MDL CALIENTE STANDARD

Floor mounted convectors

2018_01

After publishing edition of this catalogue, i.e. after 1.01.2018 there might have been changes in products. The manufacturer reserves the right to introduce changes in construction or deviations from the adopted color range. The illustration may include optional equipment. Print technology may cause differences in presented colours.

For further information please contact MDL Solutions regarding VERANO CONVECTOR sales represemtatopn

NATURAL CONVECTION

OPERATING PRINCIPLE OF WALL-MOUNTED AND FLOOR-MOUNTED NATUAL CONVECTION HEATERS

Convection heating systems utilize the phenomenon of heat absorption by air particles flowing through heat exchanger.

The difference in densities of cold and heated air causes a delicate draft that initiates the airflow that flows gently from the bottom to the top of the unit.

Natural air circulation is created in the room, which facilitates uniform heating. The correct air circulation in case of convection radiators take place when the air flows to the radiator from the bottom, and then rises, and that is why minimum separation distances should always be kept between the walls and other elements surrounding the convector.

This principle is the basis for operation of convection heaters that are characterized by low mass of the convectors, its small water capacity and low thermal inertia.

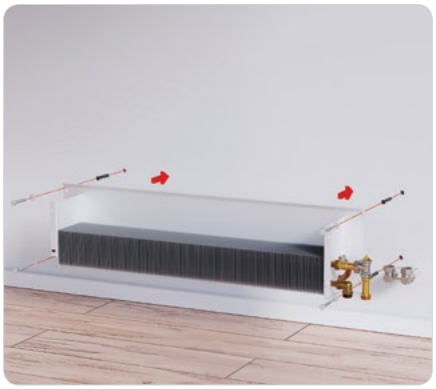
This makes the convectors capable of appropriately fast reaction to the changing heat demand of a room, when compared to traditional radiators.

Convectors are considered the easiest to control, which in their case takes the form of controlling the flow of heating fluid through the heater with use of thermostatic valve.

Details concerning the installation were included in the Installation and maintenance manual of Wall-mounted and Floor-mounted convectors chapter.

ADVANTEGES

DURABILITY
High quality of materials of the heat exchanger (copper-aluminium) guarantees corrosion resistance and low sensitivity to poor water quality.

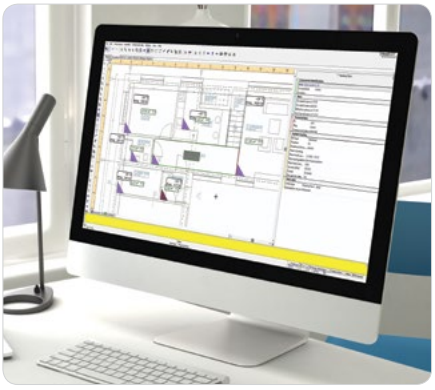


EASY TO ASSEMBLY AND SERVICE
Thanks to the universal design of the convector, it's easy to assembly and the future hassle-free maintenance is secured.

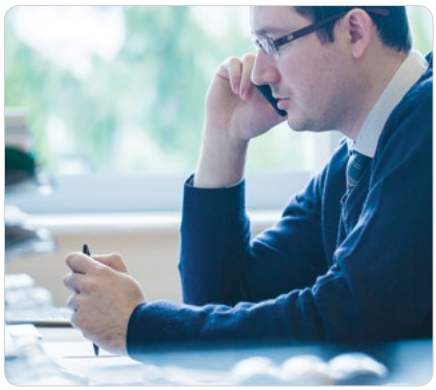
THE SYSTEM FOR TEMPERATURE CONTROL
Dedicated and modern room controllers allow full control of heaters operation.

COMPLY WITH THE EN 442 REQUIREMENTS
The VERANO convectors were all tested to the compulsory EN 442 harmonized standard. The positive tests result is also an evidence of the units' High quality.

WIRELESS CONTROL
From now on you can intelligently control the convectors using your smartphone or tablet with a free application installed.



TOOLS FOR DESIGNERS
We offer full product support, i.e. knowledge base by dedicated CPD seminars, or access to BIM drawings and libraries at the project design stage.



TECHNICAL ADVICE
We provide specialized consulting throughout your investment, from the design stage, till the completion of construction works.

MODERN DESIGN
The convectors with CALIENTE casing are a construction based on modern design, with panel casing, masking and traditional grilles.

WIDE SELECTION OF FINISHES
We offer a wide selection of convector units coming with grilles of various types and colours.

CONFIRMED QUALITY

The wall-mounted and floor-mounted convectors are designed for using in residential, office, service, hotel, sacral and sports utility buildings.

It is advised to consult the selection of radiators with designers and/or using the computer software designed to facilitate the design of C.H. installations.

A proper technical project will secure the optimal selection of convectors sizes and peripheral equipment, and the correct installation and hydraulic regulations of the heating system, which will allow for future seamless and energy-saving operation.

On a foundation of the extensive R&D process that was executed both externally (with Technical Universities of Warsaw, Cracow and Lublin and with Polish Academy of Sciences) we have developed and constructed brand new and extremely efficient high-end heating emitter.

The excellent heating parameters of VERANO products were confirmed during the tests conducted at a laboratory of the HEATEST s.r.o. Notified Body.

According to the EN-442 standard the tightness and pressure resilience tests were performed. Independent, accredited laboratory confirmed, that a pressure of 1.69 MPa resulted no cracks or leaks found in the convectors, while the maximum permissible operating pressure is just 1.0 MPa.

A test according to the PN-EN ISO 4628 standard proved lack of damage to the paint coat of convectors in salt chamber, proving that the VERANO convectors are corrosion resistant.

The STANDARD & CALIENTE units are fully compliant to A1 fire resistance class.

The VERANO convectors are manufactured in Poland, in accordance to EU regulations. The marketing of products takes place according to the Regulation (EU) 305/2011 of the European Parliament and of the Council laying down harmonized conditions for the marketing of construction products (CPR).

VERANO convectors hold all the documents required by European Union regulations:

- Declaration of performance characteristics according to EN 442.
- PZH hygienic attestation.

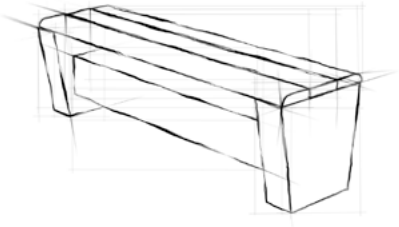
EN 442

CPR

DoP

CE

RESEARCH AND DEVELOPMENT



The new casing of wall-mounted and floor-mounted CALIENTE convectors as well as the COMODO heating bench were developed by an interdisciplinary team of designers and engineers.

The aim of their work was to develop simple and timeless products, that will easily fit every modern interior.

The tests of the heat output of wall and floor-mounted convectors and the COMODO heating bench were carried out in a specially prepared climatic chamber, in accordance with the requirements of the European standard EN-442.

finalist
of the competition

GOOD DESIGN

2016

The COMODO heating bench qualified as a FINALIST OF THE 2016 GOOD DESIGN [DOBRY WZÓR] competition, organised by the Institute of The Industrial Design.

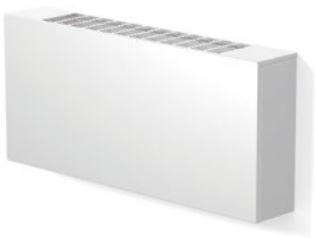
The goal of the competition is to select the products and services, which stand out with their high quality of design, and support their manufacturers and retailers.

WALL-MOUNTED AND FLOOR-MOUNTED CONVECTORS, TYPE STANDARD AND CALIENTE

There are two types of casings available for the wall-mounted and floor-mounted convectors – STANDARD and CALIENTE. The units do not differ from each other internally and they both use the same technology principle - the casing variant does not influence the heating powers, hydraulic resistance and the connectors used.

The CALIENTE casings, designed in the spirit of modern elegance, additionally allow for the use of built-in, dedicated controller.

Feature	Available for casing type	
	STANDARD	CALIENTE
TRV head	●	●
Wireless TRV head	●	●
Wireless TRV head or thermal actuator built-in inside the casing	●	●
Built-in temperature controller and thermal actuator	–	●
Casing powder coating in any RAL colour	●	●
Selection of grille type	●	●
Glass masking panels	–	●
Detachable front casing panel	●	●
Connection type C (side) or V (bottom)	●	●
Wall-mounted or Floor-mounted type	●	●



Example of wall-mounted STANDARD type heaters

Example of wall-mounted CALIENTE type heaters

TRV head assembly (classic or wireless type), V-type heater connection

The example of assembly of TRV wireless head or thermal actuator inside the heater casing, V-type heater, bespoke heater

The assembly of classic TRV head or wireless TRV head is available for V-type (bottom connection) heaters. TRV head is to be installed on the thermostatic valve which is built into the heater.

The assembly of wireless TRV head or thermal actuator inside the casing is available for V-type (bottom connection) heaters, bespoke heater version. Thermal actuator should be connected to the controller.

For CALIENTE heaters with built in Controller, thermal actuator is to be installed inside the heater casing.

TYPES OF GRILLES FOR STANDARD TYPE HEATER

Long oval (Standard)

Cross oval

Honeycomb

Oval

TYPES OF GRILLES FOR CALIENTE TYPE HEATER

Modular grille

Roll-up aluminium grille, closed profile

Roll-up aluminium grille, double T-bar grille

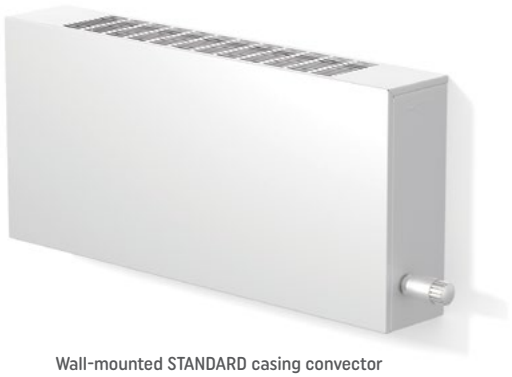
Natural wood roll-up grille

Linear aluminium grille

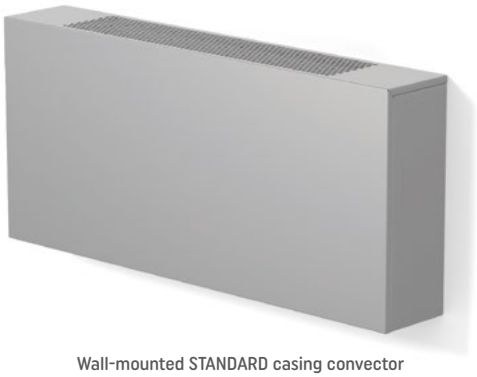
STANDARD CASING

The wall-mounted and floor-mounted units with STANDARD casing are a classic convector variant in a smooth casing made of galvanized steel, with a grille that allows for unobstructed airflow. The convectors are available with bottom connection (V-type) or side connection (C-type). Detachable front panel facilitates easy access for cleaning and maintenance into heat exchanger and connectors.

