



Fan coil Climmy 4

Visible designs

VV, VVN, HV, HVN, VVM1, VVM2, HVM1, HVM2



Flush designs

VS, HS, VSM1, VSM2, HSM1, HSM2



Software Klima C4 (Climmy 4)



FAN COILS

Application and operation

Fan coils are devices designed for room air-conditioning purposes; their functions include heating, cooling, room ventilation and, to a certain degree, air drying. They are suitable for a variety of applications: business premises, schools, restaurants, galleries, hotel rooms, shops, etc. Their operation involves forced fan driven convection of air through a heat exchanger.

Types, designs, sizes

Our production program includes a broad range of types and designs:

- for two-pipe and four-pipe systems,
- visible designs (parapet, wall or ceiling mounting),
- flush designs (wall or ceiling mounting),
- air circulation operation and room/fresh air mixing operation,
- all designs in six sizes (100 to 600).

Characteristics of fan coil CLIMMY 4

- high cooling and heating capacities: cooling capacities from 1.5 kW to 7.6 kW and heating capacities from 1.8 kW to 10.6 kW, (EUROVENT conditions)
- centrifugal fan with 5 speeds,
- control with different thermostats and a range of accessories,
- front metal housing painted in standard RAL 9010; other RAL scale colours are available on request,
- discharge grille with control louvres made of anti-static ABS material,
- adjustable deflectors in discharge grille for setting direction of discharged air flow (visible design only),
- easy filter replacement,
- dismountable discharge grille and both sides,
- easy installation and maintenance,
- advanced industrial design and attractive appearance (designed by Marjan Žitnik, Slovenia).

■ Software Klima C4 (Climmy 4)

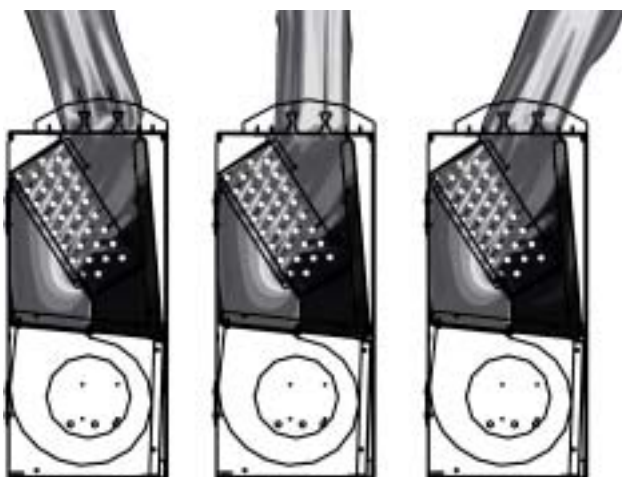
- calculation of cooling and heating capacities for different temperature regimes and water flow rates;
- calculation is available for cooling, heating mode and combined cooling and heating mode, depending on the customer's operational mode specifications;
- operational mode can be specified in both ways: water inlet and outlet temperature, water inlet temperature and mass flow rate;
- with flush design models, the package allows the viewing of fan performances as a function of external static pressure at the fan coil discharge;
- following the calculation, the package presents the results of all six fan coil sizes according to the specified operational mode and conditions;
- the calculation results, complete with the drawing, dimensions and ordering key for the selected fan coil are available in the printout form

PROGRAM ENERGETICS

HEATING AND COOLING

Fan Coils CLIMMY 4

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FAN COIL CLIMMY 4

Functions and operation

Fan coils are devices primarily designed for room cooling and heating. Their secondary functions include: air filtering, ventilation, and in part air drying. They are designed for installation in two-pipe or four-pipe cooling and heating systems. Fan coil operation involves forced fan driven circulation of air through a heat exchanger.

Advantages of a fan coil cooling and heating system over other methods

Independent control

Although fan coil is a element of a central installation, each single user can adjust the fan coil to his/her requirements.

Same installation for cooling and heating

Provided that the device is properly sized for heating, it may be applied for cooling purposes in the summer season as well, by simple connection to a central air cooling device.

Economics

Fan coil is an investment option highly economical per kW of heating and cooling capacity. Their operation, too, is economical, since the device automatically switches off upon achieving the set conditions in the room. Independent of this control, a fan coil can be switched off manually.

Individual thermal setting

Fan coil CLIMMY 4 allow individual setting of temperature and air flow volume in the occupied zone. The required parameters can be adjusted:

- through water flow rate control (opening/closing of the thermostat valve), or
- through the fan speed control.

Individual setting of outlet air flow direction

Fan coil CLIMMY 4 allow individual setting of outlet air flow direction in the way to choose optimal comfort in the living zone by:

- pre-set three step direction of outlet air flow, or
- any other setting of outlet air flow direction.

Fast operation setting

A fan coil achieves the set room conditions in a very short time (fast room cooling and heating). Fan coil operation can be set through a remote control as well. Temperature and the daily or weekly fan coil programme are set in this way.

Fan coils ensure comfortable ambient to the occupants.

An occupant is in thermal balance with the environment (thermal comfort) when the room air temperature, wall radiant temperature, air motion pattern and relative humidity are kept within such ranges that the occupant does not feel any need for changes. Standards EN 7730 (Moderate Thermal Environments), CEN CR 1752 (European Design Criteria for the Indoor Environment) and the Regulations on Building Ventilation and Air conditioning specify the maximum allowable room temperature gradient of 2 °C per meter height. A fan coil installed below a window or in the coldest spot of a wall abates the impacts of cold surfaces (non-symmetric radiation, room air dropping due to cooling along cold surfaces). Due to intensive air mixing, a fan coil maintains low vertical temperature gradient in the room. At the fan coil discharge, air velocity is always higher than the dropping air velocity, hence the formation of a cold air pool above the floor is avoided.

Air filtering

Room air cleanness is another comfort factor; CLIMMY 4 is fitted with a G1 class filter, easy to clean or replace.

Supplementary ventilation

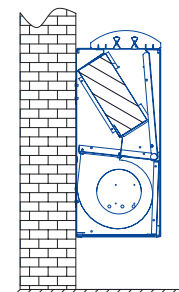
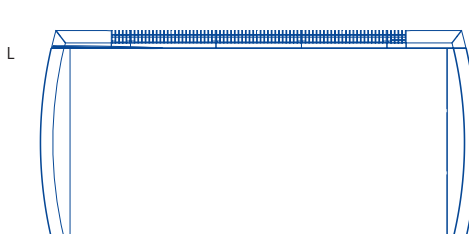
In the rooms where intensive fresh air ventilation is required, this is achieved with an additional element in an outside fresh air intake flap.

	
IMQ CLIMA Centro di Ingegneria Tecnologie Ambientali S.p.A.	
Address: 27100 PAVIA	
Part of report of IMQ-CLIMA, 2001/007 VALUTAZIONE AMBIENTALE Climatologica	
Date of completion of the work: 04/08/2004 Date of issue: 05/05/2004	
DATA DI INVIAMENTO al Cliente:	RECEIVED BY CLIENT S.p.A. Certified 100 06/02/2004 - 06/02/2004 Client's Name: IMQ - 1 page
a) Test performed: b) Serial number: c) Testing: d) Frequency: e) Project Number:	0-6 200 (h) 30 (h) Single Station
The tests have been performed in accordance with the Client's R.T. standard. Thermal test method: Air flow test area: 100 m ²	
The results presented in this report are valid only for the conditions:	
<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> Authorized representative: Ing. Francesco D'Agostini  </div>	
Date:	The expiration of 21 days: the absolute maximum duration of the contract maintenance.
The completion of this report must be authorized by IMQ-CLIMA Center of Ingegneria Tecnologie Ambientali S.p.A.	

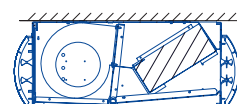
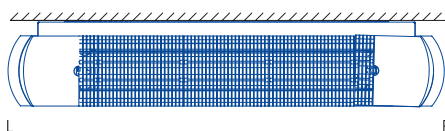
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Visible designs

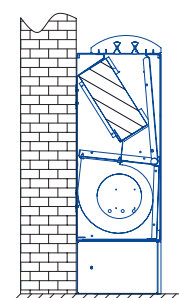
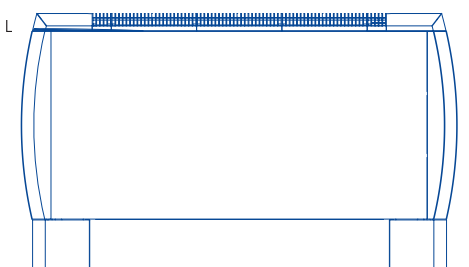
Type VV - vertical visible design without legs



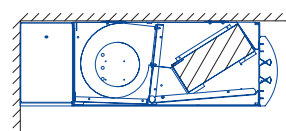
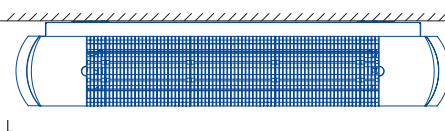
Type HV - horizontal visible design without legs



Type VVN - vertical visible design with legs

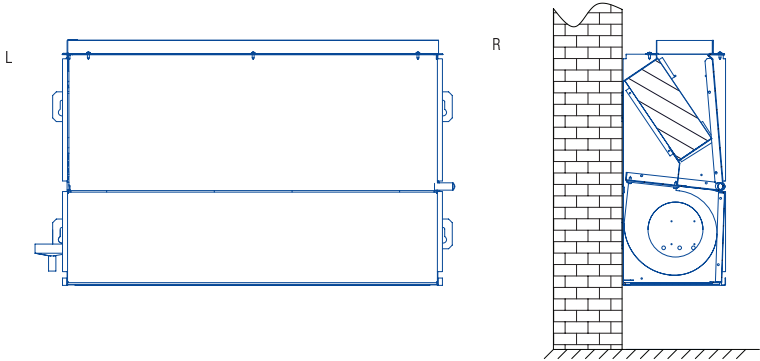


Type HVN - horizontal visible design with legs

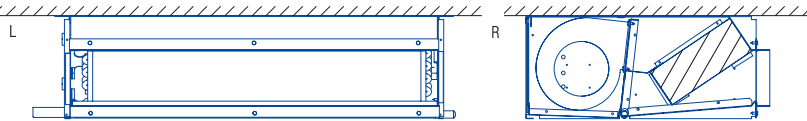


Flush designs

Type VS - vertical flush design



Type HS - horizontal flush design



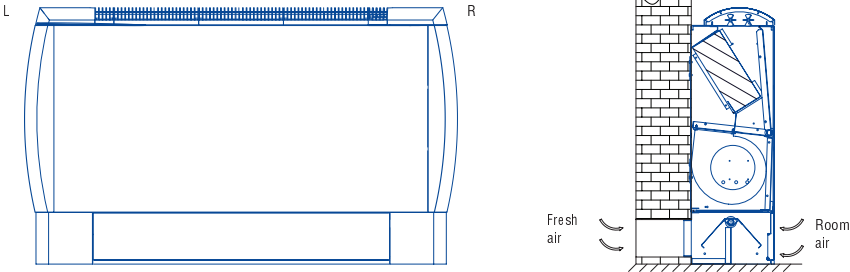
Note: Specify the dimensions and number of inflow and outflow connections in the order.

