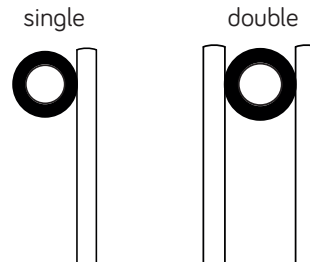
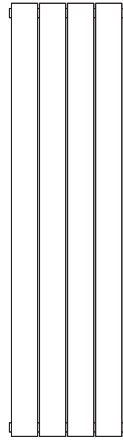


Livorno

Technical sheet



h: from 670mm to 2000mm



WIDTH: from 309mm to 1059mm
ELEMENTS: from 4 to 14

Description	Single and double
Material	Carbon steel
Pipes - mm	70x11x1,5
Collectors - Ø	35x1,5
Connections	4x1/2" (air bleeding valve connection, included)
Wall fixings	4
Max operating pressure	4 bar
Max operating temperature	90 °C
Paint	Epoxy polyester powder
Standard equipment	1 kit wall fixing brackets - 1 air bleeding valve - 1 blind plug

Connection

single

Vert.	Hor.
55	40

double

Vert.	Hor.
55	81

- ALSO PERSONALIZED CONNECTIONS (NOT AVAILABLE FOR CHROME). ONLY FOR VERTICAL INSTALLATION
- ALSO 50 MM CONNECTIONS (NOT AVAILABLE FOR CHROME). ONLY FOR VERTICAL INSTALLATION
- VERTICAL AND HORIZONTAL INSTALLATION*

* In case of horizontal installation, please specify in the order

Wall distance

single

Vert.	Hor.
85	65

double

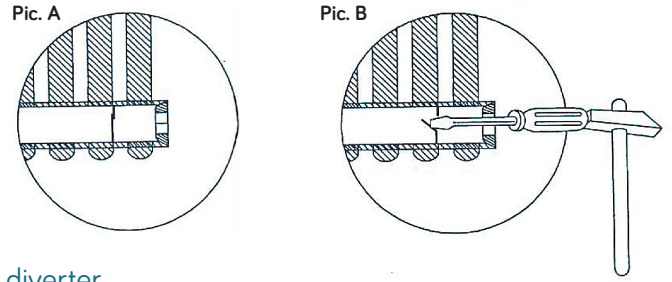
Vert.	Hor.
85	107

Pipe centres

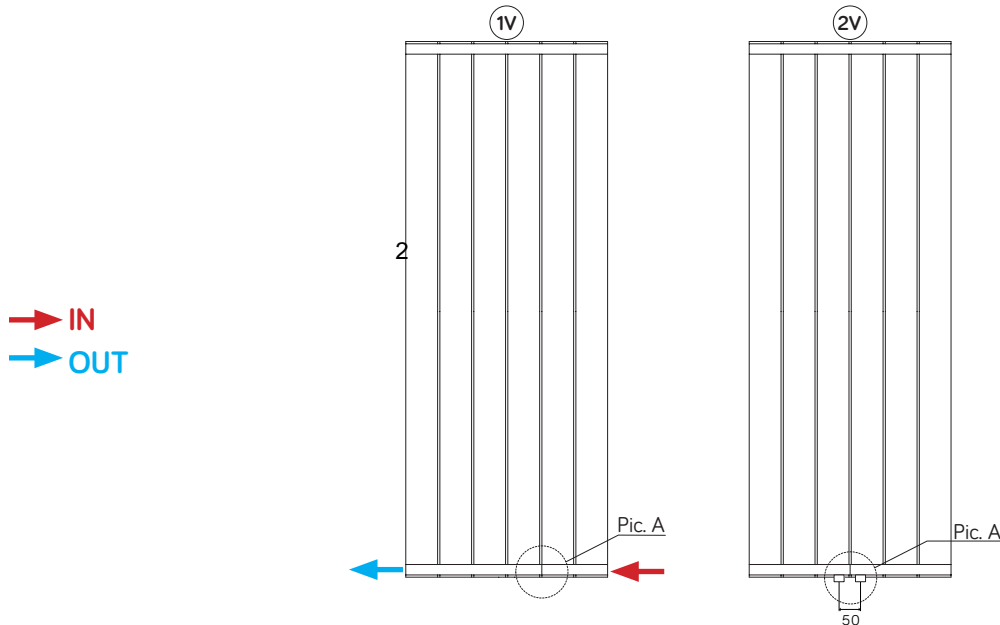
N1 = Please add the pipe centre distance of the valves to N1. (Lazzarini = + 90 mm)
N3 = 50 mm

Possible configurations Livorno vertical installation (front view)

