
LINE FAN

With fan

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FLOOR CONVECTOR INSTALLATION, MAINTENANCE AND
OPERATION MANUAL

HEATMANN
SMART CONVECTION SOLUTIONS

- have been damaged due to unprofessional installation or due to the tampering with structure of the device without the consent of the seller;

- have been used for other purposes than intended, in particular for drying wet textile materials directly on the radiator, without the use of additional dryers intended for this purpose, which may damage the surface coating of the product;

- have been damaged by the use of cleaning agents that are not intended for cleaning this type of radiator surface;

- have been purchased at a discount that was applied due to the defect and which was notified to the buyer at the time of the purchase.

The warranty shall not cover wear and tear of the product due to its excessive use.

In the event that no defects of the product that occurred due to the fault of the manufacturer are identified during the inspection or if the warranty conditions have not been fulfilled, the buyer shall bear the costs related to the inspection or repair of the product. If the customer sends a defective product under warranty by post, the product must be in its original packaging to prevent further damage due to transportation. Defects that occur during discussion of the right to the after sales services shall not be considered.

Never use scouring or chemical cleaning agents to clean convector radiator.

CONVECTORS WITH FANS:

250x065, 300x065

175x080, 200x080, 250x080, 300x080

175x090, 200x090, 250x090, 300x090, 425x090

175x110, 200x110, 250x110, 300x110, 425x110

250x125, 300x125, 425x125

250x140, 300x140, 425x140

Application

Floor convectors are used in large glazed areas such as shop windows, conservatories, entrance rooms, common and commercial areas, meeting and presentation rooms, as well as architectural monuments. They are installed in the floor trenches, so they do not take up space and do not interfere with the arrangement of furniture, nor do they interfere with the interior concept of the room, as traditional radiators do.

Terms of use

- heating system with forced circulation
- maximum heat carrier operating temperature – 110°C
- maximum heat carrier operating pressure – 1 MPa
- electrical components with protection IP 20, operating voltage 24V DC, use in a dry environment
- convector is designed for use at ambient temperatures from +2 to 40°C at a relative humidity of 20-70%

Warning: If the ambient temperature drops below +2 °C (e.g., in unheated rooms in winter), the heating system must be emptied to prevent damage if the heat carrier freezes.

Parcel size

The assembled floor convector system is delivered in a standard packaging (paper cardboard, polyethylene surface film), which includes:

Convector

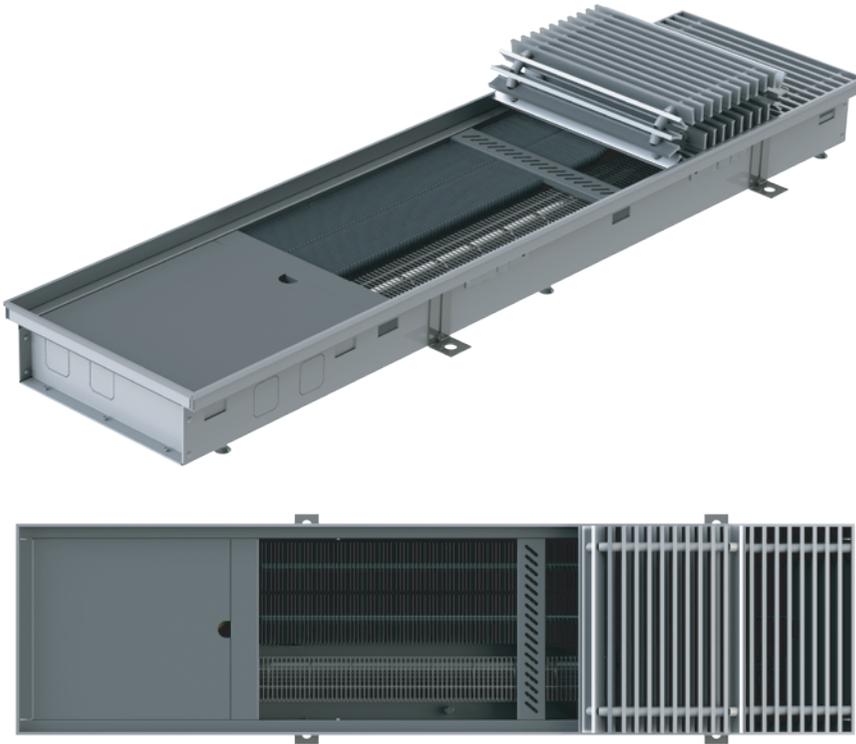
- housing with mounting holes for connection to the heating system and electrical installation, water connection cover and anodised aluminium strip
- Al-Cu plate heat exchanger with 2 outlets for connection with G1/2" internal thread and air valve
- tangential fans with protective cover
- decorative grilles according to the customer's specification
- assembly chipboard