Outside and room air mixing designs

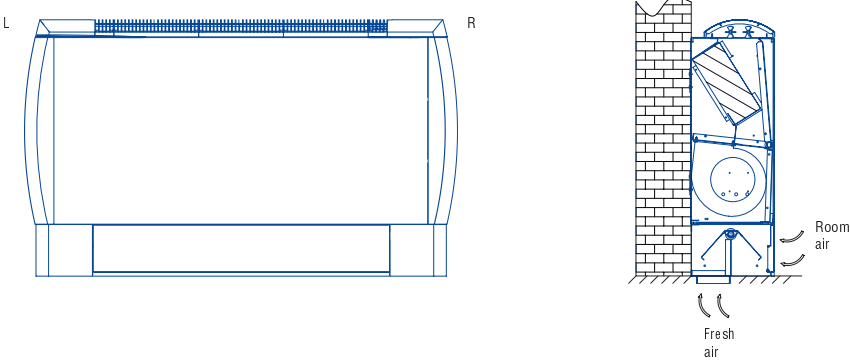
Visible designs

Vertical visible designs:

VVM1

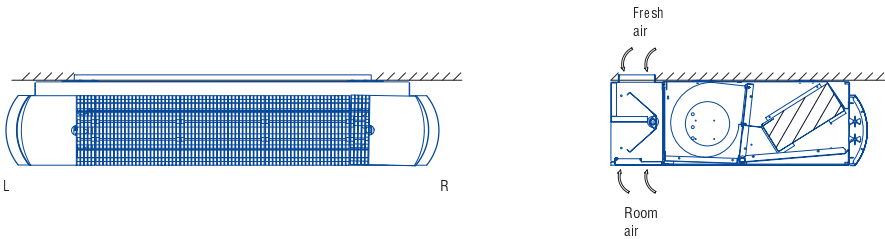


VVM2

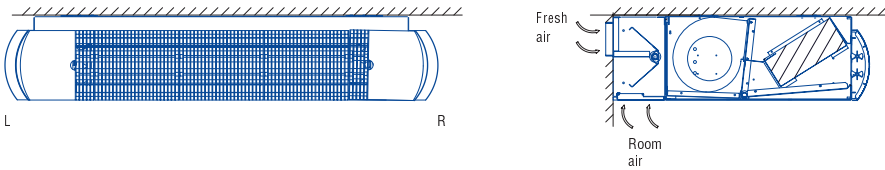


Horizontal visible designs:

HVM1



HVM2

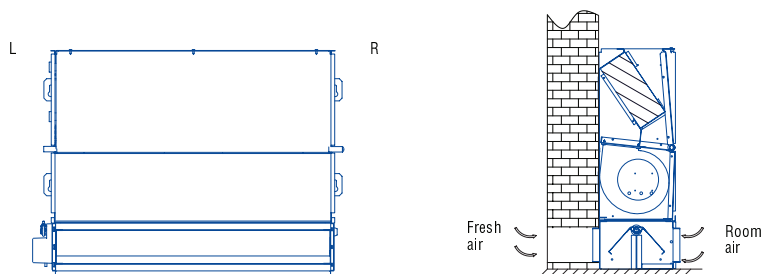


Note: Specify the M1 and M2 variant in the order.

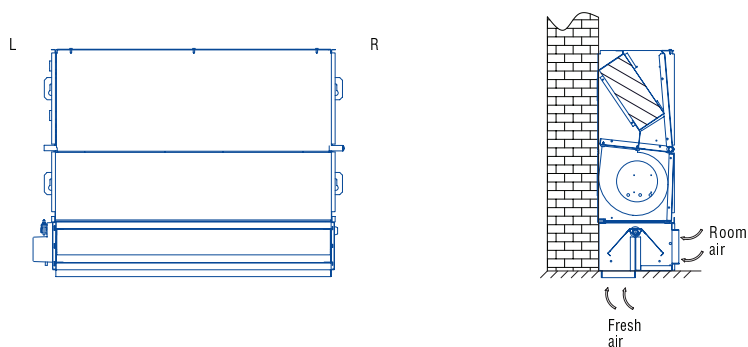
Flush design

Vertical flush designs:

VSM1

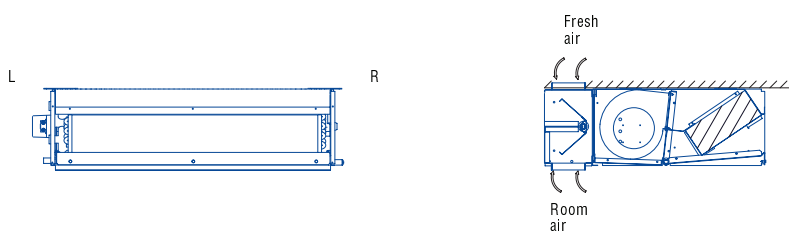


VSM2

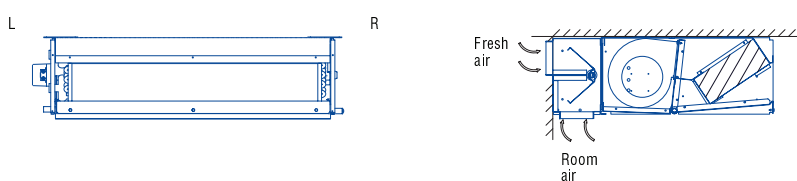


Horizontal flush designs:

HSM1



HSM2



Note: Specify the M1 and M2 variant in the order.

Centrifugal fan

CLIMMY 4 may be fitted with one, two or three centrifugal fans, single or double impellers. In addition to the three standard speeds, the new fan model features two extra speeds, which allow the air flow rate to be increased or reduced when required. Choosing the three fan speeds is left by end-user. Furthermore, the new fan model provides larger flow rate capacity and pressure head for easier overcoming of pressure drops in ducting. The installed fans are more economical in terms of power consumption compared to previous fan coil models. This promotes economics for the customer as well as contributes to environment protection.

Finned heat exchanger

The new finned heat exchanger, with an increased surface area, increases the fan coil heating and cooling capacity.

The heat exchanger features aluminium fins mechanically pressed onto copper tubes. In two-pipe heating systems, the heat exchanger is connected through three rows of pipes; in four-pipe systems, through 3+1 rows of pipes, three serving for cooling and one for heating. Water connections may be located on the left or right body face and are fitted with air vent cocks.

Air filter

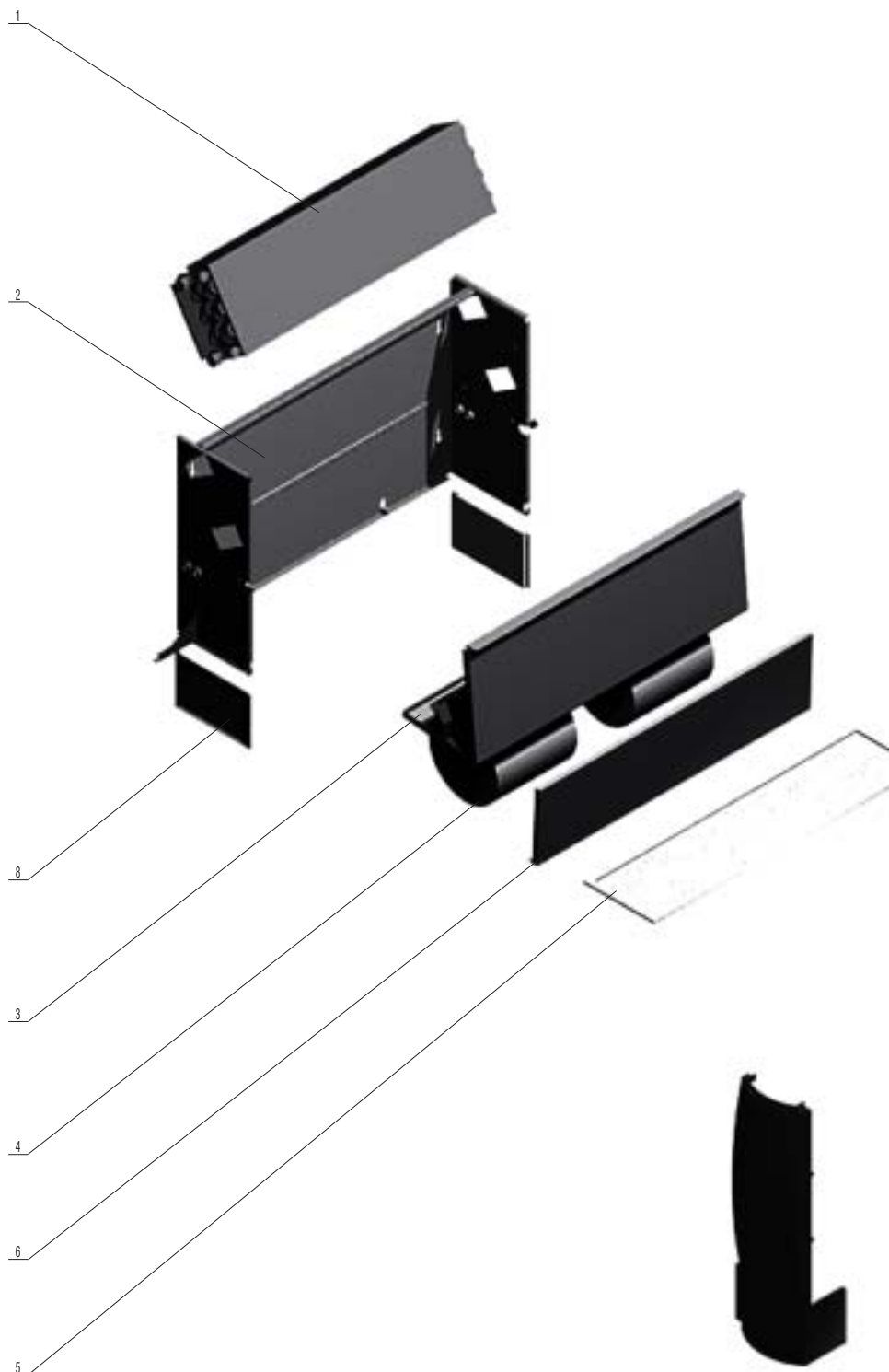
The air filter is made of synthetic fibres and mounted in a steel frame with protection mesh. The filter can be cleaned and is easy to replace.

Set of valves

The three-way two-position valve with four connections or two-way two position valve with two connections are easy to connect to the piping network. The valve is operated by an electricthermal drive with ON-OFF control with thermostat setting. In the case of ordering the coil complete with valves, the valves come already installed. Shut-off cocks are not included in set of valves.

Housing

The housing is made of sheet steel painted in RAL 9010 (standard) or any RAL colour upon customer's request. The housing design allows fast and easy dismantling to allow easy access to control components for servicing.



Components

- 1 Heat exchanger
- 2 Insulated inner housing
- 3 Condensate collector
- 4 Centrifugal fan
- 5 Filter
- 6 Lock sheet
- 7 Leg
- 8 Leg base
- 9 Back cover
- 10 Side cover
- 11 Hatch
- 12 Discharge grille
- 13 Front housing

Individual setting of outlet air flow direction

Fan coil Climmy 4 allows individual setting of outlet air flow direction in the way to choose optimal comfort in the living zone by:

- pre-set three step direction of outlet air flow, or
- any other setting of outlet air flow direction.

Hatch (right and left)

The hatch is made of ABS plastics and allows easy access to thermostats (where installed) on one face, and to water side setting valves on the other face.

Fresh air intake mixing flap

In the rooms where intensive fresh air ventilation is required, this is achieved with an additional element – an outside fresh air intake flap.

Condensate collector

The condensate collector is made of galvanised sheet steel and coated with vapour-stopping insulation. It is designed to allow both horizontal or vertical fan coil installation. The condensate collector connector is a 16 mm diameter galvanised pipe.

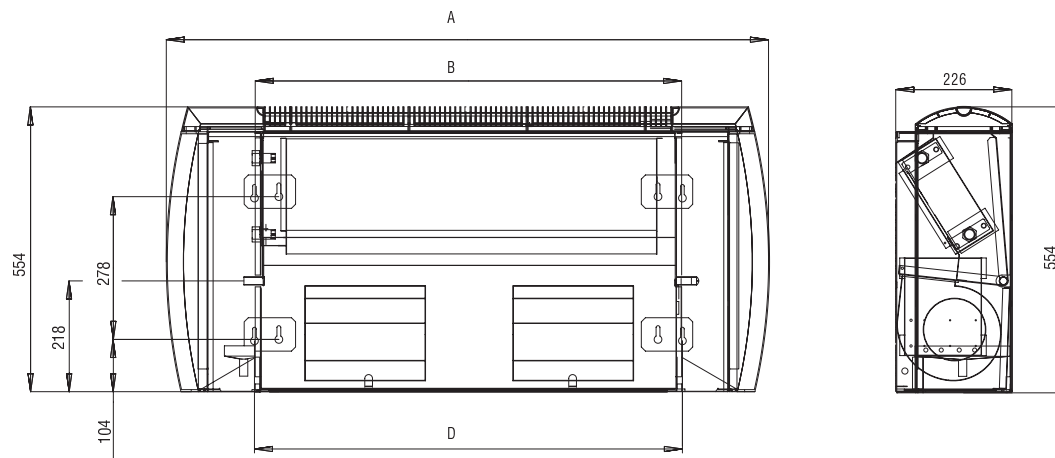
Accessories

Other accessories are presented on pages 25 to 28: room thermostats, remote control, protection grille, additional condensate collector, flexible connection plenum for flush designs and others.

