
	55/45/20 °C	1198	1802	2077	2824
2000	**75/65/20 °C**	**2628**	**3988**	**4618**	**6342**
	55/45/20 °C	1331	2002	2308	3138
2300	**75/65/20 °C**	**3022**	**4586**	**5311**	
	55/45/20 °C	1531	2303	2655	
2600	**75/65/20 °C**	**3416**	**5184**	**6003**	
	55/45/20 °C	1731	2603	3001	
3000	**75/65/20 °C**	**3942**	**5982**	**6927**	
	55/45/20 °C	1997	3003	3462	

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

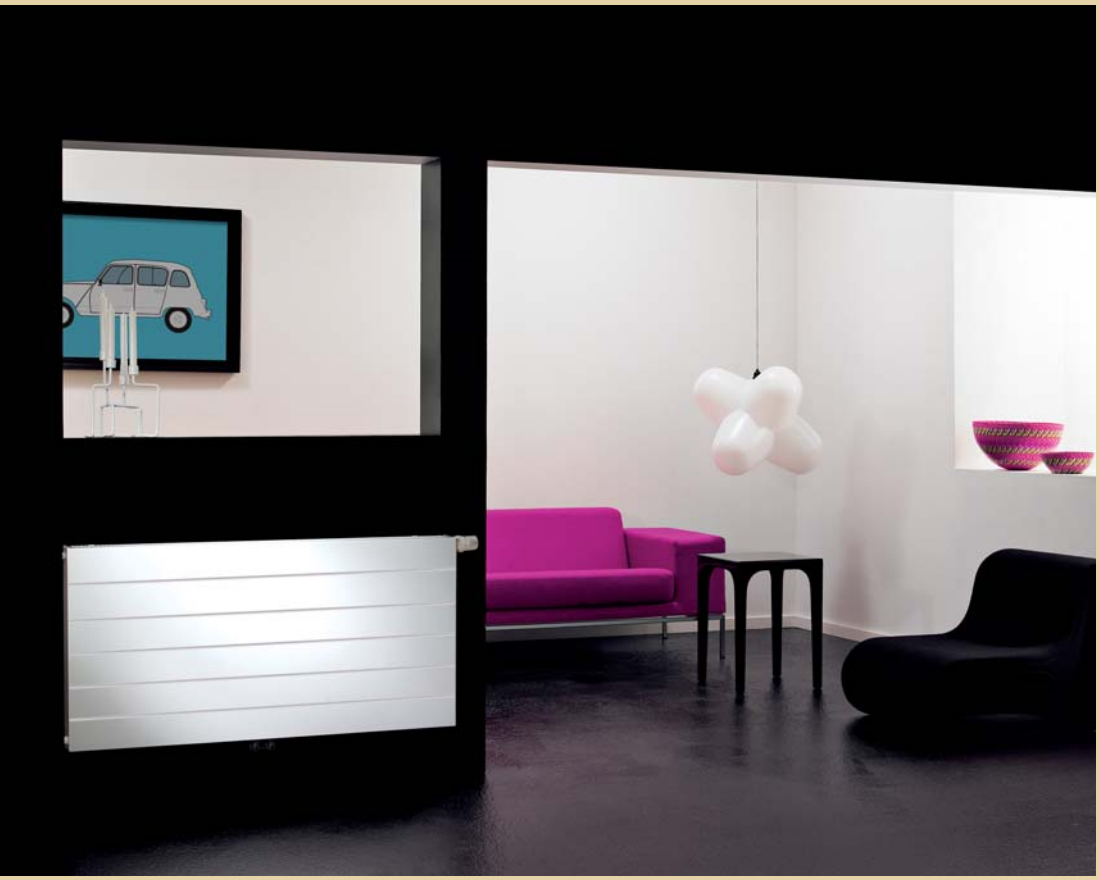
[W/m] 90/70/20 °C	**1657**	**2525**	**2923**	**4007**
exponent n	**1,3159**	**1,3331**	**1,3417**	**1,3612**

Ramo Ventil Compact M *(Purmo RCVM)*

The PURMO Ramo Ventil Contact M panel radiators with mid-bottom connectors stand out due to their flat front panel with slight horizontal ribbing. The panel is glued to the profiled, front base heating panel in a manner concealing any protruding edges, when looking at the radiator from the front. The radiators are equipped with convection fins as well as side covers and a top grille. Two mid-bottom and four side G ½ " threaded female connectors allow for central bottom or side connection. The radiator is also equipped with a built-in thermostatic Oventrop valve insert providing pre-setting.
The main advantage of the central bottom connection relies of the fact that regardless of the length, height and depth of the radiator, the layout of heating system connections can be defined at the building shell stage and it will not change as a result of the selection of a specific size and type of the radiator.

technical specifications

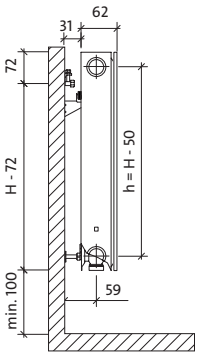
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 33,3 mm
- Connections : 2 x G ½ " mid-bottom connectors,
  4 x G ½ " side connectors
- Working pressure : 10 bar • Maximal temperature : 110 °C • Test pressure : 13 bar
- Colour : RAL 9016 white, other colours from the RAL colour chart are available on request.
- Accessories bundled with the radiator : brackets, plugs, air vent.



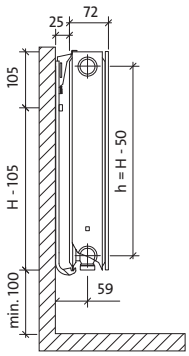
NOTE: the RCVM radiator is available in the right side version only.

side views

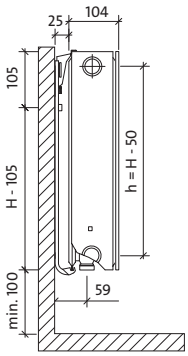
type RCVM 11



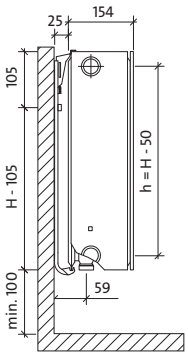
type RCVM 21s



type RCVM 22



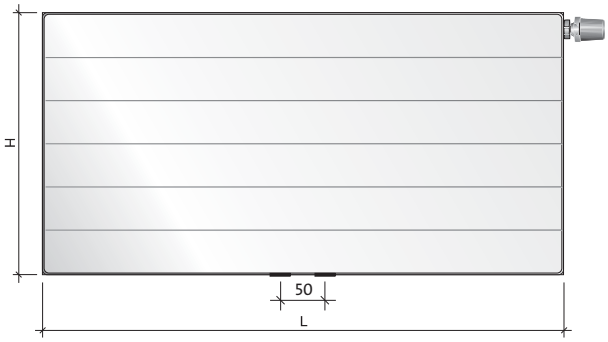
type RCVM 33



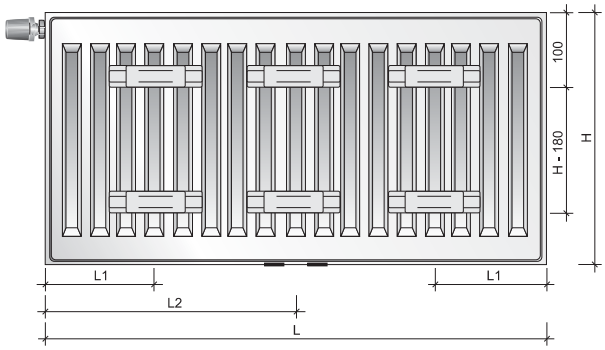
dimensions in mm

***H** = height*
***L** = length*
***h** = spacing of connectors*

front view



rear view - RCVM 11 type only



water volume, weight and mounting distances

water volume : l/m

type \ height	300	500	600	900
11	1,7	2,7	3,2	4,5
21s	3,4	5,5	6,6	9,0
22	3,4	5,5	6,6	9,0
33	5,1	8,2	9,8	13,3

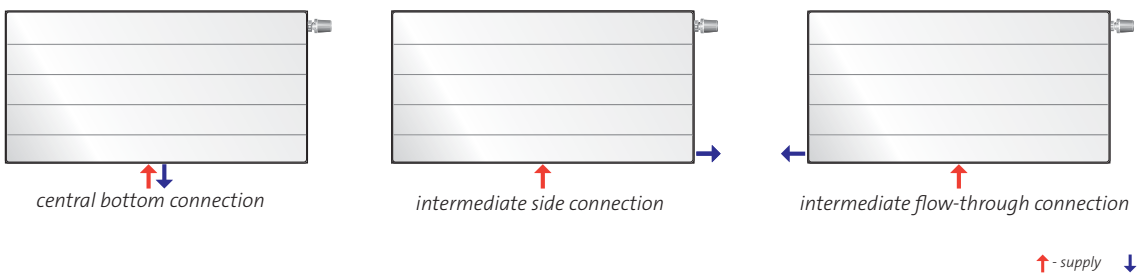
weight : kg/m

type \ height	300	500	600	900
11	11,7	19,9	24,0	36,2
21s	16,7	27,9	33,5	50,1
22	19,0	32,2	38,8	58,8
33	27,2	46,1	55,5	83,6

mounting distances : mm

type	RCVM 11	
L	**L1**	**L2**
400-1600	117	-
1800	117	917
2000	117	1017
2300	117	1150
2600	117	1317
3000	117	1517

recommended connections



Ramo Ventil Compact M *type 11*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RCVM 11 600 x 1200

name
type
height
length

PURMO RCVM 11

NOTE: the RCVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**212**	**329**	**384**	**539**
	55/45/20 °C	109	170	198	275
500	**75/65/20 °C**	**265**	**412**	**481**	**674**
	55/45/20 °C	136	212	248	344
600	**75/65/20 °C**	**317**	**494**	**577**	**808**
	55/45/20 °C	164	254	297	412
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**423**	**658**	**769**	**1078**
	55/45/20 °C	218	339	396	550
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**529**	**823**	**961**	**1347**
	55/45/20 °C	273	424	495	687
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**635**	**988**	**1153**	**1616**
	55/45/20 °C	327	509	594	825
1400	**75/65/20 °C**	**741**	**1152**	**1345**	**1886**
	55/45/20 °C	382	594	693	962
1600	**75/65/20 °C**	**846**	**1317**	**1538**	**2155**
	55/45/20 °C	436	679	792	1100
1800	**75/65/20 °C**	**952**	**1481**	**1730**	**2425**
	55/45/20 °C	491	763	891	1237
2000	**75/65/20 °C**	**1058**	**1646**	**1922**	**2694**
	55/45/20 °C	545	848	990	1375
2300	**75/65/20 °C**	**1217**	**1893**	**2210**	
	55/45/20 °C	627	975	1139	
2600	**75/65/20 °C**	**1375**	**2140**	**2499**	
	55/45/20 °C	709	1103	1287	
3000	**75/65/20 °C**	**1587**	**2469**	**2883**	
	55/45/20 °C	818	1272	1485	

