

***komfovent***<sup>®</sup>



# DOMEKT

**EN** Installation and service Manual



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This symbol indicates that this product is not to be disposed of with your household waste, according to the WEEE Directive (2002/96/EC) and your national law. This product should be handed over to a designated collection point, or to an authorised collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, approved WEEE scheme or your household waste disposal service.

## 1. SAFETY REQUIREMENTS



- To avoid accidents and/or unit damage, only a trained technician must carry out the connection.
- The appropriate Personal Protective Equipment (PPE) attire is worn relative to the operation being carried out.
- Electrical equipment is rated, connected and earthed in accordance with CE regulations.

The air handling unit must be plugged in to an electrical outlet (with earth), which is in good order and corresponds with all requirements of electric safety. Before starting any operations inside the unit, make sure that the unit is switched off, and the power cable is unplugged.



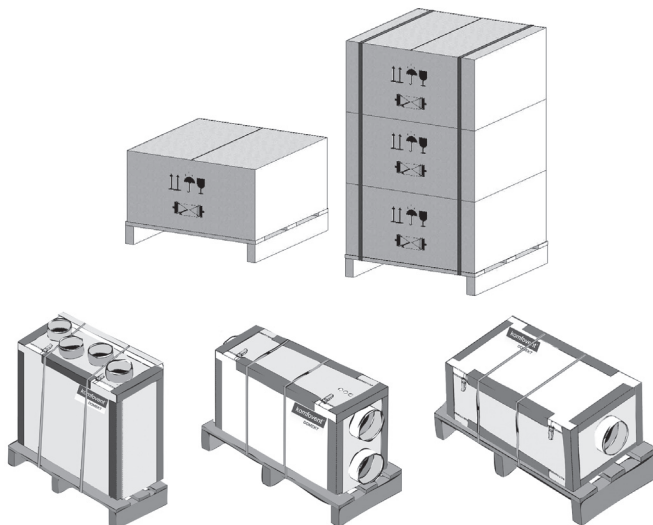
- Earth must be installed according to EN61557, BS 7671.
- The unit should be installed according to Installation and Maintenance Manual.
- Before starting the unit, check correct position of air filters.
- Service maintenance should be carried out only in conformity with the instructions specified herein below.
- If main cable is damaged, only manufacturer, service team or trained technician must change it in order to avoid accidents.

## 2. TRANSPORTATION

The air handling units are ready for transit and storage (1 Picture). The unit is packed to prevent damage of the external and internal parts of the unit, dust and moisture penetration.

Corners of the air handling units are protected against the damage – protective corners are used. The entire unit is wrapped up in protective film. For transit or storage, units are mounted on timber pallets. The unit is fastened to the pallet with polypropylene packing tape over protective corners.

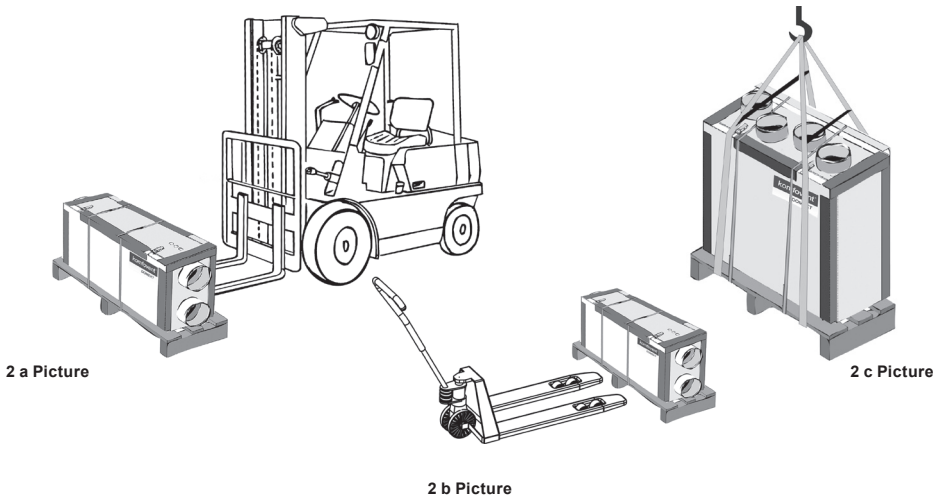
### Vertical and horizontal units ready for transit and storage



1 Picture

When unit is loaded or unloaded by crane, cargo rope is fastened in its designated places.  
Forklift truck or hand pallet truck can transport air handling unit as it is shown (2 a, b, c Pictures).