The standard heater casing finish is white RAL 9003 paint coat. We also offer other colours and grille types as an option. Non-standard finishes also include the installation of actuator or wireless head inside the convector casing.



Wall-mounted STANDARD casing convector
Standard finish: RAL 9003 colour, Long Oval grille,
thermostatic head installed outside the radiator casing.



Wall-mounted STANDARD casing convector
Example of optional finish: RAL 9007 colour, honeycomb grille,
actuator installed inside the radiator casing.

CALIENTE CASING

The wall-mounted and standing units with CALIENTE casings are based on modern design, with panel casing, masking panels and grille that allows unobstructed airflow. The convectors are available with bottom connection (V-type) or side connection (C-type). Detachable heater cover and grille facilitate cleaning and maintenance of heat exchanger and connectors.

The casing (painted with RAL 9003 white paint coat as a standard) and the masking panels (painted RAL 9005 black as a standard) are also optionally available in any desired RAL palette colour. The basic equipment includes black anodized modular aluminium grille.

The painted masking panels can also be replaced with a glass or a dedicated black or white controller. The modular aluminium grille can be replaced with other grille type.

Wall-mounted CALIENTE casing convector
Standard finish: RAL 9003 colour, Long Oval grille,
thermostatic head installed outside the radiator casing.

Wall-mounted CALIENTE casing convector
Example of optional finish: casing with RAL 9007 color paint finish,
black anodized modular grille, VER-34 controller and black glass masking panel.
Assembly of thermal actuator inside the heater casing.

ADDITIONAL ACCESSORIES FOR CALIENTE CASING CONVECTORS

The paint-coated masking panel can be replaced
with black or white colour glass masking panel

The wall-mounted and floor-mounted CALIENTE convectors
can optionally include the built-in VER 34 controller
in black or white color.

FLOOR-MOUNTED CONVECTORS

EQUIPMENT

STANDARD EQUIPMENT (STANDARD CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

ADDITIONAL EQUIPMENT (STANDARD CASING):

- Casing in any RAL colour
- Non standard grille type
- Thermal actuator or wireless TRV head (installed inside the casing)

ADDITIONAL EQUIPMENT (CALIENTE CASING):

- Casing in any RAL colour
- Non standard grille type
- Glass masking panels or glass masking panels with built-in controller and thermal actuator
- Thermal actuator or wireless TRV head (installed inside the casing)

VERANO wall-mounted heaters are available as two connection types:
- type V - bottom connection
- type C - side connection

Non standard heater length available on request

DIMENSIONS

DIMENSIONS	[inch]
Height	4, 6.5, 9, 12
Width	6.5, 8.7, 11.2
Length	34.5 to 101.5

ORDER CODE:

S-C12-10/15,9/Lg SV (L)

Heater height [cm]

Heater width [cm]

Heater length Lg [cm]

Casing type
S - STANDARD
C - CALIENTE

Connection type
C or V

Connection side
L- Left
P - Right

FLOOR-MOUNTED CONVECTORS 4 inch high

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JTH/180310

Verano® by MDL SOLUTIONS CONVECTOR QUICK SELECTOR

STYLE	MDL DESCRIPTION	MDL#	HEIGHT H INCH	LENGTH L INCH	TYPE HX	WIDTH W INCH	180/160/68ºF HEATING BTU/H	FLOWRATE UsGPM	PRESSURE DROP FT-H20	BTU/H PER FOOT
LST OR CALIENTE SAFETOTOUCH®	VERANO® FLOOR MOUNT PEDESTAL	SC120-10/15.9/600	4	23.5	12	6.30	1573	0.16	0.05	1302
		SC120-10/15.9/880	4	34.5	12		2049	0.20	0.08	964
		SC120-10/15.9/1080	4	42.5	12		2520	0.25	0.12	903
		SC120-10/15.9/1330	4	52.5	12		3114	0.31	0.18	859
		SC120-10/15.9/1580	4	62	12		3707	0.37	0.24	839
		SC120-10/15.9/1830	4	72	12		4296	0.43	0.32	818
		SC120-10/15.9/2080	4	82	12		4898	0.49	0.41	805
		SC120-10/15.9/2330	4	91.5	12		5491	0.55	0.50	799
		SC120-10/15.9/2580	4	101.5	12		6085	0.61	0.61	789
		SG140-10/28.4/600	4	23.5	14	11.20	3296	0.33	0.20	2728
		SG140-10/28.4/880	4	34.5	14		4279	0.43	0.32	2014
		SG140-10/28.4/1080	4	42.5	14		5289	0.53	0.47	1895
		SG140-10/28.4/1330	4	52.5	14		6525	0.65	0.69	1800
		SG140-10/28.4/1580	4	62	14		7765	0.78	0.96	1758
		SG140-10/28.4/1830	4	72	14		9006	0.90	1.26	1715
		SG140-10/28.4/2080	4	82	14		10263	1.03	1.60	1687
		SG140-10/28.4/2330	4	91.5	14		11532	1.15	1.99	1677
		SG140-10/28.4/2580	4	101.5	14		12776	1.28	2.40	1657

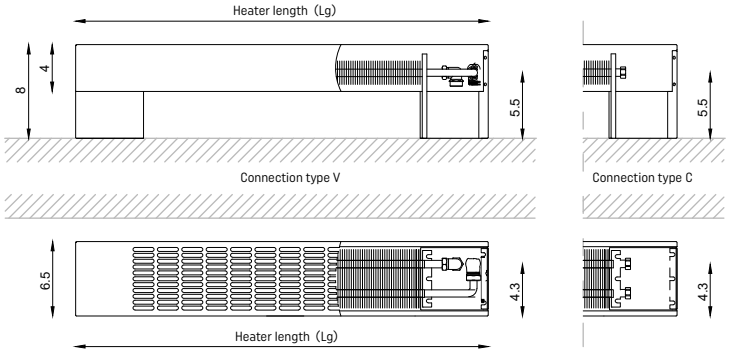
Standard heating output [BTU/H] according to the EN 442-1:2015-02 European Standard, room air temperature Θi = 68°F

* ΔT - the difference between mean water temperature (flow water temperature minus return water temperature) and room air temperature. For quick heat output calculating software contact MDL Solutions OR local Rep

FLOOR-MOUNTED CONVECTORS 4 inch high

S-C12-10/15,9/Lg S(C/V) (L/P) « ORDER CODE

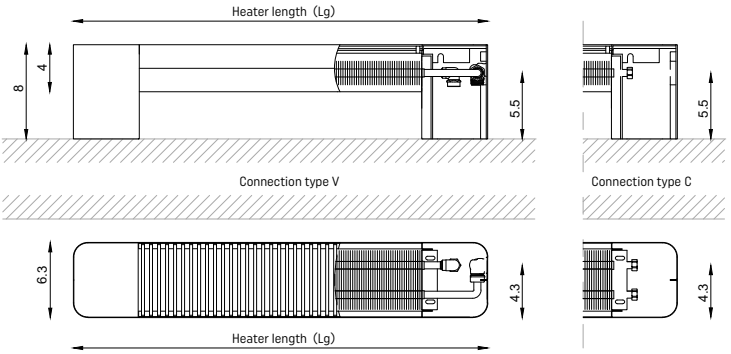
STANDARD



S-C12-10/15,9/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



STANDARD EQUIPMENT (STANDARD CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

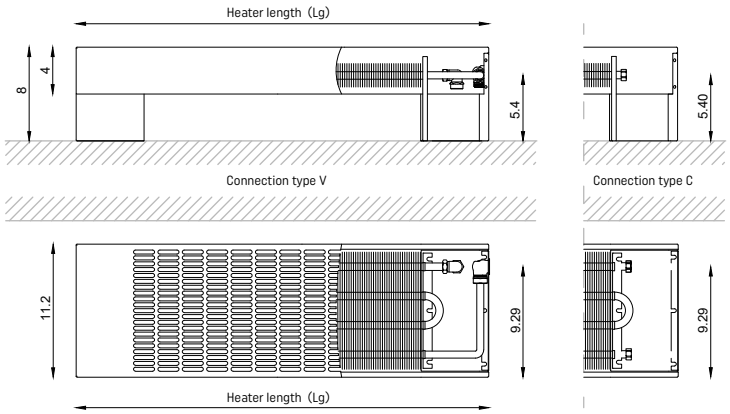
DIMENSIONS

DIMENSIONS	[inch]
Height	4,
Width	6.5,
Length	34.5 to 101.5

FLOOR-MOUNTED CONVECTORS 4 inch high

S-G14-10/28,4/Lg S(C/V) (L/P) « ORDER CODE

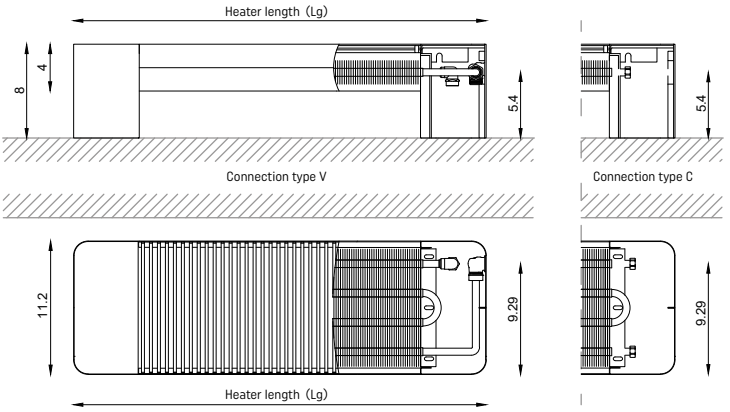
STANDARD



S-G14-10/28,4/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



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- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