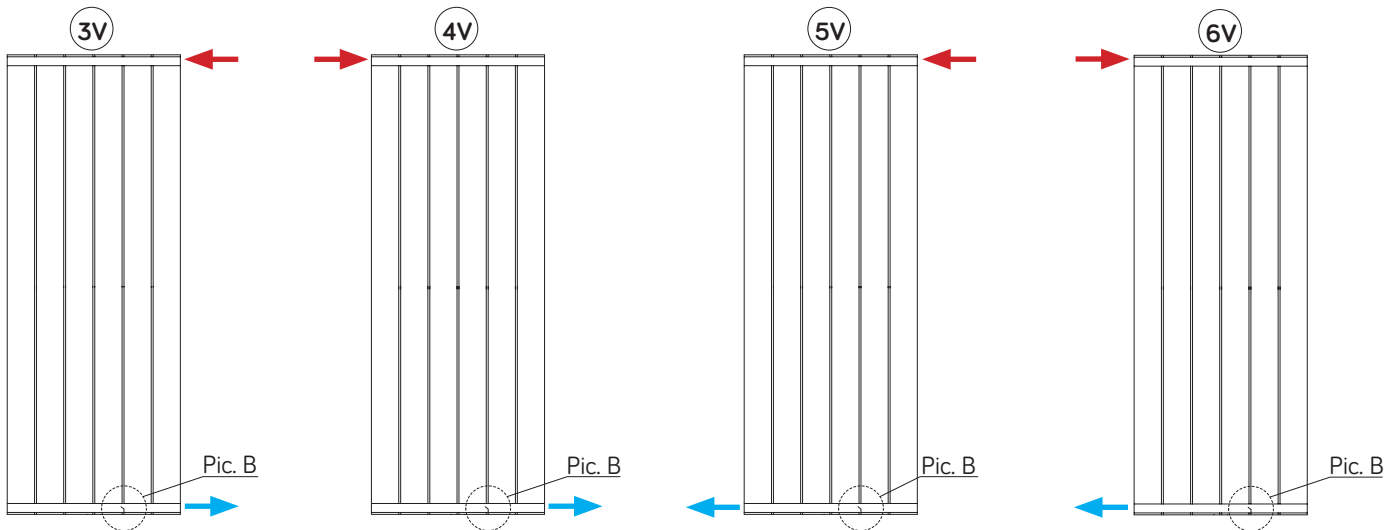
1. Each radiator has a closed diverter (**Pic. A**) and it is arranged for configuration 1V.
2. For configurations 3V, 4V, 5V and 6V, the diverter has to be opened using a screwdriver and a hammer (**Pic. B**).
3. Configuration 2V is available only on demand;
4. Drawings are merely representative.



