

komfovent[®]



Heat Recovery
Air Handling Units **DOMEKT**

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KOMFOVENT DOMEKT air handling units

- KOMFOVENT air handling units are made to create healthy indoor climate and ensure efficient energy saving. Products are designed and produced in conformance with high quality and performance requirements.
- All components and parts of the units are accurately selected and assembled to achieve the best results in operation. Reliability of the products is based on the deep attention to the details.

Your family health protection

Units efficiently clean the air from the particulates, allergens, dust and maintain healthy indoor climate.

Reliable and durable

- Double quality control system.
- Air handling units efficiency is measured in a new modern laboratory.
- Units are tested in the independent laboratories in Switzerland and Germany.
- Double anticorrosive units' casing protection.

Wide range of air handling units

We are offering an extremely wide range of air handling units in order to fulfil our customers' needs.

Energy efficient

- Silent operation.
- Reduces expenses for heating, saves electric energy.
- Thermal efficiency and energy saving of the heat exchangers of KOMFOVENT air handling units are up to 92%.
- Highly efficient EC (electronically commutated) fans use 50% less energy than AC (alternating current) fans with voltage control.
- The special control system designed by our qualified engineers contributes to saving energy.

User friendly control system

Modern and attractive control panels enable a customer to select the desirable functions, set and change parameters as well as observe the ventilation processes on LCD screen.



► KOMFOVENT DOMEKT air handling units are intended for residential premise ventilation within 40 m² to 250 m².

► Two functions in one unit:

1. Ventilates premise: ensures balanced ventilation with heat recovery supplying fresh air and extracting the used one.
2. Possibility to connect a kitchen hood or any other extraction device.

► Air handling units with integrated automatic control are fully prepared for installation: just PLUG & PLAY.

► A wide range and extremely compact size of the units allow the customer to mount them not only in the new premise but also in the renovated ones.

Quick KOMFOVENT DOMEKT unit selection



DOMEKT REGO – air handling units with rotary heat exchanger		200VE/VW* Vertical	400VE/VW* Vertical	450VE-B Vertical <i>Passive House</i>	250PE/PW* Suspended	400PE/PW* Suspended	600HE/HW* Horizontal
Residential area	m ²	~120	~160	~180	~120	~200	~250
Supply and exhaust air flow under pressure	m ³ /h	250	300	167-308	240	450	600
	Pa	100	100	49-169	100	100	100
Thermal efficiency of rotary heat exchanger	%	80	83	78	75	79	79
Fan type		EC					

DOMEKT RECU – air handling units with plate heat exchanger		300VE/VW* Vertical	400VE/VW* Vertical <i>Passive House</i>	450VE/VW* Vertical	500PE/PW* Suspended
Residential area	m ²	~120	~180	~180	~250
Supply and exhaust air flow under pressure	m ³ /h	300	129-256	430	670
	Pa	100	49-169	100	100
Thermal efficiency of plate heat exchanger	%	79	76	74	86
Fan type		EC			

Notes: E–electrical heater, W–hot water heater

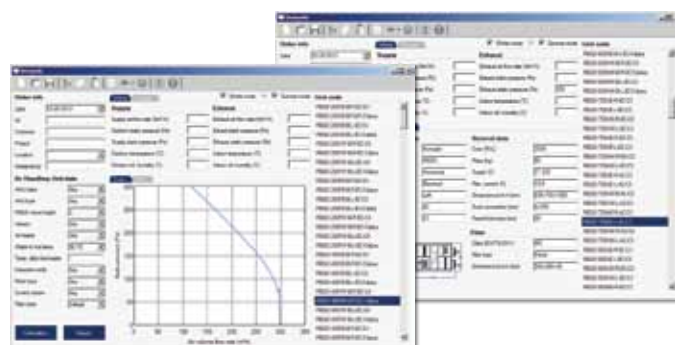
* Duct mounted water air heater must be ordered additionally to be installed in the duct.

Precise selection

Equipment is selected by helpful and informative software, available to be downloaded to your PC from our website:

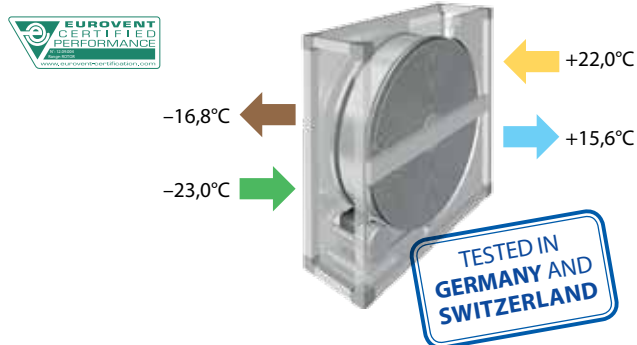
www.komfovent.com

Technical data sheets present important technical parameters in desired working point of the selected unit: efficiency, SFP, acoustics and other required data.



Heat exchangers in KOMFOVENT air handling units

Rotary heat exchanger



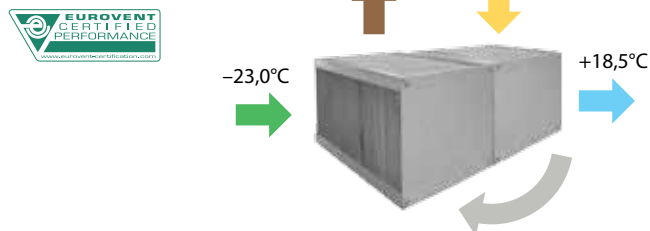
The operating principle of the REGO air handling units with nonfreezing rotary heat exchanger

Rotary heat exchangers work on the principle of heat recovery: rotating aluminium drum absorbs heat of the exhaust air and warms up the air supplied to the ventilated room.

Advantages of the rotary heat exchanger:

- rotary heat exchanger allows to reduce energy consumption for warming up the supply air by approximately 4 times,
- compact,
- non-freezing in comparison with the cross flow plate heat exchangers,
- a share of the exhaust air moisture is transferred to the air supplied to the ventilated room,
- cools down the supply air in summer in a conditioned space,
- no need in drainage.

Double plate heat exchanger



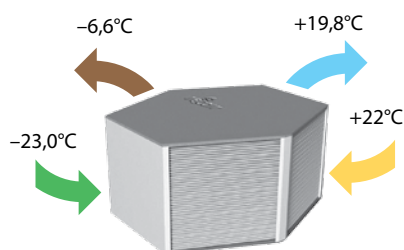
The operating principle of the RECU air handling unit with cross flow plate heat exchanger

The heat of the exhaust air is transferred to the supply air through aluminium plates of the heat exchanger. Air flows through the heat exchanger crosswise. Unit design prevents penetration of the exhaust air to the fresh air flow.

Advantages of the plate heat exchanger:

- in the process of ventilation the heat of the exhaust air is recovered to the supplied air,
- totally separated air flows,
- special solution of using double plate heat exchangers reduces the risk of frosting,
- defrosting process is controlled by automatics.

Counterflow polystyrene plate heat exchanger



- ▶ Supply inlet
- ▶ Supply outlet
- ▶ Exhaust inlet
- ▶ Exhaust outlet
- ▶ Intermediate moisture removal

Counterflow aluminium plate heat exchanger



Note: thermal efficiency indicated for wet conditions. For dry conditions efficiency refer to the selection software.

Vertical unit DOMEKT REGO 200V

- Unit is specially designed to be integrated into the kitchen furniture over the cooker.
- Its extremely compact size gives us a perfect possibility of simple mounting in a new flat, renovated premise, etc.

Unit is applicable to ventilate the premise up to 120 m². Air handling unit is fully prepared for exploitation. Integrated automatic control with the wall mounted panel C4 which is handy and simple in use ensures the most economic unit functioning and necessary control.

Unit REGO 200V performs two functions:

1. Ventilates premise: ensures balanced ventilation with heat recovery supplying fresh air and extracting the used one,
2. Extracts the used air through kitchen hood: during cooking a user switches on the hood and the air is extracted through the hood by the unit. Kitchen hood has a specially designed damper inside. The air flow through the hood is adjusted with it.

Note: There is no danger of rotary wheel greasing because air flows are not mixing in the unit when you are cooking!

Why? Because when you are cooking you switch on a cooker hood and it opens an internal by-pass damper by this action.

Used air from cooking and fumes is extracted by exhaust fan and directed to the by-pass, without getting into rotor. Extract air fan can be easily taken out for cleaning when it is needed.



Operation principle:

When kitchen hood is switched ON



When kitchen hood is switched OFF



- ▶ Supply inlet
- ▶ Supply outlet
- ▶ Exhaust inlet
- ▶ Exhaust outlet
- ▶ Extract through kitchen hood

Vertical units

DOMEKT REGO 200V

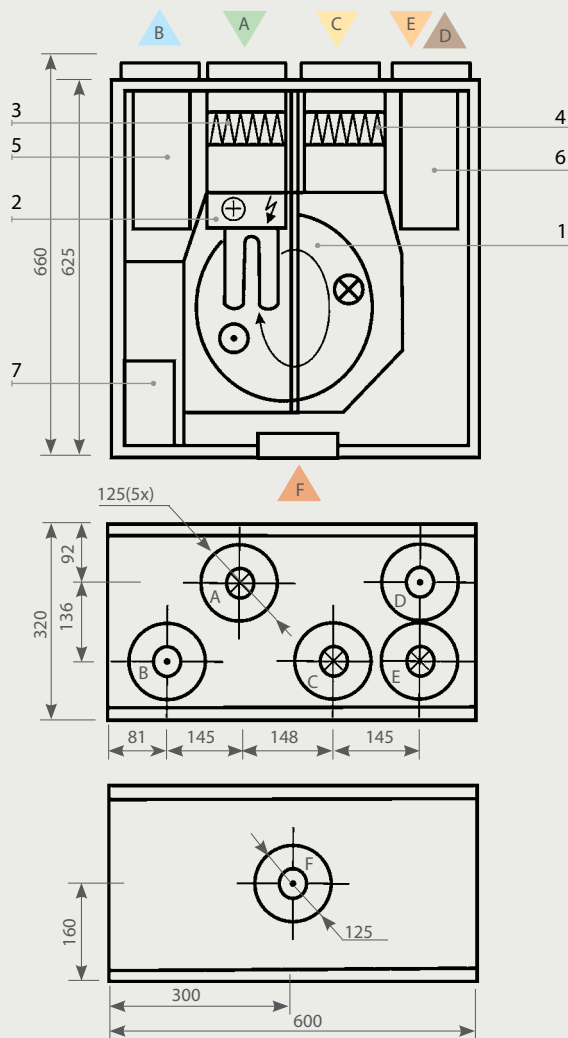
- Highly efficient rotary heat exchanger recovers up to 89% of heat.