DIMENSIONS

DIMENSIONS	[inch]
Height	4,
Width	11.2
Length	34.5 to 101.5

Non standard heater length available on request

VERANO®
BY MDL SOLUTIONS
COMPACT LOWER VOLTAGE FAN COILS AND HYDRONIC HEAT | MDLSOLN.COM

FLOOR-MOUNTED CONVECTORS 6.5 inch high

JTH/180310

Verano® by MDL SOLUTIONS CONVECTOR QUICK SELECTOR

STYLE	MDL DESCRIPTION	MDL#	HEIGHT H INCH	LENGTH L INCH	TYPE HX	WIDTH W INCH	180/160/68ºF			
							HEATING BTU/H	FLOWRATE UsGPM	PRESSURE DROP FT-H20	BTU/H PER FOOT
LST OR CALIENTE SAFETOTOUCH®	VERANO® FLOOR MOUNT PEDESTAL	SC220-16/15.9/600	6.5	23.5	22	6.30	1886	0.19	0.07	1561
		SC220-16/15.9/880	6.5	34.5	22		2454	0.25	0.11	1155
		SC220-16/15.9/1080	6.5	42.5	22		3018	0.30	0.17	1081
		SC220-16/15.9/1330	6.5	52.5	22		3730	0.37	0.25	1029
		SC220-16/15.9/1580	6.5	62	22		4433	0.44	0.34	1004
		SC220-16/15.9/1830	6.5	72	22		5146	0.51	0.45	980
		SC220-16/15.9/2080	6.5	82	22		5862	0.59	0.57	964
		SC220-16/15.9/2330	6.5	91.5	22		6570	0.66	0.70	956
		SC220-16/15.9/2580	6.5	101.5	22		7282	0.73	0.85	945
		SG230-16/22.2/600	6.5	23.5	23	8.70	4054	0.41	0.29	3355
		SG230-16/22.2/880	6.5	34.5	23		5277	0.53	0.47	2483
		SG230-16/22.2/1080	6.5	42.5	23		6491	0.65	0.69	2325
		SG230-16/22.2/1330	6.5	52.5	23		8015	0.80	1.01	2211
		SG230-16/22.2/1580	6.5	62	23		9535	0.95	1.40	2159
		SG230-16/22.2/1830	6.5	72	23		11063	1.11	1.84	2107
		SG230-16/22.2/2080	6.5	82	23		12609	1.26	2.34	2073
		SG230-16/22.2/2330	6.5	91.5	23		14133	1.41	2.90	2056
		SG230-16/22.2/2580	6.5	101.5	23		15661	1.57	3.50	2032
		SG240-16/28.4/600	6.5	23.5	24	11.20	3162	0.32	0.18	2617
		SG240-16/28.4/880	6.5	34.5	24		4679	0.47	0.37	2202
		SG240-16/28.4/1080	6.5	42.5	24		6239	0.62	0.64	2235
		SG240-16/28.4/1330	6.5	52.5	24		8189	0.82	1.05	2259
		SG240-16/28.4/1580	6.5	62	24		10139	1.01	1.57	2296
		SG240-16/28.4/1830	6.5	72	24		12088	1.21	2.17	2302
		SG240-16/28.4/2080	6.5	82	24		14038	1.40	2.86	2308
		SG240-16/28.4/2330	6.5	91.5	24		15988	1.60	3.64	2326
		SG240-16/28.4/2580	6.5	101.5	24		17937	1.79	4.50	2327

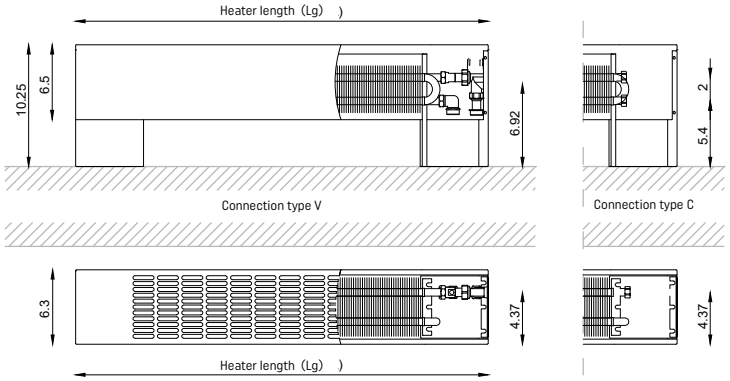
Standard heating output [BTU/H] according to the EN 442-1:2015-02 European Standard, room air temperature Θi = 68°F

* ΔT - the difference between mean water temperature (flow water temperature minus return water temperature) and room air temperature. For quick heat output calculating software contact MDL Solutions OR local Rep

FLOOR-MOUNTED CONVECTORS 6.5 inch high

S-C22-16/15,9/Lg S(C/V) (L/P) « ORDER CODE

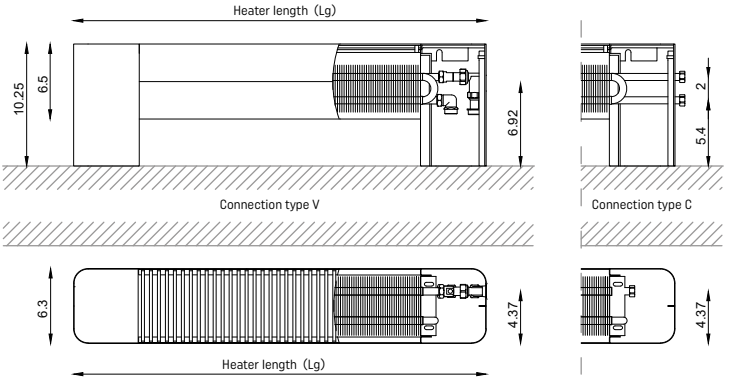
STANDARD



S-C22-16/15,9/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



STANDARD EQUIPMENT (STANDARD CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

DIMENSIONS

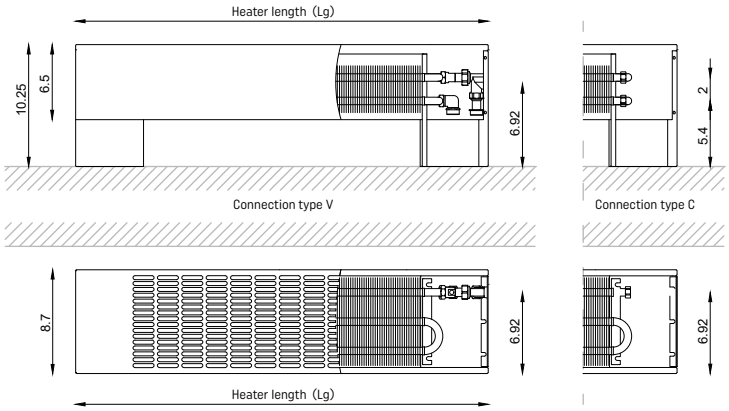
DIMENSIONS	[inch]
Height	6.5, .
Width	6.5,
Length	34.5 to 101.5

Non standard heater length available on request

FLOOR-MOUNTED CONVECTORS 6.5 inch high

S-G23-16/22,2/Lg S(C/V) (L/P) « ORDER CODE

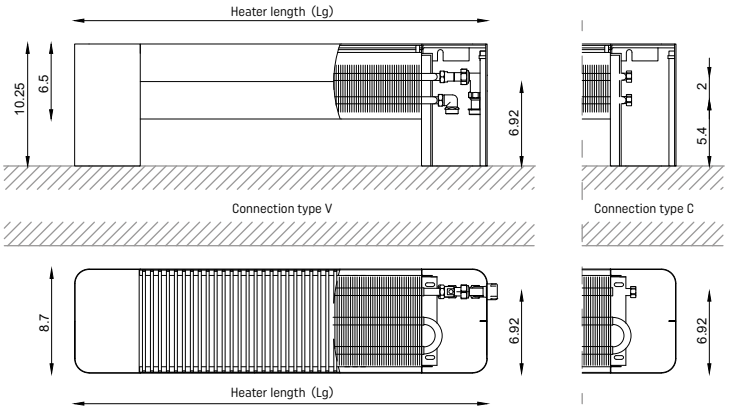
STANDARD



S-G23-16/22,2/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



STANDARD EQUIPMENT (STANDARD CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

DIMENSIONS

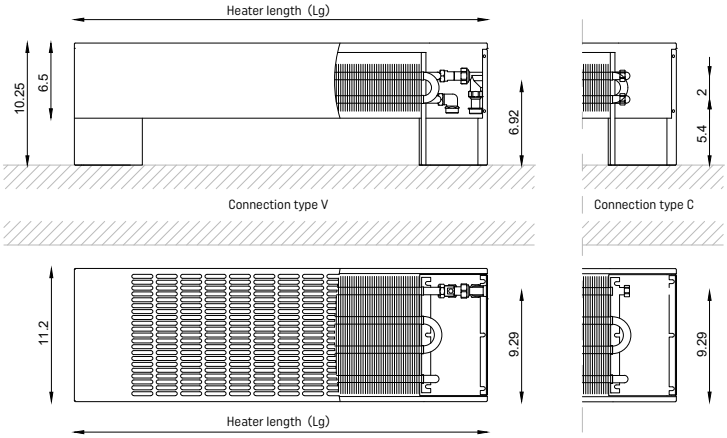
DIMENSIONS	[inch]
Height	6.5,
Width	8.7,
Length	34.5 to 101.5

Non standard heater length available on request

FLOOR-MOUNTED CONVECTORS 6.5 inch high

S-G24-16/28,4/Lg S(C/V) (L/P) « ORDER CODE

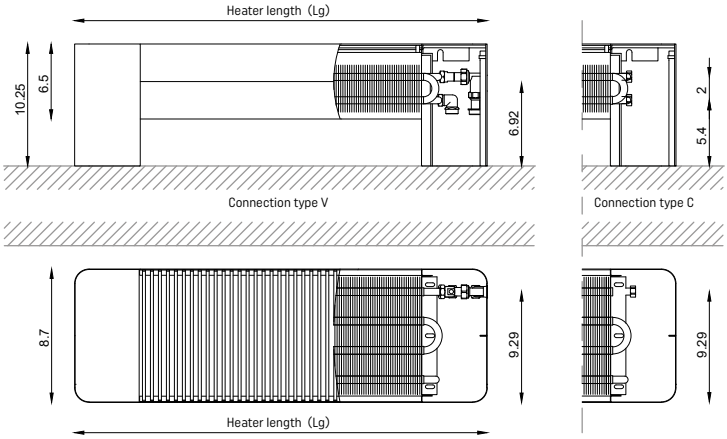
STANDARD



S-G24-16/28,4/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



STANDARD EQUIPMENT (STANDARD CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
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- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