Standard set (included with the convector)

- instructions for use and installation
- mounting bolts for correct installation

Accessories customised by order:

- thermostat CB CONTROLLER
- thermostatic valve – straight, angled
- thermostatic head
- external temperature sensor
- network converter 24V

Structure

Housing made of galvanised or stainless steel with holes for pipes (water inlet and outlet) and power cables, which contains all the functional structural parts of the floor convector, water connection cover and anodised aluminium strip. Convectors for humid environments will be equipped with housings featuring an additional drainage pipe.

Al-Cu plate heat exchanger – aluminium plates on a copper pipe through which the heat carrier flows, the air valve and the end threaded connection with the internal thread G1/2.

WARRANTY SHEET

1. The seller's warranty shall cover the insulation, surface treatment, heat output indicators and pressure loss of heating elements, which are installed in a closed, watertight system by qualified specialists in accordance with the applicable standards and regulations, including the corrosive properties of the heat carrier that must be used for heating purposes only and never used for household needs.
2. The heating elements must be installed by a qualified specialist in accordance with the applicable requirements in a closed heating system that is professionally manufactured in accordance with VDI 2035, taking into account the protection against corrosion and sediment (skimmings).
3. When using the product, the buyer must comply with the rules set out in the enclosed installation instructions and common rules.
4. The buyer must check the condition of the product upon receipt or as soon as possible after receipt of the product.
5. The corrosive effects of the surrounding environment in which the heating elements are installed should not exceed the surface treatment requirements of the elements in accordance with the applicable standards.
6. Floor convectors with floor fan IP 20 – dry environment, IP 56 – humid environment.
7. The seller shall be liable for the defects that the product already have at the time of delivery, for defects covered by the warranty and for those defects that will occur during the warranty period.
- 8. The warranty period shall commence on the date of sale of the product to the buyer:**
 - warranty period for convectors – 5 years. Operating pressure max. 16 bar – standard version 95C.
 - warranty period for floor convector connection stability – 5 years.
 - warranty period for heat exchangers and stainless steel trenches – 10 years.
 - warranty period for electric wires and fans – 2 years.

The warranty covers malfunctions and defects that have occurred during the warranty period due to defects in the production process or defects in the materials used in production.

Warranty repair of the product can be obtained only by presenting the warranty sheet and the original document confirming the purchase of the product (purchase receipt) with the description of the product, date and the stamp of the store. Copies and receipts with missing data will not be accepted and will not be considered. The warranty sheet shall serve as a proof of the user's rights to the product, and it is recommended that it be kept with the sales documents.

The condition for recognising a claim is that the buyer must improve the advertising arrangements for the seller from whom the product was purchased during the warranty period.

The customer shall forfeit the right to warranty service if the heating elements:

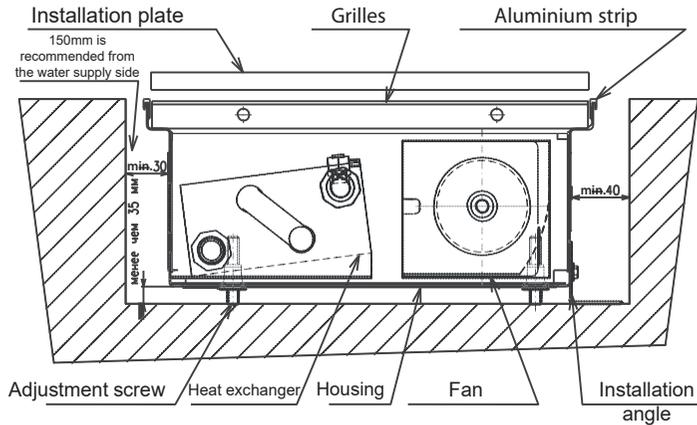
- have been installed in buildings, installations or premises with high level of humidity, in particular public toilets, cleaning facilities, animal playgrounds, etc;
- have been stored in open areas and stored at temperatures below -5°C;
- have been internally damaged by corrosion, resulting in loss of insulating properties due to improper chemical composition of the coolant;
- have been deformed during inappropriate transportation or when the maximum operating pressure has been exceeded;
- have been mechanically damaged or deformed due to unauthorised actions of the buyer or during transportation;
- have been damaged intentionally or as a result of natural disasters or other impacts;
- if the device has been used after the complaint about the defect has been lodged, and as a result the condition of the device changes to such an extent that it becomes difficult to examine the claim regarding the defect;