REGO 200V special design has a big advantage: user does not need to specify unit's inspection side. This unit is both right- and left- hand in one. Front and back covering panels are easily removable – this way, when installing it, the unit must be only turned around to get the required inspection side and ducts' connection.

Integrated automatic control with the wall mounted touch sensitive panel C4 which is handy and simple in operation ensures the most economic unit functioning and necessary control.

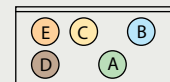


REGO 200V
Shown as left



For some units right and left sides are mirrored, but in some units are rotated. Choose the right side of unit installation.

Shown as right



Explication

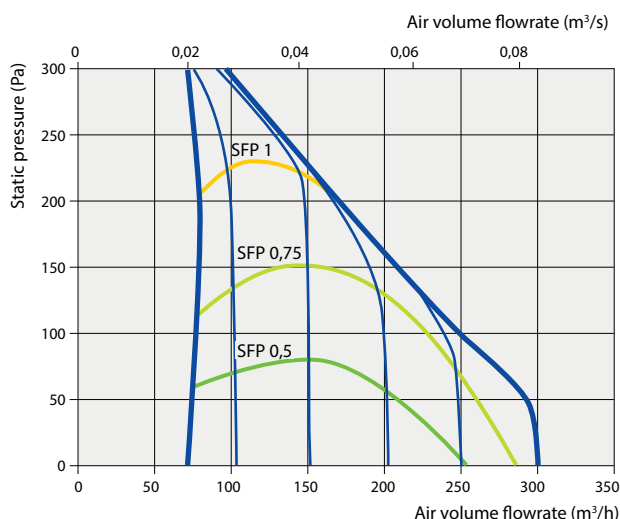
1	Rotary heat exchanger
2	Electric air heater
3	Supply air filter
4	Exhaust air filter
5	Supply fan
6	Exhaust fan
7	Automation control system
A	Supply inlet
B	Supply outlet
C	Exhaust inlet
D	Exhaust outlet
E	Additional extraction connection (by-pass – extraction without heat recovery)
F	Kitchen hood connection (by-pass – extraction without heat recovery)

Technical information

	REGO 200VE	REGO 200VW*
Supply voltage, V/Hz	~230 / 50 / 1 phase	
Maximal operating current, A	5.10	0.76
Input fans power, W	2 x 70	
Heater capacity, kW	0.8	1.2
Unit size (height x width x depth), mm	625 x 600 x 320	
Ductwork connection, mm	5 x 125	
Filter for supply/exhaust air, mm	285 x 130 x 46-F7	
Unit weight, kg	42	
Unit color	RAL 9010	

* For more detailed information look at the hot water duct air heater DH specification.

REGO 200V performances



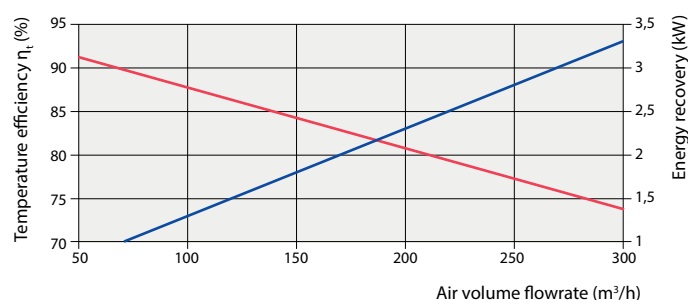
$P[kW] = SFP[kW/(m^3/s)] \times V[m^3/s]$.

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

To calculate the power consumption for EC fan use formula: $P = SFP \times V$; where SFP – kW/(m³/s) and V – m³/s.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

REGO 200V acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 140 m³/h (39 l/s), 100 Pa.

Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply inlet	36	42	48	55	53	51	48	39	59,0
Supply outlet	41	49	54	61	60	58	56	49	65,7
Exhaust inlet	36	42	48	55	53	52	48	40	59,2
Exhaust outlet	41	49	54	61	60	58	56	49	65,7
Additional inlet	36	44	47	55	55	54	51	45	60,5
Kitchen hood inlet	36	44	47	55	55	54	51	45	60,5
Casing	33	40	43	42	41	38	32	25	48,4

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_{pA} .

A-weighted sound pressure levels L_{pA} , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	25	32	30	30	32	27	22	15	37,7
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Vertical units

DOMEKT REGO 400V

- Extremely compact unit in size and high energy efficient.
- Highly efficient rotary heat exchanger recovers up to 90% of heat.

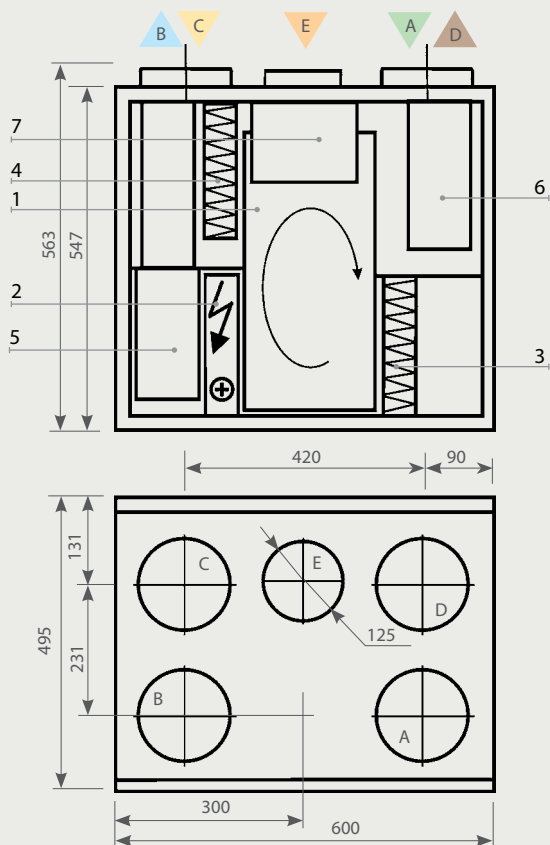
Unit compact size and high efficiency offer the best choice to ensure healthy microclimate in your apartments or small houses. Unit is applicable to ventilate the premise up to 160 m².

Unit is designed to ensure ventilation in the premise and may be connected with a kitchen hood via an additional duct. Any exhaust air diffuser may be connected instead of a kitchen hood to by-pass duct connection (to extract air from bathroom, laundry, etc.).

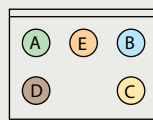
Integrated automatic control with the wall mounted touch sensitive panel C4, which is handy and simple in operation ensures the most economic unit functioning and necessary control.



REGO 400V
Shown as left



Shown as right



Explication

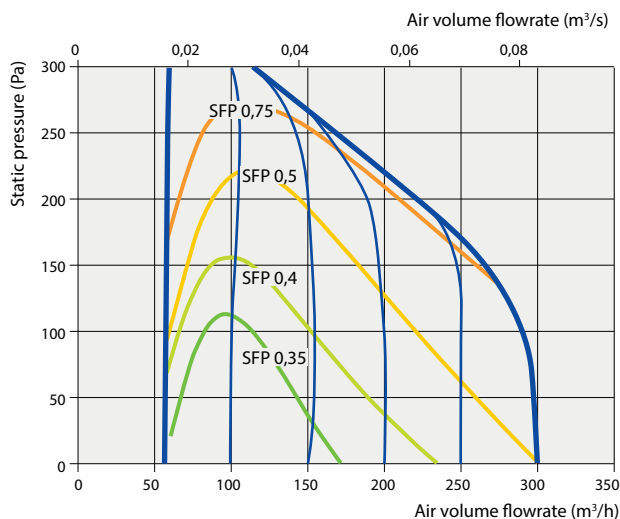
1	Rotary heat exchanger
2	Electric air heater
3	Supply air filter
4	Exhaust air filter
5	Supply fan
6	Exhaust fan
7	Automation control system
A	Supply inlet
B	Supply outlet
C	Exhaust inlet
D	Exhaust outlet
E	Additional extraction connection (by-pass – extraction without heat recovery)

Technical information

	REGO 400VE	REGO 400VW*
Supply voltage, V/Hz	~230 / 50 / 1 phase	
Maximal operating current, A	5.15	0.76
Input fans power, W	2 x 70	
Heater capacity, kW	1.0	1.2
Unit size (height x width x depth), mm	547 x 600 x 495	
Ductwork connection, mm	4 x 160, 1 x 125	
Filter for supply/exhaust air, mm	450 x 210 x 46-F7	
Unit weight, kg	42	
Unit color	RAL 9010	

* For more detailed information look at the hot water duct air heater DH specification.

REGO 400V performances

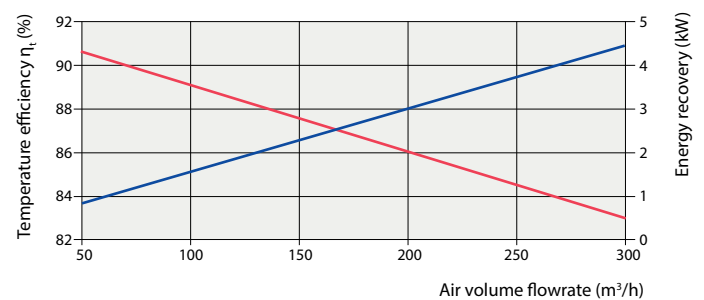


$$P[\text{kW}] = \text{SFP}[\text{kW}/(\text{m}^3/\text{s})] \times V[\text{m}^3/\text{s}]$$

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

REGO 400V acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 210 m³/h (58 l/s), 100 Pa.

Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply Inlet	34	42	49	55	53	54	49	40	59,8
Supply Outlet	39	49	55	61	60	61	57	51	66,6
Exhaust Inlet	34	42	49	55	53	54	49	41	59,8
Exhaust Outlet	39	49	55	61	60	61	57	51	66,6
Additional inlet	35	44	48	55	56	56	52	46	61,5
Casing	36	46	50	48	46	44	36	28	54,4

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_{pA} .

A-weighted sound pressure levels L_{pA} , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	28	38	37	36	37	33	26	18	43,5
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Vertical units

DOMEKT REGO 450VE-B

- Extremely compact unit in size and high energy efficient
- Highly efficient rotary heat exchanger recovers up to 83% of heat.

Unit compact size and high efficiency offer the best choice to ensure healthy microclimate in your apartments or small houses. Unit is applicable to ventilate the premise up to 180 m².