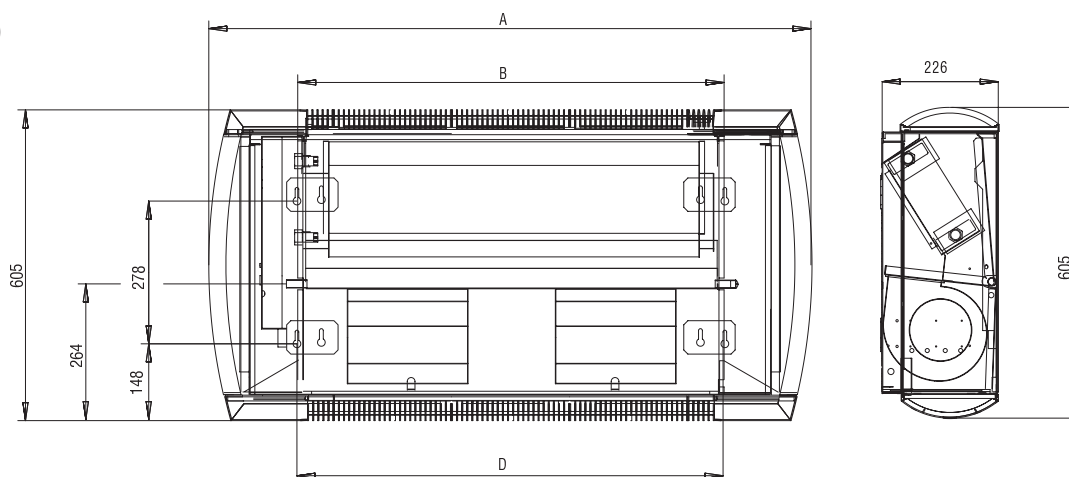


Visible design dimensions - room air only

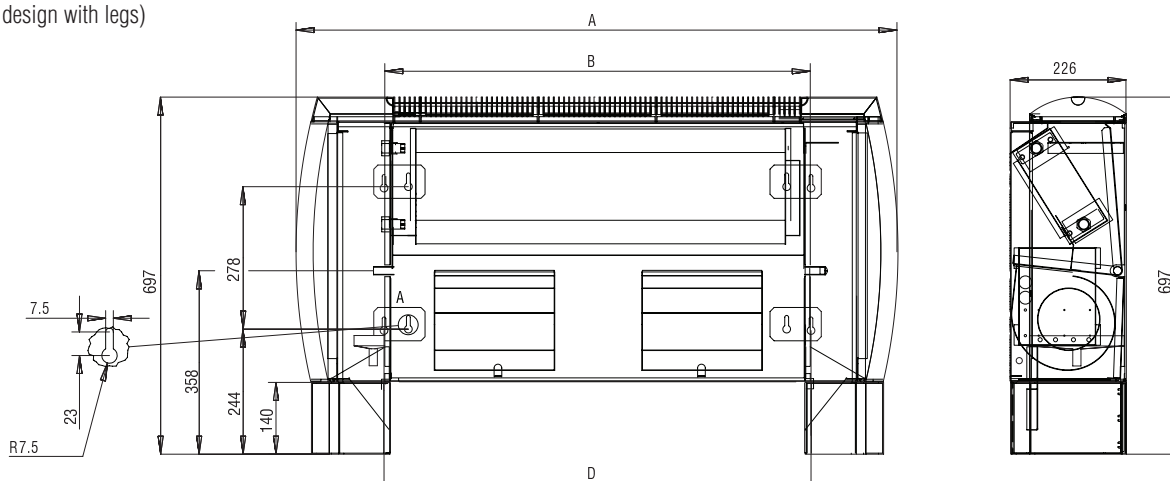
Type VV
(vertical visible design)



Type HV
(horizontal visible design)



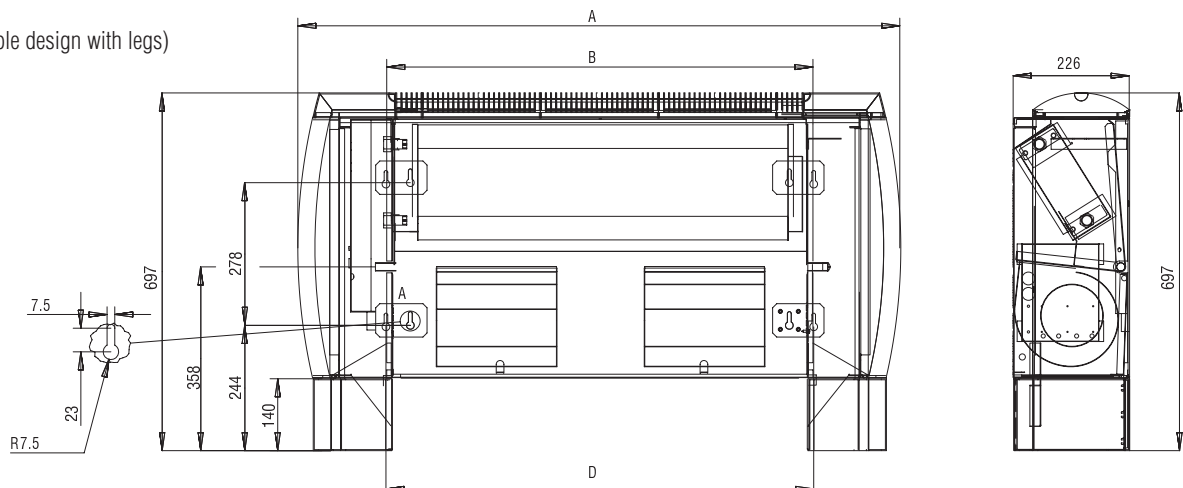
Type VVN
(vertical visible design with legs)



Installation dimension table (dimensions in mm)

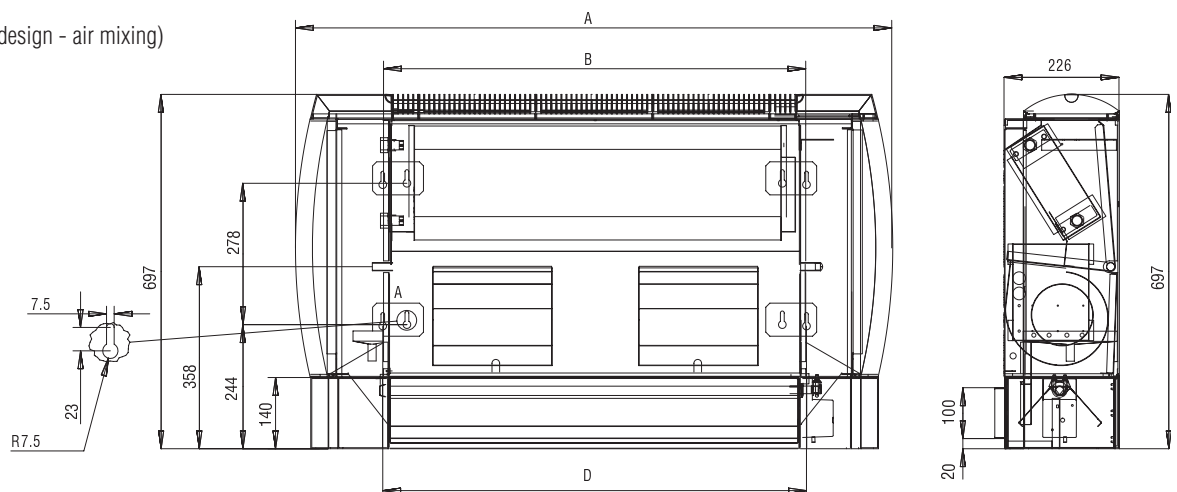
Fan coil size	100	200	300	400	500	600
Dimension A	715	945	1175	1405	1635	1865
Dimension B	370	600	830	1060	1290	1520
Dimension D	372	602	832	1062	1292	1522

Type **HVN**
(horizontal visible design with legs)

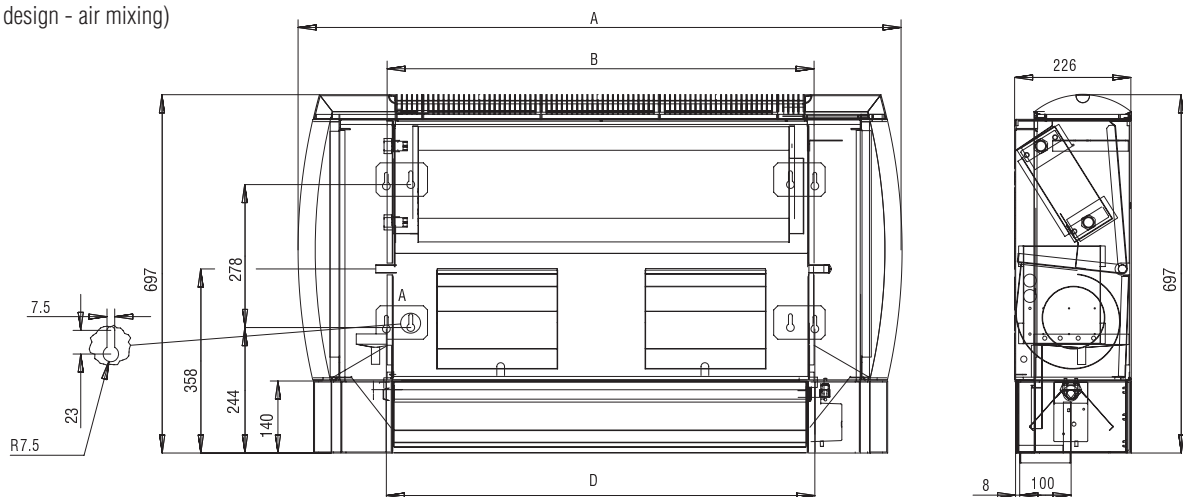


Visible design dimensions - outside and room air mixing

Type **VVM1**
(vertical visible design - air mixing)



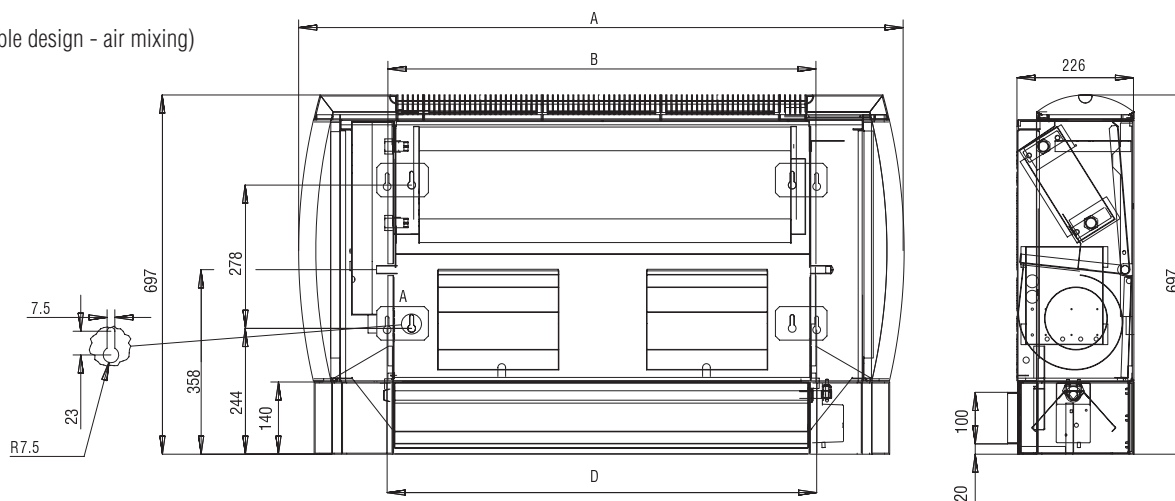
Type **VVM2**
(vertical visible design - air mixing)