DIMENSIONS

DIMENSIONS	[inch]
Height	6.5,
Width	8.7,
Length	34.5 to 101.5

Non standard heater length available on request

VERANO®
BY MDL SOLUTIONS
COMPACT LOWER VOLTAGE FAN COILS AND HYDRONIC HEAT | MDLSOLN.COM

FLOOR-MOUNTED CONVECTORS 9 inch high

JTH/180310

Verano® by MDL SOLUTIONS CONVECTOR QUICK SELECTOR

STYLE	MDL DESCRIPTION	MDL#	HEIGHT H INCH	LENGTH L INCH	TYPE HX	WIDTH W INCH	180/160/68ºF			
							HEATING BTU/H	FLOWRATE UsGPM	PRESSURE DROP FT-H20	BTU/H PER FOOT
LST OR CALIENTE SAFETOTOUCH®	VERANO® FLOOR MOUNT PEDESTAL	SC220-23/15.9/600	9	23.5	22	6.30	1886	0.19	0.07	1561
		SC220-23/15.9/880	9	34.5	22		2607	0.26	0.13	1227
		SC220-23/15.9/1080	9	42.5	22		3480	0.35	0.22	1247
		SC220-23/15.9/1330	9	52.5	22		4565	0.46	0.36	1259
		SC220-23/15.9/1580	9	62	22		5650	0.57	0.53	1279
		SC220-23/15.9/1830	9	72	22		6739	0.67	0.73	1284
		SC220-23/15.9/2080	9	82	22		7824	0.78	0.97	1286
		SC220-23/15.9/2330	9	91.5	22		8914	0.89	1.23	1297
		SC220-23/15.9/2580	9	101.5	22		9999	1.00	1.53	1297
		SG230-23/22.2/600	9	23.5	23	8.70	4744	0.47	0.38	3926
		SG230-23/22.2/880	9	34.5	23		6174	0.62	0.62	2905
		SG230-23/22.2/1080	9	42.5	23		7595	0.76	0.92	2721
		SG230-23/22.2/1330	9	52.5	23		9378	0.94	1.35	2587
		SG230-23/22.2/1580	9	62	23		11156	1.12	1.87	2526
		SG230-23/22.2/1830	9	72	23		12944	1.29	2.46	2466
		SG230-23/22.2/2080	9	82	23		14752	1.48	3.13	2425
		SG230-23/22.2/2330	9	91.5	23		16535	1.65	3.87	2405
		SG230-23/22.2/2580	9	101.5	23		18323	1.83	4.68	2377
		SG240-23/28.4/600	9	23.5	24	11.20	3162	0.32	0.18	2617
		SG240-23/28.4/880	9	34.5	24		5319	0.53	0.47	2503
		SG240-23/28.4/1080	9	42.5	24		7091	0.71	0.81	2540
		SG240-23/28.4/1330	9	52.5	24		9308	0.93	1.34	2568
		SG240-23/28.4/1580	9	62	24		11524	1.15	1.98	2609
		SG240-23/28.4/1830	9	72	24		13741	1.37	2.75	2617
		SG240-23/28.4/2080	9	82	24		15958	1.60	3.63	2623
		SG240-23/28.4/2330	9	91.5	24		18170	1.82	4.61	2643
		SG240-23/28.4/2580	9	101.5	24		20387	2.04	5.71	2645

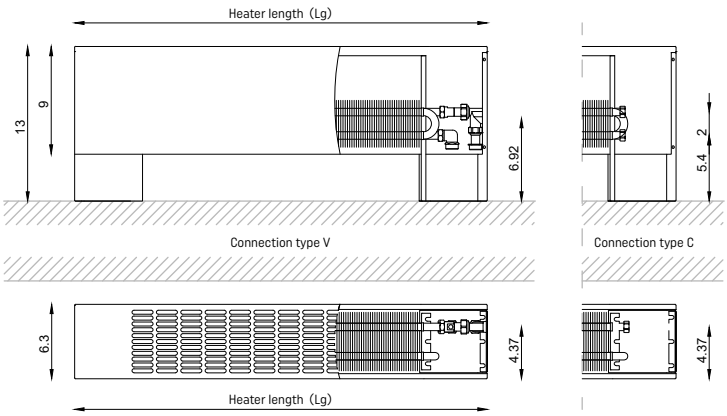
Standard heating output [BTU/H] according to the EN 442-1:2015-02 European Standard, room air temperature Θi = 68°F

* ΔT - the difference between mean water temperature (flow water temperature minus return water temperature) and room air temperature. For quick heat output calculating software contact MDL Solutions OR local Rep

FLOOR-MOUNTED CONVECTORS 9 inch high

S-C22-23/15,9/Lg S(C/V) (L/P) « ORDER CODE

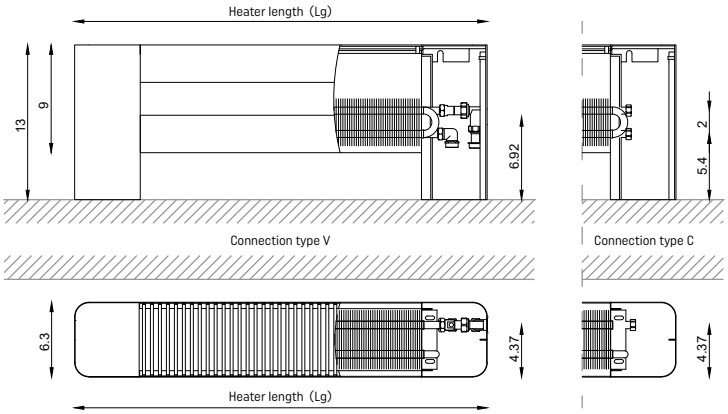
STANDARD



S-C22-23/15,9/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



STANDARD EQUIPMENT (STANDARD CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

DIMENSIONS

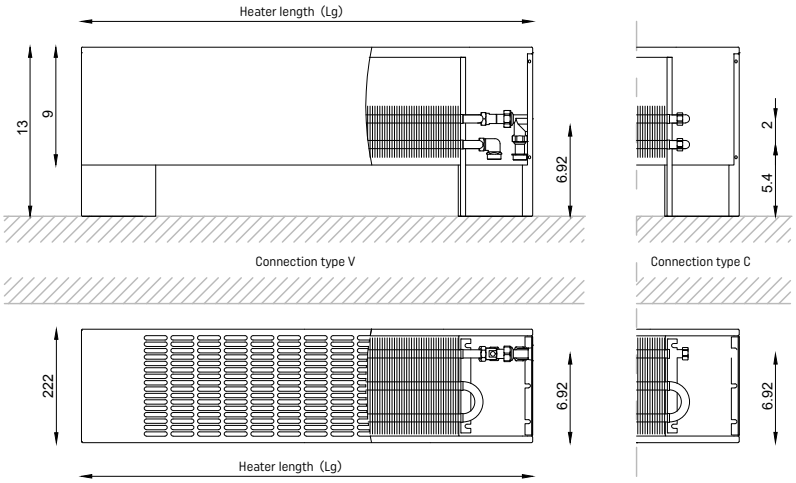
DIMENSIONS	[inch]
Height	9,
Width	6.5,
Length	34.5 to 101.5

Non standard heater length available on request

FLOOR-MOUNTED CONVECTORS 9 inch high

S-G23-23/22,2/Lg S(C/V) (L/P) « ORDER CODE

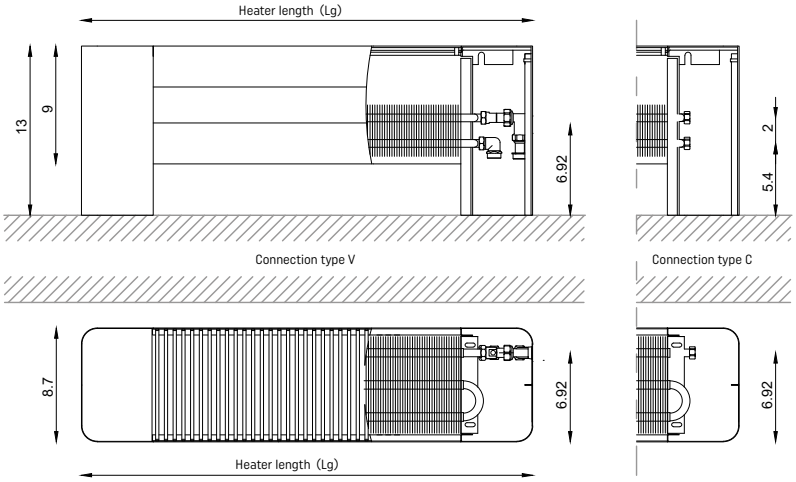
STANDARD



S-G23-23/22,2/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



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- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

DIMENSIONS

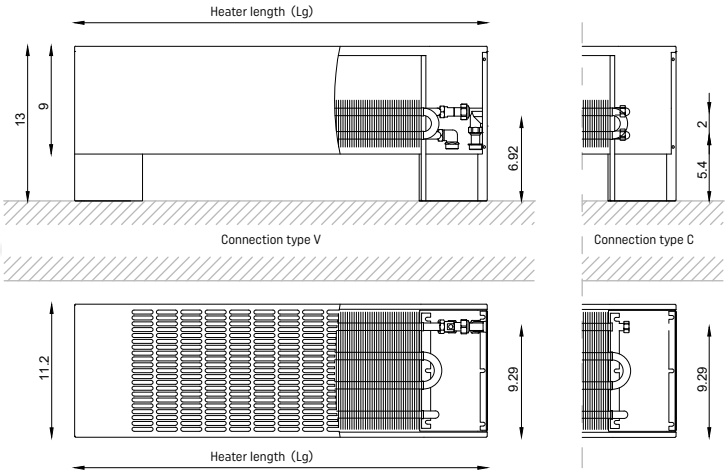
DIMENSIONS	[Inch]
Height	9,
Width	8.7,
Length	34.5 to 101.5

Non standard heater length available on request

FLOOR-MOUNTED CONVECTORS 9 inch high

S-G24-23/28,4/Lg S(C/V) (L/P) « ORDER CODE

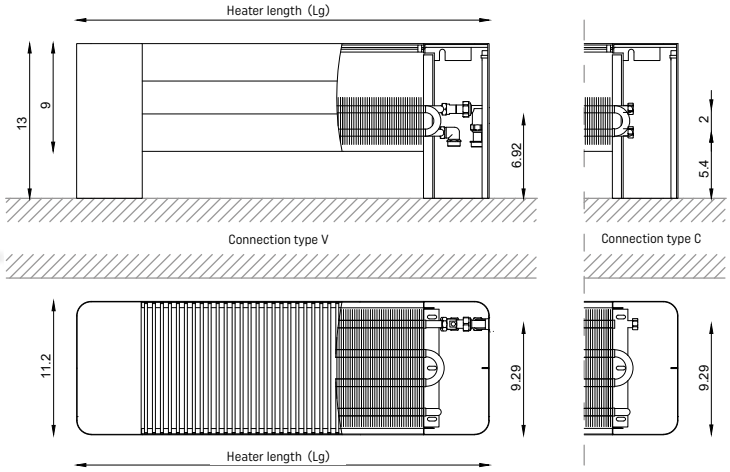
STANDARD



S-G24-23/28,4/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



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- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