**Vertical and horizontal unit transportation by forklift truck, hand pallet truck or crane**



- 2 a Unit is transported by forklift truck on a wooden pallet;  
2 b Unit is transported by hand pallet truck on a wooden pallet;  
2 c Unit is lifted by crane on a wooden pallet.

The unit should be examined upon receipt, to ensure that no visible damage has occurred during transit, and the advice note checked to ensure that all items have been received. If damage or delivery shortages are discovered, the carrier should be immediately informed. AMALVA should be notified within three days of receipt, with a written confirmation sent within seven days. AMALVA can accept no responsibility for damage by unloading from carrier or for subsequent damage on site.

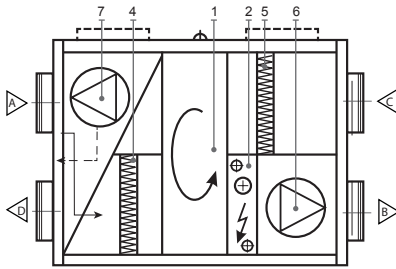
If the unit is not to be installed immediately, it should be stored in a clean, dry area. If stored externally, it should be adequately protected from the weather.

### 3. BRIEF DESCRIPTION OF THE UNIT

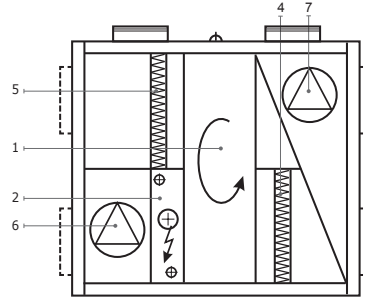
- The air handling units are intended for ventilation of small and medium-sized spaces (eg. single family houses, offices, etc.), having operating ambient temperature and relative humidity. The unit is intended to be installed in the domestic or non residential premises. Mineral wool is used for thermal insulation and sound attenuation. Units cover panels are 25–50 mm thick. As standard, the unit is designed for indoor placement. In cold, wet rooms possible icing or condensation on the housing inside and outside. The operating temperature range for the unit is -30 °C ... +40 °C, outdoor air temperature. Extracted indoor air temperature +10 – +40 °C, relative humidity (non-condensing) 20–80 %.
- The air handling unit is not to be used to transport solid particles, even not in areas where there is a risk of explosive gases.
- The units are equipped with a rotary heat exchanger or with a plate heat exchanger (may be replaced with summer cassette, when recuperation is needless), air filters, an electric or water heater, fans and automation control system, to ensure safe and efficient operation of the unit.
- Before you open the door, the unit must be switched off and the fans must have been given time to stop (up to 3 minutes).
- The unit contains heating elements that must not be touched when they are hot.
- We recommend to leave air handling unit in working mode (minimum 20 percent of power) during the first operation year. Due to moisture in building constructions, condensation may occur inside and outside the air handling unit. Continuous operation of the equipment will significantly reduce the risk of condensation.

- To maintain a good indoor climate, comply with regulations and, to avoid condensation damage, the unit must never be stopped apart from during service/maintenance or in connection with an accident.
- If the unit is placed in spaces with high humidity, condensation might occur on the surface of the unit when outdoor temperatures are very low.
- Under conditions, when the outdoor air temperature is low and humidity is high, risk of heat exchanger frosting may appear. For this reason anti-frost protection function is foreseen in the controller of the Komfovent air handling units. Depending on the type of the recovery, different methods of anti-frost protection are available: cold air by-passing, or / and supply air fan speed reducing. For extremely low outdoor air temperature the duct mounted preheater is recommended. Counter cross flow heat exchanger is the mostly sensitive for low outside air temperatures, as the risk of frosting appears in the temperature range from 0 to -5 °C and below. Standard aluminium cross-flow plate heat exchanger has better features, as the risk of freezing appears only at -10 °C. The lowest risk and the highest resistance to cold outside air is a competitive feature of the rotary heat exchanger, as it is not freezing even at the temperatures of -30 °C if the humidity level of the air is appropriate.
- Selecting the management without pre-heater, but with cold air bypass the unit must be additionally equipped with a secondary duct mounted heater.