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

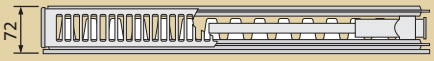
[W/m] 90/70/20 °C	**663**	**1032**	**1205**	**1694**
exponent n	**1,2820**	**1,2827**	**1,2831**	**1,3013**

Ramo Ventil Compact M *type 21s*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RCVM 21s 600 x 1200

name
type
height
length

PURMO RCVM 21s



NOTE: the RCVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**293**	**445**	**515**	**706**
	55/45/20 °C	151	228	264	354
500	**75/65/20 °C**	**366**	**557**	**644**	**883**
	55/45/20 °C	189	286	329	442
600	**75/65/20 °C**	**439**	**668**	**773**	**1059**
	55/45/20 °C	227	343	395	531
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**586**	**890**	**1030**	**1412**
	55/45/20 °C	302	457	527	707
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**732**	**1113**	**1288**	**1765**
	55/45/20 °C	378	571	659	884
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**878**	**1336**	**1546**	**2118**
	55/45/20 °C	454	685	791	1061
1400	**75/65/20 °C**	**1025**	**1558**	**1803**	**2471**
	55/45/20 °C	529	800	923	1238
1600	**75/65/20 °C**	**1171**	**1781**	**2061**	**2824**
	55/45/20 °C	605	914	1054	1415
1800	**75/65/20 °C**	**1318**	**2003**	**2318**	**3177**
	55/45/20 °C	680	1028	1186	1592
2000	**75/65/20 °C**	**1464**	**2226**	**2576**	**3530**
	55/45/20 °C	756	1142	1318	1769
2300	**75/65/20 °C**	**1684**	**2560**	**2962**	
	55/45/20 °C	869	1314	1516	
2600	**75/65/20 °C**	**1903**	**2894**	**3349**	
	55/45/20 °C	983	1485	1713	
3000	**75/65/20 °C**	**2196**	**3339**	**3864**	
	55/45/20 °C	1134	1714	1977	

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

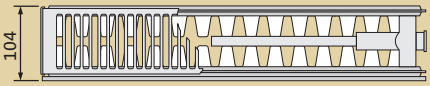
[W/m] 90/70/20 °C	**917**	**1397**	**1619**	**2234**
exponent n	**1,2786**	**1,2907**	**1,2967**	**1,3371**

Ramo Ventil Compact M *type 22*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RCVM 22 600 x 1200

name
type
height
length

PURMO RCVM 22



NOTE: the RCVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**375**	**578**	**670**	**920**
	55/45/20 °C	191	292	337	458
500	**75/65/20 °C**	**469**	**722**	**838**	**1151**
	55/45/20 °C	239	365	422	573
600	**75/65/20 °C**	**562**	**866**	**1006**	**1381**
	55/45/20 °C	287	438	506	688
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**750**	**1155**	**1341**	**1841**
	55/45/20 °C	383	584	674	917
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**937**	**1444**	**1676**	**2301**
	55/45/20 °C	479	730	843	1146
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**1124**	**1733**	**2011**	**2761**
	55/45/20 °C	574	876	1012	1375
1400	**75/65/20 °C**	**1312**	**2022**	**2346**	**3221**
	55/45/20 °C	670	1022	1180	1604
1600	**75/65/20 °C**	**1499**	**2310**	**2682**	**3682**
	55/45/20 °C	766	1168	1349	1833
1800	**75/65/20 °C**	**1687**	**2599**	**3017**	**4142**
	55/45/20 °C	861	1314	1517	2063
2000	**75/65/20 °C**	**1874**	**2888**	**3352**	**4602**
	55/45/20 °C	957	1460	1686	2292
2300	**75/65/20 °C**	**2155**	**3321**	**3855**	
	55/45/20 °C	1101	1679	1939	
2600	**75/65/20 °C**	**2436**	**3754**	**4358**	
	55/45/20 °C	1244	1898	2192	
3000	**75/65/20 °C**	**2811**	**4332**	**5028**	
	55/45/20 °C	1436	2190	2529	

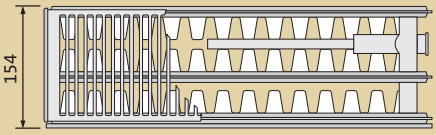
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C	**1178**	**1822**	**2119**	**2919**
exponent n	**1,3000**	**1,3197**	**1,3295**	**1,3488**

Ramo Ventil Compact M *type 33*

RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RCVM 33 600 x 1200

PURMO RCVM 33



name
type
height
length

NOTE: the RCVM radiator is available in the right side version only.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		300	500	600	900
400	**75/65/20 °C**	**526**	**798**	**924**	**1268**
	55/45/20 °C	266	400	462	628
500	**75/65/20 °C**	**657**	**997**	**1155**	**1586**
	55/45/20 °C	333	501	577	785
600	**75/65/20 °C**	**788**	**1196**	**1385**	**1903**
	55/45/20 °C	399	601	692	941
700	**75/65/20 °C**				
	55/45/20 °C				
800	**75/65/20 °C**	**1051**	**1595**	**1847**	**2537**
	55/45/20 °C	532	801	923	1255
900	**75/65/20 °C**				
	55/45/20 °C				
1000	**75/65/20 °C**	**1314**	**1994**	**2309**	**3171**
	55/45/20 °C	666	1001	1154	1569
1100	**75/65/20 °C**				
	55/45/20 °C				
1200	**75/65/20 °C**	**1577**	**2393**	**2771**	**3805**
	55/45/20 °C	799	1201	1385	1883
1400	**75/65/20 °C**	**1840**	**2792**	**3233**	**4439**
	55/45/20 °C	932	1402	1616	2197
1600	**75/65/20 °C**	**2102**	**3190**	**3694**	**5074**
	55/45/20 °C	1065	1602	1847	2511
1800	**75/65/20 °C**	**2365**	**3589**	**4156**	**5708**
	55/45/20 °C	1198	1802	2077	2824
2000	**75/65/20 °C**	**2628**	**3988**	**4618**	**6342**
	55/45/20 °C	1331	2002	2308	3138
2300	**75/65/20 °C**	**3022**	**4586**	**5311**	
	55/45/20 °C	1531	2303	2655	
2600	**75/65/20 °C**	**3416**	**5184**	**6003**	
	55/45/20 °C	1731	2603	3001	
3000	**75/65/20 °C**	**3942**	**5982**	**6927**	
	55/45/20 °C	1997	3003	3462	

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

[W/m] 90/70/20 °C	**1657**	**2525**	**2923**	**4007**
exponent n	**1,3159**	**1,3331**	**1,3417**	**1,3612**

Radiators of height 200 mm

		types
	**Ventil Compact** A versatile panel radiator with profiled heating panels and convection fins. **6 connections** height [mm]: 200 length [mm]: 600 - 3000	**CV 21s** **CV 22** **CV 33** **CV 44**
	**Plan Ventil Compact** A versatile panel radiator with a flat front panel and a profiled rear panel. **6 connections** height [mm]: 200 length [mm]: 600 - 3000	**FCV 21s** **FCV 22** **FCV 33** **FCV 44**
	**Ramo Ventil Compact** A versatile panel radiator with a flat, slightly horizontally ribbed front panel and a profiled rear panel. **6 connections** height [mm]: 200 length [mm]: 600 - 3000	**RCV 21s** **RCV 22** **RCV 33** **RCV 44**
	**Plan Ventil Compact D** A versatile, flat on both sides panel radiator. Front and rear panels are completely flat. **6 connections** height [mm]: 200 length [mm]: 600 - 3000	**FFCV 21s** **FFCV 22** **FFCV 33** **FFCV 44**
	**Ramo Ventil Compact D** A versatile, flat on both sides panel radiator. Front and rear panels are slightly horizontally ribbed. **6 connections** height [mm]: 200 length [mm]: 600 - 3000	**RRCV 21s** **RRCV 22** **RRCV 33** **RRCV 44**

	Ventil Compact	Plan Ventil Compact	Ramo Ventil Compact	Plan Ventil Compact D	Ramo Ventil Compact D
profiled front panel	X	-	-	-	-
flat front panel	-	X	X	X	X
flat rear panel	-	-	-	X	X
max. working pressure [bar]	10	10	10	10	10
no. of connectors – side + bottom	4 + 2	4 + 2	4 + 2	4 + 2	4 + 2
side connection – GW ½ "	X	X	X	X	X
bottom connection – GW ½ "	X	X	X	X	X
mid-bottom connection – GW ½ "	-	-	-	-	-
brackets bundled with the radiator	-	-	-	-	-
side covers	X	X	X	X	X
top grille	X	X	X	X	X
built-in thermostatic valve	X	X	X	X	X

NOTE: Mounting brackets must be ordered separately. For the method of selecting and ordering see page 106

water volume and weight

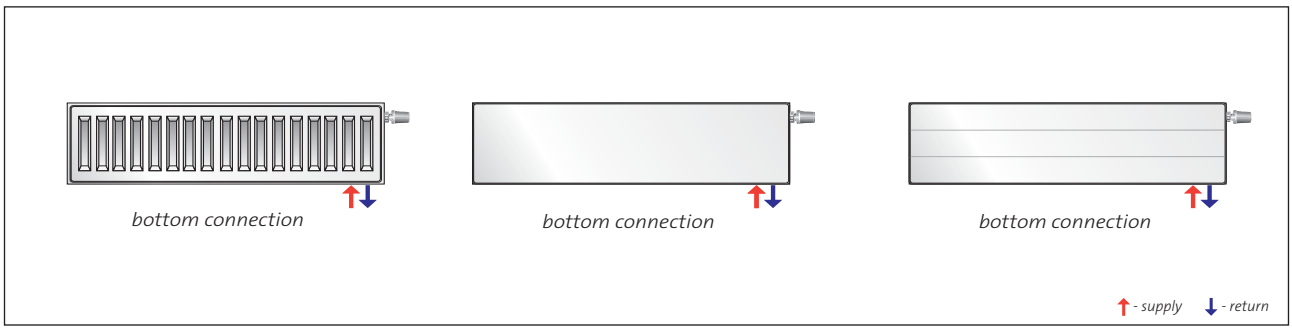
water volume : l/m

radiator \ type	21s	22	33	44
Ventil Compact	2,5	2,5	3,8	5,0
Plan Ventil Compact	2,5	2,5	3,8	5,0
Ramo Ventil Compact	2,5	2,5	3,8	5,0
Plan Ventil Compact D	2,5	2,5	3,8	5,0
Ramo Ventil Compact D	2,5	2,5	3,8	5,0

weight : kg/m

radiator \ type	21s	22	33	44
Ventil Compact	10,8	13,6	20,3	27,0
Plan Ventil Compact	12,6	15,5	22,2	28,8
Ramo Ventil Compact	12,6	15,5	22,2	28,8
Plan Ventil Compact D	14,6	17,6	24,3	30,9
Ramo Ventil Compact D	14,6	17,6	24,3	30,9