DIMENSIONS

DIMENSIONS	[inch]
Height	9,
Width	11.2
Length	34.5 to 101.5

Non standard heater length available on request

VERANO® BY MDL SOLUTIONS
COMPACT LOWER VOLTAGE FAN COILS AND HYDRONIC HEAT | MDLSOLN.COM

FLOOR-MOUNTED CONVECTORS 12 inch high

JTH/180310

Verano® by MDL SOLUTIONS CONVECTOR QUICK SELECTOR

STYLE	MDL DESCRIPTION	MDL#	HEIGHT H INCH	LENGTH L INCH	TYPE HX	WIDTH W INCH	180/160/68ºF			
							HEATING BTU/H	FLOWRATE UsGPM	PRESSURE DROP FT-H20	BTU/H PER FOOT
LST OR CALIENTE SAFETOTOUCH®	VERANO® FLOOR MOUNT PEDESTAL	SC220-30/15.9/600	12	23.5	22	6.30	1886	0.19	0.07	1561
		SC220-30/15.9/880	12	34.5	22		2958	0.30	0.16	1392
		SC220-30/15.9/1080	12	42.5	22		3942	0.39	0.27	1412
		SC220-30/15.9/1330	12	52.5	22		5175	0.52	0.45	1428
		SC220-30/15.9/1580	12	62	22		6404	0.64	0.67	1450
		SC220-30/15.9/1830	12	72	22		7638	0.76	0.93	1455
		SC220-30/15.9/2080	12	82	22		8871	0.89	1.22	1458
		SC220-30/15.9/2330	12	91.5	22		10100	1.01	1.55	1469
		SC220-30/15.9/2580	12	101.5	22		11334	1.13	1.92	1470
		SG230-30/22.2/600	12	23.5	23	8.70	5550	0.56	0.51	4593
		SG230-30/22.2/880	12	34.5	23		7224	0.72	0.84	3400
		SG230-30/22.2/1080	12	42.5	23		8886	0.89	1.23	3183
		SG230-30/22.2/1330	12	52.5	23		10972	1.10	1.81	3027
		SG230-30/22.2/1580	12	62	23		13052	1.31	2.50	2955
		SG230-30/22.2/1830	12	72	23		15145	1.51	3.29	2885
		SG230-30/22.2/2080	12	82	23		17260	1.73	4.19	2837
		SG230-30/22.2/2330	12	91.5	23		19346	1.93	5.18	2814
		SG230-30/22.2/2580	12	101.5	23		21438	2.14	6.26	2781
		SG240-30/28.4/600	12	23.5	24	11.20	3162	0.32	0.18	2617
		SG240-30/28.4/880	12	34.5	24		5955	0.60	0.58	2802
		SG240-30/28.4/1080	12	42.5	24		7943	0.79	1.00	2845
		SG240-30/28.4/1330	12	52.5	24		10422	1.04	1.65	2875
		SG240-30/28.4/1580	12	62	24		12906	1.29	2.45	2922
		SG240-30/28.4/1830	12	72	24		15390	1.54	3.39	2931
		SG240-30/28.4/2080	12	82	24		17870	1.79	4.47	2938
		SG240-30/28.4/2330	12	91.5	24		20353	2.04	5.69	2960
		SG240-30/28.4/2580	12	101.5	24		22833	2.28	7.04	2962

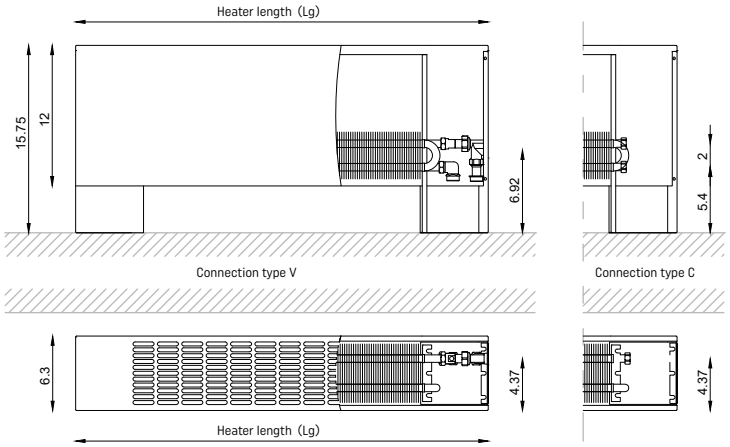
Standard heating output [BTU/H] according to the EN 442-1:2015-02 European Standard, room air temperature Θi = 68°F

* ΔT - the difference between mean water temperature (flow water temperature minus return water temperature) and room air temperature. For quick heat output calculating software contact MDL Solutions OR local Rep

FLOOR-MOUNTED CONVECTORS 12 inch high

S-C22-30/15,9/Lg S(C/V) (L/P) « ORDER CODE

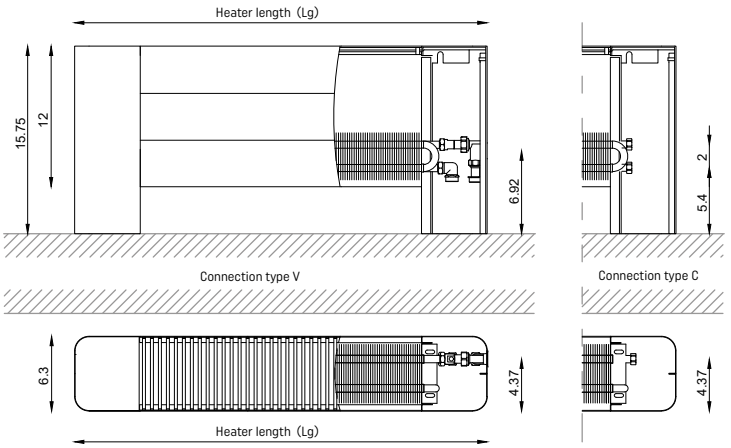
STANDARD



S-C22-30/15,9/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



STANDARD EQUIPMENT (STANDARD CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

DIMENSIONS

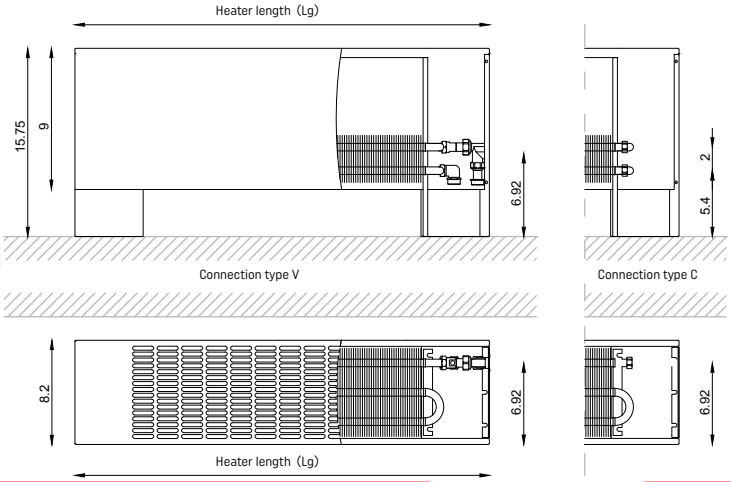
DIMENSIONS	[inch]
Height	12
Width	6.5,
Length	34.5 to 101.5

Non standard heater length available on request

FLOOR-MOUNTED CONVECTORS 12 inch high

S-G23-30/22,2/Lg S(C/V) (L/P) « ORDER CODE

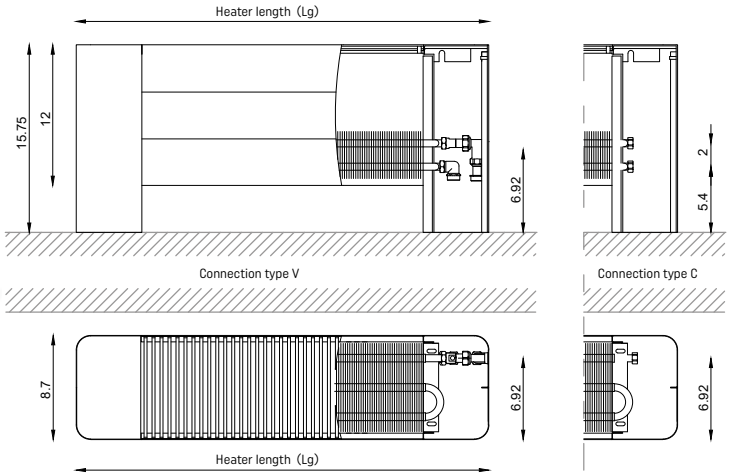
STANDARD



S-G23-30/22,2/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



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- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

DIMENSIONS

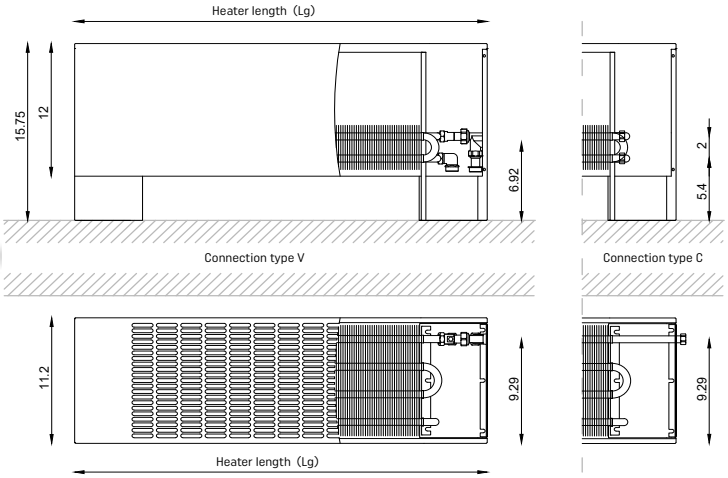
DIMENSIONS	[inch]
Height	12
Width	8.7,
Length	34.5 to 101.5