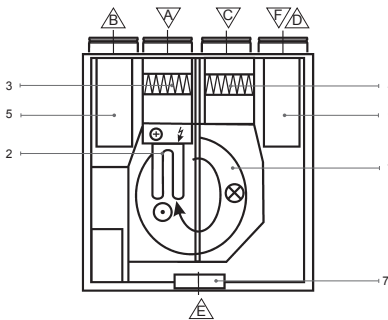
**Air Handling Units Schemes**



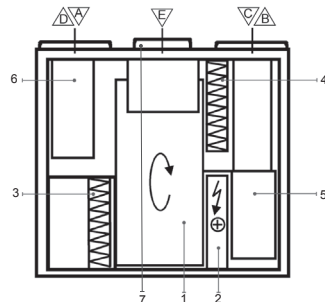
DOMEKT R 600 U / 900 U



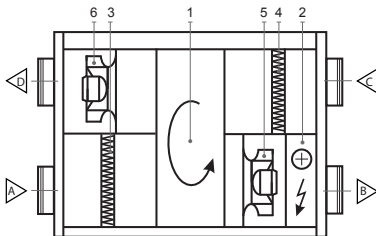
DOMEKT R 600 U / 900 U



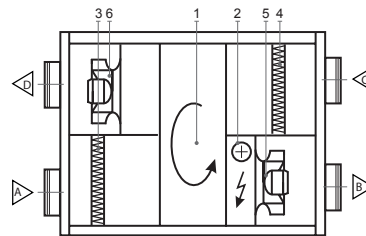
DOMEKT R 200 V



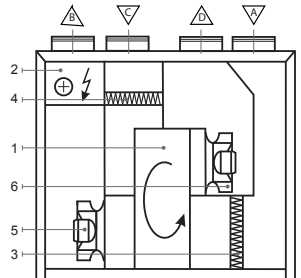
DOMEKT R 400 V / DOMEKT R 450 V



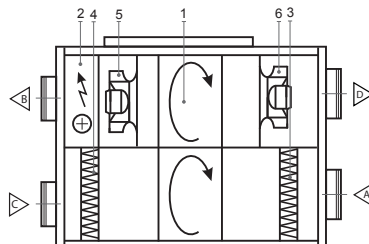
DOMEKT R 400 H\*\* / DOMEKT R 600 H



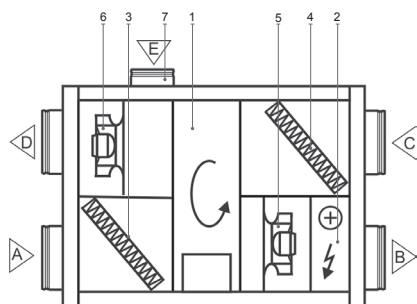
DOMEKT R 500 H\*\* / DOMEKT R 700 H\*\*



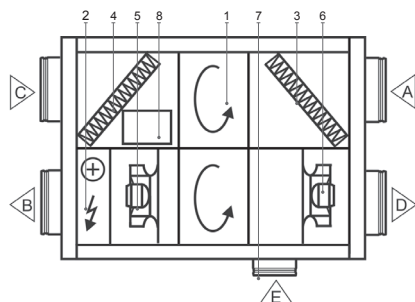
DOMEKT R 500 V\*\* / DOMEKT R 700 V\*\*



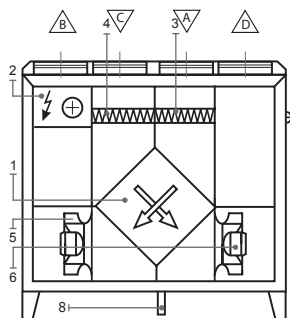
DOMEKT R 700 F



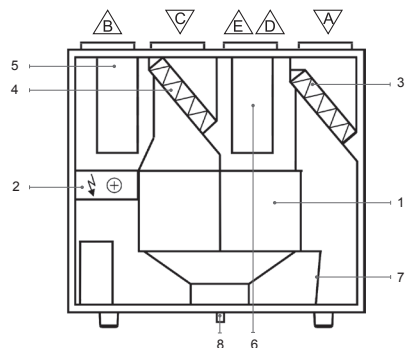
DOMEKT R 250 F



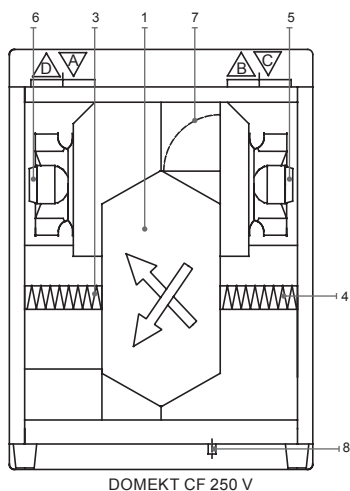
DOMEKT R 400 F



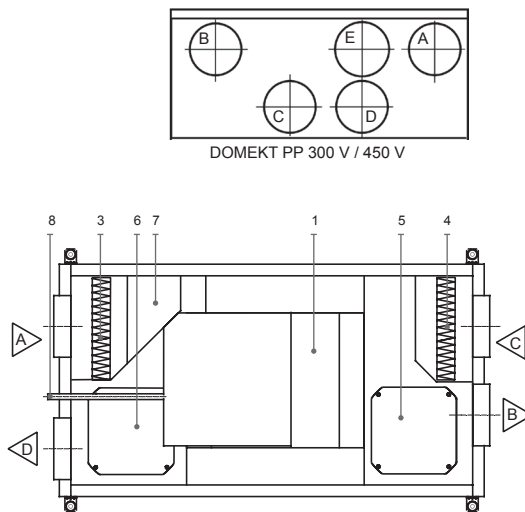
DOMEKT P 400 V / 700 V / 900 V



DOMEKT PP 300 V / 450 V

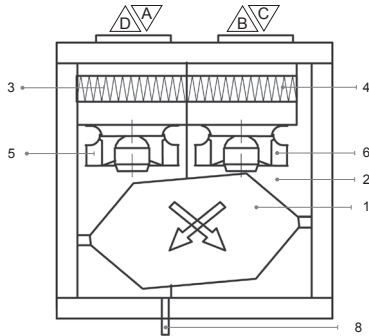


DOMEKT CF 250 V

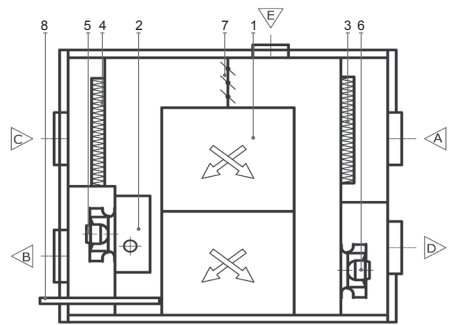


DOMEKT CF 250 F

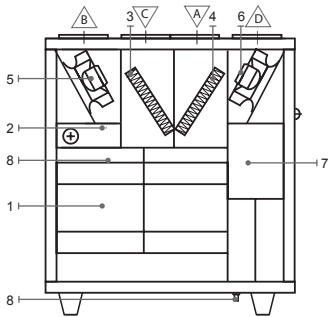




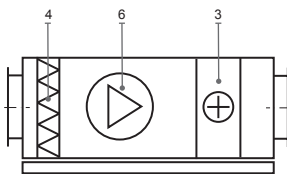
DOMEKT CF 400 V