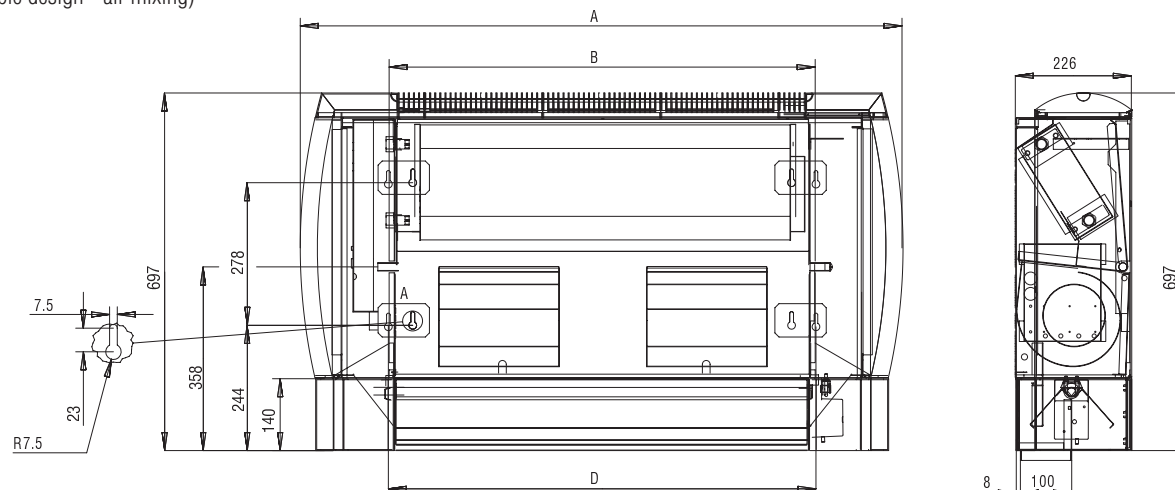
Installation dimension table (dimensions in mm)

Fan coil size	100	200	300	400	500	600
Dimension A	715	945	1175	1405	1635	1865
Dimension B	370	600	830	1060	1290	1520
Dimension D	372	602	832	1062	1292	1522

Type **HVM1**
(horizontal visible design - air mixing)

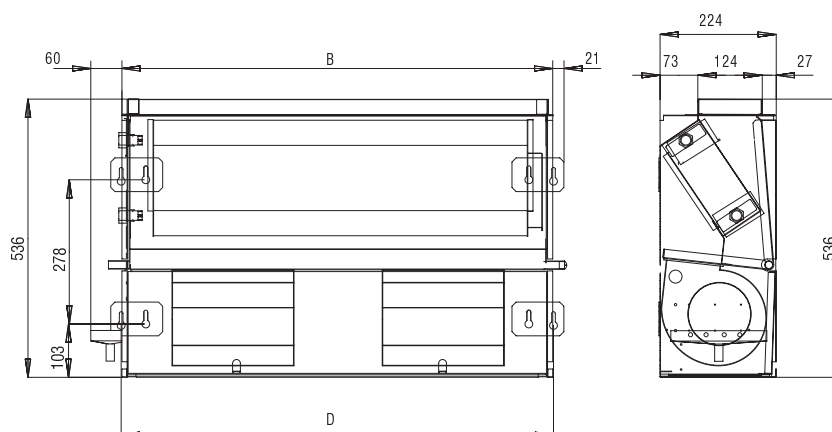


Type **HVM2**
(horizontal visible design - air mixing)



Flush design dimensions - room air only

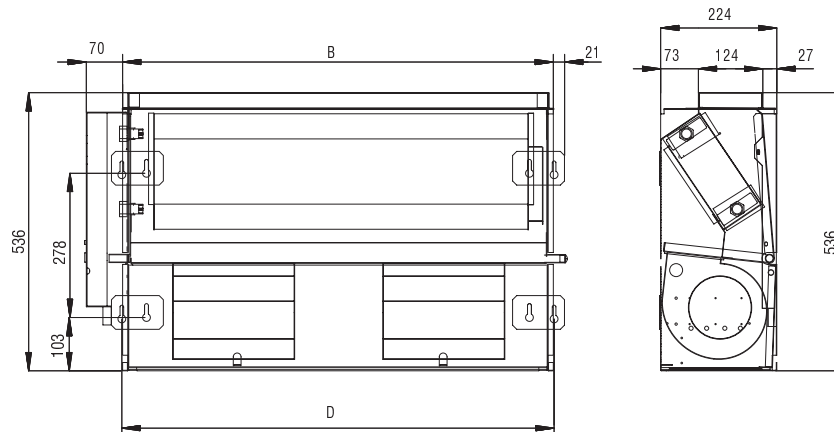
Type **VS**
(vertical flush design)



Installation dimension table (dimensions in mm)

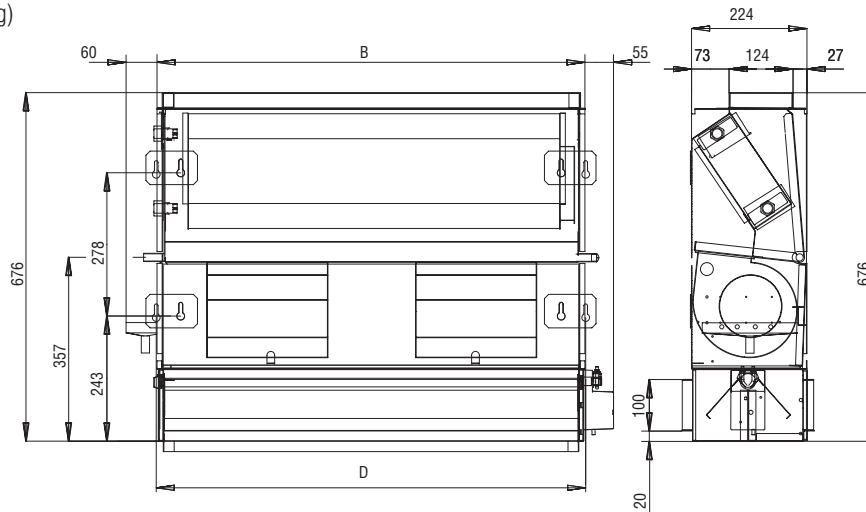
Fan coil size	100	200	300	400	500	600
Dimension A	715	945	1175	1405	1635	1865
Dimension B	370	600	830	1060	1290	1520
Dimension D	372	602	832	1062	1292	1522

Tip **HS**
(horizontal flush design)

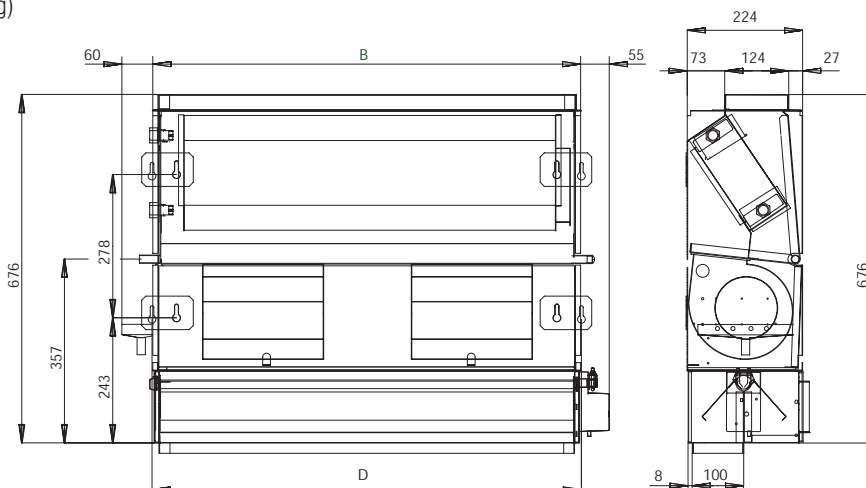


Flush design dimensions - outside and room air mixing

Tip **VSM1**
(vertical flush design - air mixing)



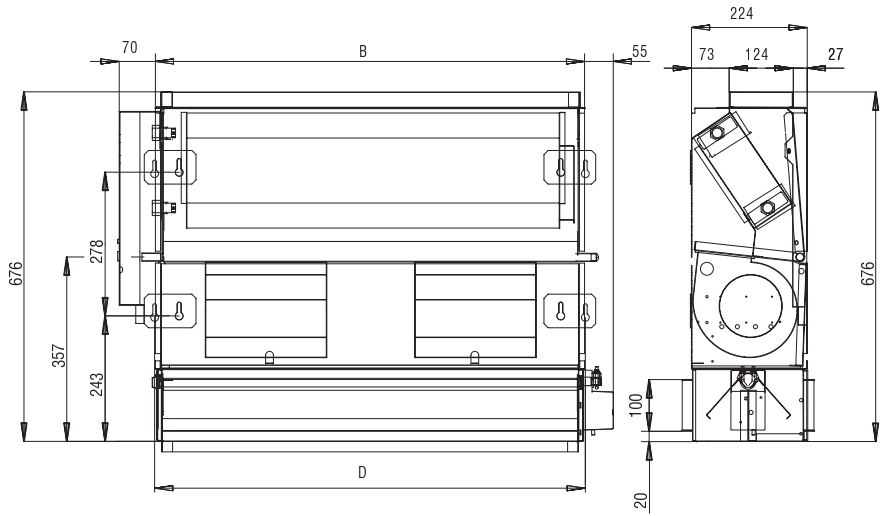
Tip **VSM2**
(vertical flush design - air mixing)



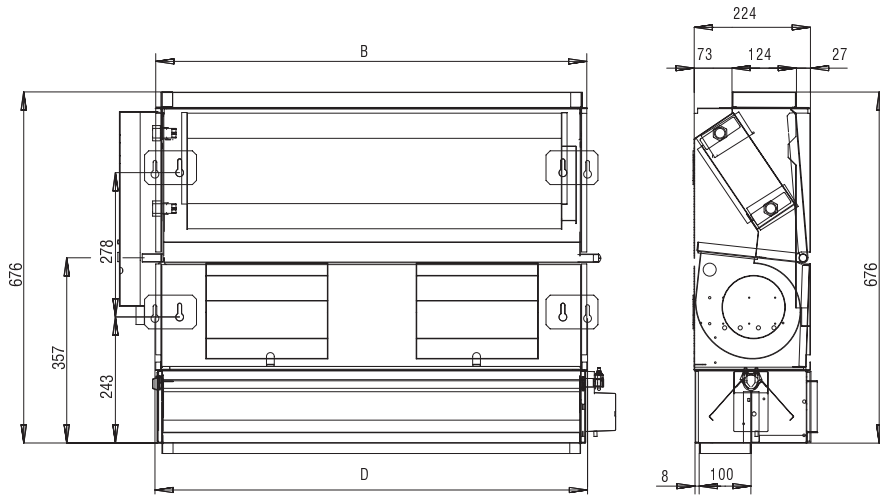
Installation dimension table (dimensions in mm)

Fan coil size	100	200	300	400	500	600
Dimension B	370	600	830	1060	1290	1520
Dimension D	372	602	832	1062	1292	1522

Type **HSM1**
(horizontal flush design - air mixing)



Type **HSM2**
(horizontal flush design - air mixing)



Installation dimension table (dimensions in mm)

Fan coil size	100	200	300	400	500	600
Dimension B	370	600	830	1060	1290	1520
Dimension D	372	602	832	1062	1292	1522

Heating and cooling capacity, other technical data

2-pipe system	fan speed	unit	100	200	300	400	500	600
Total cooling capacity	5	kW	1.46	2.30	3.75	4.45	6.35	7.46
	4	kW	1.32	1.75	3.19	3.86	5.45	6.57
	3	kW	1.18	1.45	2.35	2.84	4.49	4.87
	2	kW	0.91	1.10	1.55	1.86	3.20	3.28
	1	kW	0.65	0.80	1.18	1.27	2.03	2.28
Sensible cooling capacity	5	kW	1.17	1.85	3.01	3.61	5.14	6.04
	4	kW	1.04	1.38	2.50	3.11	4.39	5.29
	3	kW	0.91	1.11	1.81	2.27	3.59	3.90
	2	kW	0.69	0.84	1.18	1.48	2.54	2.60
	1	kW	0.49	0.61	0.90	1.00	1.60	1.80
Water flow, cooling	5	kg/h	251	394	643	763	1088	1279
Pressure drop on the water side, cooling	5	kPa	0.94	3.91	14.13	25.70	11.81	19.46
Heating capacity	5	kW	2.05	3.22	5.25	6.08	8.68	10.19
	4	kW	1.82	2.41	4.38	5.14	7.26	8.75
	3	kW	1.60	1.96	3.20	3.80	6.02	6.53
	2	kW	1.25	1.51	2.13	2.66	4.57	4.68
	1	kW	0.91	1.11	1.64	1.99	3.19	3.59
Water flow, heating	5	kg/h	251	394	643	763	1088	1279
Pressure drop on the water side, heating	5	kPa	0.88	3.63	12.92	23.40	10.91	18.04