Non standard heater length available on request

FLOOR-MOUNTED CONVECTORS 12 inch high

S-G24-30/28.4/Lg S(C/V) (L/P) « ORDER CODE

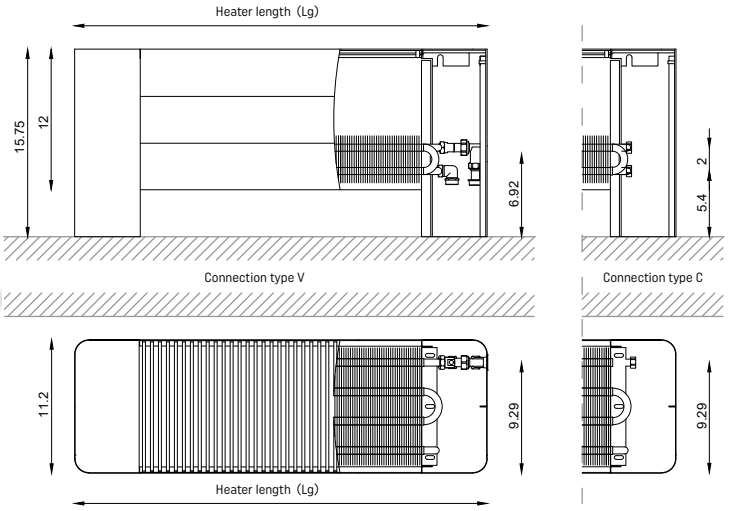
STANDARD



S-G24-30/28.4/Lg C(C/V) (L/P) « ORDER CODE

CALIENTE

CALIENTE



STANDARD EQUIPMENT (STANDARD CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

STANDARD EQUIPMENT (CALIENTE CASING):

- Smooth casing made of zinc-magnesium galvanized steel, powder coated in white RAL 9003
- Copper-aluminium heat exchanger with air vent
- Built-in thermostatic valve (only for V type connection heaters)
- Assembly kit
- Masking panels in RAL 9005 black
- Modular anodized aluminium grille, snap profile, black finish,
- ¾" female threaded connectors in C type (side connection) heaters
- ¾" male threaded connectors in V type (bottom connection) heaters
- Heater brackets/legs 100 mm high

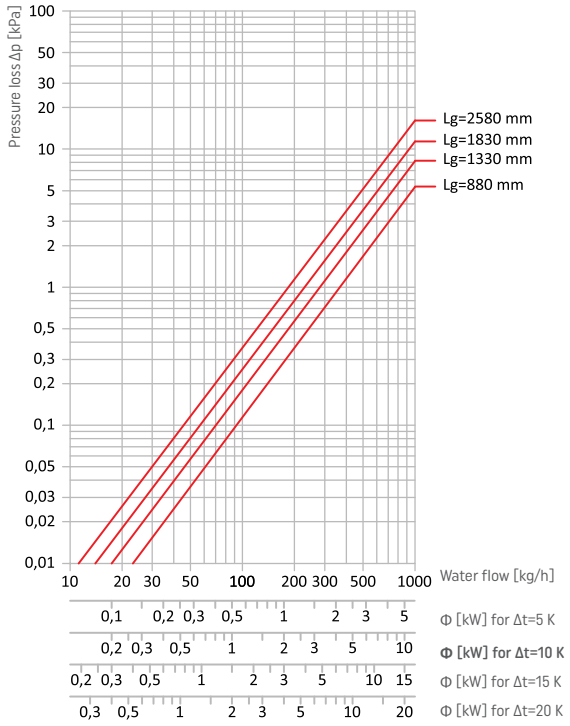
DIMENSIONS

DIMENSIONS	[inch]
Height	12
Width	11.2
Length	34.5 to 101.5

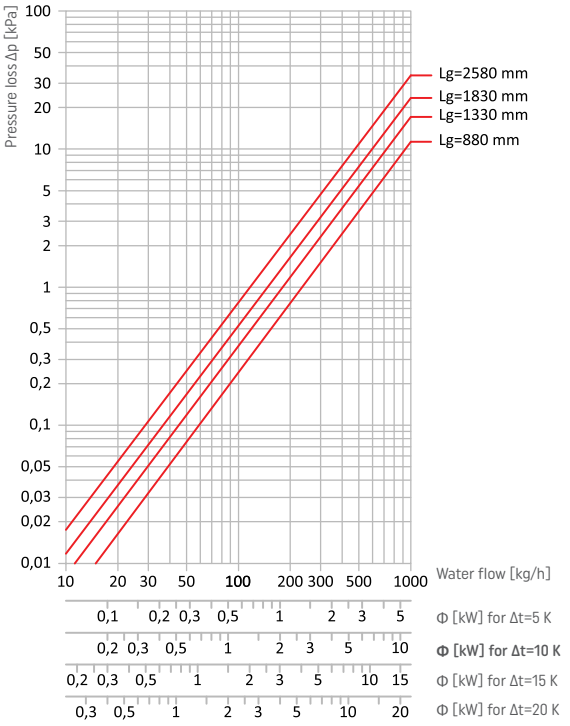
Non standard heater length available on request

PRESSURE LOSS

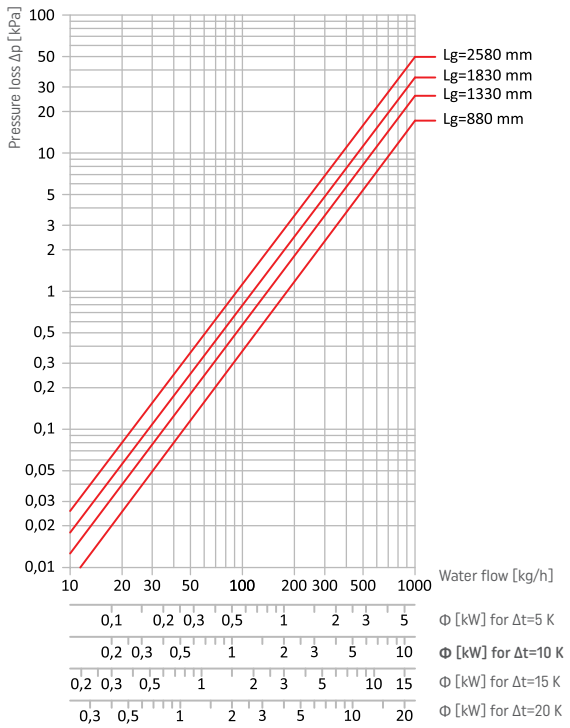
- S-C12-10/15,9/Lg



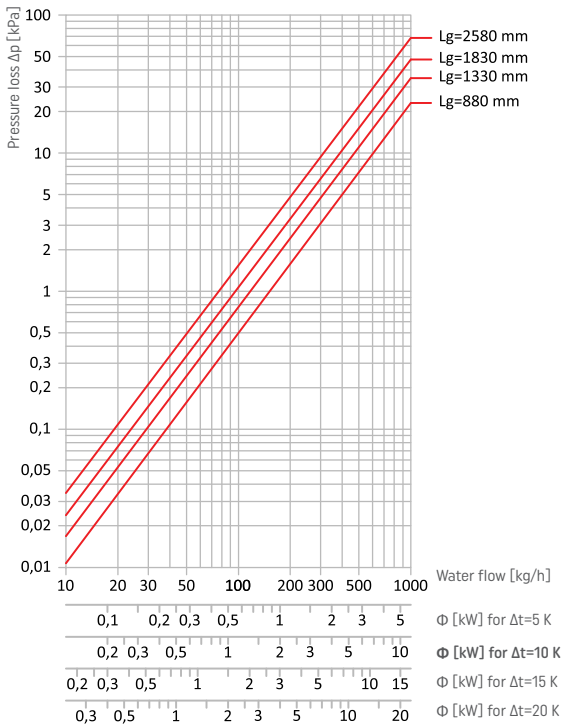
- S-G14-10/28,4/Lg
- S-C22-16/15,9/Lg
- S-C22-23/15,9/Lg
- S-C22-30/15,9/Lg



- S-G23-16/22,2/Lg
- S-G23-23/22,2/Lg
- S-G23-30/22,2/Lg



- S-G24-16/28,4/Lg
- S-G24-23/28,4/Lg
- S-G24-30/28,4/Lg

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HEATER SELECTION

Example calculations for the following convector: N-C22-60/14,7/133
Heat output for 75/65/20°: Φ=1577 W
Installation temperatures: $t_z/t_p/\Theta_i$ = 65/55/20°C

EXAMPLE 1
based on the corrective factors

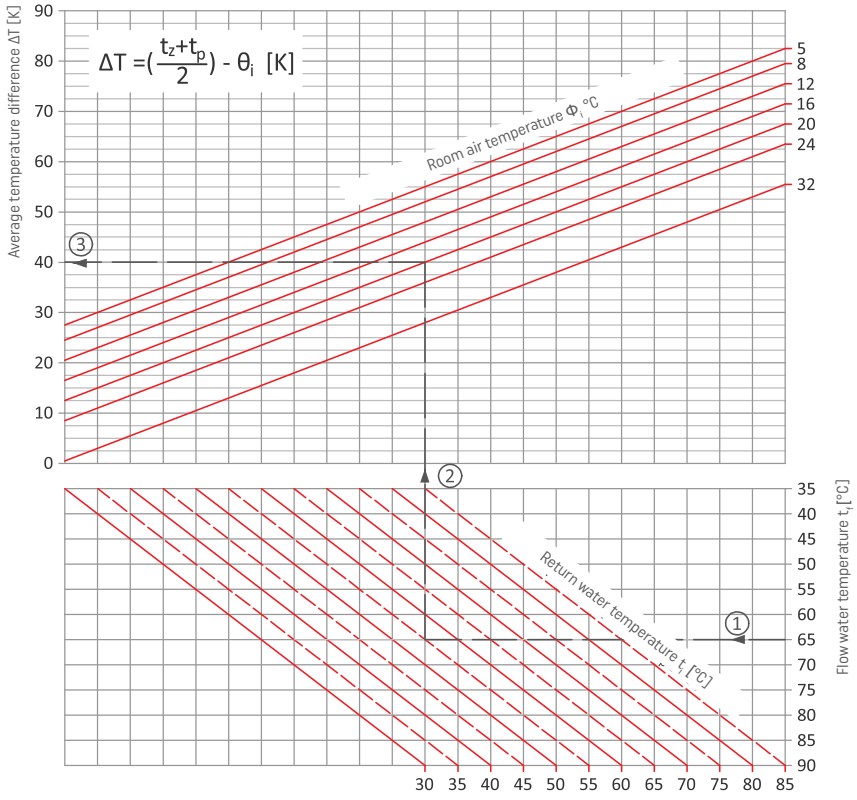
Read out the right corrective factor for project installation temperatures - flow and return temperature and room air temperature. In this case, according to the table on page 27 corrective factors is 0,753. Next step is to multiple heat output value for standard installation parameters 75/65/20°C by corrective factor: Heat output for65/55/20°C: Φ=1594·0,753 = **1200 W.**

EXAMPLE 2
based on heating output formula for different installation temperatures

Calculate/read the average temperature difference for respective parameters, using the graph.

The graph allows for easy readout of the average temperature difference ΔT for the selected parameters of heating water t_f and t_r, depending on the room temperature Θ_i.