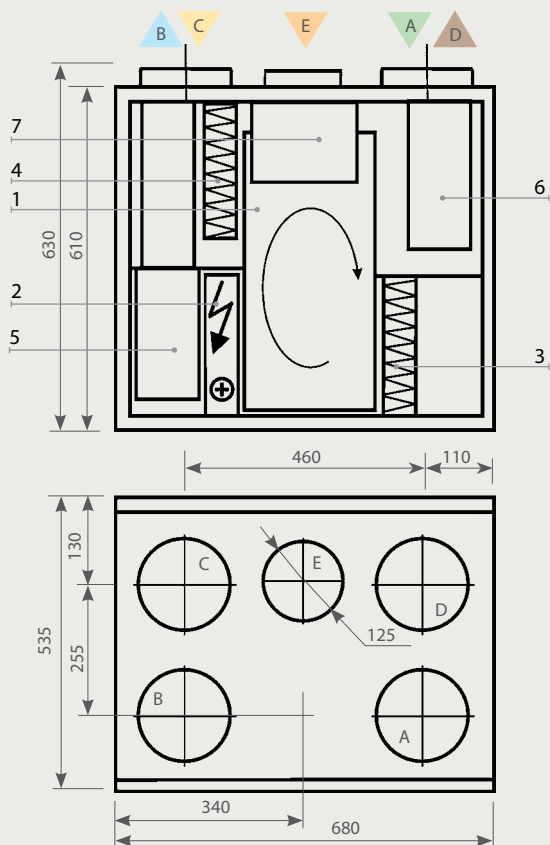
Unit is designed to ensure ventilation in the premise and may be connected with a kitchen hood via an additional duct. Any exhaust air diffuser may be connected instead of a kitchen hood to by-pass duct connection (to extract air from bathroom, laundry, etc.).

Integrated automatic control with the wall mounted touch sensitive panel C4 which is handy and simple in operation ensures the most economic unit functioning and necessary control.

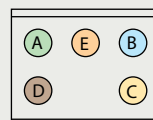


REGO 450VE-B

Shown as left



Shown as right



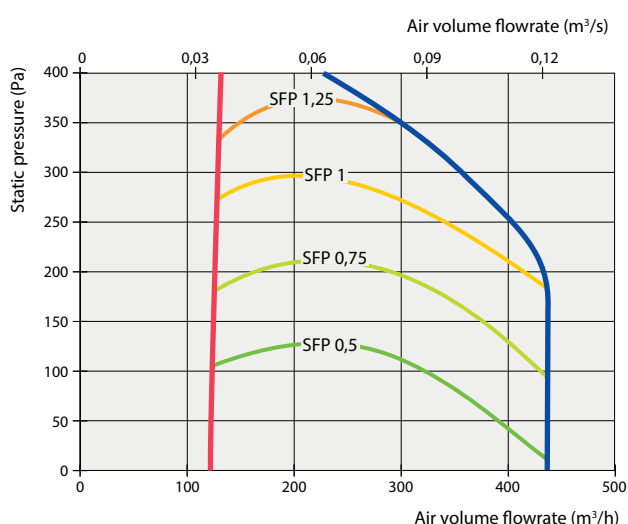
Explication

1	Rotary heat exchanger
2	Electric air heater
3	Supply air filter
4	Exhaust air filter
5	Supply fan
6	Exhaust fan
7	Automation control system
A	Supply inlet
B	Supply outlet
C	Exhaust inlet
D	Exhaust outlet
E	Additional extraction connection (by-pass – extraction without heat recovery)

Technical information

REGO 450VE	
Supply voltage, V/Hz	~230 / 50 / 1 phase
Maximal operating current, A	5.45
Input fans power, W	2 x 134
Heater capacity, kW	1.0
Energy recovery of rotary heat exchanger up to, kW	~2.5
Unit size (height x width x depth), mm	630 x 680 x 535
Ductwork connection, mm	4 x 160, 1 x 125
Filter for supply/exhaust air, mm	470 x 240 x 46-F7
Unit weight, kg	46
Unit color	RAL 9010

REGO 450V performances

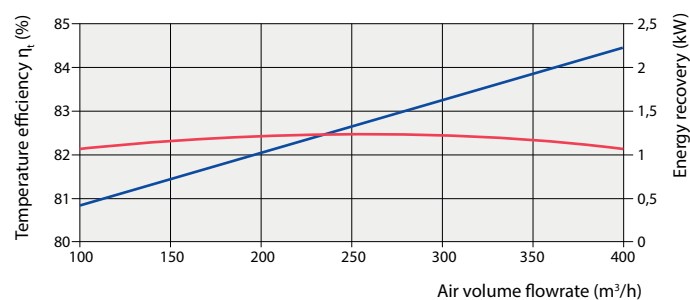


$P[kW] = SFP[kW/(m^3/s)] \cdot V[m^3/s]$

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

REGO 450V acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 315 m³/h (88 l/s), 100 Pa.

Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply Inlet	32	41	49	57	56	57	52	45	62,3
Supply Outlet	37	48	55	63	63	65	60	56	69,5
Exhaust Inlet	32	41	49	57	56	58	52	46	62,6
Exhaust Outlet	37	48	55	63	63	65	60	56	69,5
Additional inlet	32	43	48	57	58	60	55	51	64,2
Casing	29	39	44	43	43	42	34	28	49,7

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_pA .

A-weighted sound pressure levels L_pA , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	21	31	31	31	34	31	24	18	38,8
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False-ceiling units

DOMEKT REGO 250P

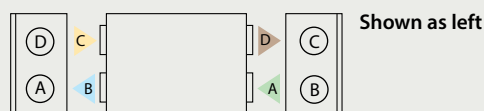
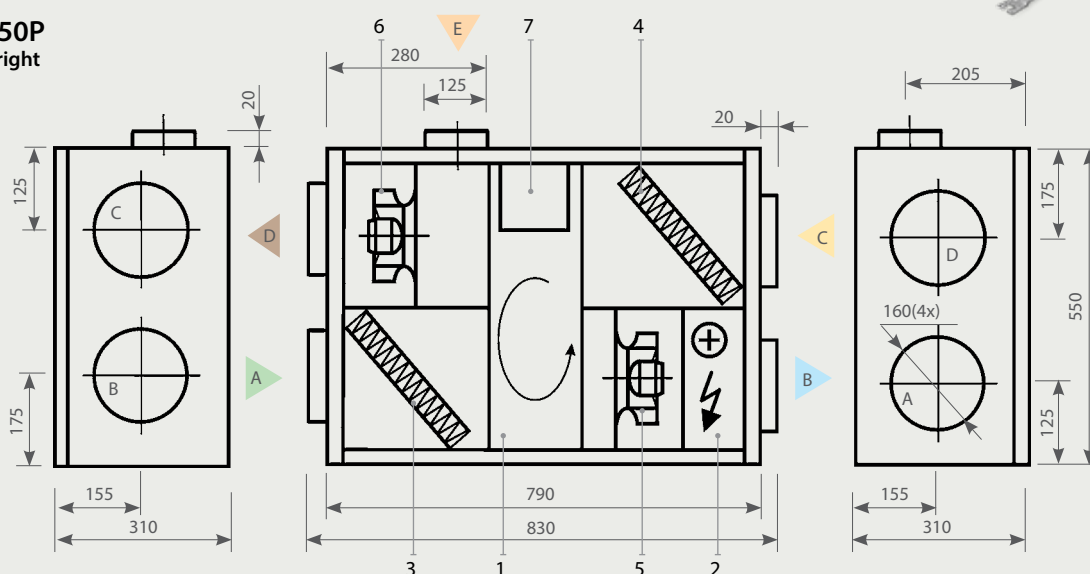
- Unit's height is only 310 mm so it can be easily mounted in any convenient place.
- Rotary heat exchanger ensures high heat recovery and thermal efficiency up to 87%.

Special unit's design with extremely low height allows us to mount it horizontally, hiding by false-ceiling or vertically – near the wall.

Unit REGO 250P may ventilate premise up to 120 m². It is intended for ventilation of flats, apartments, small houses, as well as classrooms, small offices and conference rooms. Integrated automatic control with the wall mounted touch sensitive panel C4 which is handy and simple in operation ensures the most economic unit functioning and necessary control.



REGO 250P
Shown as right



Explication

1	Rotary heat exchanger
2	Electric air heater
3	Supply air filter
4	Exhaust air filter
5	Supply fan
6	Exhaust fan
7	Automation control system

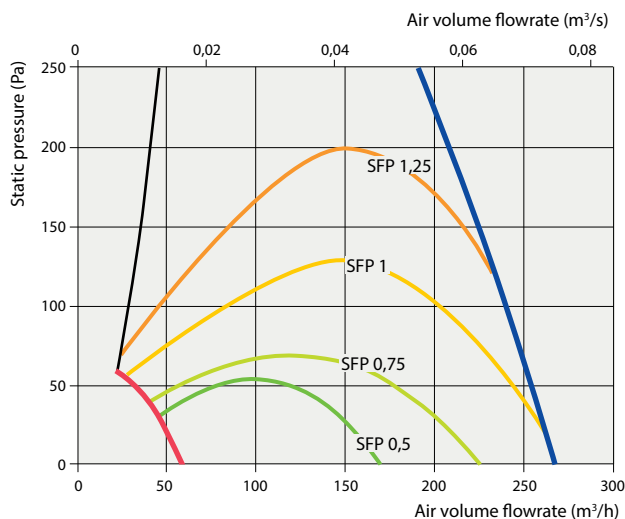
A	Supply inlet
B	Supply outlet
C	Exhaust inlet
D	Exhaust outlet
E	Additional extraction connection (by-pass – extraction without heat recovery)

Technical information

	REGO 250PE	REGO 250PW*
Supply voltage, V/Hz	~230 / 50 / 1 phase	
Maximal operating current, A	5.70	1.36
Input fans power, W	2 x 105	
Heater capacity, kW	1.0	
Unit size (height x width x depth), mm	310 x 550 x 790	
Ductwork connection, mm	4 x 160, 1 x 125	
Filter for supply/exhaust air, mm	278 x 258 x 46-F7	
Unit weight, kg	41	
Unit color	RAL 9010	

* For more detailed information look at the hot water duct air heater DH specification.

