VIADRUS

SUMMARY OF TECHNICAL INFORMATION
FOR DESIGNING
THE CAST-IRON HEATING BODIES

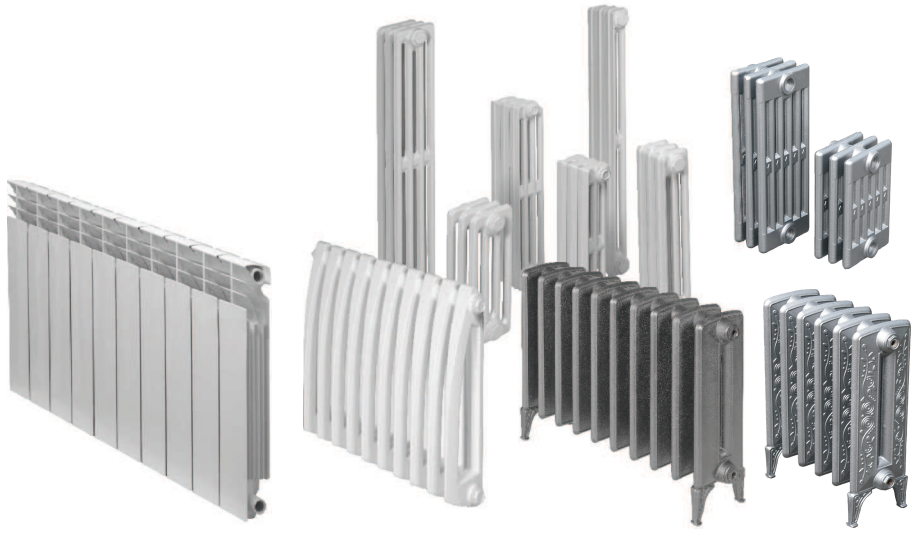
Kalor / Kalor 3 / Termo Bohemia / Bohemia R Styl / Hellas

ALUMINIUM HEATING BODIES

Residence

BIMETALLIC HEATING BODIES

Duostar



CAST-IRON HEATING BODIES

TERMO

TERMO

DESCRIPTION

Cast-iron heating sections with reduced water volume and extended face transfer surface forming the front panel area connected into heating bodies using steel nipples with external right-hand or left-hand thread G 1” are manufactured in six models:

500/95 mm, 500/130 mm, 623/95 mm, 623/130 mm, 813/95 mm and 813/130 mm.

Heating bodies comply with EN 442 – 1 amendment A1. The material used is a grey cast-iron corresponding to EN 1561. The design of castings ensures a long life cycle of products.