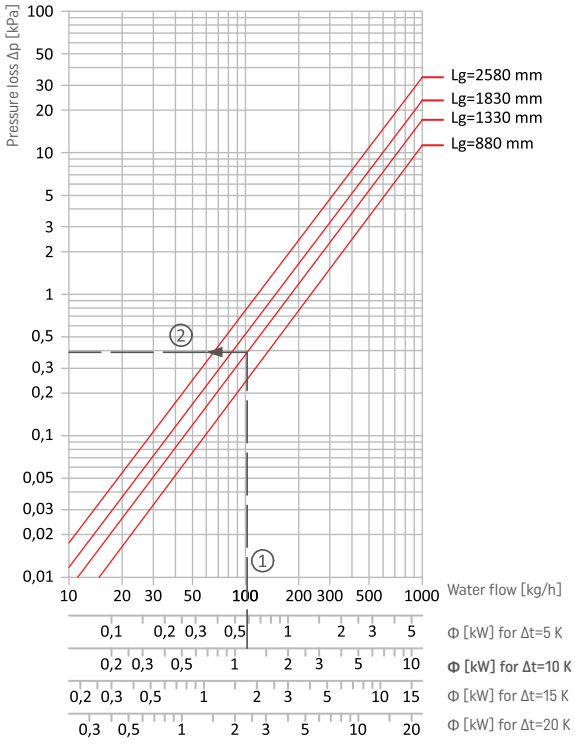
1. First draw a horizontal line from flow temperature t_f=65°C to its crossing with the slanted line of outlet temperature t_r=55°C
2. Then draw a vertical line from the crossing point with the slanted line of room temperature Θ_i=20°C
3. Draw a horizontal line and read the temperature difference of ΔT=40 K. Then use the equation for heating output of convectors for different conditions, for the Caliente N-C22-60/14,7/133 heater it will be: $\Phi=11{,}0649\cdot\Delta T^{1{,}2705}$ [W]
4. Heating power for the selected parameters 65/55/20°C: $\Phi=11{,}0649\cdot40^{1{,}2705}$ = **1200 W**



PRESSURE LOSS READOUT

Based on radiator selection data presented above we selected the heating output of **1200 W** for 65/55/20°C temperatures. Cooling temperature (the difference between flow and return temperatures) is Δt=10°C.

1. Using the axis for 10°C cooling temperature draw a vertical line from the 1.20kW heat output to its crossing with the slanted line representing the length of the convector Lk=1330 mm.
2. Draw a horizontal line from that crossing and read the pressure loss **Δp=0,39 kPa.**



CONTROL METHODS FOR WALL-MOUNTED AND FLOOR-MOUNTED CONVECTORS

The wall-mounted and floor-mounted convectors are equipped with water exchanger. Also, V-type convectors have a built-in thermostatic valve that allows for different heating water flow control methods to be applied.

The basic solution available for V-type radiators is the assembly of thermostatic head on the built-in valve.

Use of room controller and actuators allows for the simultaneous control of several convectors and scheduling their operation. What is required is the cabling between the actuators, controllers and power supply source.

Due to aesthetic considerations (cables of actuators) the wall-mounted and floor-mounted heaters may be optionally adjusted to working with actuators, by using special valves that allow the assembly of actuators inside the radiator casing.

Please contact us prior to finalizing the order if the optional adjustment of convectors to internal installation of actuators is required.

A variant of the aforesaid solution is the wireless control that allows for the assembly of elements with minimum interference with the room. This system also allows for remote control of the convectors with use of a mobile application.

The V-type heaters in CALIENTE finish can be equipped with built-in actuators and dedicated controller.

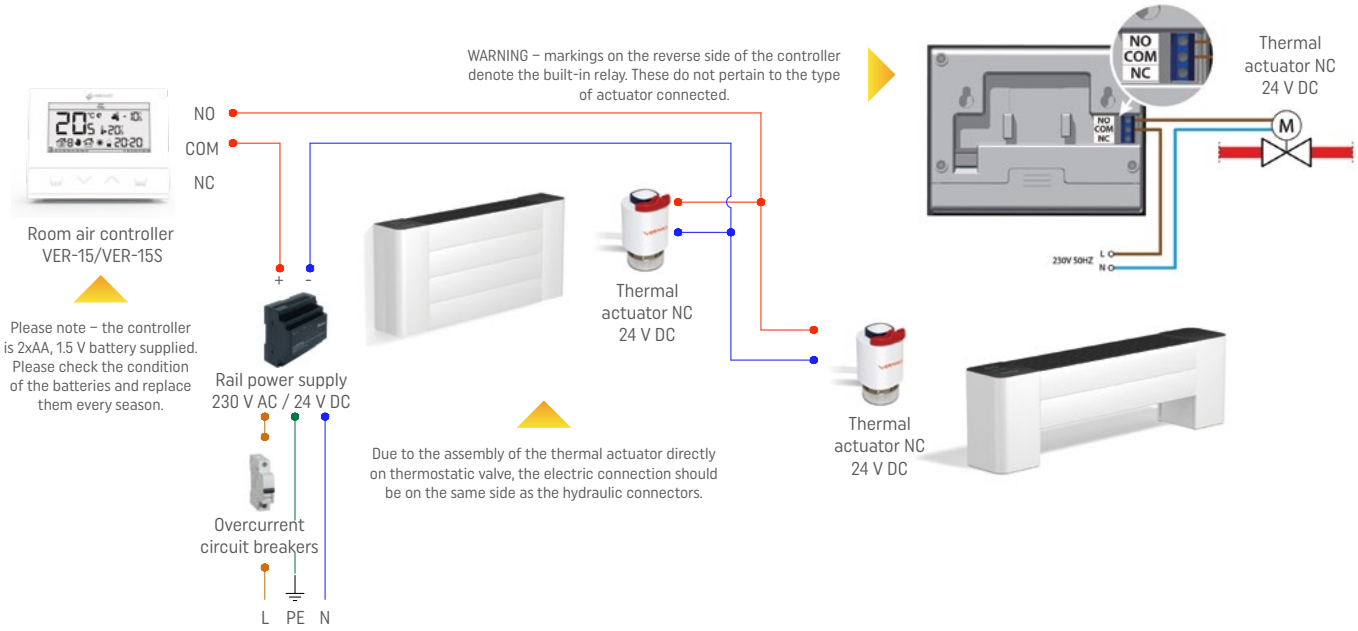
The C-type radiators have no built-in thermostatic valve – the exemplary control method is the assembly of valve and thermostatic head between the convector and the installation.

WARNING!

Electric wiring should be done only by the electrical skilled worker who can confirm his membership in an approved self-certification scheme. The power can only be connected after the correctness of the whole connection diagram was verified.

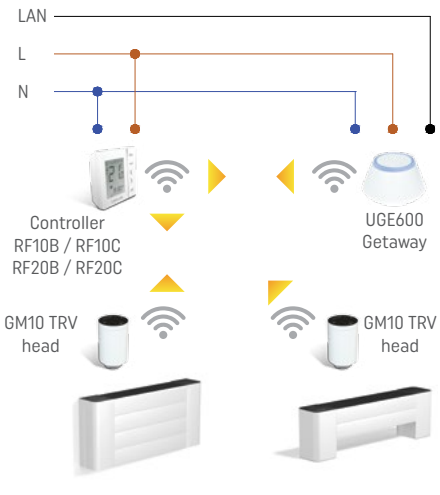
The control accessories should be powered with use of 24 V DC voltage. It is prohibited to power up the control accessories directly from 230 V AC grid.

CONTROLLING THE OPERATION WITH USE OF ACTUATORS AND THE VER-15S CONTROLLER



The example of connection several heaters with one room air controller and ON/OFF NC thermal actuators

CONTROLLING THE OPERATION WITH USE OF WIRELESS SYSTEM



Example connection diagram for wireless system

The wall-mounted controller allows one to program the expected room temperature and enables the simultaneous control of as many as six separate heaters equipped with wireless heads. Depending on the type the controller can be battery-powered (4xAAA) or 230 V mains-powered (RF10B / RF10C). Each of the heating zones should be equipped with a separate controller.

The wireless head is installed on the thermostatic valve and communicates with the room controller, adjusting the flow of heating water through the thermostatic valve accordingly. The head is battery-powered (2xAA) and the batteries should be replaced every heating season.

The Internet gateway, thanks to the free application for mobile devices, allows for remote controlling of the temperature in the respective rooms. One gateway can work with several controllers.

If the remote control of the installation is not required the Internet gateway can be replaced with C010 network coordinator.

Example appearance of application for wireless control of radiator operation

CONTROLLING THE CALIENTE CONVECTORS WITH USE OF THE BUILT-IN VER-34 CONTROLLER

The floor-mounted and wall-mounted CALIENTE casing convectors can be equipped with built-in VER-34 controller as an option.

This controller has a glass finish, LED display and intuitive buttons.

VER-34 allows for precise setting of expected room temperature and readout of current temperature.

The VER-34 controller is available in black or white. The VER-34 controller forms an integral part of the CALLIENTE casing heater.

The controller set includes:

- VER-34 Controller
- glass masking panel in the same colour as the controller
- SST24 actuator to be assembled on the thermostatic valve

The CALLIENTE convector with built-in controller is designed for assembly of the actuator within the heater casing. The built-in VER-34 controller can be used in CALIENTE radiators that are 160mm high or higher than that.

NOTE – the controller can only be installed onthe right side of the convector.

VER-34 CONTROLLER

The VER-34 controller is designed to work with wall-mounted CALIENTE convectors. It allows the user to set the room temperature. Once this temperature is reached, the controller closes the heater valve via thermal actuator.

The room temperature is measured with use of the temperature sensor that is built-in the controller.

At the idle mode the controller screen displays current room temperature. After pressing the PLUS or MINUS button the set temperature will be displayed. The value of the set temperature can be adjusted by pressing the PLUS and MINUS buttons.

The built-in light intensity sensor adjust the screen brightness to the current room conditions.