Closed diverter

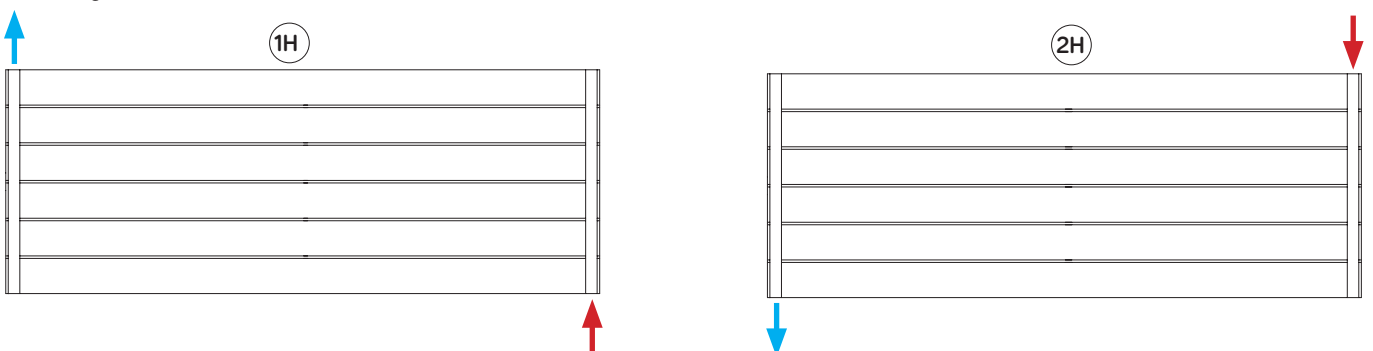


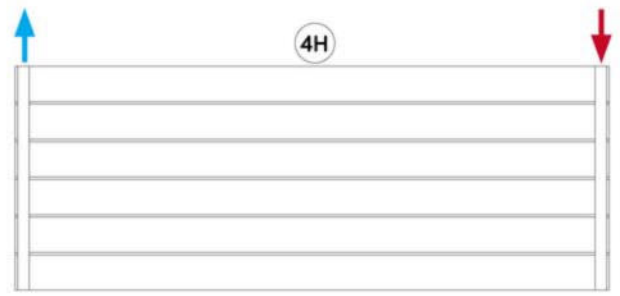
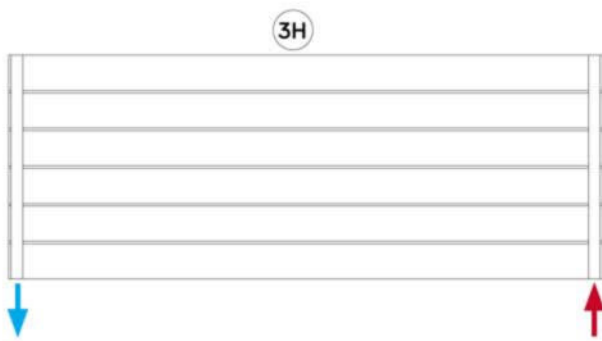
Open diverter



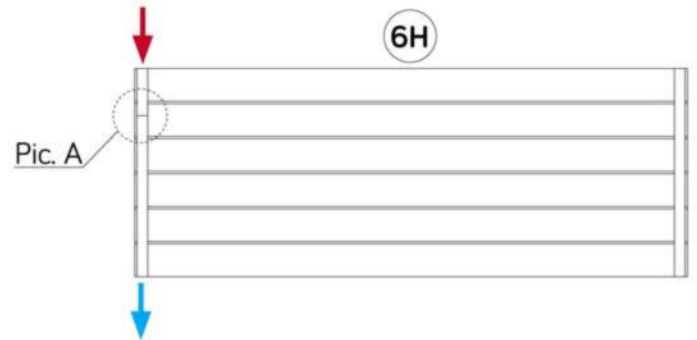
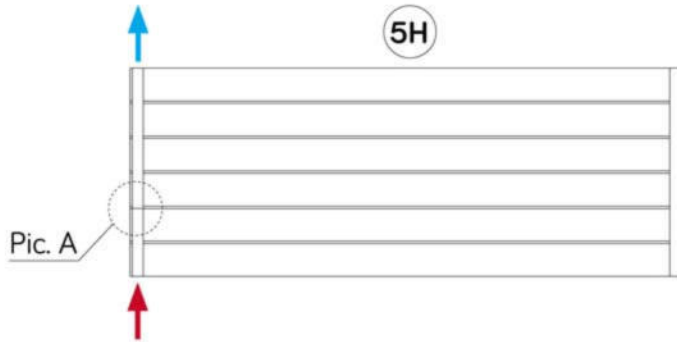
Possible configurations Livorno horizontal installation (front view)

For configurations 1H, 2H, 3H and 4H, there is no need of a diverter inside.





For configurations 5H and 6H a closed diverter is needed (Pic. A).



Chrome - single

Code	Height mm	Width mm	Pipe centre N1 mm	Pipe centre N2 mm	Elements	Weight kg	Water lt	$\Delta T_{50} \text{ }^\circ\text{C}$ Watt	$\Delta T_{30} \text{ }^\circ\text{C}$ Watt	$\Delta T_{42,5} \text{ }^\circ\text{C}$ Watt	$\Delta T_{60} \text{ }^\circ\text{C}$ Watt	Exponent n
386777	1800	309	309	1750	4	132	4,2	354	180	286	451	1,32824

Our radiators are tested in qualified laboratories according to EN-442 regulations which determine the output value by fixing the ΔT at $50 \text{ }^\circ\text{C}$. ΔT is the difference between the average temperature of the water inside the radiator and the room temperature. The formula is: $\frac{(T_1+T_2)}{2}-T_3$.

Ex.: $\frac{(75+65)}{2}-20=50 \text{ }^\circ\text{C}$. For output values with a different ΔT use the following formula: $\langle \rangle_x = \langle \rangle_{50} \cdot \left(\frac{\Delta T_x}{50}\right)^n$.

See calculation example of the output at $\Delta T 60 \text{ }^\circ\text{C}$ of article 386777: $354 \cdot \left(\frac{60}{50}\right)^{1,32824} = 451$.

Output values in kcal/h = watt x 0,85984.

Output values in btu = watt x 3,412.

KEY

T_1 = supply temperature - T_2 = return temperature - T_3 = room temperature.

$\langle \rangle_x$ = output to be calculated - $\langle \rangle_{50}$ = output at $\Delta T 50 \text{ }^\circ\text{C}$ (table) - ΔT_x = ΔT value to be calculated - n = exponent "n" (table).