Standard water connections, cooling		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Standard water connections, heating		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Standard heat exchanger water content, cooling	kg	0.48	0.87	1.26	1.66	2.05	2.44
Standard heat exchanger water content, heating	kg	0.48	0.87	1.26	1.66	2.05	2.44

Electrical connection		V-f-Hz			230-1-50			
Max. power		W	50	60	75	80	160	150
Max. curent		A	0.21	0.25	0.33	0.34	0.70	0.64
Air flow	5	m³/h	390	530	860	960	1490	1670
	4	m³/h	330	360	650	720	1100	1270
	3	m³/h	280	280	450	480	860	900
	2	m³/h	190	220	320	350	680	630
	1	m³/h	130	160	250	270	460	480
Sound power	5	dB(A)	59.4	58.8	61.7	58.9	64.0	61.2
	4	dB(A)	55.2	48.3	51.6	51.9	56.1	54.5
	3	dB(A)	51.0	42.1	46.1	42.7	50.1	46.4
	2	dB(A)	42.2	36.6	36.6	34.7	43.4	37.9
	1	dB(A)	33.6	30.0	32.4	31.1	35.4	33.1
Sound pressure	5	dB(A)	49.5	48.7	51.3	48.3	53.2	50.2
	4	dB(A)	45.3	38.2	41.2	41.3	45.3	43.5
	3	dB(A)	41.1	32.0	35.7	32.1	39.3	35.4
	2	dB(A)	32.3	26.5	26.2	24.1	32.6	26.9
	1	dB(A)	23.7	19.9	22.0	20.5	24.6	22.1

Above data have been measured according to EUROVENT Standard 6/3 under the following conditions:
cooling: water inlet temperature 7 °C, water outlet temperature 12 °C, air temperature (dry bulb) 27 °C, air temperature (wet bulb) 19 °C, relative humidity 46.3%.
heating: water inlet temperature 50 °C, water flow from cooling, air temperature 20 °C.

Sound power has been measured according to ISO 3745 standard and DIN 45635, part 1000.
Sound pressure has been measured on the distance of 1m (microphone under 45° to air outlet).

Heating and cooling capacity, other technical data

4-pipe system	fan speed	unit	100	200	300	400	500	600
Total cooling capacity	5	kW	1.56	2.73	3.98	4.94	6.60	7.57
	4	kW	1.41	2.23	3.47	4.23	5.53	6.61
	3	kW	1.21	1.83	2.61	3.09	4.42	4.92
	2	kW	0.91	1.36	1.73	2.08	3.25	3.39
	1	kW	0.67	1.02	1.31	1.48	2.26	2.44
Sensible cooling capacity	5	kW	1.27	2.23	3.25	4.05	5.41	6.21
	4	kW	1.12	1.78	2.77	3.39	4.43	5.30
	3	kW	0.94	1.42	2.03	2.43	3.48	3.87
	2	kW	0.69	1.03	1.31	1.63	2.54	2.65
	1	kW	0.50	0.76	0.98	1.16	1.77	1.92
Water flow, cooling	5	kg/h	267	468	683	847	1132	1298
Pressure drop on the water side, cooling	5	kPa	1.06	5.46	16.29	32.39	12.88	20.25
Heating capacity	5	kW	1.82	3.19	4.65	6.92	9.25	10.60
	4	kW	1.70	2.70	4.21	6.06	7.91	9.47
	3	kW	1.57	2.38	3.39	4.71	6.75	7.50
	2	kW	1.33	1.99	2.53	3.53	5.52	5.75
	1	kW	1.08	1.64	2.12	2.83	4.32	4.68
Water flow, heating	5	kg/h	156	273	399	593	792	909
Pressure drop on the water side, heating	5	kPa	2.23	10.33	29.02	77.79	38.93	60.42

Standard water connections, cooling		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Standard water connections, heating		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Standard heat exchanger water content, cooling	kg	0.48	0.87	1.26	1.66	2.05	2.44
Standard heat exchanger water content, heating	kg	0.16	0.29	0.42	0.55	0.68	0.81

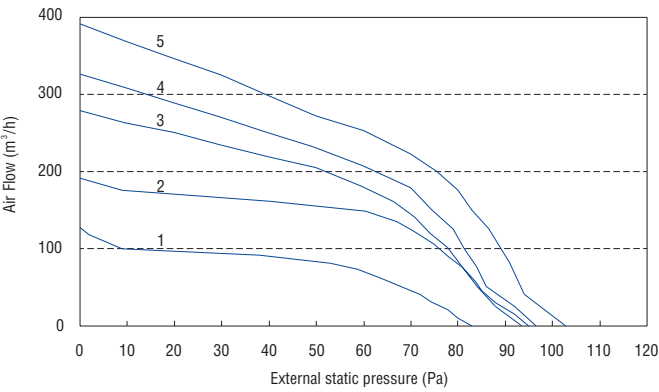
Electrical connection	V-f-Hz	230-1-50					
Max. power	W	50	60	75	80	160	150
Max. current	A	0.20	0.25	0.32	0.34	0.68	0.64
Air flow	5	m³/h	360	520	820	930	1410
	4	m³/h	310	370	630	700	1090
	3	m³/h	270	290	440	470	860
	2	m³/h	190	220	300	330	630
	1	m³/h	120	160	230	250	480
Sound power	5	dB(A)	57.6	58.7	58.3	58.4	64.3
	4	dB(A)	53.4	49.8	51.6	52.0	57.1
	3	dB(A)	49.6	43.8	43.5	44.4	51.0
	2	dB(A)	41.3	37.1	35.3	34.9	44.2
	1	dB(A)	33.4	31.4	31.1	30.8	36.3
Sound pressure	5	dB(A)	47.7	48.6	47.9	47.8	53.5
	4	dB(A)	43.5	39.7	41.2	41.4	46.3
	3	dB(A)	39.7	33.7	33.1	33.8	40.2
	2	dB(A)	31.4	27.0	24.9	24.3	33.4
	1	dB(A)	23.5	21.3	20.7	20.2	25.5

Above data have been measured according to EUROVENT Standard 6/3 under the following conditions:
cooling: water inlet temperature 7 °C, water outlet temperature 12 °C, air temperature (dry bulb) 27 °C, air temperature (wet bulb) 19 °C, relative humidity 46.3%.
heating: water inlet temperature 70 °C, water outlet temperature 60 °C, air temperature 20 °C.

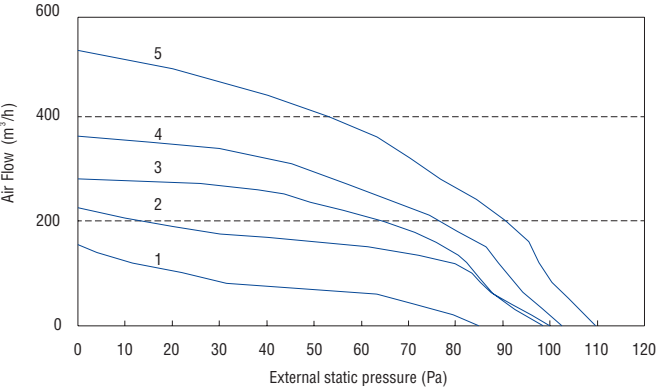
Sound power has been measured according to ISO 3745 standard and DIN 45635, part 1000.
Sound pressure has been measured on the distance of 1m (microphone under 45° to air outlet).

Fan performances for 2-pipe system

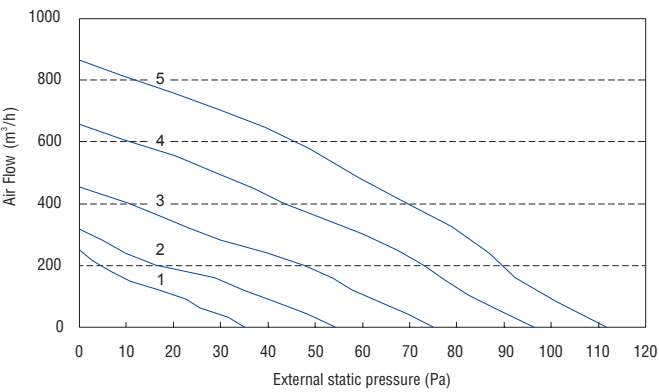
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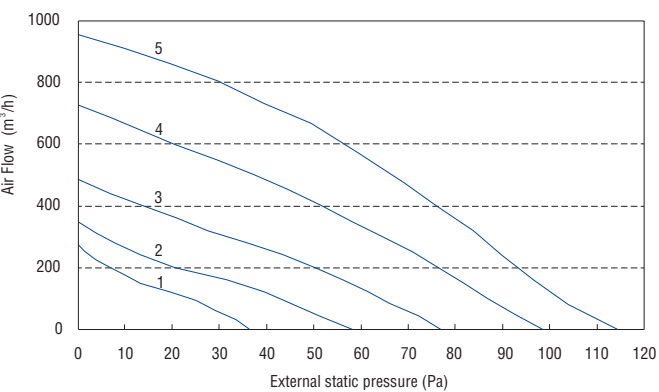
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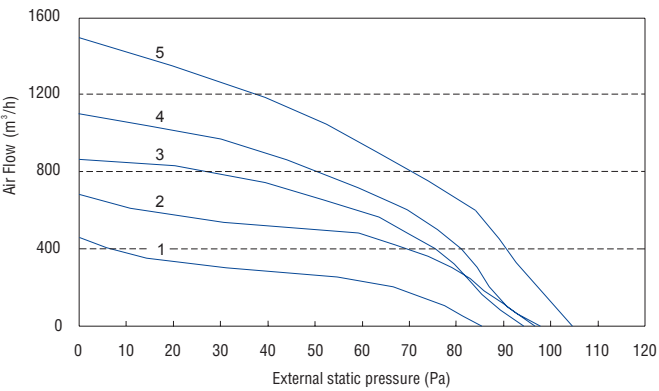
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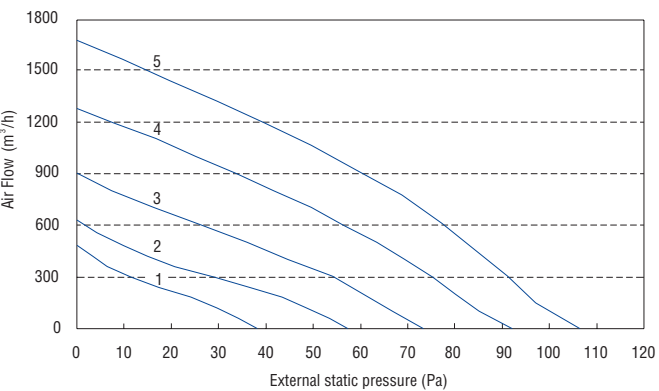
Size 400



Size 500

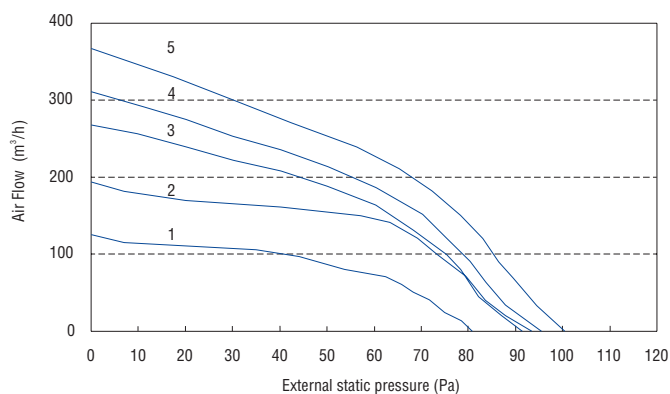


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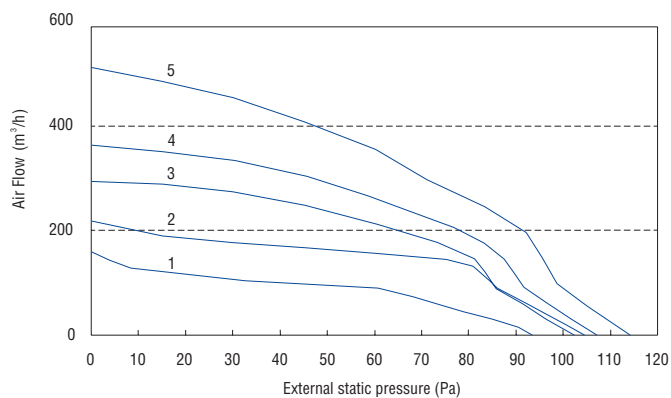