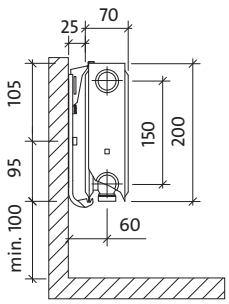
connection examples



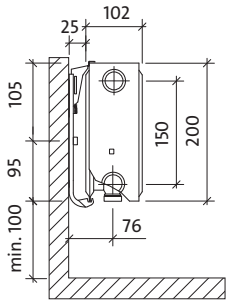
Side views

Ventil Compact - wall brackets

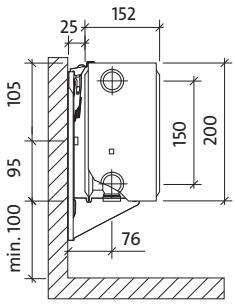
type CV 21 s



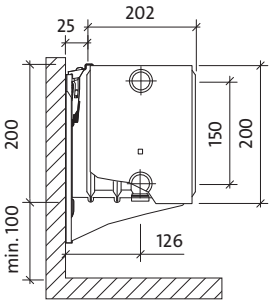
type CV 22



type CV 33

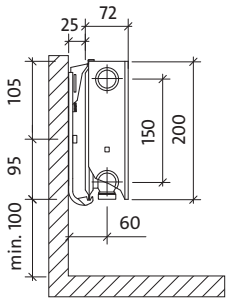


type CV 44

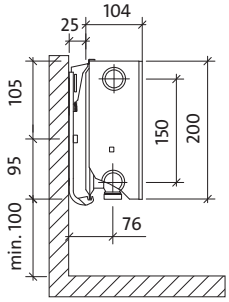


Plan Ventil Compact and Ramo Ventil Compact - wall brackets

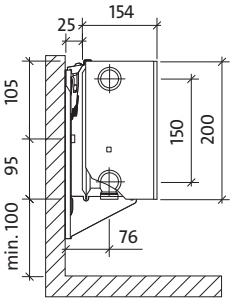
type FCV 21 s
type RCV 21 s



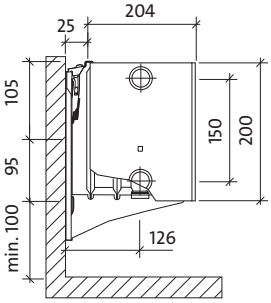
type FCV 22
type RCV 22



type FCV 33
type RCV 33

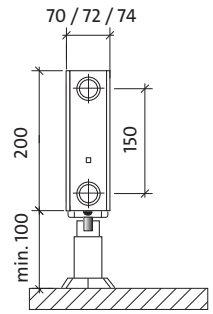


type FCV 44
type RCV 44

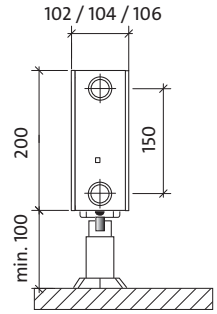


Ventil Compact, Plan Ventil Compact, Ramo Ventil Compact, Plan Ventil Compact D and Ramo Ventil Compact D

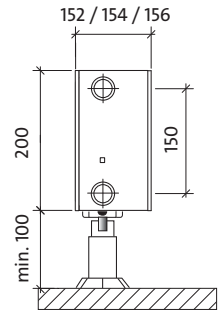
type CV 21 s
type FCV 21 s
type RCV 21 s
type FFCV 21 s
type RRCV 21 s



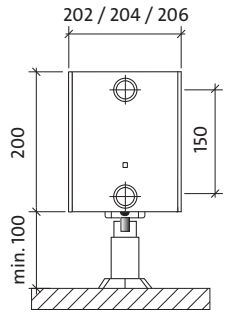
type CV 22
type FCV 22
type RCV 22
type FFCV 22
type RRCV 22



type CV 33
type FCV 33
type RCV 33
type FFCV 33
type RRCV 33

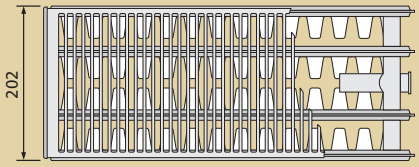


type CV 44
type FCV 44
type RCV 44
type FFCV 44
type RRCV 44



Ventil Compact *height 200*

PURMO CV 44



RADIATOR DESCRIPTION - AN EXAMPLE : PURMO CV 44 200 x 1200

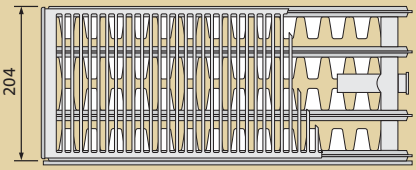
name
type
height
length

length [mm]	parameters t_z / t_p / t_i	type			
		CV 21 s	CV 22	CV 33	CV 44
400	**75/65/20 °C**				
	55/45/20 °C				
500	**75/65/20 °C**				
	55/45/20 °C				
600	**75/65/20 °C**	**347**	**467**	**655**	**836**
	55/45/20 °C	174	237	327	417
700	**75/65/20 °C**	**405**	**545**	**764**	**975**
	55/45/20 °C	203	276	381	486
800	**75/65/20 °C**	**462**	**622**	**873**	**1114**
	55/45/20 °C	232	316	436	555
900	**75/65/20 °C**	**520**	**700**	**982**	**1254**
	55/45/20 °C	261	355	490	625
1000	**75/65/20 °C**	**578**	**778**	**1091**	**1393**
	55/45/20 °C	290	395	545	694
1100	**75/65/20 °C**	**636**	**856**	**1200**	**1532**
	55/45/20 °C	319	434	599	764
1200	**75/65/20 °C**	**694**	**934**	**1309**	**1672**
	55/45/20 °C	348	474	654	833
1400	**75/65/20 °C**	**809**	**1089**	**1527**	**1950**
	55/45/20 °C	406	552	762	972
1600	**75/65/20 °C**	**925**	**1245**	**1746**	**2229**
	55/45/20 °C	464	632	872	1111
1800	**75/65/20 °C**	**1040**	**1400**	**1964**	**2507**
	55/45/20 °C	522	710	981	1250
2000	**75/65/20 °C**	**1156**	**1556**	**2182**	**2786**
	55/45/20 °C	580	789	1089	1389
2300	**75/65/20 °C**	**1329**	**1789**	**2509**	**3204**
	55/45/20 °C	667	908	1253	1597
2600	**75/65/20 °C**	**1503**	**2023**	**2837**	**3622**
	55/45/20 °C	754	1026	1416	1805
3000	**75/65/20 °C**	**1734**	**2334**	**3273**	**4179**
	55/45/20 °C	870	1184	1634	2083

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

[W/m] 90/70/20 °C	**731**	**981**	**1383**	**1766**
exponent n	**1,3340**	**1,3130**	**1,3440**	**1,3470**

Plan Ventil Compact *height 200*



RADIATOR DESCRIPTION - AN EXAMPLE : PURMO FCV 44 200 x 1200

name
type
height
length

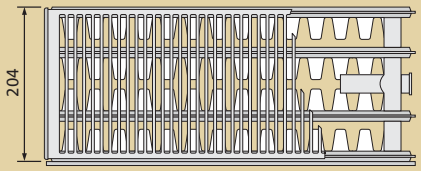
length [mm]	parameters t_z / t_p / t_i	type			
		FCV 21 s	FCV 22	FCV 33	FCV 44
400	**75/65/20 °C**				
	55/45/20 °C				
500	**75/65/20 °C**				
	55/45/20 °C				
600	**75/65/20 °C**	**341**	**467**	**654**	**829**
	55/45/20 °C	171	238	328	410
700	**75/65/20 °C**	**398**	**545**	**763**	**967**
	55/45/20 °C	200	278	383	478
800	**75/65/20 °C**	**454**	**622**	**872**	**1105**
	55/45/20 °C	228	317	437	546
900	**75/65/20 °C**	**511**	**700**	**981**	**1243**
	55/45/20 °C	256	357	492	614
1000	**75/65/20 °C**	**568**	**778**	**1090**	**1381**
	55/45/20 °C	285	397	547	682
1100	**75/65/20 °C**	**625**	**856**	**1199**	**1519**
	55/45/20 °C	314	437	601	751
1200	**75/65/20 °C**	**682**	**934**	**1308**	**1657**
	55/45/20 °C	342	476	656	819
1400	**75/65/20 °C**	**795**	**1089**	**1526**	**1933**
	55/45/20 °C	399	555	765	955
1600	**75/65/20 °C**	**909**	**1245**	**1744**	**2210**
	55/45/20 °C	456	635	875	1092
1800	**75/65/20 °C**	**1022**	**1400**	**1962**	**2486**
	55/45/20 °C	513	714	984	1228
2000	**75/65/20 °C**	**1136**	**1556**	**2180**	**2762**
	55/45/20 °C	570	793	1093	1365
2300	**75/65/20 °C**	**1306**	**1789**	**2507**	**3176**
	55/45/20 °C	655	912	1257	1569
2600	**75/65/20 °C**	**1477**	**2023**	**2834**	**3591**
	55/45/20 °C	741	1032	1421	1774
3000	**75/65/20 °C**	**1704**	**2334**	**3270**	**4143**
	55/45/20 °C	855	1190	1640	2047

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

[W/m] 90/70/20 °C	**719**	**979**	**1379**	**1756**
exponent n	**1,3340**	**1,3030**	**1,3350**	**1,3640**

Ramo Ventil Compact *height 200*

PURMO RCV 44



RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RCV 44 200 x 1200

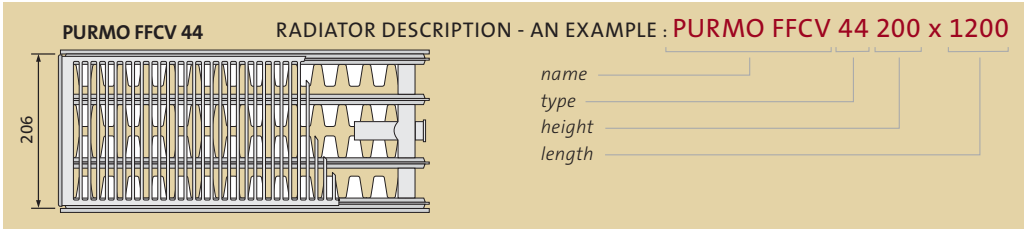
name
type
height
length

length [mm]	parameters t_z / t_p / t_i	type			
		RCV 21 s	RCV 22	RCV 33	RCV 44
400	**75/65/20 °C**				
	55/45/20 °C				
500	**75/65/20 °C**				
	55/45/20 °C				
600	**75/65/20 °C**	**341**	**467**	**654**	**829**
	55/45/20 °C	171	238	328	410
700	**75/65/20 °C**	**398**	**545**	**763**	**967**
	55/45/20 °C	200	278	383	478
800	**75/65/20 °C**	**454**	**622**	**872**	**1105**
	55/45/20 °C	228	317	437	546
900	**75/65/20 °C**	**511**	**700**	**981**	**1243**
	55/45/20 °C	256	357	492	614
1000	**75/65/20 °C**	**568**	**778**	**1090**	**1381**
	55/45/20 °C	285	397	547	682
1100	**75/65/20 °C**	**625**	**856**	**1199**	**1519**
	55/45/20 °C	314	437	601	751
1200	**75/65/20 °C**	**682**	**934**	**1308**	**1657**
	55/45/20 °C	342	476	656	819
1400	**75/65/20 °C**	**795**	**1089**	**1526**	**1933**
	55/45/20 °C	399	555	765	955
1600	**75/65/20 °C**	**909**	**1245**	**1744**	**2210**
	55/45/20 °C	456	635	875	1092
1800	**75/65/20 °C**	**1022**	**1400**	**1962**	**2486**
	55/45/20 °C	513	714	984	1228
2000	**75/65/20 °C**	**1136**	**1556**	**2180**	**2762**
	55/45/20 °C	570	793	1093	1365
2300	**75/65/20 °C**	**1306**	**1789**	**2507**	**3176**
	55/45/20 °C	655	912	1257	1569
2600	**75/65/20 °C**	**1477**	**2023**	**2834**	**3591**
	55/45/20 °C	741	1032	1421	1774
3000	**75/65/20 °C**	**1704**	**2334**	**3270**	**4143**
	55/45/20 °C	855	1190	1640	2047