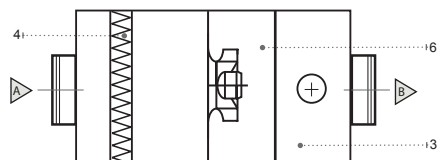
DOMEKT CF 500 F



DOMEKT CF 700 V



DOMEKT S 650 F / 800 F / 1000 F



DOMEKT S 700 F

1. Rotary or plate heat exchanger
2. Electric or water air heater
3. Supply air filter
4. Exhaust air filter
5. Supply fan
6. Exhaust fan
7. Air by-pass damper
8. Condensate drain (the water trap must be installed)

- A. Outdoor intake
- B. Supply air
- C. Extract indoor
- D. Exhaust air
- E. Kitchen hood connection  
(by-pass – extraction without heat recovery)
- F. Bathroom connection  
(by-pass – extraction with out heat recovery)

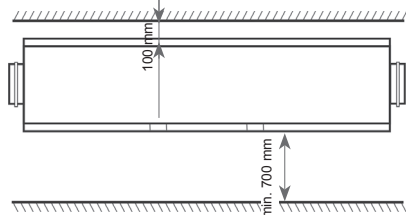
\*\* Ducted water heater.

## 4. INSTALLATION

It is recommended to install the air handling unit in a separate room or in the attic on a hard smooth surface insulated with a rubber mat. The place for the unit should be selected with allowance for minimum access to the unit for maintenance and service inspection. The minimum free space in front of the control panel should be not less than 700 mm. The free space over the top of the unit should be at least 300 mm (3 a, b Picture).