Fan performances for 4-pipe system

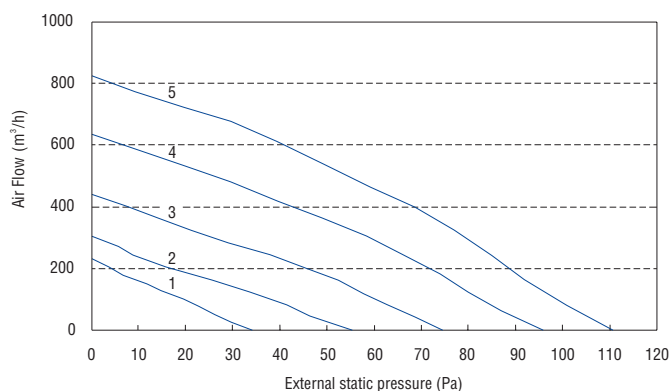
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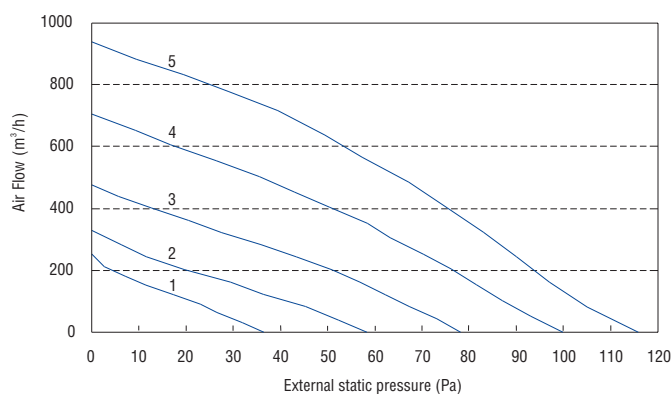
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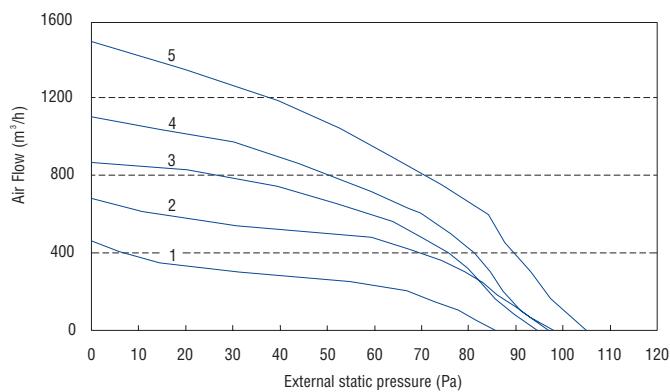
Size 300



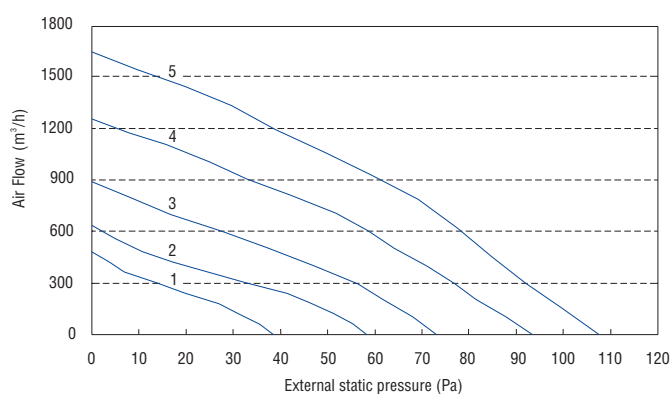
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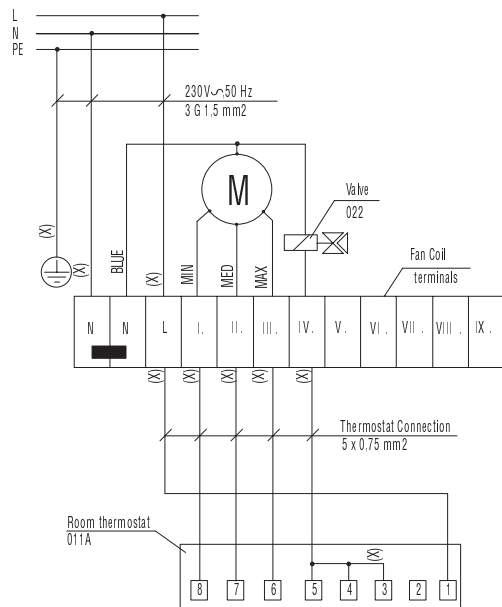
Size 500



Size 600

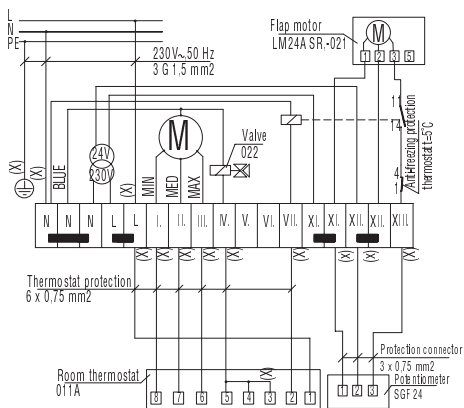


C4 - 2.0.2.0. Heating and cooling - room air. (2-pipe system) Air side and Water side control. Thermostat 011A.



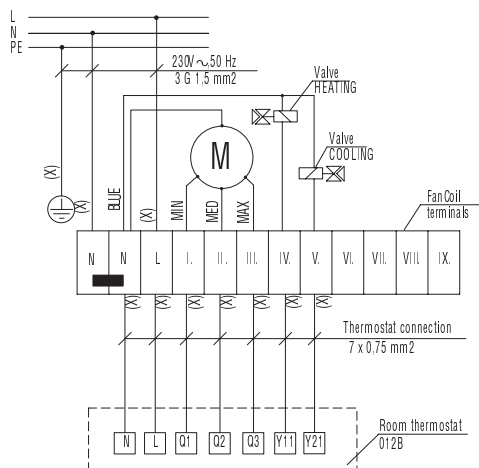
NOTE: Connectors market with (x) are to be done by the customer!

C4 - 2.0.2.1. Heating and cooling - outside and room air mixing. (2-pipe system) Air side and Water side control. Thermostat 011A.



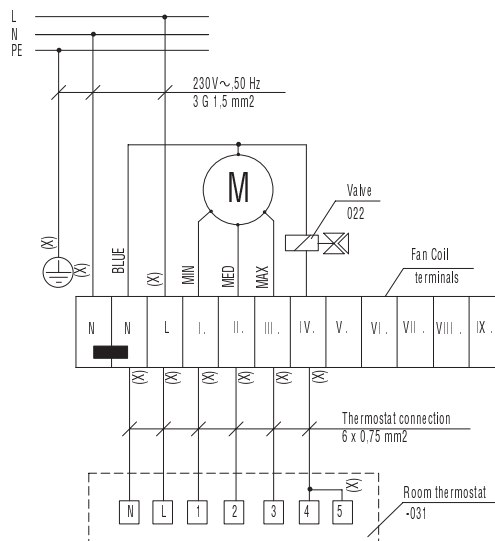
NOTE: Connectors market with (x) are to be done by the customer!

C4 - 4.4.2.0. Heating and cooling - room air. (4-pipe system) Air side and Water side control. Thermostat 012B.



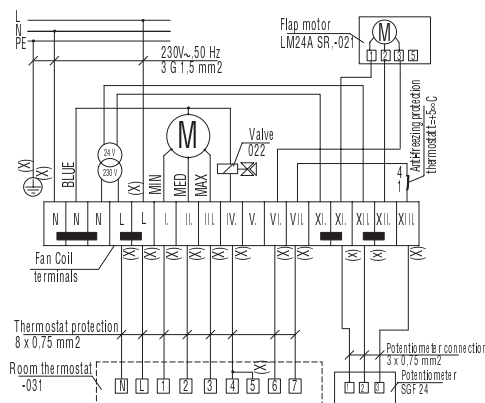
NOTE: Connectors market with (x) are to be done by the customer!

C4 - 2.2.2.0. Heating and cooling - room air. (2-pipe system) Air side and Water side control. Thermostat 031.



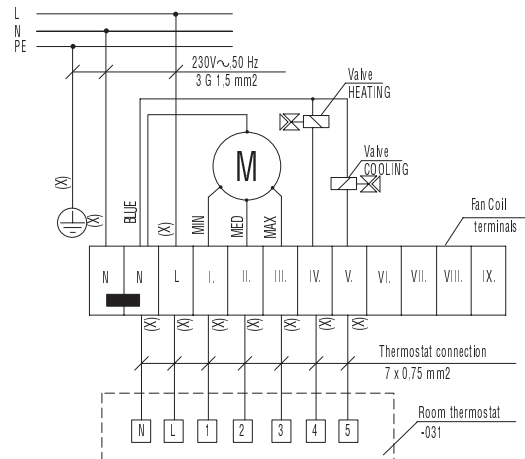
NOTE: Connectors market with (x) are to be done by the customer!

C4 - 2.2.2.1. Heating and cooling - outside and room air mixing. (2-pipe system) Air side and Water side control. Thermostat 031.



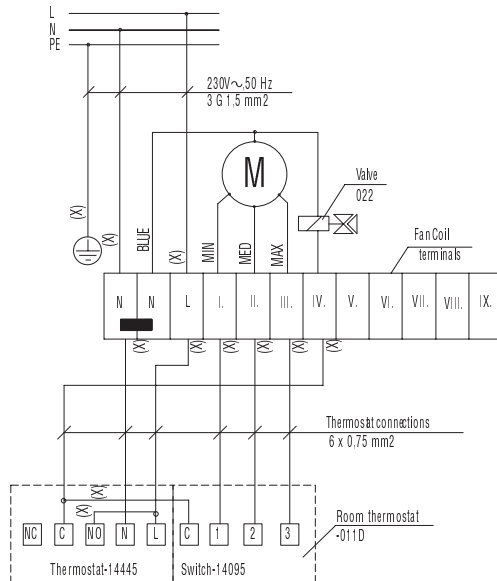
NOTE: Connectors market with (x) are to be done by the customer!

C4 - 4.2.2.0. Heating and cooling - room air. (4-pipe system) Air side and Water side control. Thermostat 031.



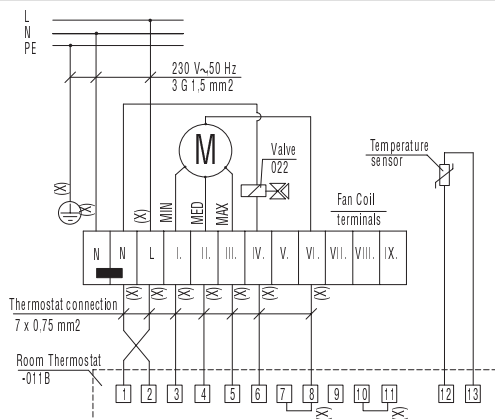
NOTE: Connectors market with (x) are to be done by the customer!

**C4 - 2.6.2.0. Heating and cooling - room air.
(2-pipe system) Air side and Water side control. Thermostat 011D.**



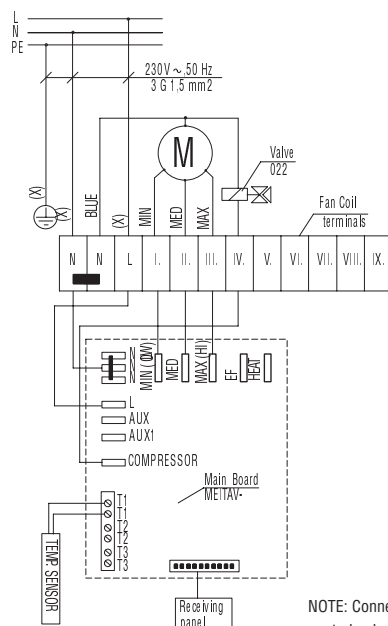
NOTE: Connectors market with (x) are to be done by the customer!