1 - Housing installation in the floor trench

The trench in the floor must be clean, prepared in accordance with construction requirements (waterproofing, etc.). Trench depth = housing height + max. 35 mm. Trench width approx. +30 mm along the perimeter for convenient convector mounting. It is recommended to leave 150 mm on the water connection side. Openings must be provided for the installation of pipes in the heating system, as well as power cables or other elements required for the operation of the adjusting device (during construction, it is recommended to use corrugated pipes of appropriate size).

Sequence of steps:

- remove the protective packaging
- remove the grilles and assembly protective limiting chipboard
- tighten the enclosed mounting bolts to the prepared holes on the bottom of the convector, for other (self) installation, plug the holes.
- insert the housing according to the selected position into the trench
- align its height in the longitudinal and transverse directions so that the top edge of the housing is level with the clean floor. Prepare the device for heat carrier connection and electricity installation.
- cover the housing with a chipboard and close all holes tightly (protect the installed convector elements from dust, the mounting plate also serves as a truss during concreting!). Concrete the convector. When using liquid mixtures, it is necessary to INSULATE the floor convector when laying the floor layers (for example, using SELF-LEVELLING ANHYDRITE). This means that all cracks and holes through which the liquid mixture can penetrate the floor convector must be carefully closed to prevent anything from entering the devices and damaging the internal components. The convector is not designed to be waterproof. The WARRANTY SHALL NOT BE VALID if the convector is damaged by a liquid construction mixture.
- The hole between the strip and the floating floor can be filled with silicone, plug or covered with a plate.
- After the final floor finish, install the top decorative grilles.