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

[W/m] 90/70/20 °C	**719**	**979**	**1379**	**1756**
exponent n	**1,3340**	**1,3030**	**1,3350**	**1,3640**

Plan Ventil Compact D *height 200*



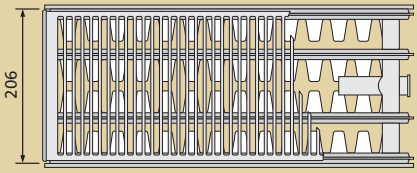
length [mm]	parameters t_z / t_p / t_i	type			
		FFCV 21 s	FFCV 22	FFCV 33	FFCV 44
400	**75/65/20 °C**				
	55/45/20 °C				
500	**75/65/20 °C**				
	55/45/20 °C				
600	**75/65/20 °C**	**332**	**448**	**644**	**805**
	55/45/20 °C	169	223	323	399
700	**75/65/20 °C**	**387**	**523**	**752**	**939**
	55/45/20 °C	197	261	377	466
800	**75/65/20 °C**	**442**	**598**	**859**	**1073**
	55/45/20 °C	225	298	431	532
900	**75/65/20 °C**	**498**	**672**	**967**	**1207**
	55/45/20 °C	254	335	485	599
1000	**75/65/20 °C**	**553**	**747**	**1074**	**1341**
	55/45/20 °C	282	372	538	665
1100	**75/65/20 °C**	**608**	**822**	**1181**	**1475**
	55/45/20 °C	310	410	592	731
1200	**75/65/20 °C**	**664**	**896**	**1289**	**1609**
	55/45/20 °C	338	446	646	798
1400	**75/65/20 °C**	**774**	**1046**	**1504**	**1877**
	55/45/20 °C	394	521	754	931
1600	**75/65/20 °C**	**885**	**1195**	**1718**	**2146**
	55/45/20 °C	451	595	861	1064
1800	**75/65/20 °C**	**995**	**1345**	**1933**	**2414**
	55/45/20 °C	507	670	969	1197
2000	**75/65/20 °C**	**1106**	**1494**	**2148**	**2682**
	55/45/20 °C	563	744	1077	1330
2300	**75/65/20 °C**	**1272**	**1718**	**2470**	**3084**
	55/45/20 °C	648	856	1238	1529
2600	**75/65/20 °C**	**1438**	**1942**	**2792**	**3487**
	55/45/20 °C	732	968	1400	1729
3000	**75/65/20 °C**	**1659**	**2241**	**3222**	**4023**
	55/45/20 °C	845	1117	1615	1995

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

[W/m] 90/70/20 °C	**696**	**947**	**1359**	**1703**
exponent n	**1,3060**	**1,3480**	**1,3360**	**1,3570**

Ramo Ventil Compact D *height 200*

PURMO RRCV 44



RADIATOR DESCRIPTION - AN EXAMPLE : PURMO RRCV 44 200 x 1200

name
type
height
length

length [mm]	parameters t_z / t_p / t_i	type			
		RRCV 21 s	RRCV 22	RRCV 33	RRCV 44
400	**75/65/20 °C**				
	55/45/20 °C				
500	**75/65/20 °C**				
	55/45/20 °C				
600	**75/65/20 °C**	**332**	**448**	**644**	**805**
	55/45/20 °C	169	223	323	399
700	**75/65/20 °C**	**387**	**523**	**752**	**939**
	55/45/20 °C	197	261	377	466
800	**75/65/20 °C**	**442**	**598**	**859**	**1073**
	55/45/20 °C	225	298	431	532
900	**75/65/20 °C**	**498**	**672**	**967**	**1207**
	55/45/20 °C	254	335	485	599
1000	**75/65/20 °C**	**553**	**747**	**1074**	**1341**
	55/45/20 °C	282	372	538	665
1100	**75/65/20 °C**	**608**	**822**	**1181**	**1475**
	55/45/20 °C	310	410	592	731
1200	**75/65/20 °C**	**664**	**896**	**1289**	**1609**
	55/45/20 °C	338	446	646	798
1400	**75/65/20 °C**	**774**	**1046**	**1504**	**1877**
	55/45/20 °C	394	521	754	931
1600	**75/65/20 °C**	**885**	**1195**	**1718**	**2146**
	55/45/20 °C	451	595	861	1064
1800	**75/65/20 °C**	**995**	**1345**	**1933**	**2414**
	55/45/20 °C	507	670	969	1197
2000	**75/65/20 °C**	**1106**	**1494**	**2148**	**2682**
	55/45/20 °C	563	744	1077	1330
2300	**75/65/20 °C**	**1272**	**1718**	**2470**	**3084**
	55/45/20 °C	648	856	1238	1529
2600	**75/65/20 °C**	**1438**	**1942**	**2792**	**3487**
	55/45/20 °C	732	968	1400	1729
3000	**75/65/20 °C**	**1659**	**2241**	**3222**	**4023**
	55/45/20 °C	845	1117	1615	1995

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

[W/m] 90/70/20 °C	**696**	**947**	**1359**	**1703**
exponent n	**1,3060**	**1,3480**	**1,3360**	**1,3570**

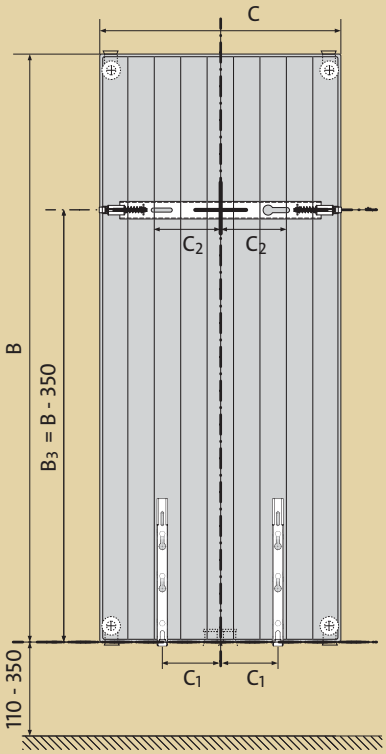
Vertical

The PURMO Vertical panel radiators are a vertical variant intended for installation on narrow and tall fragments of walls. The radiators are equipped with convection fins (except for the 10 and 20C types) and side covers (except for the 10 type). They have no top grille. Four bottom and two top G ½ " threaded female connectors allow for bottom (including central) or side connection. The radiator is not equipped with a built-in thermostatic valve insert.

technical specifications

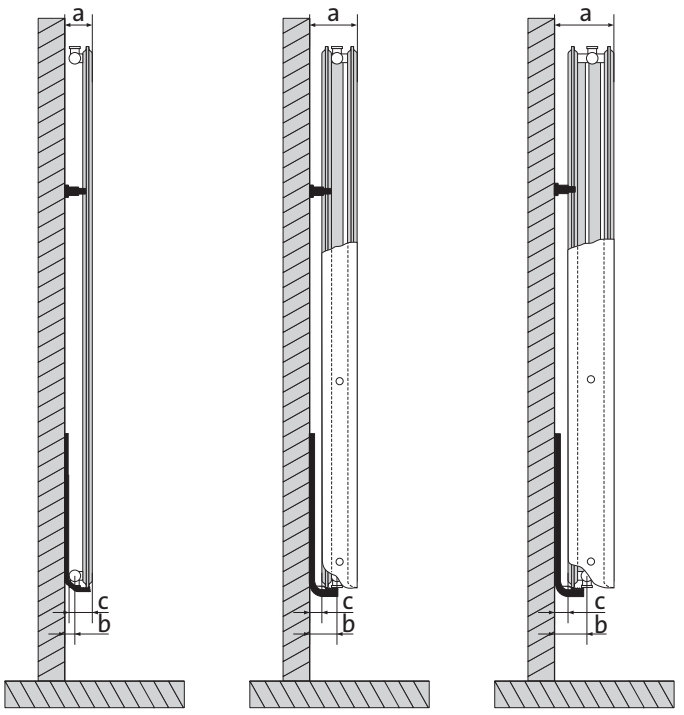
- Material : high quality, deep-drawing, low-carbon, cold rolled DC01 steel sheet in accordance with PN-EN 10130.
- Spacing of vertical water channels : 50 mm
- Connections : 4 x G ½ " bottom, 2 x G ½ " top connectors – for the installation of a plug and an air vent.
- Working pressure : 6 bar

- 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.