**C4 - 2.1.2.0. Heating and cooling - room air. (2-pipe system)
Air side and Water side control. Thermostat 011B.**



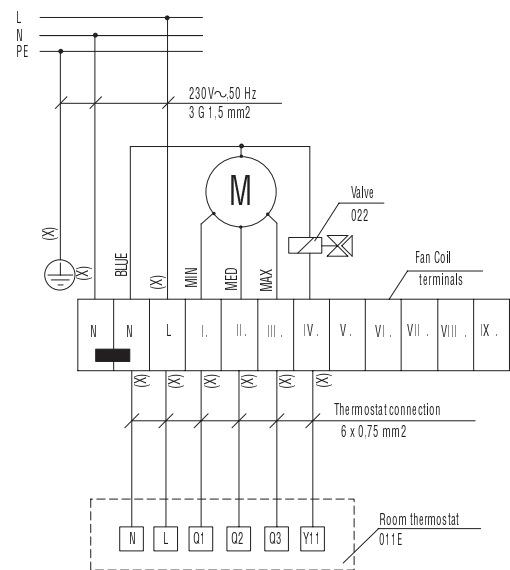
NOTE: Connectors market with (x) are to be done by the customer!

**C4 - 2.3.2.0. Heating and cooling - room air.
(2-pipe system) Air side and Water side control. Thermostat 013.**



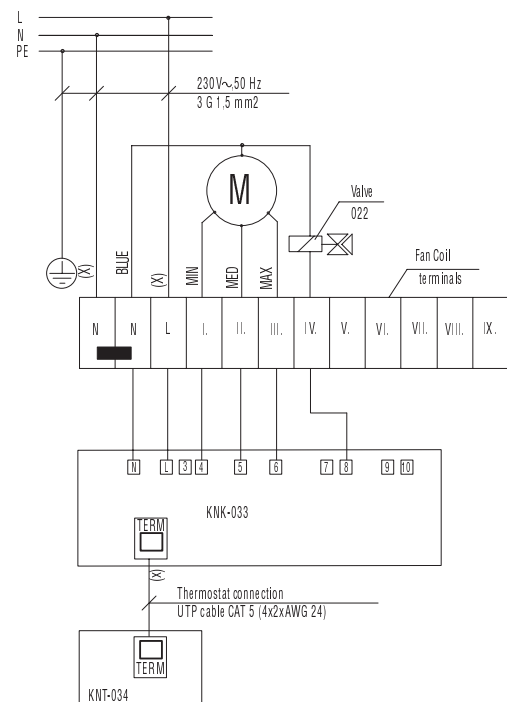
NOTE: Connectors market with (x) are to be done by the customer!

**C4 - 2.7.2.0. Heating and cooling - room air.
(2-pipe system) Air side and Water side control. Thermostat 011E.**



NOTE: Connectors market with (x) are to be done by the customer!

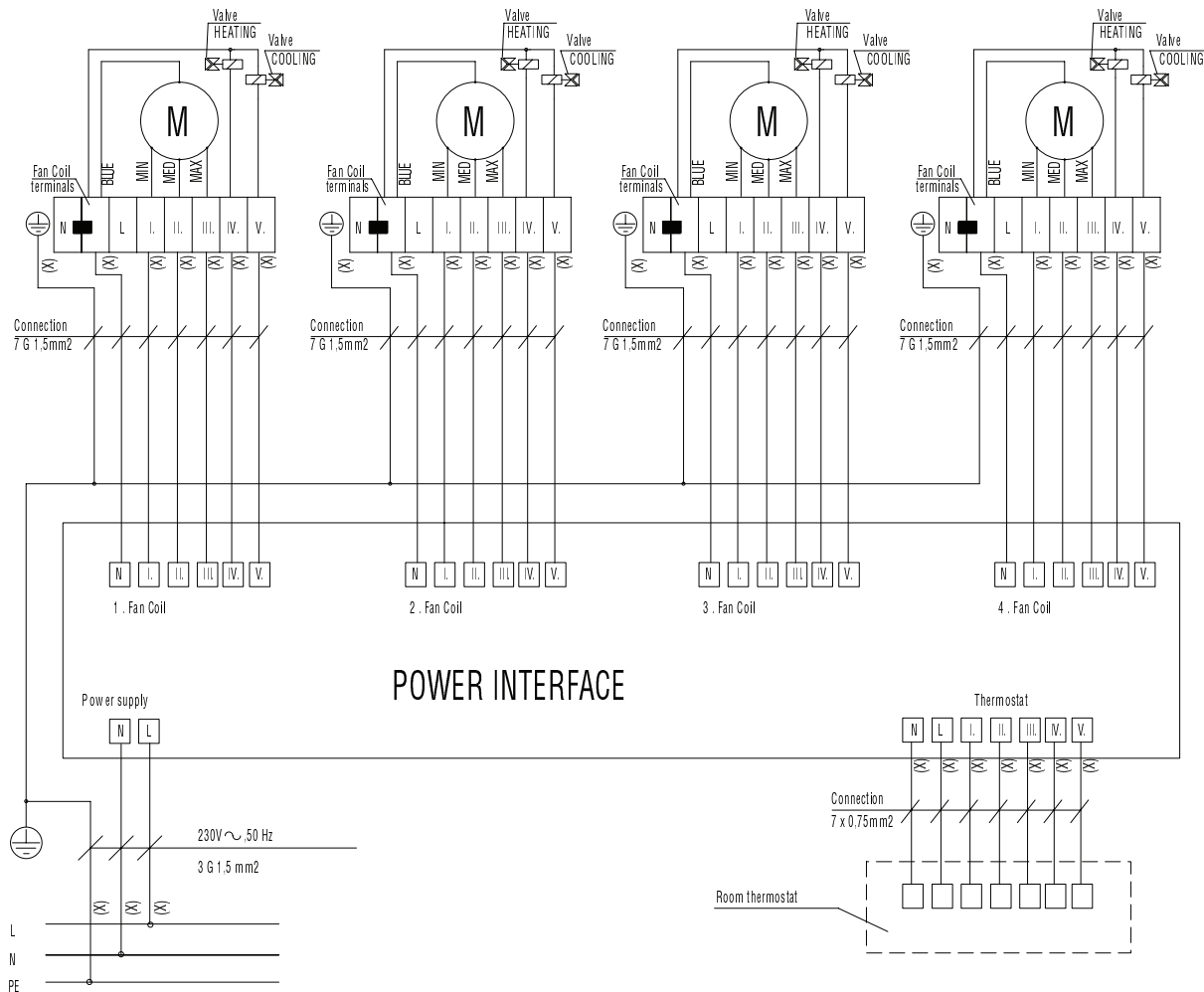
**C4 - 2.9.2.0. Heating and cooling - room air. (2-pipe system)
Air side and Water side control. Thermostat 033 and 034.**



NOTE: Connectors market with (x) are to be done by the customer!

Accessory 032 - Power interface is necessary in cases, when we want to make a connection of more (up to 4 pcs) of fan coils Climmy 4 to one thermostat.

Connection is to be made according to following wiring diagram:



NOTE: Connections marked with (x) are to be done by the customer!

Exceptionally three fan coils Climmy 4 can be connected to one thermostat without power interfaces (parallel connection) under following conditions:

- 1) Fan coils, which we want to connect in parallel connection without power interface are of the same sizes (for example - size of all three fan coils is 400)
- 2) All three fan coils have the same selected fan speeds (min-med-max). (for example: all three fan coils have selected fan speed 1-3-5).

011A



Room thermostat (011A)

- on-off switch
- heating-cooling switch
- fan speed selection switch (min, med, max)

Application: 2-pipe systems

Installation: wall

011BV



Room thermostat (011BV)

- heating-off-cooling switch
- fan speed selection switch (min, med, max)

Application: 2-pipe systems

Montaža: in the fan coil

011D



Room chronothermostat (flush mounted) (011D)

- heating-cooling switch
- fan speed selection switch (min, med, max)
- on-off switch
- weekly programming setting switch

Application: 2-pipe systems

Installation: wall – flush mounting

011E



Room chronothermostat (011E)

- heating-cooling switch
- fan speed selection switch (min, med, max)
- display of room temperature, set points and control parameters
- weekly programme switch
- current time

Application: 2-pipe systems

Installation: wall

Note:

- In manual fan speeds selection (min-med-max) fan is always on (temperature independent fan control).
- In automatic fan speed selection fan is controlled by the temperature (temperature dependent fan control). Whenever the fan starts from standby, it starts with maximum speed for 1 second in order to guarantee a safe fan motor start.

012B, 012BV



Room thermostat (012B)

- automatic heating-cooling switching
- fan speed selection switch (min, med, max)

Application: 4-pipe systems

Installation: wall (012B) or in the fan coil (012BV)

031, 031V, 031L



Digital electronic room thermostat (031)

- display of room temperature, set points and parameters
- on-off switch
- fan speed selection switch
- manual or automatic fan speed switching
- mode selection key: heating, cooling, automatic switching heating to cooling and vice versa

Application: 2- or 4-pipe systems

Installation: wall (031) or in the fan coil (031V), wall for fan coil with air mixing flap (031L)

032



Power interface (032)

- Allows driving up to 4 fan coils through a single thermostat

Application: 2- or 4-pipe systems

033



Digital controller (LON) (033)

- self-dependent unit or LON network unit
- three outputs for fan speed selection and outputs for valves
- three digital inputs (e. g. occupancy sensor, microswitch for open window, free digital input)
- special connection for accessory 034 (Digital LON room thermostat)

Application: 2- or 4-pipe systems

Hidria IMP Klima only performs the connection of the thermostat and the controller. Installation, internal connections and initial start on the LON network are performed by the installer of the entire LON system.

034



Digital room thermostat (LON) (034)

- heating-cooling
- fan speed selection (min, med, max, auto)
- setting temperature from -4 to +4 °C regarding to pre-set room temperature

Application: 2- or 4-pipe systems

Installation: wall

Hidria IMP Klima only performs the connection of the thermostat and the controller. Installation, internal connections and initial start on the LON network are performed by the installer of the entire LON system.

013



Remote controller (013)

- on-off key
- mode selection key: heating, cooling, ventilation, automatic heating-cooling switching,
- fan speed selection key: (min-med-max, automatic fan speed switching)
- daily programme setting key

Application: 2- or 4-pipe systems

022



Three-way Valves (2-pipe) (022)

Three-way two-position valves with four connections, operated by electric-thermal drives with on-off control.

044



Three-way valves (4-Pipe) (044)

Three-way two-position valves with four connections, operated by electric-thermal drives with on-off control.

022P



Two-Way Valves (2-Pipe) (022P)

Two-way two-position valves with four connections, operated by electric-thermal drives with on-off control. Shut-off cocks are not included in set of valves.

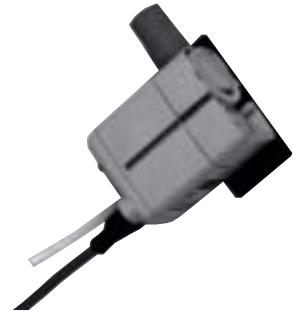
044P



Two-Way Valves (4-Pipe) (044P)

Two-way two-position valves with four connections, operated by electric-thermal drives with on-off control. Shut-off cocks are not included in set of valves.

030



Condensate drain pump (030)

- maximum flow rate: 8 l/h
- power supply: 230 V AC, 50 Hz
- maximum input power: 10 W
- recommended maximum vertical head: 2 m
- recommended

023



Protection grille AZR-3/2 with insect protection mesh (protection mesh 1x1 mm) (023)

Fan coil size	B1	H1
100	330	100
200	560	100
300	790	100
400	1020	100
500	1250	100
600	1480	100

026



Flexible connection plenum for flush designs (026)

Please, specify connection dimensions and number in the order.

027



Grille (027)

The grille is adapted to the flush design fan coil duct.

Ordering key:

AZR-3/2

B1 X 100

└── Mounting frame

Convactor Control Unit



Digital controller (accessory 033) is used for controlling fan coils and to assure optimal room temperature. It may be used as a stand alone unit or as an LON network unit, which allows for additional flexibility as well as remote system control and management possibilities. To allow for individual requirements, a time switch and scheduled operation is available. In the case of an unoccupied room, the system switches off, which results in reduced operating costs and lower energy consumption.

A two- or four-pipe system can be controlled using this controller. There are three ports available for speed selection as well as valve outlets (two- or four-pipe system). Three digital ports are available on the inlet side.