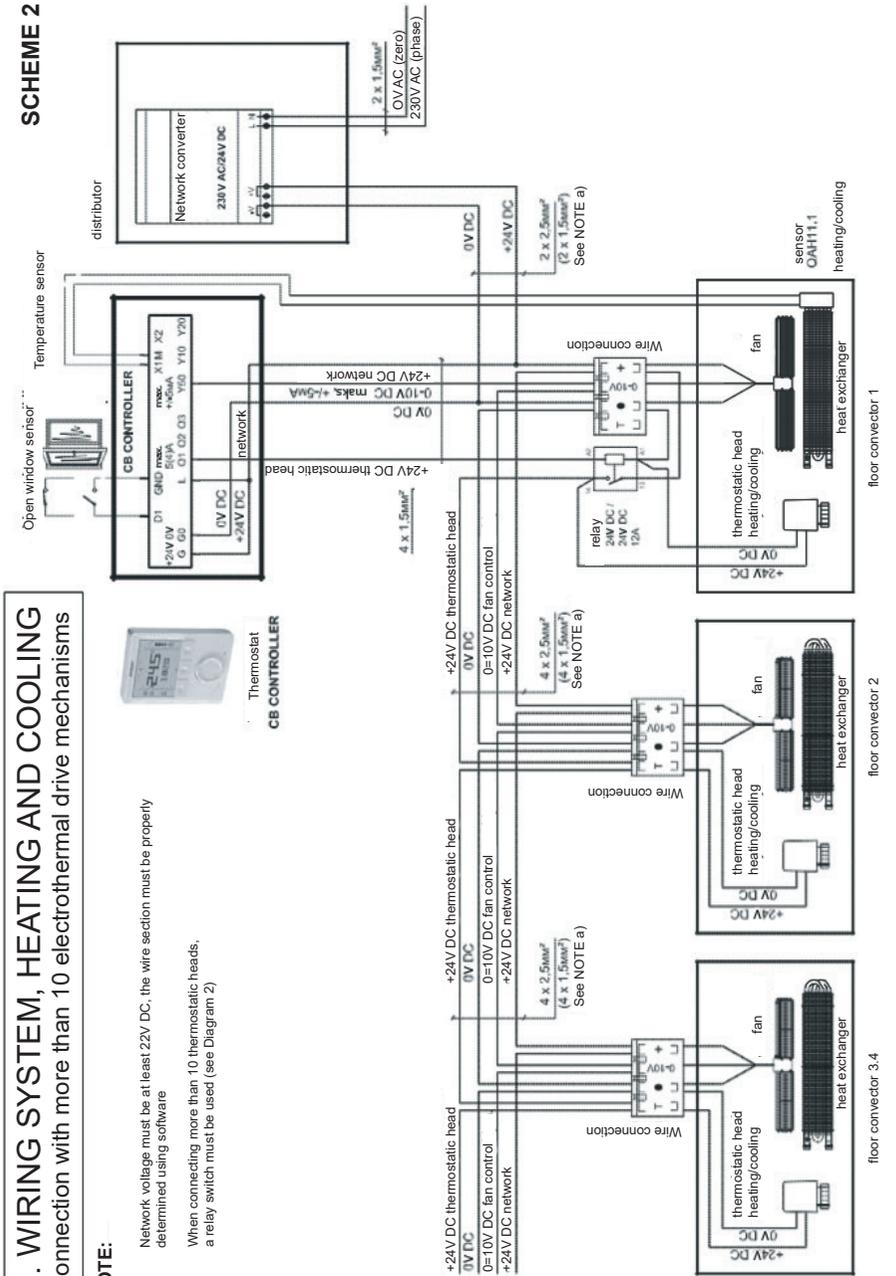


2. WIRING SYSTEM, HEATING AND COOLING

Connection with more than 10 electrothermal drive mechanisms

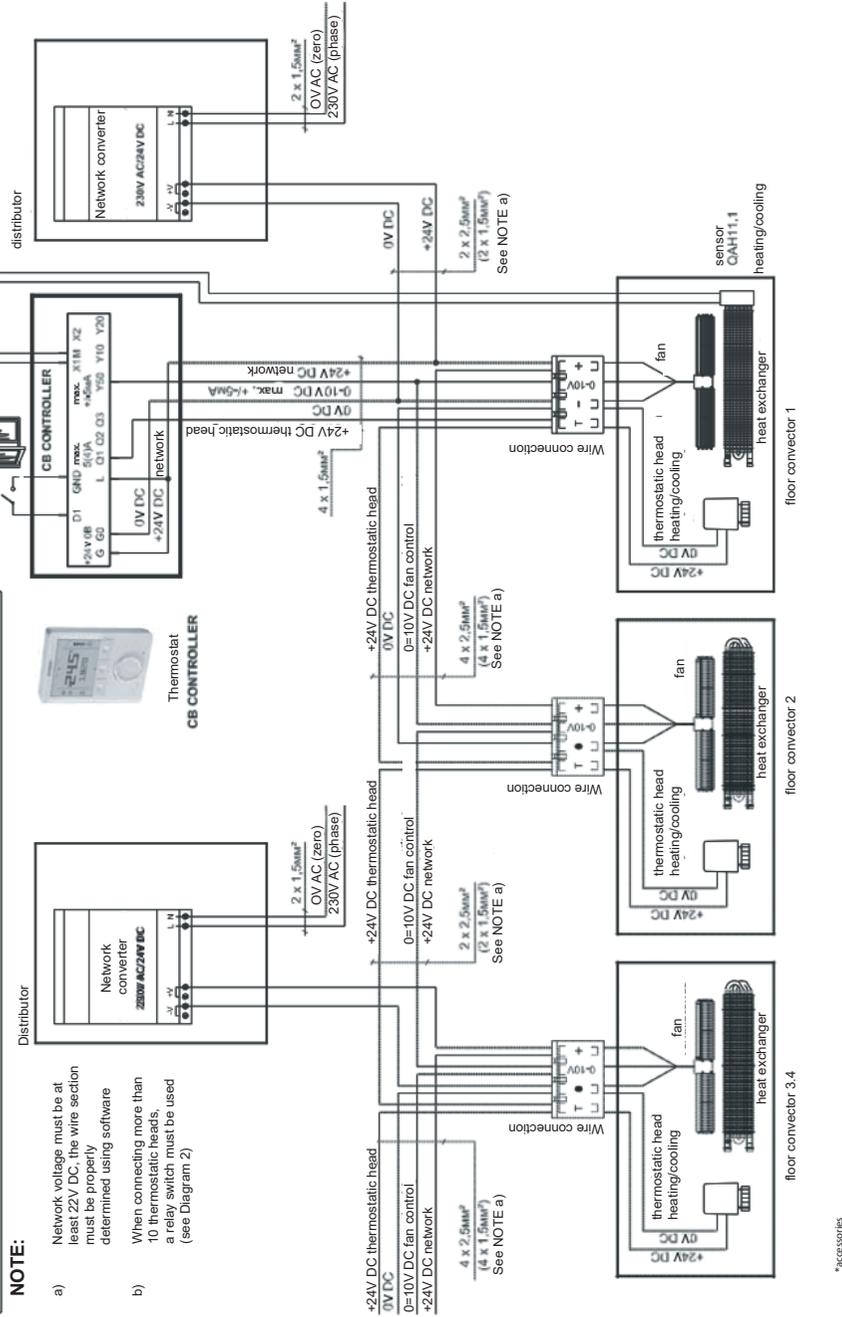
NOTE:

- a) Network voltage must be at least 22V DC, the wire section must be properly determined using software
- b) When connecting more than 10 thermostatic heads, a relay switch must be used (see Diagram 2)



* accessories

2. WIRING SYSTEM, HEATING AND COOLING
Connection with several resources



*accessories

Warning:

There is no self-resistance in the housing and the mounting bolts are not load-bearing elements. The bottom of the housing must rest on a horizontal load-bearing structure. If the convector is installed on an uneven surface, resonance may occur or the noise level may increase. Due to the thermal insulation of the housing, a slightly increased overall heat release is achieved (heat transfer to the floor structure is limited). When designing the type of insulation, the requirements for pressure resistance and the hygroscopicity of the insulation must be taken into account in the first place.

2 – Connection to the heating system

When installing the connection fittings, mind the markings on the bottom of the housing that determine the supply and return of the heat carrier. In both cases, an internal thread of 2 x G1/2" is available. Depending on the auxiliary accessories ordered, connect to:

- the supply – install a straight or angled pluggable valve (or thermostatic control valve) (not included),
- the return – install a straight or angled pluggable or adjustable threaded connection (not included),
- to connect to the distribution of the heating system, you can use corrugated pressure hoses (custom-made)

Other important steps:

- check air valve tightness
- flush the entire heating system
- perform the pressure test according to the valid or recommended norms (standards or technical regulations, and record the results in the test report)
- fill the entire heating system with purified water according to ČSN 07 7401 standard and carefully bleed the system
- set the degree of adjustment on the valve or on the adjustable threaded connection according to the values specified in the design



Attention! When connecting to the heating system, make sure that all parts of the floor convector are disconnected from the power network. Be very careful. Avoid the risk of electric shock.



3 – Connecting the convector to the electric mains, including elements of the control system.

The electrical connection of the floor convector must be carried out according to a diagram that corresponds to the selected method of thermal power control from the air side or the speed control of the tangential fan.

Warning:

- Installation and maintenance should only be performed by trained personnel with appropriate professional qualifications.
- Electrical connection must only be carried out by trained personnel with appropriate professional qualifications.
- All electrical connection documentation for the floor convector with the electrical equipment used must be prepared in accordance with the applicable national standards.
- The installation of any electrical equipment must comply with all applicable national standards.
- The electrical parts of the floor convector must be connected to a direct current through switches; the distance between the open contacts must be at least 3 mm at all poles.

Use, maintenance and cleaning

When using the device for the first time, we recommend that you follow the sequence specified in the relevant national standards or applicable technical regulations.