C	300	450	600	750
C_1	75	100	175	250
C_2	50	125	200	275

side views



Vertical 10

a : 80 mm
b : 43 mm
c : 65 mm

Vertical 20C, Vertical 21C

a : 108 mm
b : 67 mm
c : 27 mm

Vertical 22C

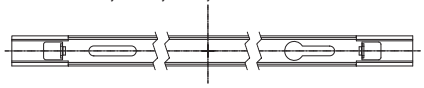
a : 133 mm
b : 67 mm
c : 27 mm

mounting distances

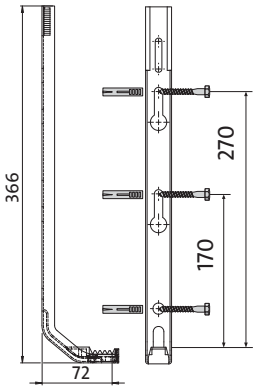
for Vertical 10

for Vertical 20C, 21C, 22C

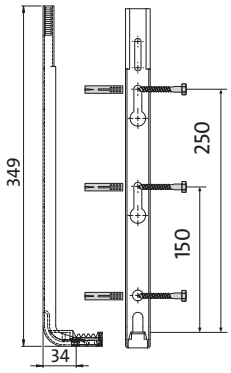
for Vertical 10, 20C, 21C, 22C



for Vertical 10



for Vertical 20C, 21C, 22C



water volume and weight

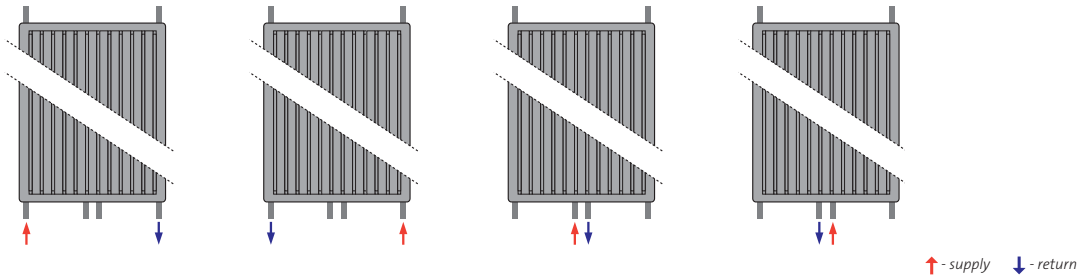
water volume : l/m

type \ height	1500	1800	1950	2100	2300
10	9,83	10,13	11,07	12,00	-
20C	-	21,83	23,78	25,65	-
21C	-	21,47	24,13	25,47	-
22C	-	21,60	23,13	24,67	26,67

weight : kg/m

type \ height	1500	1800	1950	2100	2300
10	31,33	37,47	38,67	40,13	-
20C	-	71,33	77,07	81,73	-
21C	-	83,07	91,33	96,93	-
22C	-	93,87	102,33	110,80	118,27

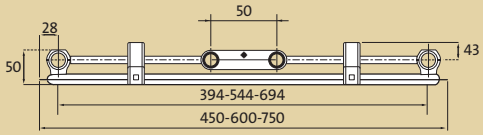
recommended connections



Vertical *type 10*

RADIATOR DESCRIPTION - AN EXAMPLE : VERTICAL 10 1800 x 600

VERTICAL 10



name
type
height
length

Note! *Pictorial drawing. The Vertical 10 has no side covers.*

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		1500	1800	1950	2100
300	**75/65/20 °C**				
	55/45/20 °C				
450	**75/65/20 °C**	**650**	**765**	**819**	**876**
	55/45/20 °C	332	386	410	436
600	**75/65/20 °C**	**867**	**1020**	**1092**	**1168**
	55/45/20 °C	443	514	547	581
750	**75/65/20 °C**		**1275**	**1365**	**1460**
	55/45/20 °C		643	684	726

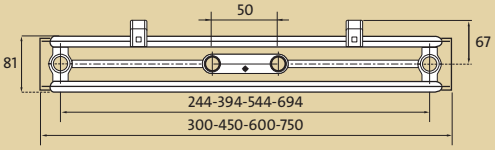
Thermal output of the radiators [W] in accordance with PN-EN 442 for the values of parameters 75/65/20 °C and 55/45/20 °C.

[W/m] 90/70/20 °C		**1816**	**2147**	**2304**	**2470**
exponent n		**1,2976**	**1,3246**	**1,3381**	**1,3516**

Vertical *type 20C*

RADIATOR DESCRIPTION - AN EXAMPLE : VERTICAL 20C 1800 x 600

VERTICAL 20C



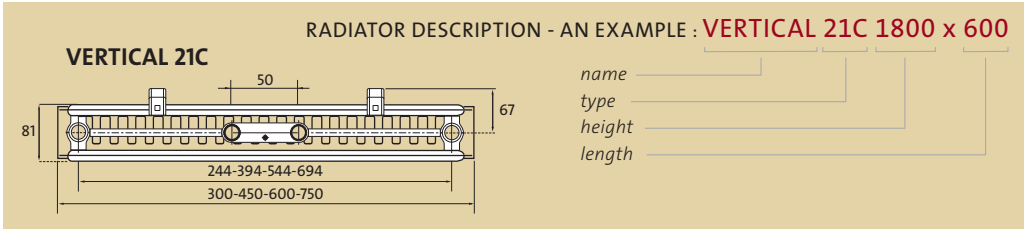
name
type
height
length

length [mm]	parameters t_z / t_p / t_i	height [mm]			
			1800	1950	2100
300	**75/65/20 °C**		**819**	**877**	**935**
	55/45/20 °C		416	445	473
450	**75/65/20 °C**		**1229**	**1315**	**1403**
	55/45/20 °C		625	667	710
600	**75/65/20 °C**		**1638**	**1753**	**1870**
	55/45/20 °C		833	889	946
750	**75/65/20 °C**		**2048**	**2192**	**2338**
	55/45/20 °C		1041	1112	1183

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

[W/m] 90/70/20 °C			**3439**	**3683**	**3932**
exponent n			**1,3094**	**1,3135**	**1,3176**

Vertical *type 21C*

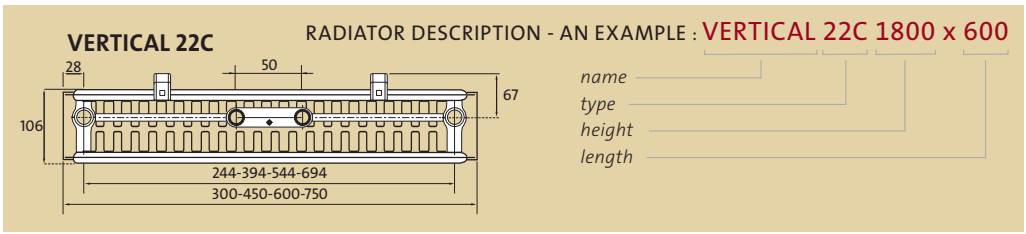


length [mm]	parameters t_z / t_p / t_i	height [mm]			
			1800	1950	2100
300	**75/65/20 °C**		**963**	**1020**	**1081**
	55/45/20 °C		482	510	542
450	**75/65/20 °C**		**1445**	**1530**	**1621**
	55/45/20 °C		724	765	812
600	**75/65/20 °C**		**1926**	**2040**	**2162**
	55/45/20 °C		964	1019	1083
750	**75/65/20 °C**		**2408**	**2550**	**2702**
	55/45/20 °C		1206	1274	1354

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

[W/m] 90/70/20 °C		**4064**	**4308**	**4561**
exponent n		**1,3384**	**1,3422**	**1,3371**

Vertical *type 22C*



The Vertical 22 type has all connectors positioned asymmetrically in reference to radiator panels.

length [mm]	parameters t_z / t_p / t_i	height [mm]			
		1800	1950	2100	2300
300	**75/65/20 °C**	**1132**	**1192**	**1252**	**1332**
	55/45/20 °C	561	590	618	657
450	**75/65/20 °C**	**1698**	**1788**	**1877**	**1998**
	55/45/20 °C	842	884	926	986
600	**75/65/20 °C**	**2264**	**2384**	**2503**	**2663**
	55/45/20 °C	1123	1179	1235	1314
750	**75/65/20 °C**		**2980**	**3129**	**3329**
	55/45/20 °C		1474	1544	1642

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

[W/m] 90/70/20 °C	**4793**	**5052**	**5309**	**5648**
exponent n	**1,3566**	**1,3619**	**1,3672**	**1,3671**

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_z	t_p	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

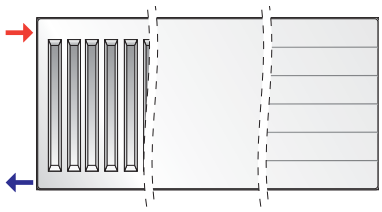
example:

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.

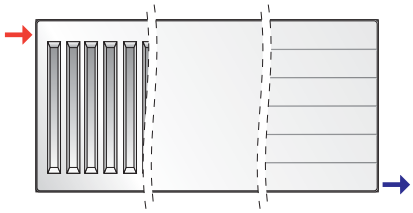
side connection

The most popular solution allowing for connecting radiators on either the right or the left side. The supply line should be connected to the top and the return line to the bottom connector pipe of the radiator. Reversed connection will cause a drop in the heat output of over 30%. This side connection method can be used in the side-supplied radiators as well as in the bottom-supplied radiators after the removal of a thermostatic valve insert. Next pages contain tables with the heat output of the radiators for the one-side connection.



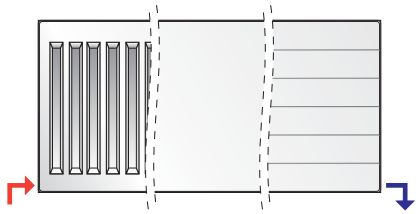
flow-through connection

Recommended for the radiators of length exceeding 2000 mm and also for the radiators of length exceeding four times their height.
These connections provide even distribution of temperature over the entire length of the radiator. The supply line should be connected to the left or right connector pipe and the return line should be connected to the opposite, bottom connector pipe. Reversed connection will cause a drop in the heat output of over 30%.
This flow-through connection method can be used in the side-supplied radiators as well as in the bottom-supplied radiators after the removal of a thermostatic valve insert.



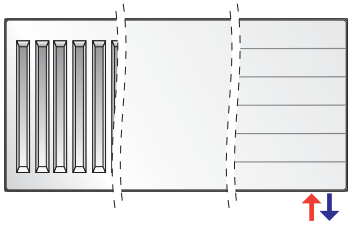
opposite ends connection

With this connection method, the heat output of the radiators will be approximately 10% lower than the rated heat output. This type of connection method is most commonly used with the side-supplied radiators when the heating system piping is distributed in skirting boards above the floor. It can also be used with the bottom-supplied radiators after the removal of a thermostatic valve insert.



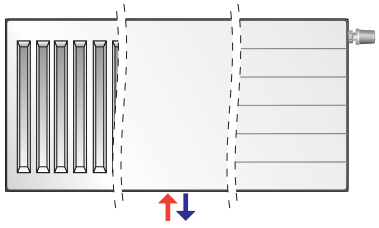
bottom connection

This connection method is used with the bottom-supplied radiators. The supply and return line axes are always located, respectively, 80 mm and 30 mm from the side edge of the radiator. Reversed connection will cause a drop in the heat output of over 30%.



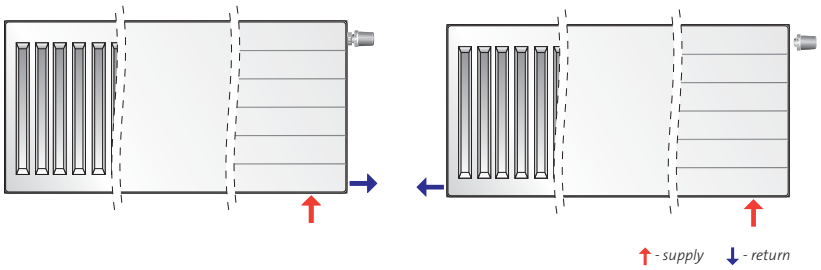
mid-bottom connection

This connection method is used with the bottom-supplied radiators. The advantage of the central bottom connection relies of the fact that regardless of the length, height and depth of the radiator, the layout of heating system connections can be defined at the building shell stage and it will not change as a result of the selection of a specific size and type of the radiator. Reversed connection will cause a drop in the heat output of over 30%.



intermediate connection

The bottom-supplied radiators can be connected simultaneously with the side and bottom connections. Possible are intermediate solutions presented at the drawings: side and flow-through. These solutions correspond to the side and flow-through connections described above.