REGO 250P performances

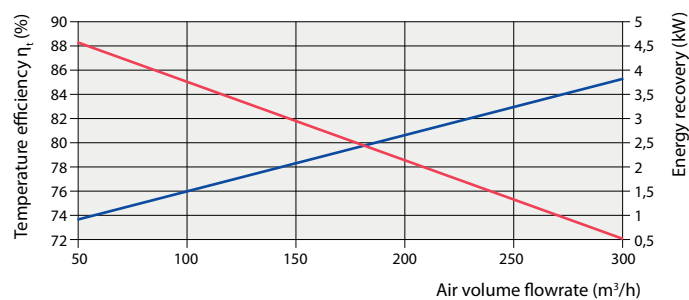


$$P[\text{kW}] = \text{SFP}[\text{kW}/(\text{m}^3/\text{s})] \times V[\text{m}^3/\text{s}]$$

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

REGO 250P acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 175 m³/h (49 l/s), 100 Pa.

Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply Inlet	31	42	54	57	56	54	49	41	61,8
Supply Outlet	36	49	61	64	63	61	56	49	68,8
Exhaust Inlet	31	42	54	57	56	54	49	41	61,8
Exhaust Outlet	36	49	61	64	63	61	56	51	68,8
Additional inlet	31	43	53	57	58	56	52	46	62,9
Casing	37	49	59	54	52	48	38	31	61,3

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_pA .

A-weighted sound pressure levels L_pA , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	29	41	46	42	43	37	28	21	49,5
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False-ceiling units

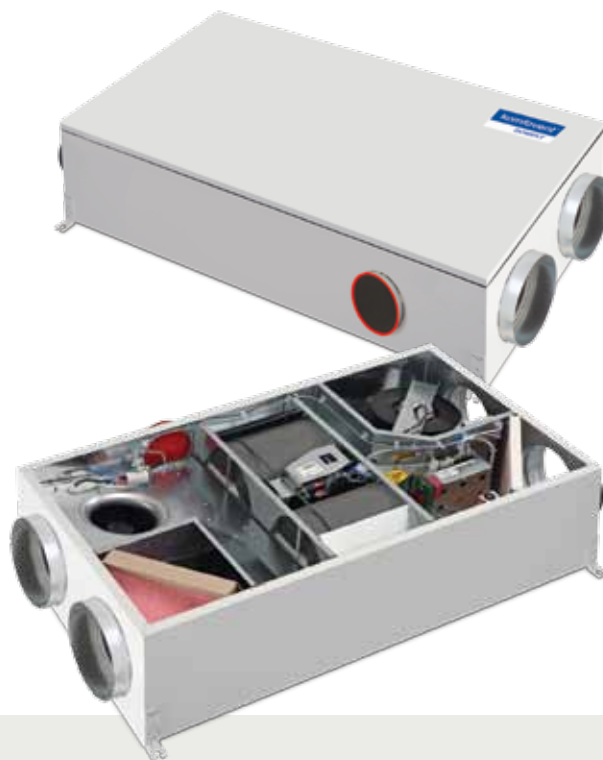
DOMEKT REGO 400P

- Unit's height is only 310 mm.
- High thermal efficiency is reaching up to 88% because of two rotors used in the unit.

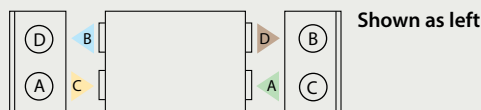
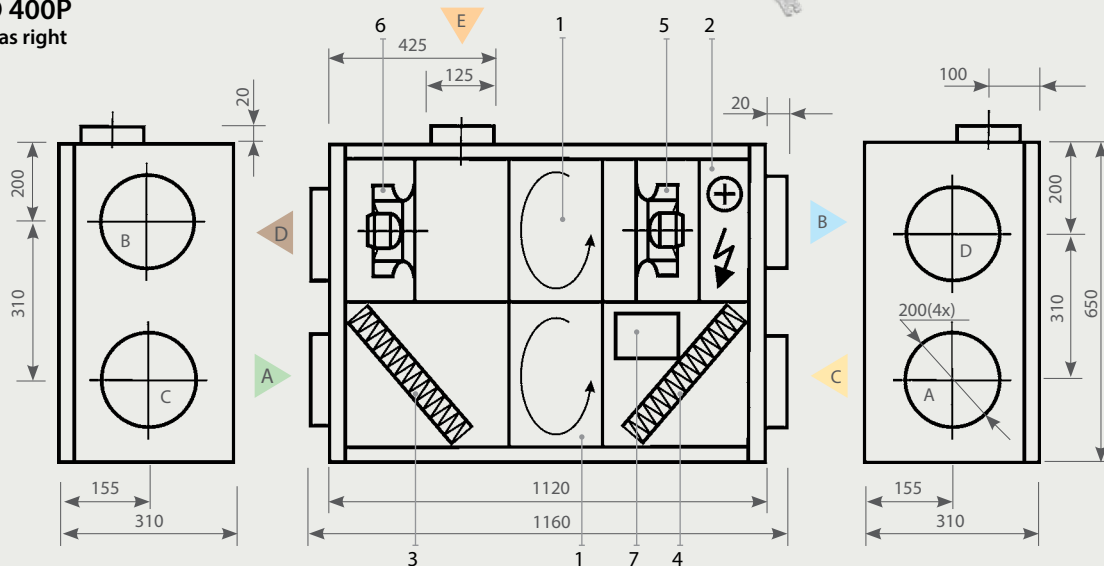
Unit REGO 400P is applicable for the ventilation of premise up to 180 m² area. It is intended for ventilation of apartments, small houses, conference rooms. In spite of low unit's height, thermal efficiency in REGO 400P reaches up to 88% because of two rotors used in the unit.

By-pass or any other exhaust air diffuser may be connected instead of a kitchen hood to by-pass duct connection (to extract air from bathroom, laundry, etc.).

Integrated automatic control with the wall mounted touch sensitive panel C4 which is handy and simple in operation ensures the most economic unit functioning and necessary control.



REGO 400P
Shown as right



Shown as left

Explication

1	Rotary heat exchanger
2	Electric air heater
3	Supply air filter
4	Exhaust air filter
5	Supply fan
6	Exhaust fan
7	Automation control system

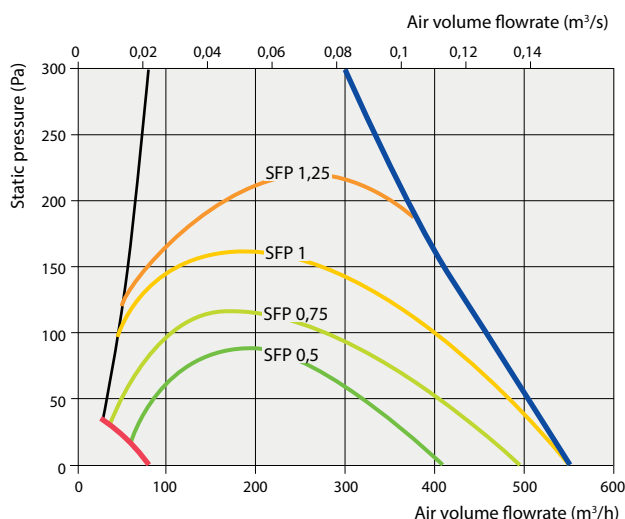
A	Supply inlet
B	Supply outlet
C	Exhaust inlet
D	Exhaust outlet
E	Additional extraction connection (by-pass – extraction without heat recovery)

Technical information

	REGO 400PE	REGO 400PW*
Supply voltage, V/Hz	~230 / 50 / 1 phase	
Maximal operating current, A	6.90	2.56
Input fans power, W	2 x 165	
Heater capacity, kW	1.0	1.5
Unit size (height x width x depth), mm	310 x 650 x 1120	
Ductwork connection, mm	4 x 200, 1 x 125	
Filter for supply/exhaust air, mm	278 x 258 x 46-F7	
Unit weight, kg	62	
Unit color	RAL 9010	

* For more detailed information look at the hot water duct air heater DH specification.

REGO 400P performances

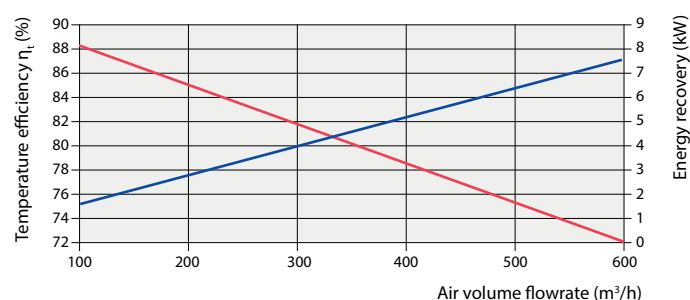


$$P[kW] = SFP[kW / (m^3/s)] \times V[m^3/s]$$

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

REGO 400P acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 280 m³/h (78 l/s), 100 Pa.

Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply Inlet	37	45	58	60	59	57	51	42	64,9
Supply Outlet	42	52	65	66	67	63	58	50	71,8
Exhaust Inlet	37	45	58	60	59	57	51	42	64,9
Exhaust Outlet	42	52	65	66	67	64	59	51	72,0
Additional inlet	37	46	57	60	62	59	54	47	66,3
Casing	43	53	63	56	55	49	40	31	64,8

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_pA .

A-weighted sound pressure levels L_pA , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	35	45	50	44	46	38	30	21	52,9
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Horizontal units

DOMEKT REGO 600H

- Extremely compact design with high efficiency up to 89%.

Unit REGO 600H is applicable for the ventilation of premise up to 250 m² and is intended for ventilation of big apartments, medium houses, conference rooms, etc.

High efficiency unit with compact design can be easily installed in new premise as well as in renovated ones. The width of REGO 600H without side panels is only 470 mm. It is easy to carry such a unit into the attic through the narrow stairwell or other hard approachable places.