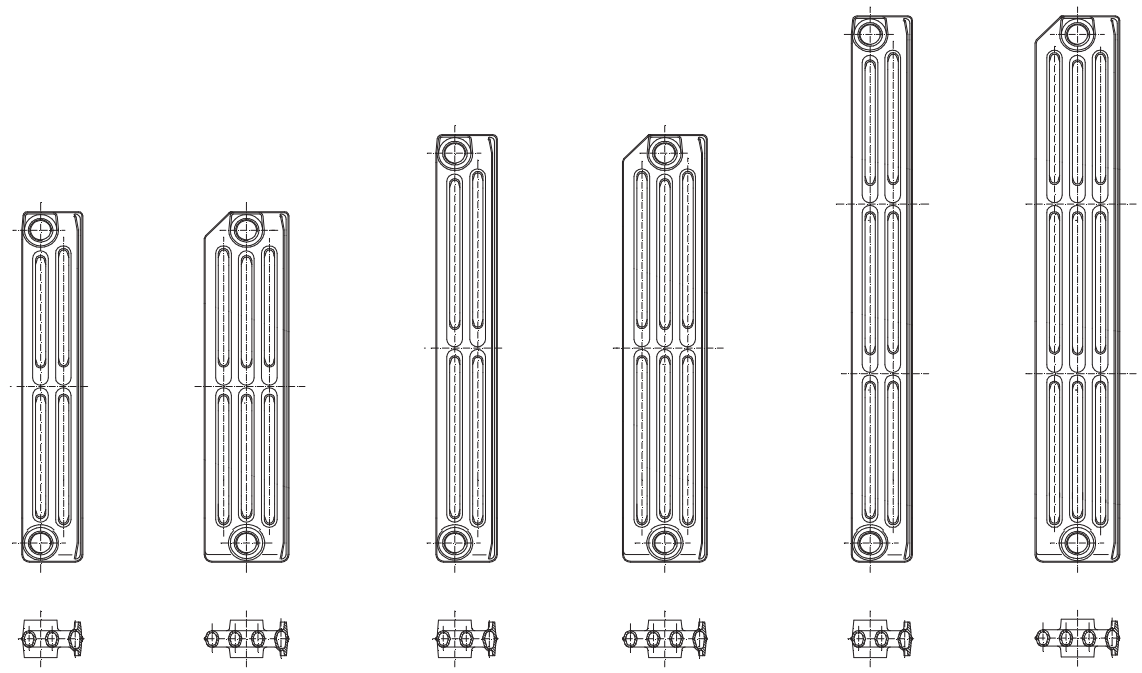


Fig. 1 Heating sections of Termo type

USAGE

All heating bodies of Termo line are designed for warm-water central heating systems with gravity and forced circulation of heating water with the highest operating temperature not exceeding 120 °C and **highest operating overpressure of up to 0.6 MPa**. **On request** we are able to supply heating bodies with higher operating overpressure **up to 0.8 MPa**. All models manufactured are approved for steam central heating systems with the highest operating overpressure o up to 0.07 MPa.

THERMAL AND TECHNICAL PARAMETERS

Table 1 Significant thermal and technical parameters of Termo heating sections

Property	Symbol	Unit	500/95	500/130	623/95	623/130	813/95	813/130
Identification number			27	28	29	30	31	32
Total height	H	(mm)	560	560	683	683	873	873
Spacing	h	(mm)	500	500	623	623	813	813
Depth	B	(mm)	95	130	95	130	95	130
Width	L	(mm)	60	60	60	60	60	60
Connection thread	G	"	1	1	1	1	1	1
Weight	M	(kg/section)	4,35	5,36	5,08	6,46	6,70	8,80
Equivalent heating area	S_L	(m^2/ section)	0,192	0,254	0,230	0,303	0,310	0,380
Water volume	V	(dm^3/	0,6	0,8	0,8	1,0	1,0	1,3
Thermal power	Q_{Tn}	(W/ section)	73,4	91	88,7	108,8	109,3	136,1
Thermal module	Q_M	(W/m)	1213	1504	1466	1499	1807	2250
Temperature exponent	n	(-)	1,288	1,296	1,316	1,300	1,340	1,316

All Termo models are certified by SZÚ Brno. Thermal and technical parameters are verified experimentally in compliance with EN 442-2.

Tables 2 through to 25 provide values of thermal power for individual models of cast-iron heating bodies for number of sections ranging from 2 up to 30, variable required air temperature and temperature gradient of the heat-transfer fluid (water) equal to 90/70 °C, 75/65 °C, 55/45 °C and steam.