Hydraulic characteristics

The value of pressure drop in the radiator depends on the mass flow of water flowing through.

For the single panel radiators, the value of pressure drop in the radiator can be determined with the following formula:

$\Delta p = 0{,}0160 \times q^2$ kv = 2,5 m^3/h

For the multiple panel radiators, the value of pressure drop in the radiator can be determined with the following formula:

$\Delta p = 0{,}0105 \times q^2$ kv = 3,1 m^3/h

where:

Δp - the drop of water flowing through the radiator in pascals [Pa]

q - the mass flow of water flowing through the radiator in kilograms per hour [kg/h]

For the bottom-supplied radiators equipped with a built-in valve insert, the hydraulic characteristics is determined for a set consisting of the radiator and the valve insert.

Starting from January 2011 all the bottom-supplied PURMO panel radiators are equipped with new valve Oventrop inserts with factory preset setpoint ranging from 2 to 6 depending on the size (heat output) of the particular radiator.

In order to provide an easy, visual distinction of the applied valve insert, colour coding of regulatory elements of the valve inserts was implemented.

preset setpoint	kv [m3/h]	colour	catalogue no.
2	0,13	white	165 11 62
3	0,27	black	165 11 63
4	0,42	green	165 11 64
5	0,56	blue	165 11 65
6	0,70	red	165 11 66

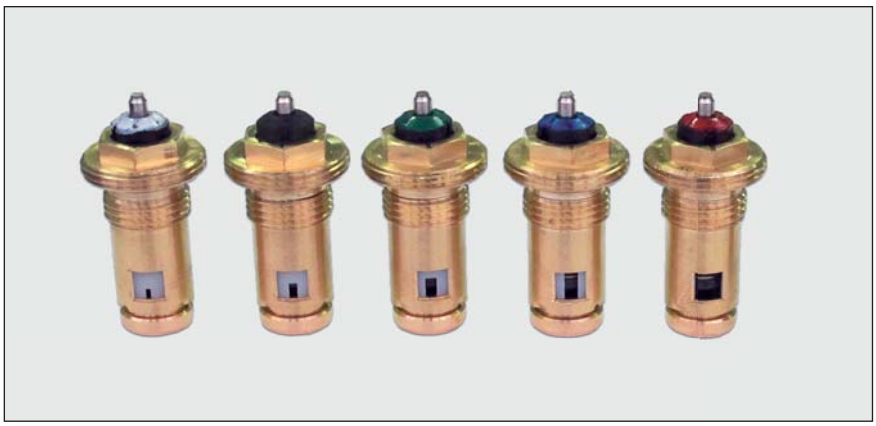
The hydraulic characteristics of these new valve inserts are very similar to the old type (catalogue no. 101 80 80).

Should a need arise, the setpoint of every new valve insert can be changed, just like in the case of the old type inserts.

Total length of the new valve inserts was modified due to an improved sealing, therefore they cannot be used in the radiators manufactured prior to January 2011 and equipped with the old-type of valve inserts.

old-type insert

new-type insert



series of new-type inserts

example of preset setpoint selection

given:

heat demand

Q_c = 1160 W

temperature difference

Δt = 20 K (np: 80/60 °C)

pressure drop

Δp = 6 kPa = 6000 Pa

calculation constant

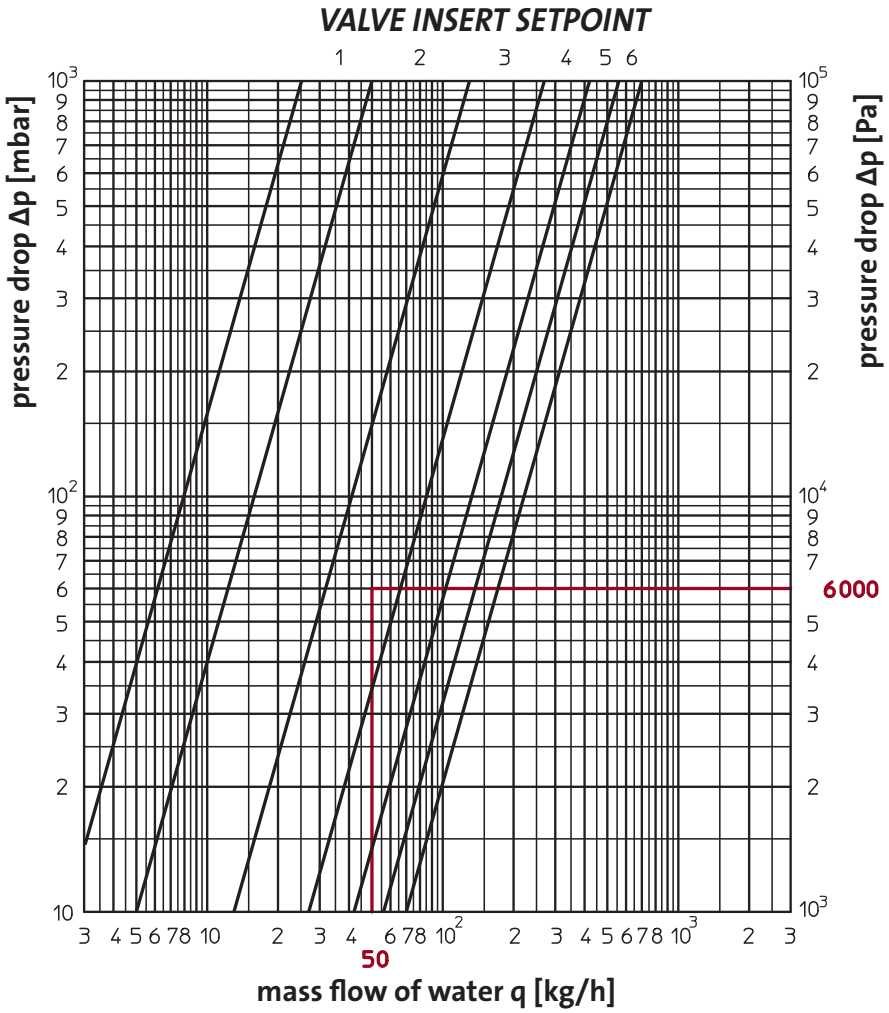
C = 1,163

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 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

Hydraulic characteristics of a bottom-supplied radiator with the Oventrop valve insert

Thermostatic heads for radiators

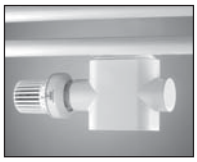
For proper operation, the panel radiators with a built-in valve insert require an appropriate thermostatic head.
Examples of types and manufacturers of thermostatic heads compatible with the new Oventrop valve inserts.

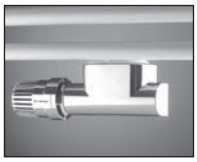
MANUFACTURER	CATALOGUE NUMBER
Comap Senso RI	100 100
Danfoss RAW-K 5135	013G5135
Heimeier K	6000-00.500, 6020-00.500 6040-00.500
Heimeier DX	6700-00.500
Heimeier D	6850-00.500
Heimeier B	2500-00.500, 2502-00.500
Heimeier WK	7300-00.500
Heimeier VD	7400-00.500
Herz Classic „H”	1 7260 98, 1 9260 98, 1 7330 98, 1 9330 98
Herz Mini „H”	1 9200 68, 1 9200 38
Herz Herzcules „H”	1 9860 98

MANUFACTURER	CATALOGUE NUMBER
Honeywell Thera 2	T9001H(...), T9001W(...), T9001 08, T9001 20, T9001 50
Honeywell Thera 3	T6001H(...), T6001W(...), T6001 08, T6001 20, T6001 50
Honeywell Thera 4	T3001, T2001
Oventrop UNI XH	101 1365
Oventrop UNI LH	101 1465, 67, 68, 69
Oventrop UNI CH	101 1265
Oventrop UNI DH	101 1065
Oventrop UNI SH	101 2065
Schlosser Diamant	6001 00001
Schlosser Brillant	6002 0000 (...)
Valvex GZ 05A	4440010, 4440410
Valvex GZ 07A	4445000

The PURMO Vertical radiators are not equipped with any valve insert. They can be connected through special combined thermostatic valve assemblies 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 panel 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 panel radiators with a valve insert
Oventrop Multiblock T	118 40 83 118 40 84	as for the panel radiators with a valve insert
Schlosser Duo-plex	6021 00001, 6021 00003, 6021 00005, 6021 00007	as for the panel radiators with a valve insert

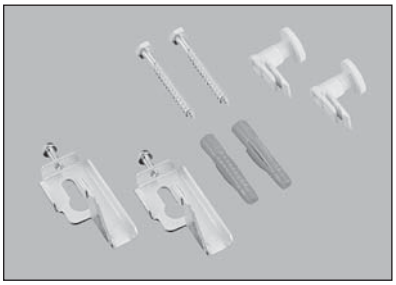




mounting distances

The distances from the radiator to the floor and to the cill board should be at least 100 mm. If maintaining these distances is not possible, they can be reduced to 70-100 mm from the floor and the cill board, provided the heat output of the radiator is increased by 5-10%. If these distances are smaller than 70 mm, lower height radiators must be used. The radiator must be installed in its factory packaging. If the heating system is used for heating during finishing works or for drying, the radiator should stay in its packaging. If the packaging was destroyed, the radiator must be protected from fouling in some other way. It is recommended to remove the packaging after the completion of all finishing works. Pipe branches should be shaped in a manner preventing any stress from occurring after connecting and fastening of fittings. Bending of the pipe branch with a radiator installed, heating the radiator with a burner or a blowtorch and performing other activities imposing a risk of deformation of the radiator or its paint coating is not allowable.

description



a set of brackets for the panel radiators with hanging lugs and the height of 300 - 900 mm - types:

C 11, C 21s, C 22, C 33 • CV 11 • CVM 11 • FC 11, FC 21s, FC 22, FC 33 FCV 11 • FCVM 11 • RC 11, RC 21s, RC 22, RC 33 • RCV 11 • RCVM 11

Radiator-to-wall distance – 30 mm.
Maximal load of a single bracket:
vertically – 120 kg
pulling – 60 kg

Bundled with the radiator

panel radiator length mm	quantity of brackets
400 - 1600	2
1800 - 3000	3

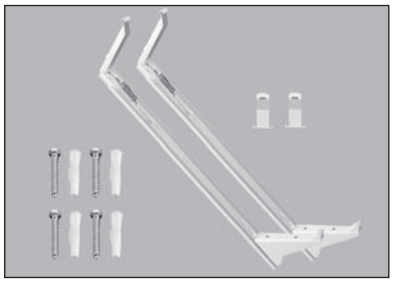
a set of the Monclac MCA-D rail brackets for the panel radiators without hanging lugs and the height of 300 - 900 mm - types:

CV 21s, CV 22, CV 33 • CVM 21s, CVM 22, CVM 33 FCV 21s, FCV 22, FCV 33 • FCVM 21s, FCVM 22, FCVM 33 RCV 21s, RCV 22, RCV 33 • RCVM 21s, RCVM 22, RCVM 33

Radiator-to-wall distance – 25 mm.
Maximal load of a single bracket:
vertically – 180 kg
pulling – 35 kg

Bundled with the radiator

panel radiator length mm	quantity of brackets
400 - 1600	2
1800 - 3000	3



a set of the Monclac MCK-108 for the panel radiators - types:

H 10, H 20, H 30 • HV 10, HV 20, HV 30 • FH 10, FH 20, FH 30 FHV 10, FHV 20, FHV 30

Outreach of the MONCLAC MCK type brackets – 108 mm.
Maximal load of a single bracket MONCLAC MCK – 108:
vertically – 125 kg
pulling – 35 kg

To be ordered separately

floor brackets for the 21s, 22, 33 type panel radiators and the height of 300 - 900 mm:

Radiator-to-wall distance: any
Maximal load of a single column:
vertically – 180 kg
pulling – 35 kg

order code: **AZ02BS1WEM817H01** (1 pc)

height 300 - 600 mm		height 900 mm	
panel radiator length mm	quantity of floor brackets	panel radiator length mm	quantity of floor brackets
400 - 1800	2	400 - 1200	2
2000 - 2300	3	1400 - 1800	3
2600 - 3000	4	2000 - 3000	4

the PURMO-AIR ventilation set for the panel radiators with convection fins:

AIR 11 - ventilation set casing (use with the 11 type)
order code: **AZ02ZZPURAIR1100**

AIR 21 - ventilation set casing (use with the 21 type)
order code: **AZ02ZZPURAIR2100**

AIR 22 - ventilation set casing (use with the 22 and 33 type)
order code: **AZ02ZZPURAIR2200**

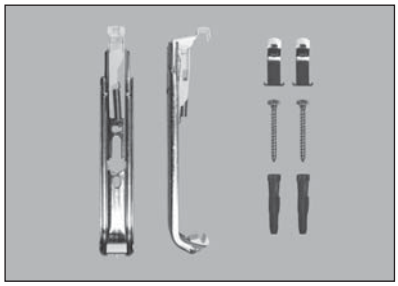
AIRF 200 - F9 class air filter. Matches every casing type
order code: **AZ02ZZAIR200F900**

Ventilation set must contain a casing appropriate for the radiator + a filter.

NOTE! Do not use with the mid-connection panel radiators.

Accessories

description

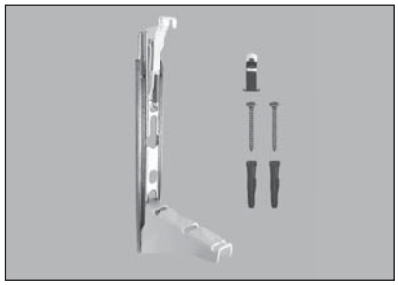


a set of the Monclac MCA-D rail brackets for the panel radiators without hanging lugs and the height of 200 mm - types: CV 21s, CV 22 • FCV 21s, FCV 22 • RCV 21s, RCV 22

height 200 mm	
panel radiator length mm	quantity of brackets
600 - 1600	2
1800 - 2300	3
2600 - 3000	4

order code:
AZ02BW2MC2002201 (2 pcs in the set)

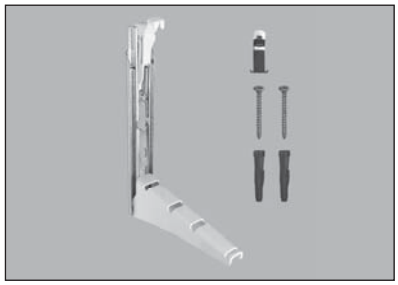
and
order code:
AZ02BW3MC2002201 (3 pcs in the set)



the Monclac MCA-Q type 33 for the panel radiators without hanging lugs and the height of 200 mm – types: CV33 • FCV33 • RCV33

height 200 mm	
panel radiator length mm	quantity of brackets
600 - 1600	2
1800 - 2300	3
2600 - 3000	4

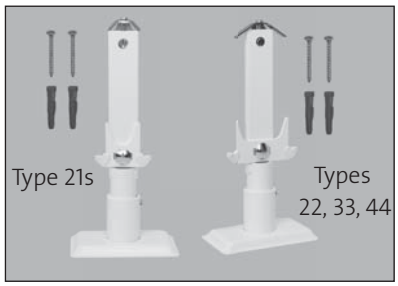
order code:
AZ02BW1MC2003301 (1 pc)



the Monclac MCA-Q type 44 for the panel radiators without hanging lugs and the height of 200 mm – types: CV44 • FCV44 • RCV44

height 200 mm	
panel radiator length mm	quantity of brackets
600 - 1600	2
1800 - 2300	3
2600 - 3000	4

order code:
AZ02BW1MC2004401 (1 pc)



order code:
AZ02BS120021S001

order code:
AZ02BS1200224401

the floor brackets for the panel radiators of height 200 mm:

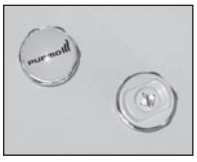
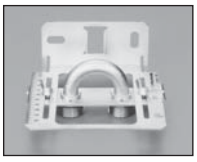
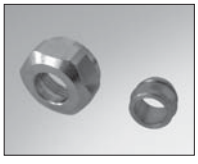
CV 21s, CV 22, CV 33, CV 44 • FCV 21s, FCV 22, FCV 33, FCV 44
FFCV 21s, FFCV 22, FFCV 33, FFCV 44 • RCV 21s, RCV 22, RCV 33, RCV 44
RRCV 21s, RRCV 22, RRCV 33, RRCV 44

Radiator-to-wall distance: any.
Maximal load of a single column:
vertically – 200 kg
pulling – 35 kg

height 200 mm	
panel radiator length mm	quantity of floor brackets
600 - 1600	2
1800 - 2300	3
2600 - 3000	4

application range of wall and floor brackets for the panel radiators of height 200 mm:

panel radiator	type 21s		type 22		type 33		type 44	
	wall-mounted	floor-mounted	wall-mounted	floor-mounted	wall-mounted	floor-mounted	wall-mounted	floor-mounted
Ventil Compact	x	x	x	x	x	x	x	x
Plan Ventil Compact	x	x	x	x	x	x	x	x
Ramo Ventil Compact	x	x	x	x	x	x	x	x
Plan Ventil Compact D		x		x		x		x
Ramo Ventil Compact D		x		x		x		x

	description	type	dimensions	order code:
	**towel rail** for the PURMO Vertical radiators. Colour: RAL 9016 white.	20C, 21C, 22C	300 mm	AZ04TRV590300000
			450 mm	AZ04TRV590450000
			600 mm	AZ04TRV590600000
			750 mm	AZ04TRV590750000
	**key for pre-setting**			AZ02ZZKLUNASOV00
	**key for air-vent**			QWR2MGGEU4BRELOK
	**blind plug and air-vent**			AZ02PLP400000000
	**assembly set for bottom connected radiators**			AZ02ZZSZABLONG01
	**colour patterns**			QWR2MGGEU4WZORNI
	**radiator connection valve** single, angle		¾" by ½"	FAZ1R34M24MELBP0
	radiator connection valve single, straight		¾" by ½"	FAZ1R34M24MSTRP0
	**radiator connection valve** double, straight, nickel plated		¾" by ½"	FAZ1P34M24MSTRP0
	radiator connection valve double, angle, nickel plated		¾" by ½"	FAZ1P34M24MELBP0
	**coupling for copper pipe**		15x1 by ¾"	FAZ1S34F151000P0

Purmo radiators in special versions

Conditions for using the PURMO steel panel radiators contained in technical files and warranty conditions expressly and clearly specify the types of spaces for installation of regularly protected panel radiators without the loss of warranty.

For rooms where standard panel radiators are not recommended due to adverse conditions which would cease the warranty, special versions of radiators are available.

These are the **C, CV** and **H** and **HV** radiator types, in versions with additional rustproofing applied onto radiators' surfaces before final painting, designed primarily for rooms with elevated moisture levels, such as: car washes, laundries, bathrooms, public conveniences and others, where adverse influence of moisture present in the air – and other corrosives – is possible to occur.

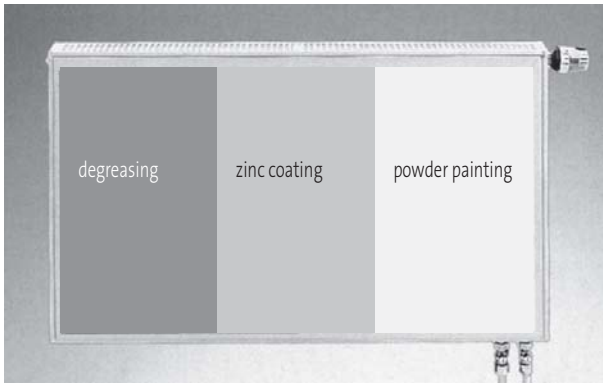
The surface proofing process is based on hot dip zinc coating and is one of the most important processes in the entire production cycle of radiators. It is an immersion method, which means that both surface preparation and zinc coating are done by immersing radiators in dedicated baths of specific mixture of chemicals. This technology enables total penetration of the protective zinc coating into every unevenness on the surface, and precise protection against corrosion. Operating temperature of the baths reaches approx. 450°C. Zinc-coated radiators are then finally painted with RAL 9016 white paint in the structural version, where the outermost layer resembles orange peel.

Purmo **C, CV** and **H** and **HV** radiators with additional rustproofing are available to order in the same height series as regular ones, that is from 300 to 900 mm, and lengths from 400 to 3000 mm. Radiator brackets for special versions are also manufactured with additional rustproofing.

The galvanized versions of radiators are 100% more expensive than their standard version counterparts.