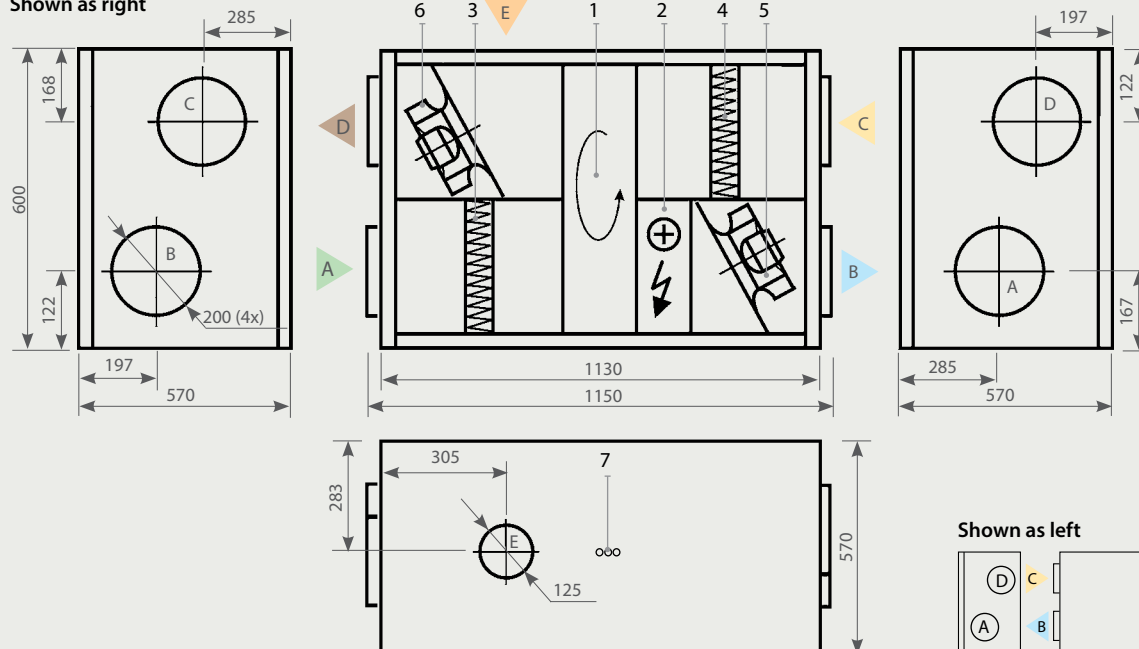
The unit has an additional connection for air extraction from kitchen hood or other extraction device (to extract air from bathroom, laundry, etc.).

Integrated automatic control with the wall mounted touch sensitive panel C4 which is handy and simple in operation ensures the most economic unit functioning and necessary control.



REGO 600H

Shown as right



Explication

- | | |
|---|-----------------------|
| 1 | Rotary heat exchanger |
| 2 | Electric air heater |
| 3 | Supply air filter |
| 4 | Exhaust air filter |
| 5 | Supply fan |
| 6 | Exhaust fan |
| 7 | Power supply cable |

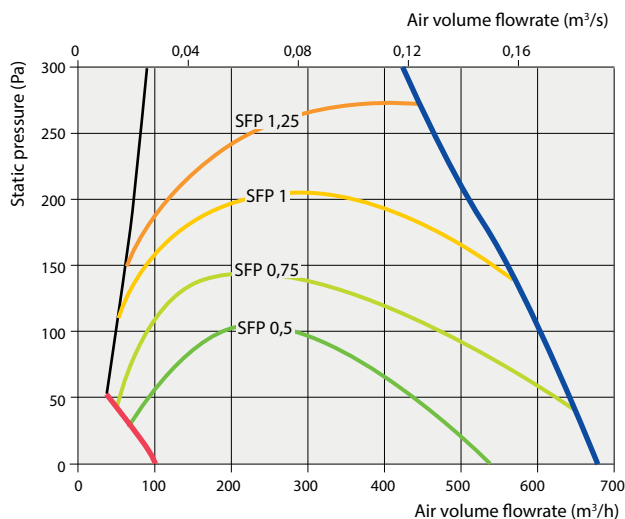
- | | |
|---|--|
| A | Supply inlet |
| B | Supply outlet |
| C | Exhaust inlet |
| D | Exhaust outlet |
| E | Additional extraction connection
(by-pass – extraction without heat recovery) |

Technical information

	REGO 600HE	REGO 600HW*
Supply voltage, V/Hz	~230 / 50 / 1 phase	
Maximal operating current, A	6.90	2.56
Input fans power, W	2 x 165	
Heater capacity, kW	1.0	3.0
Unit size (height x width x depth), mm	600 x 1130 x 570	
Ductwork connection, mm	4 x 200, 1 x 125	
Filter for supply/exhaust air, mm	470 x 235 x 46-F7	
Unit weight, kg	90	
Unit color	RAL 9010	

* For more detailed information look at the hot water duct air heater DH specification.

REGO 600H performances

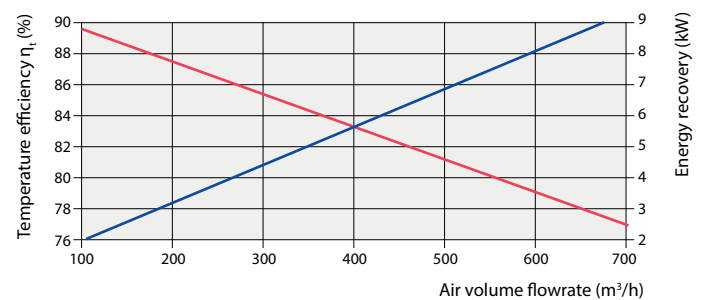


$$P[\text{kW}] = \text{SFP}[\text{kW}/(\text{m}^3/\text{s})] \times V[\text{m}^3/\text{s}]$$

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

REGO 600H acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 420 m³/h (117 l/s), 100 Pa.

Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply Inlet	36	40	53	58	56	53	48	39	61,8
Supply Outlet	41	47	60	64	64	60	56	49	68,8
Exhaust Inlet	36	40	53	58	56	54	48	40	62,0
Exhaust Outlet	41	47	60	64	64	60	56	49	68,8
Additional inlet	36	42	52	58	59	55	51	45	63,2
Casing	37	42	51	47	47	42	34	27	54,2

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_{pA} .

A-weighted sound pressure levels L_{pA} , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	29	34	38	35	38	31	24	17	42,9
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Vertical units

DOMEKT RECU 300V

- Double plate heat exchanger with crosswise air flows ensures the heat recovery up to 86%.

Unit RECU 300V is developed and designed to create mechanical ventilation and heat recovery in flats, apartments or other residential premises up to 120 m².

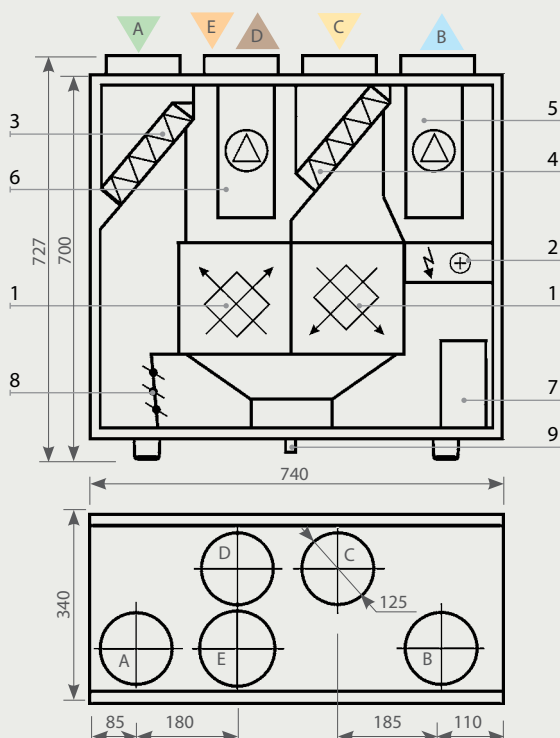
The supply and exhaust air flows are separated in the unit with plate heat exchanger, that is why heat from the foul air can be recovered as well.

We can also recover the heat from the premise with a strong smell, e.g. from kitchen, bathroom, etc. The unit has an additional extraction connection for kitchen hood.

Integrated automatic control with the wall mounted touch sensitive panel C4 which is handy and simple in operation ensures the most economic unit functioning and necessary control.

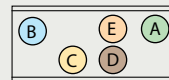


RECU 300V
Shown as right



Special design of RECU 300V allows the user to choose the needed inspection side (it is both left and right hand). The side panel of the units can be easily removed. After the needed inspection side is chosen, the unit is turned around and the ducts are connected.

Shown as left



Explication

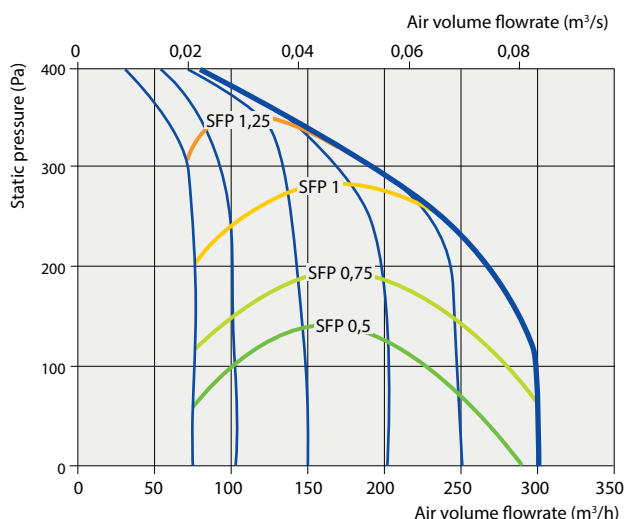
1	Double plate heat exchanger
2	Electric air heater
3	Supply air filter
4	Exhaust air filter
5	Supply fan
6	Exhaust fan
7	Automation control system
8	By-pass damper
9	Drainage
A	Supply inlet
B	Supply outlet
C	Exhaust inlet
D	Exhaust outlet
E	Additional extraction connection (by-pass – extraction without heat recovery)

Technical information

	RECU 300VE	RECU 300VW*
Supply voltage, V/Hz	~230 / 50 / 1 phase	
Maximal operating current, A	5.10	0.76
Input fans power, W	2 x 70	
Heater capacity, kW	1.0	
Unit size (height x width x depth), mm	700 x 740 x 340	
Ductwork connection, mm	5 x 125	
Filter for supply/exhaust air, mm	300 x 200 x 46-F7	
Unit weight, kg	42	
Unit color	RAL 9010	

* For more detailed information look at the hot water duct air heater DH specification.

RECU 300V performances

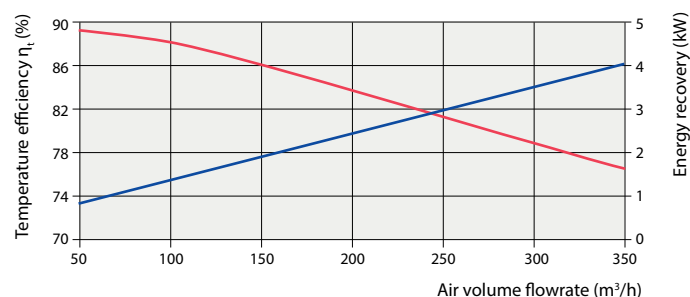


$$P[kW] = SFP[kW / (m^3/s)] \times V[m^3/s]$$

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

RECU 300V acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 210 m³/h (58 l/s), 100 Pa.

Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply Inlet	27	39	44	50	49	46	41	35	54,3
Supply Outlet	34	46	52	59	58	58	54	47	64,1
Exhaust Inlet	27	39	44	50	49	47	42	36	54,5
Exhaust Outlet	34	46	52	59	58	58	54	47	64,1
Additional inlet	30	41	45	52	53	53	49	43	58,5
Casing	31	43	47	46	44	42	34	26	51,9

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_{pA} .

A-weighted sound pressure levels L_{pA} , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	23	35	34	34	35	31	24	16	41,0
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Vertical units

DOMEKT RECU 400V CF

- Energy efficiency – 84%.

Unit is developed and designed to create mechanical ventilation and heat recovery in flats, apartments or other residential premise up to 150 m².

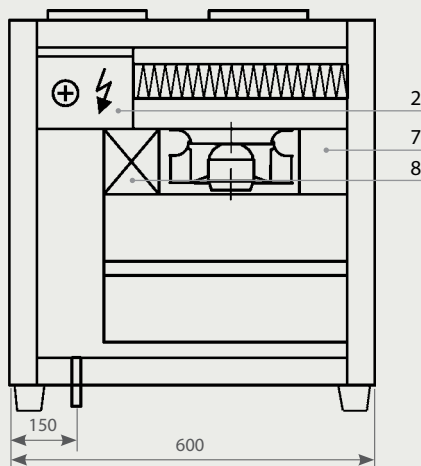
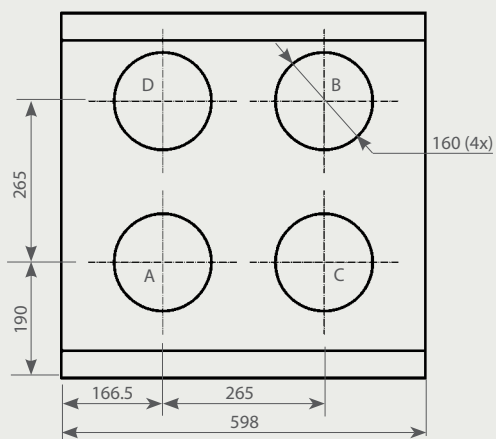
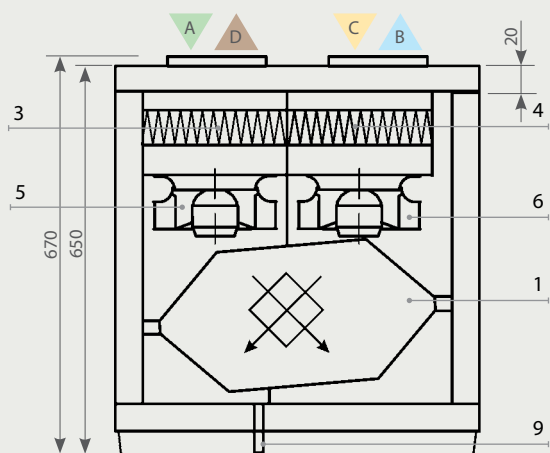
High-efficient plate heat exchangers and EC fans guarantee the most effective and economical unit operation: up to 84% of energy required for supplied air heating is recovered and used from the exhausted air.

Integrated automatic control with the wall mounted touch sensitive panel C4 which is handy and simple in operation ensures the most economic unit functioning and necessary control.

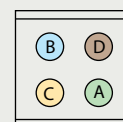


RECU 400V CF

Shown as right



Shown as left



Explication

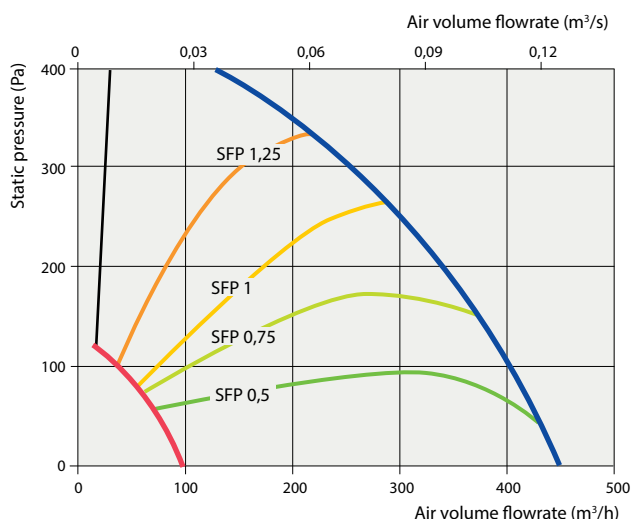
- | | |
|---|--|
| 1 | Counterflow plate heat exchanger (aluminium) |
| 2 | Electric air heater |
| 3 | Supply air filter |
| 4 | Exhaust air filter |
| 5 | Supply fan |
| 6 | Exhaust fan |
| 7 | Automation control system |
| 8 | By-pass damper |
| 9 | Drainage |
| A | Supply inlet |
| B | Supply outlet |
| C | Exhaust inlet |
| D | Exhaust outlet |

Technical information

	RECU 400VECF	RECU 400VWCF*
Supply voltage, V/Hz	~230 / 50 / 1 phase	
Maximal operating current, A	5.8	1.5
Input fans power, W	2 x 105	
Heater capacity, kW	1.0	1.2
Unit size (height x width x depth), mm	650 x 598 x 600	
Ductwork connection, mm	Ø 160	
Filter for supply/exhaust air, mm	235 x 350 x 46-F7	
Unit weight, kg	55	
Unit color	RAL 9010	

* For more detailed information look at the hot water duct air heater DH specification.

RECU 400V CF performances

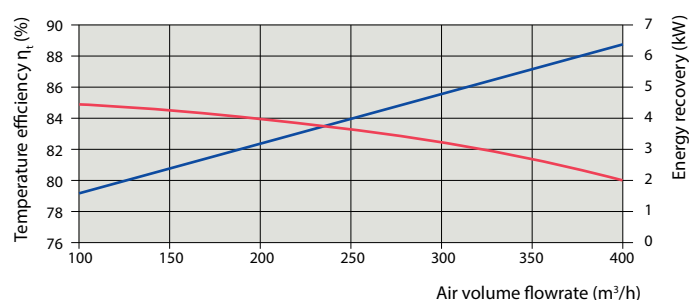


$$P[kW] = SFP[kW / (m^3/s)] \times V[m^3/s]$$

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

RECU 400V CF acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 280 m³/h (78 l/s), 100 Pa.

Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply Inlet	25	36	46	50	51	47	42	37	55,3
Supply Outlet	31	43	54	59	59	59	55	50	64,9
Exhaust Inlet	25	36	46	50	51	47	43	38	55,4
Exhaust Outlet	31	43	54	59	59	59	55	50	64,9
Casing	29	39	47	43	44	41	34	28	50,8

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_{pA} .

A-weighted sound pressure levels L_{pA} , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	21	31	34	31	35	30	24	18	39,6
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Vertical units

DOMEKT RECU 450V

- Double plate heat exchanger with crosswise air flows ensures the heat recovery up to 83%.

Unit RECU 450V is developed and designed to create mechanical ventilation and heat recovery in flats, apartments or other residential premises up to 180 m².

The supply and exhaust air flows are separated in the unit with plate heat exchanger, that is why heat from the foul air can be recovered as well.

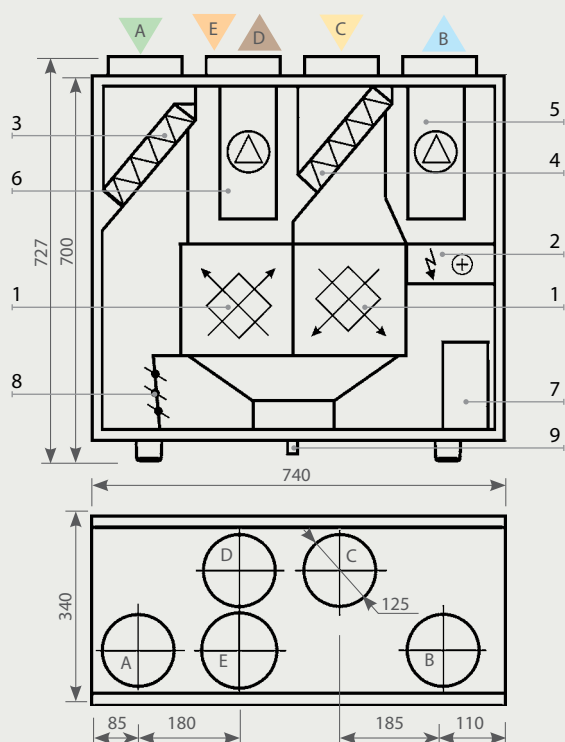
We can also recover the heat from the premise with a strong smell, e.g. from kitchen, bathroom, etc. The unit has an additional extraction connection for kitchen hood.

Integrated automatic control with the wall mounted touch sensitive panel C4 which is handy and simple in operation ensures the most economic unit functioning and necessary control.



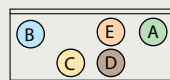
RECU 450V

Shown as right



Special design of RECU 450V allows the user to choose the needed inspection side (it is both left and right hand). The side panel of the units can be easily removed. After the needed inspection side is chosen, the unit is turned around and the ducts are connected.

Shown as left



Explication

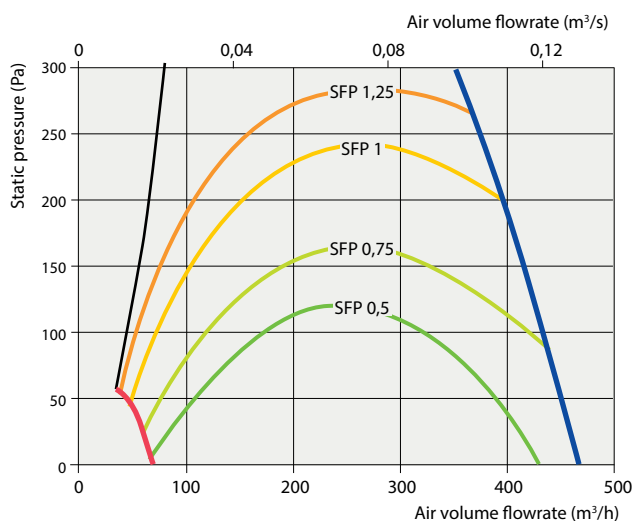
- | | |
|---|---|
| 1 | Double plate heat exchanger |
| 2 | Electric air heater |
| 3 | Supply air filter |
| 4 | Exhaust air filter |
| 5 | Supply fan |
| 6 | Exhaust fan |
| 7 | Automation control system |
| 8 | By-pass damper |
| 9 | Drainage |
| A | Supply inlet |
| B | Supply outlet |
| C | Exhaust inlet |
| D | Exhaust outlet |
| E | Additional extraction connection (by-pass – extraction without heat recovery) |

Technical information

	RECU 450VE	RECU 450VW*
Supply voltage, V/Hz	~230 / 50 / 1 phase	
Maximal operating current, A	6.00	1.65
Input fans power, W	2 x 172	
Heater capacity, kW	1.0	1.5
Unit size (height x width x depth), mm	700 x 740 x 340	
Ductwork connection, mm	5 x 125	
Filter for supply/exhaust air, mm	300 x 200 x 46-F7	
Unit weight, kg	42	
Unit color	RAL 9010	

* For more detailed information look at the hot water duct air heater DH specification.