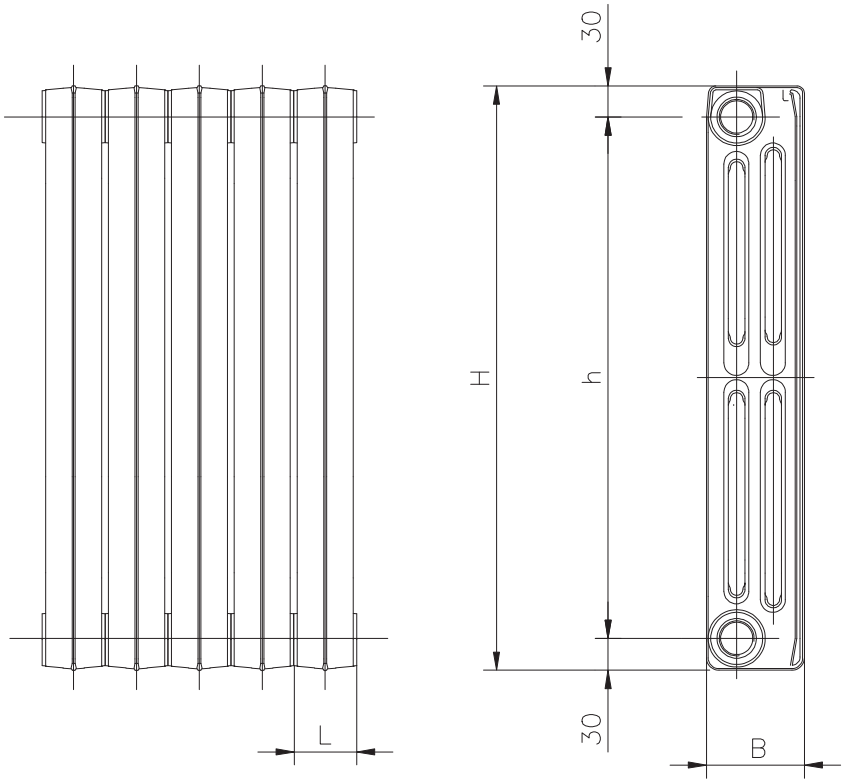


Fig. 2 Standard dimensions of Termo sections

Basic thermal and technical parameters for the heat-transfer fluid – **water** – with the **temperature gradient of 75/65 °C** and one-sided lateral connection (supply) of the heat-transfer fluid (water) at the top are provided in Table 8. Individual models of heating bodies are measured without cover.

TESTING OVERPRESSURE

Units manufactured are subject to the pressure test performed in manufacturer's facility using overpressure of cold water equal to 1 MPa.

ASSEMBLY

In order to achieve required thermal power of individual heating bodies it is necessary to maintain the installation position indicated on Fig. 3. In addition to this **a minimum overlap of window sill** shall be adhered to.

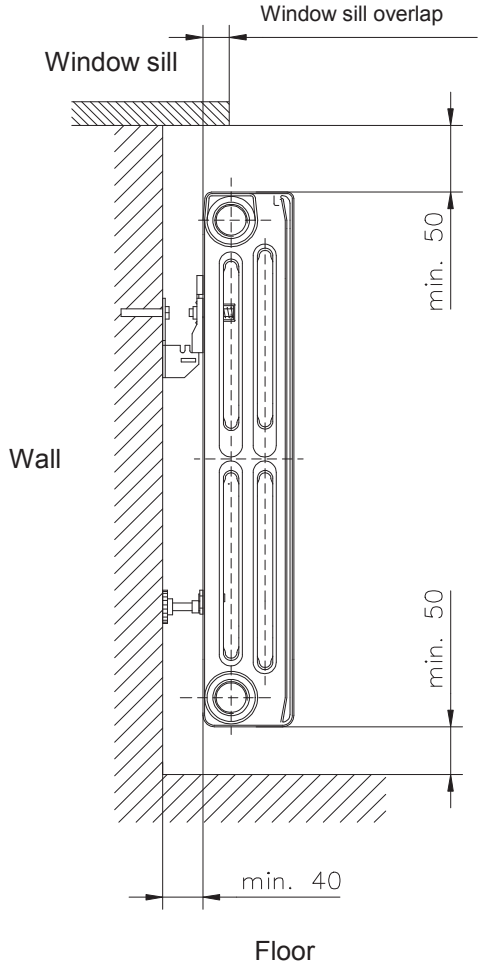


Fig. 3 Installation of Termo heating bodies

Termo hearting bodies are connected to the distribution piping using roses provided with external thread G 1“ with G 1/8“, G 1/4“, G 3/8“, G 1/2“ and G 3/4“ bores **(warning: don't use hemp as sealing under these rosettes).**
When facing the front panel surface the bodies are provided on the left side with rose with right-hand thread for connection of the heat-transfer fluid (water) and on the right side with rose with left-hand thread for outlet of the heat-transfer fluid (water) G 1”. The upper plug on the opposite side to the connection of the heat-transfer fluid (water) can be provided with bore with eccentrically positioned thread G 1/4“ or G 3/8“ for the air relief valve. Automatic air relief valves are suitable for this purpose. Prior to combining the individual units supplied into the heating body of required size it is necessary to perform a thorough cleaning of contact surfaces of sections and individual connections shall be sealed by Clingerite, which is normally used during production and it is suitable both for warm-water and steam systems. The sections shall be coupled with the torque of min. 110 Nm and max. 130 Nm. by means of steel nipples.
Gyroscopic moment for tightening of rosettes is from 110 Nm to 130 Nm.
Other installation data are provided in the section of instruction manual common for all models of heating bodies manufactured.