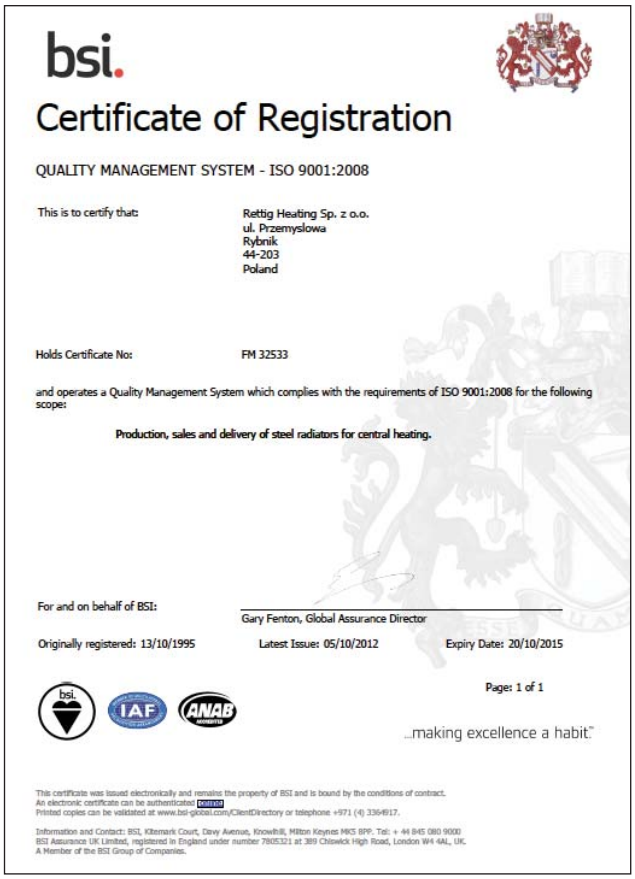
Heat output of these radiators is the same regardless of version: standard or with the additional protection.

The special versions of radiators installed in spaces with increased moisture content are covered by a **6 year warranty**.



Radiator surface preparation

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



bsi.

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2008

This is to certify that: Rettig Heating Sp. z o.o.
ul. Przemyslowa
Rybnik
44-203
Poland

Holds Certificate No: FM 32533

and operates a Quality Management System which complies with the requirements of ISO 9001:2008 for the following scope:

Production, sales and delivery of steel radiators for central heating.

For and on behalf of BSI:

Gary Fenton, Global Assurance Director

Originally registered: 13/10/1995 Latest Issue: 05/10/2012 Expiry Date: 20/10/2015

Page: 1 of 1

...making excellence a habit.

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.
An electronic certificate can be authenticated online.
Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +971 (4) 3364917.

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 845 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

bsi.

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2004

This is to certify that: Rettig Heating Sp. z o.o.
ul. Przemyslowa
Rybnik
44-203
Poland

Holds Certificate No: EMS 75685

and operates an Environmental Management System which complies with the requirements of ISO 14001:2004 for the following scope:

Production, sales and delivery of steel radiators for central heating.

For and on behalf of BSI:

Gary Fenton, Global Assurance Director

Originally registered: 30/10/2003 Latest Issue: 05/10/2012 Expiry Date: 20/10/2015

Page: 1 of 1

...making excellence a habit.

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.
An electronic certificate can be authenticated online.
Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +971 (4) 3364917.

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 845 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Rettig Heating.

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

This allows us to provide services for small undertakings with commitment as high as for large ones. The Rettig Heating company owes its image to the Polish managers and engineers. Experienced and highly qu)alified regional managers maintain constant contact with sales units, designers, fitters and investors while caring for the top quality of customer service.

In Poland, we currently employ over 300 employees. We invest in our future staff by cooperating with academic centres in the country. We organize training for designers and fitters. All of this we do, because we care for the satisfaction of our customer who can always count on us.

Basic colours

Colours presented here should be considered as demonstrative. Before purchase, the colours should be selected based on the original RAL 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.

*) *metallic colours*
) *these colours are applicable **only for the radiators C, CV, CVM, FC, FCV, FCVM, FFCV, RC, RCV, RCVM, RRCV, H, HV, FH, FHV*

Additional colours

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

Additional colours

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

Additional colours

Colours presented here should be considered as demonstrative. Before purchase, the colours should be selected based on the original RAL 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.

*) *metallic colours*

) *these colours are applicable **only for the radiators C, CV, CVM, FC, FCV, FCVM, FFCV, RC, RCV, RCVM, RRCV, H, HV, FH, FHV*

Warranty terms and conditions for PURMO steel panel radiators

1. PURMO panel radiators are marketed and made available pursuant to the Regulation (EU) of the European Parliament and of the European Council No. 305/2011 laying down harmonized conditions for the marketing of construction products.
2. **Rettig Heating Sp. z o.o. located in Rybnik at Przemysłowa street (hereinafter referred to as the Guarantor) gives 10 years guarantee (from date of purchase) in the EU area for PURMO panel radiators mounted in water installation of the central heating, yet not longer than 11 years since the production date given on the radiator.**
   10 years guarantee applies to radiators manufactured since 06.03.2007.
3. **The guarantee is valid for radiators mounted in the water installations of the central heating**:
   - in closed system with an expansion tank;
   - powered from the heat centre, boiler house or heat pump;
   - made from black steel / copper or plastic pipes with an antidiffusion barrier;
   - equipped with local air vents (no central vent system is allowed);
   - used for heating residential areas, office buildings, service stations or other buildings that are neither exposed on pernicious corrosive substance activity nor permanent or temporary moistness of the radiator surface.

   Installation of Purmo panel radiators in small open system installations (up to 25 kW) is allowed provided the corrosion inhibitors are used.

   During the warranty period the radiators and their components with the faults originated from the manufacturer and reported not later than one month after having been discovered will be repaired or exchanged into new, free of defects devices.
4. The guarantee is recognized when:
   - **there is an evidence of purchase, that is the invoice,**
   - **the radiators have been mounted in water central heating systems in compliance with the national technical regulations and standards,**
   - **adhering to the requirements of the Guarantor included in „ Terms and conditions of Purmo panel radiators usage".**
5. Maximal operating pressure in central heating installation for PURMO panel radiators may not exceed 10 bars (6 bars for Vertical radiators) and the maximal service temperature is 110 °C.

   In high and high-rise buildings a zone distribution system must be applied. The tightness test must be carried out at the experimental pressure equal to working pressure in the installation, adding two bars, yet not lower than four bars. Maximal pressure during the installation tightness test shall be equal to 12 bars (8 bars for Vertical radiators).
6. **The guarantee does not cover radiators mounted**:
   - in central heating installation connected to a high temperature heat distribution network through a suction elevator or pump mixing loop;
   - in swimming pool areas, car wash centers, laundries, slaughterhouses, public toilets, bathrooms or other rooms with high activity of corrosive substances in the air, as well as areas where the radiator is exposed on permanent or temporary moistness – **it does not refer to galvanized radiators, with additional anti-corrosive protection and guarantee for 6 years, yet not longer than 7 years since the production date**;
   - in central heating installations connected with the water- supply system without protective fittings, against backflows;
   - in central heating installation with water removed more frequently or for longer periods than advised in exploitation requirements;
   - in steam installations;
   - in central heating installations where the water quality rating level has been higher than advised, that is:
     - the total amount of chloride and sulfate ions may not be higher than 150 mg/l (for installations with copper pipes not higher than 50 mg/l),
     - oxygen content not higher than 0.1 mg/l,
     - pH water reaction within 8.0 ÷ 9.5,
     - total water hardness not higher than 4.0 mval/l.

7. **The guarantee does not cover damages to the radiator or its parts (brackets, covers)** that are due to improper handling, storage, transport or misuse.
   It refers, in particular, to radiators:
   - stored in the open air before mounting,
   - with mechanical damage,
   - polluted from inside with solid bodies or noxious liquids,
   - deformed by excessive experimental pressure or static pressure in the installation,
   - deformed due to freezing,
   - with mechanical damage due to an overload as a result of sitting on the radiator.
8. The radiators must be mounted with the original packaging. The packaging must be left on the radiator even if the central heating installation is activated for heating in buildings during finishing works or for drainage purposes. It is recommended to remove the packaging after accomplishing all finishing works.
   The radiators require periodical cleaning. It is recommended to use only soft and gentle fabrics that can be slightly moistened. For cleaning the radiators it is not advised to use aggressive or corrosive agents (e.g. acidic solvents or agents with chlorine). Panel radiators cannot be used for drying wet or dump objects put on the radiator. Claims for damage of varnished surfaces to improper handling or maintenance will not be granted.
9. It is forbidden to remove the water from the entire installation or its part and to leave it in this condition. It also refers to new installations with the tightness test. If there is a need to remove the water, e.g. due to renovation or maintenance works, the water must be removed only from the given part. After accomplishing all works the installation must immediately be filled with water. Quantity of water used for the filling or filling up process must be monitored, e.g. by a watermeter.
10. The guarantee of our product is granted provided it has not been repaired or modified by a buyer or third party without Guarantor's approval.
11. Occurrence of faults within the warranty period is followed by a claim procedure by notifying the Retailer about the damage in a special claim form including the origin and details of damage. The retailer accepts the claim form and forwards it to the Guarantor via registered letter, fax or e-mail within 24 hours since it has been accepted. In case of incomplete data, the form shall be returned in order to be completed. The invoice or its copy shall be attached with the form. In specific cases the Guarantor may request a photo documentation of the claimed product. The Guarantor is obliged to reply for the complaint in writing within 14 days since a completed form was accepted.
12. In order to recognize the claim a visual inspection is performed by the Guarantor in the mounting area or other area determined by the Guarantor. The original packaging used for delivery must be kept for the inspection in case of a damage with mechanical origin. If the claim has been recognized, the Guarantor is obliged to repair or replace the parts found to be defective due to improper manufacturing or material defects or exchange the radiator into a new device that is free of defects. In specific cases, (e.g. when the product needs to be sent from abroad) the Guarantor has the right to extend the deadline to recognize the claim that is normally defined to be 14 days.
    In case of damages that do not affect the radiator functionality, a discount may also be offered.
    In case of the claim regarding a product, manufacturing of which has been ceased, the Guarantor will offer an equivalent with similar parameters or a money back guarantee at the date of the purchase. The Guarantor does not deliver an alternative device for the time of claim recognition process.
13. The Guarantor has the right to select the method of claim settlement.
    In case the claim is recognized in the form of exchange, all mounting shall be delivered by an authorized Purmo service centre. In case any difficulties occur when mounting the exchanged radiator, e.g. lack of valve for separating the radiator from installation, the service centre may refuse to disassemble or mount the new radiator. As a consequence, the warranty claim is recognized as exercised by the Guarantor.
14. The warranty period shall be extended due to reparation time calculated since the date of delivery to the Guarantor to the reparation date. In case of exchange a new warranty period is granted.
15. The Guarantor reserves the right to make modifications to his products without prior notice unless they refer to any significant technical details affecting the process of selection.
16. The warranty terms on goods sold do not exclude, limit or suspend rights of the buyers when the product fails to comply with the contract in accordance with the Act of 27.07. 2002 on specific conditions of consumer sale and amendings of the Civil Code.
    (Journal of Laws 2002 no. 141, point 1176).
17. Warranty conditions are valid as stated since 01.07.2013.

WWW.PURMO.PL

Rettig Heating Sp. z o.o.
02-777 Warszawa, ul. Ciszewskiego 15
budynek KEN Center
tel. (+48 22) 544 10 00, fax (+48 22) 544 10 01, e-mail: purmow@purmo.pl

PURMO
clever heating solutions

PR_01_2014_EN_PL