RECU 450V performances

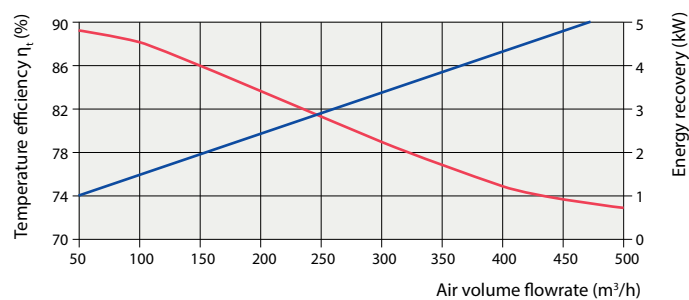


$$P[\text{kW}] = \text{SFP}[\text{kW}/(\text{m}^3/\text{s})] \times V[\text{m}^3/\text{s}]$$

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

RECU 450V acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 315 m³/h (88 l/s), 100 Pa.

Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply Inlet	36	46	53	58	55	54	51	46	62,1
Supply Outlet	43	54	62	68	64	67	66	61	73,2
Exhaust Inlet	36	46	53	58	55	54	51	47	62,1
Exhaust Outlet	43	54	62	68	64	67	66	61	73,2
Additional inlet	39	48	55	61	59	62	61	56	67,5
Casing	40	50	56	53	49	48	41	34	59,4

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_{pA} .

A-weighted sound pressure levels L_{pA} , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	32	42	43	41	40	37	31	24	48,0
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False-ceiling units

DOMEKT RECU 500P CF

- Energy efficiency – 92%.

Unit is developed and designed to create mechanical ventilation and heat recovery in flats, apartments or other residential premise up to 200 m².

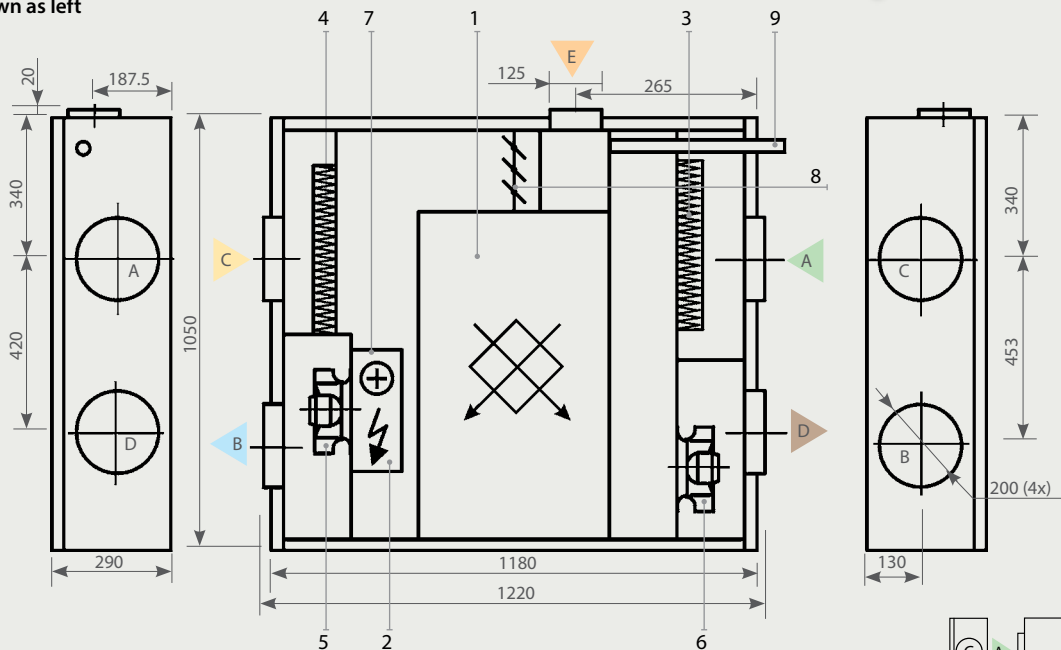
High-efficient plate heat exchangers and EC fans guarantee the most effective and economical unit operation: up to 92% of energy required for supplied air heating is recovered and used from the exhausted air.

Integrated automatic control with the wall mounted touch sensitive panel C4 which is handy and simple in operation ensures the most economic unit functioning and necessary control.

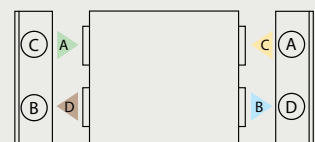


RECU 500P CF

Shown as left



Shown as right



Explication

- | | |
|---|--|
| 1 | Counterflow plate heat exchanger (polystyrene) |
| 2 | Electric air heater |
| 3 | Supply air filter |
| 4 | Exhaust air filter |
| 5 | Supply fan |
| 6 | Exhaust fan |
| 7 | Automation control system |
| 8 | By-pass damper |

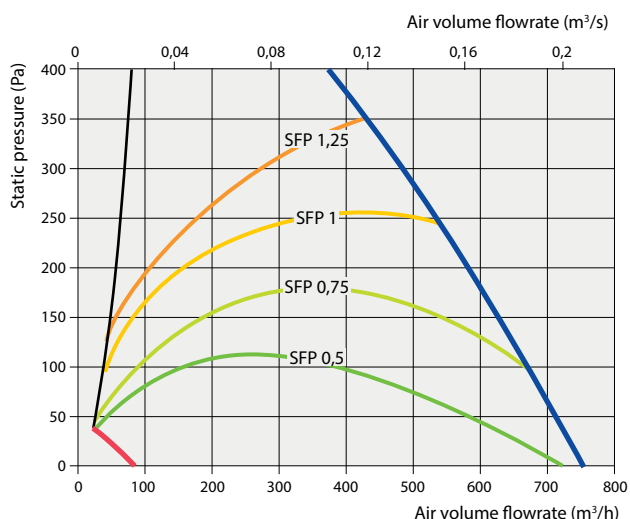
- | | |
|---|--|
| 9 | Drainage |
| A | Supply inlet |
| B | Supply outlet |
| C | Exhaust inlet |
| D | Exhaust outlet |
| E | Additional extraction connection
(by-pass – extraction without heat recovery) |

Technical information

	RECU 500PECF	RECU 500PWCF*
Supply voltage, V/Hz	~230 / 50 / 1 phase	
Maximal operating current, A	6.9	2.56
Input fans power, W	2 x 165	
Heater capacity, kW	1.0	1.5
Unit size (height x width x depth), mm	290 x 1050 x 1180	
Ductwork connection, mm	Ø 200	
Filter for supply/exhaust air, mm	410 x 200 x 46-F7	
Unit weight, kg	70	
Unit color	RAL 9010	

* For more detailed information look at the hot water duct air heater DH specification.

RECU 500P CF performances

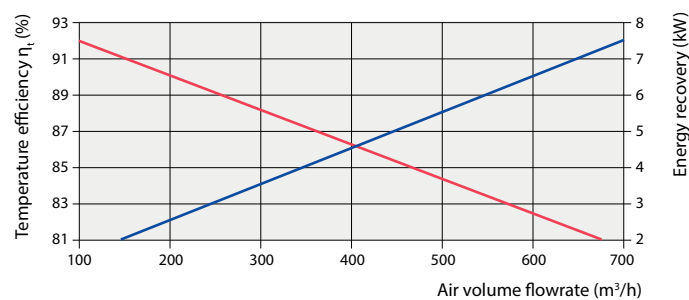


$$P[kW] = SFP[kW / (m^3/s)] \times V[m^3/s]$$

SFP is shown for one fan. Performance data: filter F7.

Note: characteristics explanation is available on the page 7.

Temperature efficiency



Application: -23°C RH 82% outdoor
21°C RH 45% indoor

RECU 500P CF acoustic data

A-weighted sound power levels L_{wA} , dB(A). Operation point: 350 m³/h (97 l/s), 100 Pa.

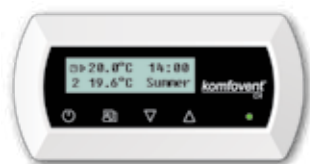
Octave band mid-frequency, Hz	63	125	250	500	1000	2000	4000	8000	Total
Supply Inlet	30	36	47	51	51	45	40	33	55,4
Supply Outlet	37	44	56	60	60	56	52	45	64,8
Exhaust Inlet	30	36	47	51	51	45	40	34	55,5
Exhaust Outlet	37	44	56	60	60	56	52	45	64,8
Additional inlet	32	38	49	54	55	52	47	41	59,4
Casing	38	45	55	51	50	44	36	28	57,9

The sound data table indicates the sound power level L_{wA} which should not be confused with the sound pressure level L_{pA} .

A-weighted sound pressure levels L_{pA} , dB(A), 10 m² normally isolated room, distance from casing – 3 m.

Surroundings	30	37	42	39	41	33	26	18	46,3
--------------	----	----	----	----	----	----	----	----	------

Automatic control KOMFOVENT DOMEKT



Measurements
of the control panel
156 x 79 x 26 mm

Control panel
connecting cable (10 m)
4 x 0,22 mm²

C4 control main functions:

- Unit operation mode selection: On/Off/Auto;
- Setting of ventilation intensity level: 20...100%;
- Weekly schedule programming;
- Setting temperature in the control panel: 15...30°C;
- Setpoint sliding for the set period of time: +/- 9°C;
- Season setting: Summer/Winter;
- OVR function activation via external device;
- OVR activation by the control panel for set time period: 1...90 min.;
- Setting fans' intensity level for OVR function: 0...100%;
- Language selection;
- Failures indication history: log with 50 events with time and date;
- Panel locking with PIN.

Remote unit intensity control (OVR)

OVR (eng. *override* – ignore) function is intended for the remote unit's control with an external accessory device. After this function is activated the current unit's mode becomes omissible and the unit starts working according to the newly set parameters.