They are designed for:

- an occupancy sensor,
- a micro switch port, which sends a signal when the window is opened and switches off the device,
- free digital port.

Alongside the network connection, the FTT-10 is also equipped with an auxiliary connection for the room unit - accessory 034.

The controller operates as a stand alone, while by using standard Echelon configuration tools, it may be reconfigured to perform more specific tasks.

Paired with the room unit, it enables:

- set point setting - desired temperature
- fan speed setting.

Hidria IMP Klima only performs the connection of the thermostat and the controller. Installation, internal connections and initial start on the LON network are performed by the installer of the entire LON system.



Room thermostat (accessory 034) is used for the control of room convectors. It may be used for local fan speed selection and the changing of temperature settings within specific limits (for example $\pm 4^{\circ}\text{C}$). According to the measured room temperature, room thermostat 034 opens the valve on the convector and switches on the ventilation fan. Once room temperature reaches the preset value, the ventilation fan automatically switches off.

Operation mode:

"Occupied" mode

This is the usual operation mode for an occupied room. The controller may be switched into this mode by a network command, an occupancy sensor, or by pressing the button on the wall-mounted room unit. In this mode, the FCU is controlled according to room module settings or a control algorithm if the room unit is set to the 'automatic' mode. The ventilation fan can be set to remain on or to be turned off during low energy level bias.

"Standby" mode

In this mode, the thermostat reduces the heating and cooling requirements during temporarily unoccupied periods. In the low-energy level bias, the ventilation fan is turned off.

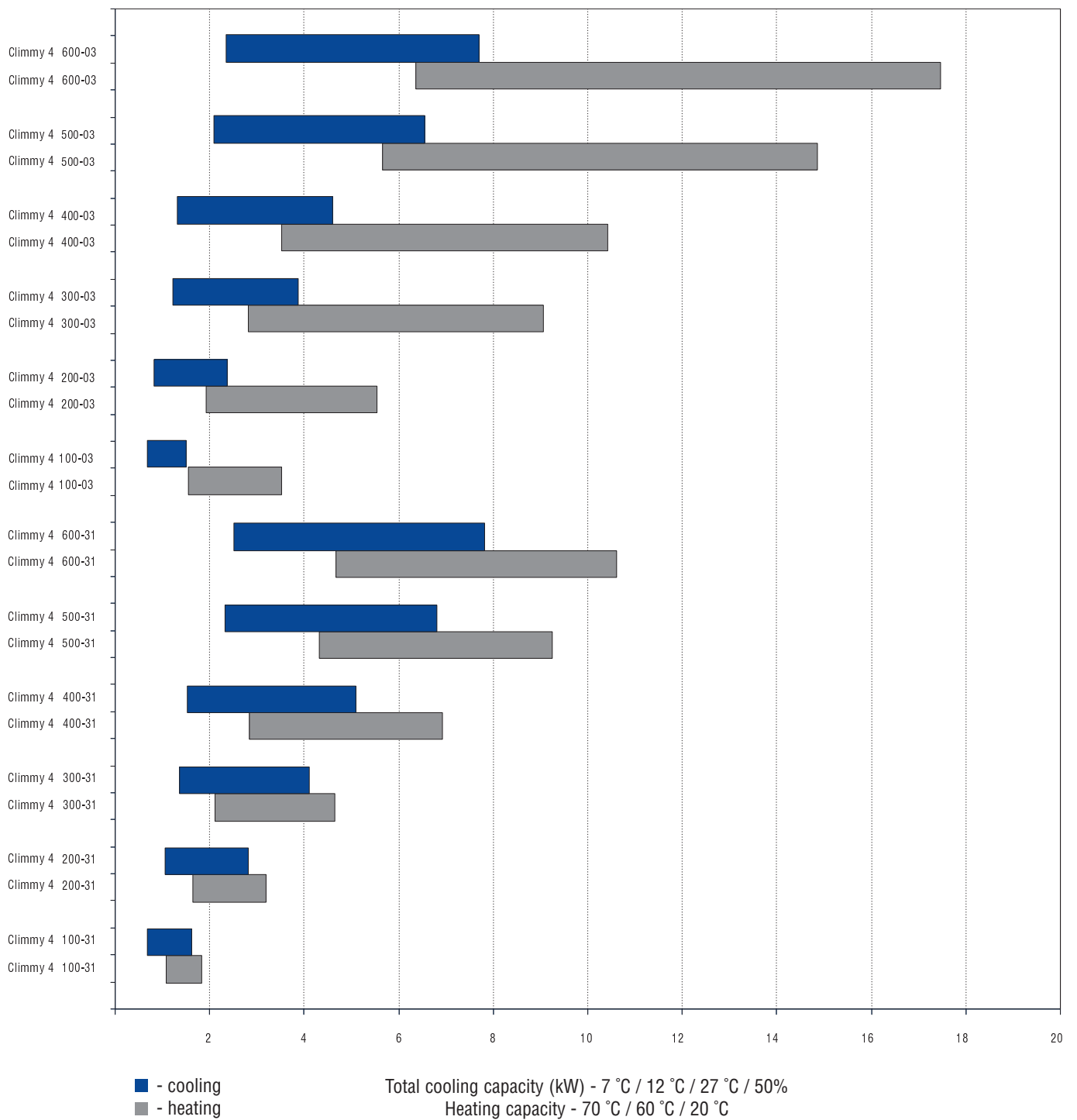
"Unoccupied" mode

Used during longer periods of unoccupied spaces, such as overnight, weekends and days away.

"Open window" mode

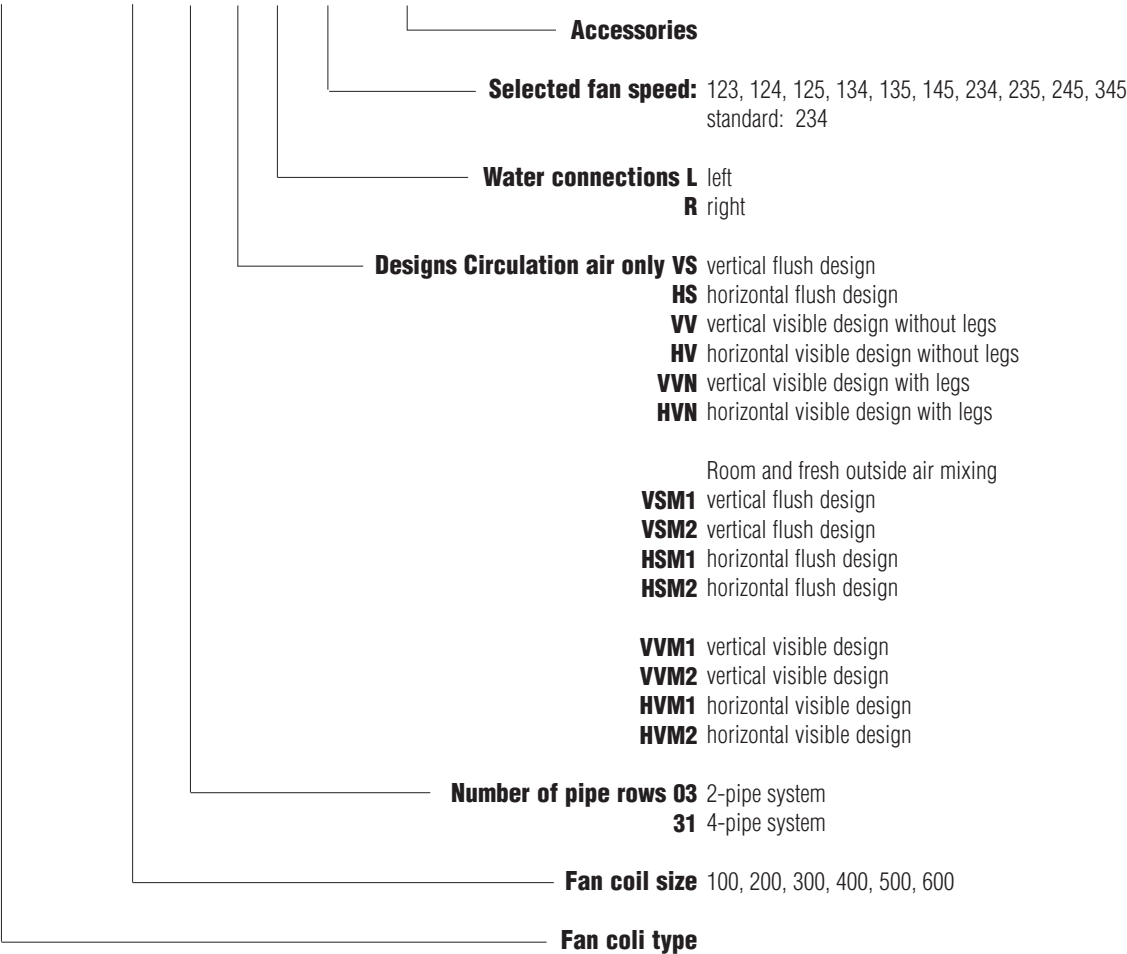
If the window opening sensor is connected to the controller, heating or cooling is turned off if the window is open, and remains off until it is closed again.

Hidria IMP Klima only performs the connection of the thermostat and the controller. Installation, internal connections and initial start on the LON network are performed by the installer of the entire LON system.

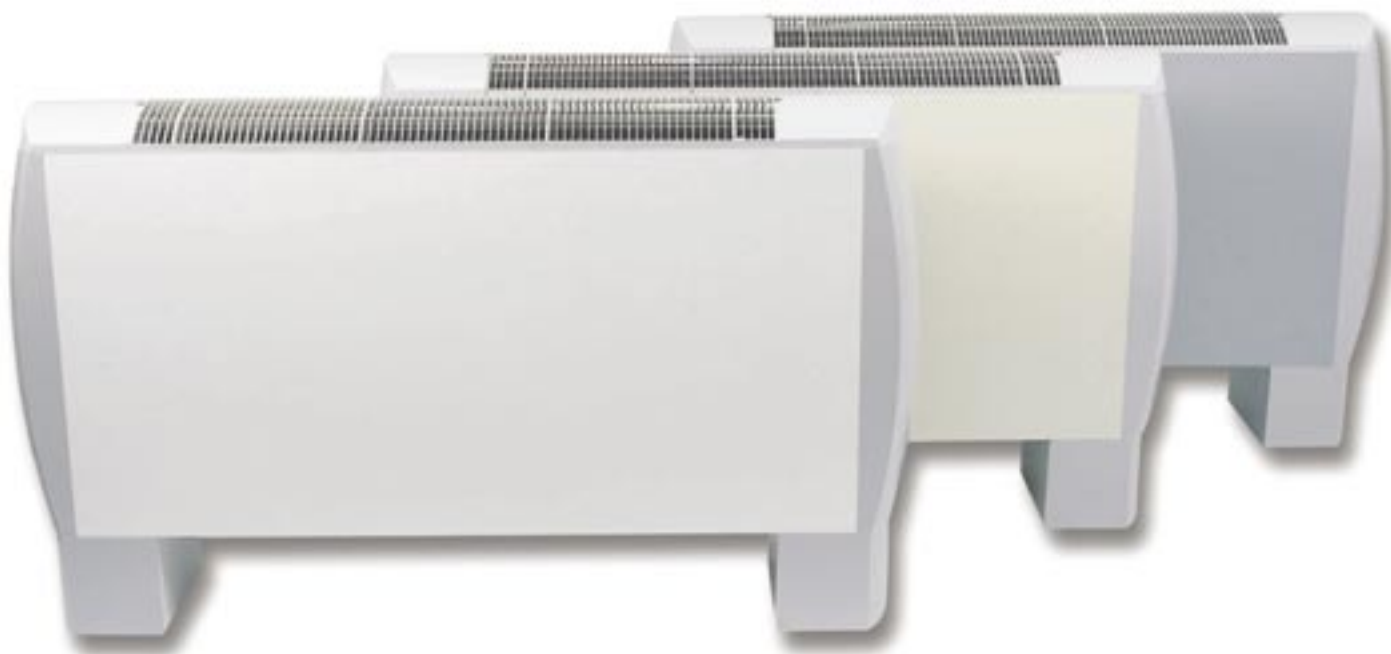
Fast selection diagram of fan coil Climmy 4

Ordering key:

CLIMMY 4- 300-03-VV-D/234/011A, ...







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