Before using a heating system with convectors equipped with electrical equipment, it is necessary to carry out an initial audit of the electrical equipment in accordance with the relevant applicable national standards. During use, the user must ensure that regular inspections of electrical appliances are carried out within the time limits set forth by the applicable national standards.

The use of the floor convector can be adapted to the user's requirements thanks to a properly selected control system. By choosing thermostat control, the temperature of the heated rooms is automatically maintained by the room thermostat, and the heating power can be regulated directly by the thermostat.

Regular maintenance is a prerequisite for the continuous and uninterrupted use of the convector and its accessories. It must be stored in a dry environment and regularly cleaned of dust and other impurities. Before the start of the heating season, we recommend first cleaning the heat exchanger, housing and fans of dust deposits (using a vacuum cleaner or a damp cloth). This way you can ensure a long-lasting, productive and silent operation of the floor convector.

Warning:

The convector is equipped with live electrical equipment and must be protected from water or other liquid conductors, such as during watering of flowers, washing the floor, etc.

Turn off the power supply to perform any convector manipulation and maintenance.

Do not obstruct the decorative grilles, protect them from damage, scratches, etc. (for example, when moving). Contact the supply or manufacturer company if necessary.

Power of convector fans

lights [mm]	175x080	175x090	175x110	200x080	200x090	200x110	250x065	250x080	250x090	250x110	250x125	250x140	300x065	300x080	300x090	300x110	300x125	300x140	405x060	405x110	405x125	405x140
800	2W	2W	2W	2W	4W	4W	2W	2W	4W	4W	4W	4W	2W	2W	4W	4W	10W	10W	4W	4W	10W	10W
900	2W	2W	2W	2W	5W	5W	2W	2W	5W	5W	5W	5W	2W	2W	5W	5W	15W	15W	5W	5W	15W	15W
1000	3W	3W	3W	3W	6W	6W	3W	3W	6W	6W	6W	6W	3W	3W	6W	6W	17W	17W	6W	6W	17W	17W
1100	3W	3W	3W	3W	6W	6W	3W	3W	6W	6W	6W	6W	3W	3W	6W	6W	17W	17W	6W	6W	17W	17W
1200	4W	4W	4W	4W	6W	6W	4W	4W	6W	6W	6W	6W	4W	4W	6W	6W	20W	20W	6W	6W	20W	20W
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1900	6W	6W	6W	6W	12W	12W	6W	6W	12W	12W	12W	12W	6W	6W	12W	12W	36W	36W	12W	12W	36W	36W
2000	7W	7W	7W	7W	12W	12W	7W	7W	12W	12W	12W	12W	7W	7W	12W	12W	39W	39W	12W	12W	39W	39W
2100	7W	7W	7W	7W	13W	13W	7W	7W	13W	13W	13W	13W	7W	7W	13W	13W	44W	44W	13W	13W	44W	44W
2200	7W	7W	7W	7W	14W	14W	7W	7W	14W	14W	14W	14W	7W	7W	14W	14W	44W	44W	14W	14W	44W	44W
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2600	9W	9W	9W	9W	17W	17W	9W	9W	17W	17W	17W	17W	9W	9W	17W	17W	53W	53W	17W	17W	53W	53W
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2800	9W	9W	9W	9W	19W	19W	9W	9W	19W	19W	19W	19W	9W	9W	19W	19W	58W	58W	19W	19W	58W	58W
2900	9W	9W	9W	9W	19W	19W	9W	9W	19W	19W	19W	19W	9W	9W	19W	19W	58W	58W	19W	19W	58W	58W
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3100	10W	10W	10W	10W	20W	20W	10W	10W	20W	20W	20W	20W	10W	10W	20W	20W	60W	60W	20W	20W	60W	60W
3200	11W	11W	11W	11W	22W	22W	11W	11W	22W	22W	22W	22W	11W	11W	22W	22W	60W	60W	22W	22W	60W	60W
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4400	14W	14W	14W	14W	31W	31W	14W	14W	31W	31W	31W	31W	14W	14W	31W	31W	92W	92W	31W	31W	92W	92W
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4800	15W	15W	15W	15W	33W	33W	15W	15W	33W	33W	33W	33W	15W	15W	33W	33W	101W	101W	33W	33W	101W	101W

Note: When using a thermostatic head, 3W must be added to the power required for each convector.