Applications of the OVR functions:

► **Maintenance of CO₂ quantity in a room** – by adding a CO₂ sensor (with relay), at higher levels of CO₂ the main user-set ventilation rate will be switched to the maximum intensity until the room is ventilated, and then again will return to the user-defined intensity.

► **Maintaining relative humidity in the room** – after contacting the external relative humidity sensor (with relay), automatically switching to maximum or different set ventilation intensity the humidity level desired by the user will be maintained.

► **Ventilation on demand** – when the motion sensor is connected to the control contacts, ventilation will be adjusted according to the demand, i.e. if people are indoors, ventilation will be carried out according to the set OVR intensity and if there's nobody in the room – the unit will operate according to the main user intensity, for example, the minimum.

Control DOMEKT units from any place in the world!

Smart control using "Komfovent Home" mobile application



- Simple and easy control
- Indication of unit parameters
- Ventilation intensity control
- Supply air temperature adjustment



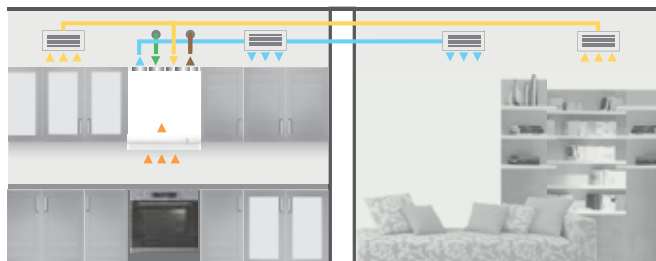
Note: air handling unit must be connected to wireless computer network or internet via PING2 network module.

Convenient management and control using web browser

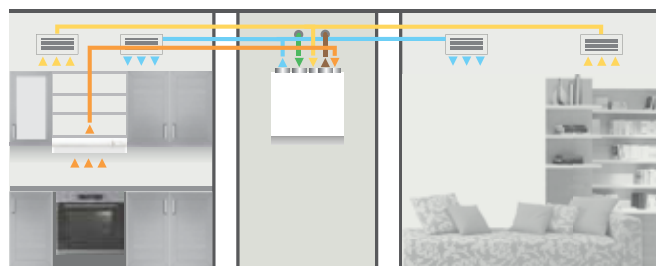
Remote control via a local computer network or the internet is realized by network module PING2. This module is provided with an integrated web server that allows you to control and monitor the AHU's operation without any special software.

Installation of KOMFOVENT DOMEKT

Vertical units



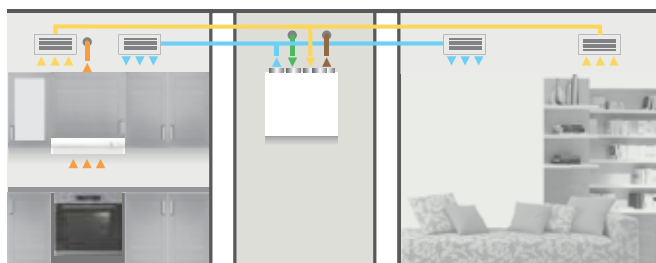
With directly integrated kitchen hood KOMFOVENT
(only for REGO 200VE)



With separately connected kitchen hood KOMFOVENT



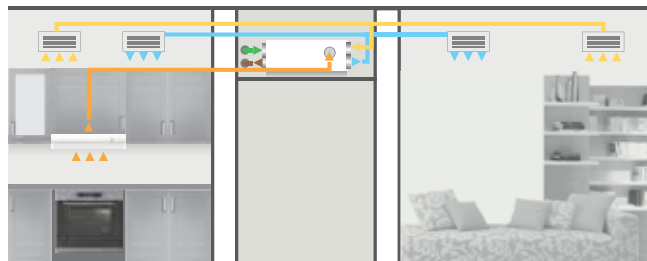
With separately connected additional extract air diffusers
If a kitchen hood is not used, an extraction diffuser from the bathroom, laundry, or other premise can be connected to the unit as well.



Balanced ventilation system in the premise
When the kitchen hood is switched on, the supply air flow in the unit increases and the exhaust one decreases automatically. This way we can feel the supply/exhaust air flows' balance in the premise.

IMPORTANT: DOMEKT equipment must be installed in heated premises.

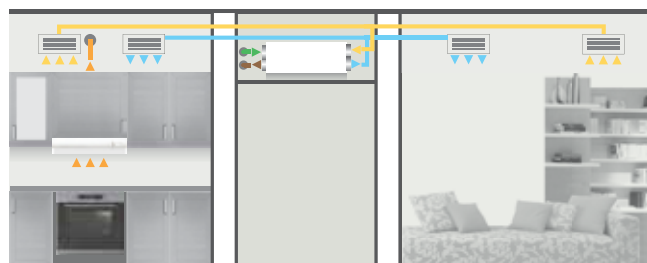
False-ceiling units



With kitchen hood KOMFOVENT connected via duct



With additionally connected extraction diffusers



Balanced ventilation system in the premise
When the kitchen hood is switched on, the supply air flow in the unit increases and the exhaust one decreases automatically. This way we can feel the supply/exhaust air flows' balance in the premise.

NOTE: Special units' design with extremely low heights allows us to mount them horizontally, hiding by the false-ceiling or vertically – on the wall.

- ▶ Supply inlet
- ▶ Supply outlet
- ▶ Exhaust inlet
- ▶ Exhaust outlet
- ▶ Additional extraction connection (by-pass – extraction without heat recovery)

Accessories



KOMFOVENT
kitchen hoods
Painted or stainless
steel versions



Hot water
duct heaters
DH



Air dampers
with actuators



Outdoor grill
For air supply/
extraction



Panel
filters



Hot water heater
regulation box
Available for all
Domekt units where
hot water duct
heater is used



Air distribution
box OSD
Only for unit REGO
200V for horizontal
connection of ducts

Remote unit intensity control (OVR)



Differential pressure switch DTV500

Motion detector PIR180

Wall mounted temperature sensor RTT

Wall mounted humidity sensor RTH

Duct mounted humidity sensor DTH

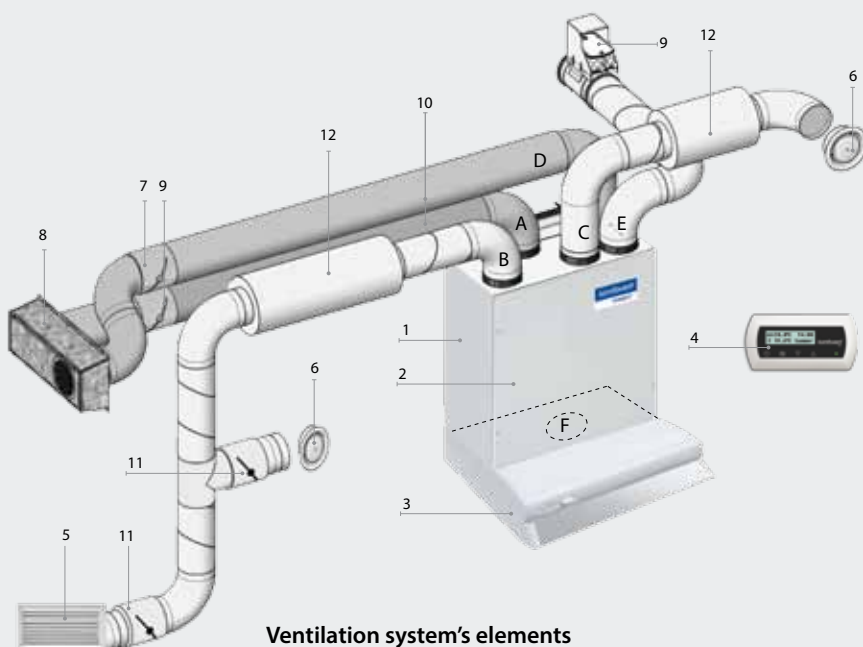
Wall mounted CO₂ sensor RTC

Duct mounted CO₂ sensor DTC

Wall mounted air quality sensor RTQ

Duct mounted air quality sensor DTQ

Unit in the ventilation system



Ventilation system's elements

- | | |
|---|---|
| 1 Unit DOMEKT REGO 200V | 9 Damper with actuator |
| 2 Painted front panel, stainless steel panel is optional | 10 Insulated duct |
| 3 Kitchen hood (can be enclosed according to a customer's request, possible connection of other extraction devices) | 11 Regulating damper |
| 4 Remote touch sensitive control panel C4 | 12 Silencer |
| 5 Grille | A Supply inlet |
| 6 Diffuser | B Supply outlet |
| 7 Return valve | C Exhaust inlet |
| 8 Outdoor grill (for air supply/extraction) | D Exhaust outlet |
| | E Additional extraction connection (by-pass – extraction without heat recovery) |
| | F Kitchen hood connection (by-pass – extraction without heat recovery) |

Ordering key

Example:

RECU 500 PECF - B - R - C4
XXXX XXXXX X - X - X - X

AHU type REGO, RECU

Unit size

Version: H – horizontal, V – vertical, P – false-ceiling

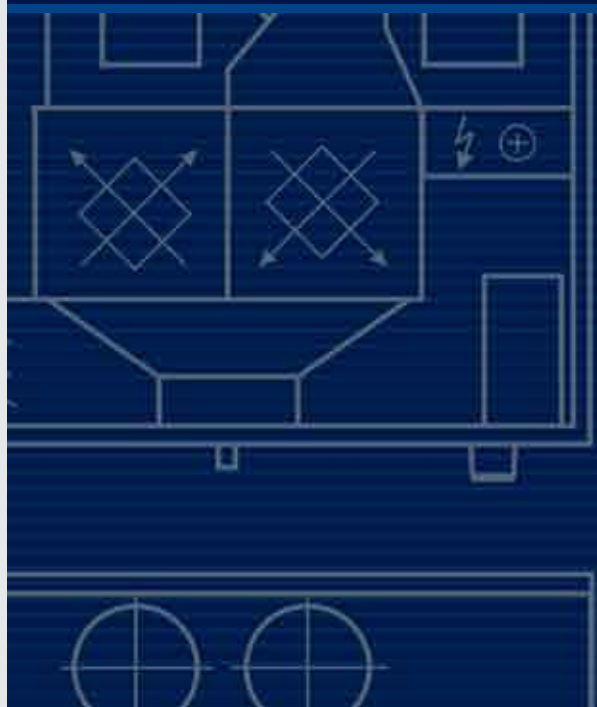
Air heater: W – water, E – electric

CF – counter cross-flow plate

By-pass damper

Inspection side: R – right, L – left

Controller type C4



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