Controllers for floor-mounted radiators:

- S-C22 type, white or black VERSC22B or VERSC22C
- S-G23 type, white or black VERSG23B or VERSG23C
- S-G24 type, white or black: VERSG24B or VERSG24C

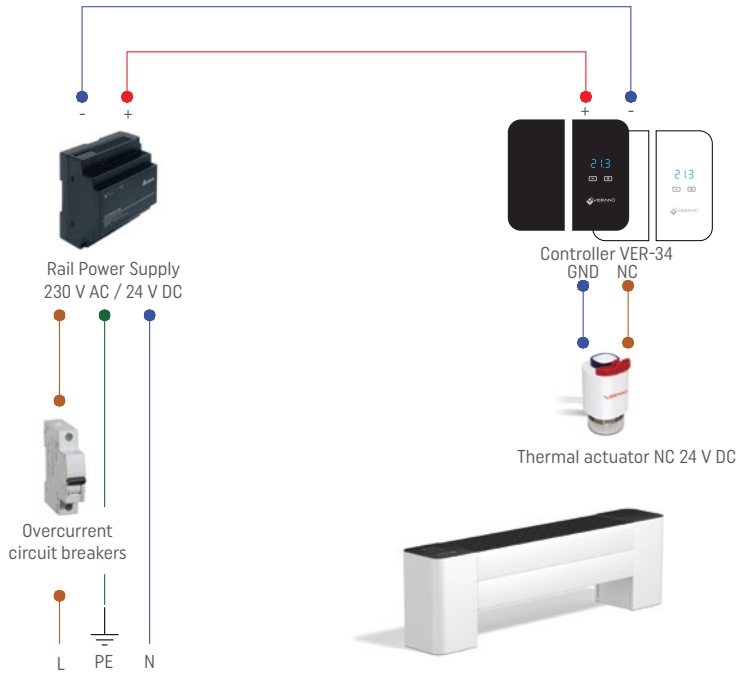
Controllers for wall-mounted convectors:

- N-C22 type, white or black VERNC22B or VERNC22C
- N-G23 type, white or black VERNG23B or VERNG23C

All controllers are to be supplied with 24 V DC voltage.

SST24 actuator: 24 V AC/DC power supply; PVC 2x0.75 mm 1m connection cable, M30x1.5

ELECTRICAL CONNECTION DIAGRAM



Connection diagram for the VER-34 controller and SST24 actuator and the CALIENTE convector.

The VER-34 controller requires 24 V DC power supply for its correct operations. Connection of the power cable and the actuator circuit should be executed, as per the attached diagram. Due to the use of the VER-34 controller the power should be connected to the right side of the convector.

WARNING!

Electric wiring should be done only by the electrical skilled worker who can confirm his membership in an approved self-certification scheme. The power can only be connected after the correctness of the whole connection diagram was verified. The control accessories should be powered with use of 24 V DC voltage. It is prohibited to power up the control accessories directly from 230 V AC grid.

ASSEMBLY AND OPERATION OF WALL-MOUNTED CONVECTORS

Take the heater out of its package, remove the front panel, and then measure and transfer to the wall the location of assembly spots of the back casing.

The distance of convector to floor level and its distance to the window still should be both no less than 10 cm.

After preparation of holes and insertion of wall plugs hang the back casing and the heat exchanger on the wall. Secure all fastening screws tightly.

The next step is the hydraulic connection of exchanger with central heating installation – make sure that the connectors were correctly counter-locked. V-type convectors are used with the so-called H-valves.

In V-type convectors thermostatic valve is to be connected tothe central heating flow piping. In C-type convectors central heating flow piping is to be connected to the thermostatic valve installed on the upper connector of heater.

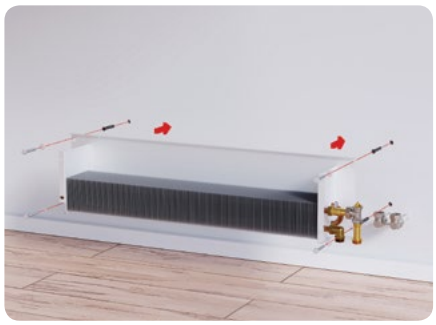
After completed hydraulic works put on the front panel and fasten the fastening screw that hold it from underneath. The V-type convector assembly is completed with the screwing in the TRV head onto the valve. incase of Caliente heaters – with assembly of the decorative grille.

For Caliente heaters with built-in actuator or a dedicated VER-34 controller, the controller or the wireless head should be installed prior to installation of the front panel of the casing.

Wireless head can be installed instead of the thermostatic head or the actuator. Page 51 includes the description of convector control with use of the wireless system.

Wall-mounted convector should not be covered by furniture, drapes or another interior finish elements. At least once a year, prior to the heating season, the heater should be cleaned from the dust in the exchanger. Precise cleaning is possible after removing the front casing panel, or in case of the Caliente heaters, after removal of the decorative grille.

Detailed information can be found in manuals for the respective types of convectors.



ASSEMBLY AND OPERATION OF STANDING CONVECTORS

Take the heater out of its package, remove the leg covers and the casing (V-type standard convectors) or grille (Caliente convectors) and place the heater in the desired installation position.

Then mark the spots for plug holes of the heat exchanger and casing on the floor.

Floor-mounted convectors that are longer than 1330 mm have an additional, middle support leg.

Put the convector to the side and drill the holes and insert the plugs into the floor. Install the heat exchanger first, fasten its support in appropriate locations. The next step is its hydraulic connection with the central heating installation – make sure that that the connectors were correctly counter-locked.

In V-type convectors thermostatic valve is to be connected to the central heating flow piping. In C-type convectors central heating flow piping is to be connected to the thermostatic valve installed on the upper connector of heater.

After finished assembly of the exchanger assemble the casing (V-type heaters) or install the grille (Caliente heaters).

Finish the assembly of the convector by placing the masking panels of legs and screwing in the thermostatic head or wireless thermostatic valve.

In case of Caliente heater with built-in actuator or a dedicated VER-34 controller the actuator or the wireless head should be installed prior to installation of the front panel of the casing.

In case of a C-type convector the hydraulic connection is performed after closing the casing with leg-masking elements. After the connection, make sure that the connectors were correctly counter-locked.

Standing convectors should not be covered by furniture, drapes or other furnishings. Standing convectors are not adjusted to bearing loads – one should not attempt to sit on them or place heavy objects on top.

At least once a year, prior to the heating season, the convectors should be cleaned from the dust on the exchanger.

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notified laboratory 2693

PROTOKOL
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PRODUCT PERFORMANCE ASSESSMENT REPORT

podle nařízení Evropského parlamentu a Rady (EU) č. 305/2011 ze dne 9. března 2011, (nařízení o stavebních výrobcích – CPR), příloha V, čl. 1.4 (systém 3) v platném znění

in accordance with regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 (construction product regulation – CPR), annex V, par. 1.4 (System 3), as amended

č. / No. 2693-CPR-0003-2017

Žádost č. / Application No. : 004/2017

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dle / *in accordance with* ČSN EN 442-1 ed. 2: 2015

která byla vyrobena výrobcem nebo pro výrobce / *manufactured by or manufactured for*

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dne / *on* 30-06-2017

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DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH

nr 002-2017-07-01

1. **Nazwa i nazwa handlowa wyrobu budowlanego:**

Konwektor stojący z rur ożebrowanych – ławka grzewcza (zgodnie z rys. G.8):

S-G23-45,3/42

2. **Oznaczenie typu wyrobu budowlanego:**

Oznakowanie typu wyrobu (wg pkt.1), nazwy producenta oraz partii produkcyjnej, znajduje się na etykietach umieszczonych na obudowie grzejnika oraz dodatkowo na etykietach znajdujących się na opakowaniu wyrobu.

3. **Zamierzone zastosowanie lub zastosowania:**

Przewidziane przez producenta zamierzone zastosowanie wyrobu budowlanego zgodnie z normą PN-EN 442-1:2015-02: W instalacjach grzewczych w budynkach. Grzejniki i konwektory zamontowane na stałe w instalacjach centralnego ogrzewania budynków, zasilane wodą grzewczą z zewnętrznych źródeł ciepła.

4. **Nazwa i adres siedziby producenta oraz miejsce produkcji wyrobu:**

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www.v-k.pl info@v-k.pl

5. **Nazwa i adres siedziby upoważnionego przedstawiciela:**

nie dotyczy

6. **Krajowy system zastosowany do oceny i weryfikacji stałości właściwości użytkowych:**

System 3.

7. **Norma zharmonizowana:**

PN-EN 442-1:2015-02

8. **Jednostka oceny technicznej:**

Nazwa akredytowanej jednostki certyfikującej: **HEATEST, s.r.o.**
Numer akredytacji: **2693**
Numer certyfikatu: **2693-CPR-0003-2017**

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PROTOKOL
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PRODUCT PERFORMANCE ASSESSMENT REPORT

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DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH

nr 001-2017-07-01

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Konwektor stojący z rur ożebrowanych (zgodnie z rys. G.8):

S-C12-10/15,9; S-G14-10/28,4
S-C22-16/15,9; S-G23-16/22,2; S-G24-16/28,4
S-C22-23/15,9; S-G23-23/22,2; S-G24-23/28,4
S-C22-30/15,9; S-G23-30/22,2; S-G24-30/28,4

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dne / *on* 12-07-2017

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DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH

nr 001-2017-07-12

1. **Nazwa i nazwa handlowa wyrobu budowlanego:**

Konwektor naścienny z rur ożebrowanych (zgodnie z rys. G.8):

N-C22-23/14,7; N-G23-23/21,0
N-C22-30/14,7; N-G23-30/21,0
N-C22-40/14,7; N-G23-40/21,0
N-C22-60/14,7; N-G23-60/21,0

2. **Oznaczenie typu wyrobu budowlanego:**

Oznakowanie typu wyrobu (wg pkt.1), nazwy producenta oraz partii produkcyjnej, znajduje się na etykietach umieszczonych na obudowie grzejnika oraz dodatkowo na etykietach znajdujących się na opakowaniu wyrobu.

3. **Zamierzone zastosowanie lub zastosowania:**

Przewidziane przez producenta zamierzone zastosowanie wyrobu budowlanego zgodnie z normą PN-EN 442-1:2015-02: W instalacjach grzewczych w budynkach. Grzejniki i konwektory zamontowane na stałe w instalacjach centralnego ogrzewania budynków, zasilane wodą grzewczą z zewnętrznych źródeł ciepła.

4. **Nazwa i adres siedziby producenta oraz miejsce produkcji wyrobu:**

VERANO Ryszard Miazga
ul. Vetterów 7A, 20-277 Lublin
Tel. +48 81 44-08-330, Fax.+48 81 44-08-333
www.v-k.pl info@v-k.pl

5. **Nazwa i adres siedziby upoważnionego przedstawiciela:**

nie dotyczy

6. **Krajowy system zastosowany do oceny i weryfikacji stałości właściwości użytkowych:**

System 3.

7. **Norma zharmonizowana:**

PN-EN 442-1:2015-02

8. **Jednostka oceny technicznej:**

Nazwa akredytowanej jednostki certyfikującej: **HEATEST, s.r.o.**
Numer akredytacji: **2693**
Numer certyfikatu: **2693-CPR-0005-2017**

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