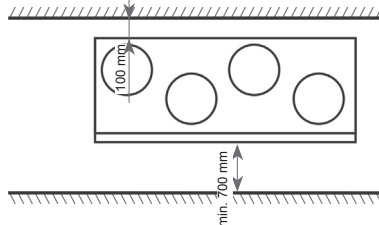
Rubber mat must be used when unit is going to be mounted on the wall.

### Minimum Maintenance Space for Horizontal Units



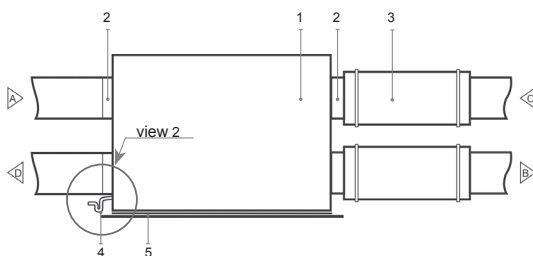
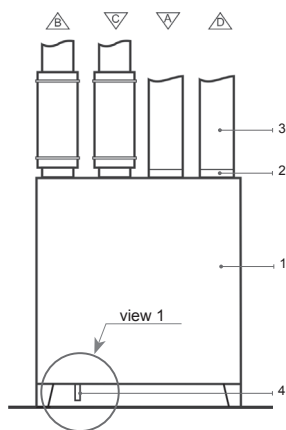
3 a Picture

### Minimum Maintenance Space for Vertical Units



3 b Picture

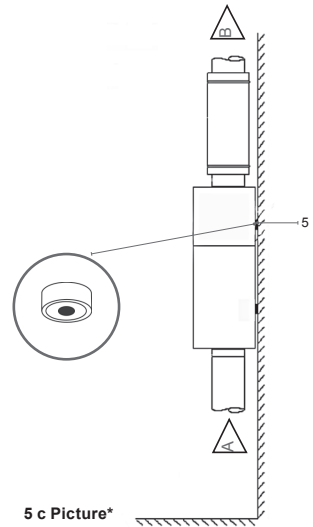
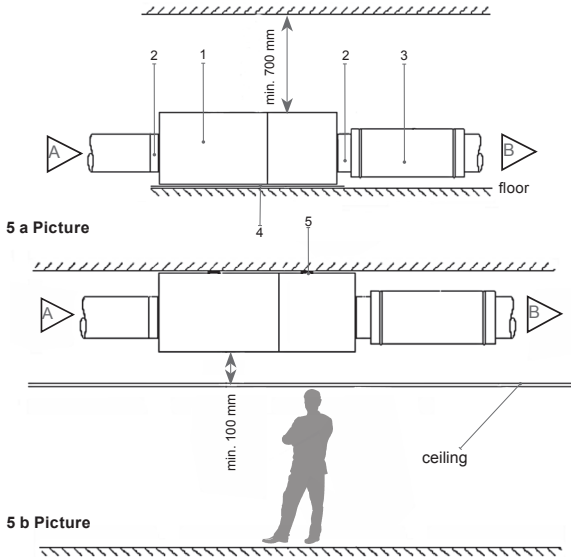
## Unit Installation Scheme



4 Picture

1. Air handling unit
2. Air duct connections
3. Sound attenuator
4. Drain siphon (if provided)
5. Rubber mat (not included in unit set)

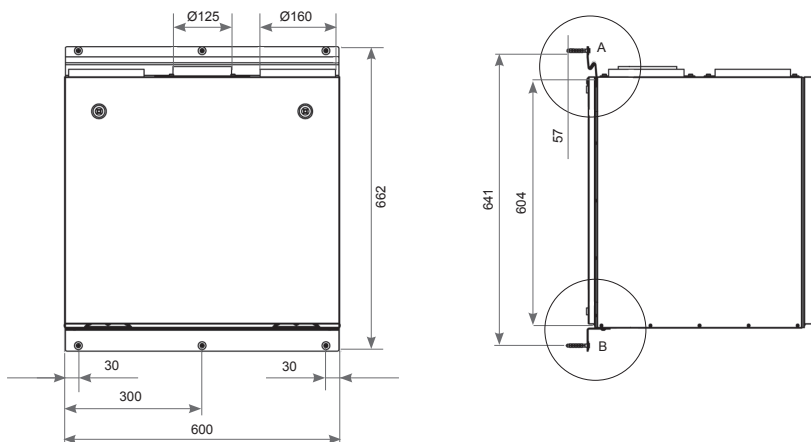
**Maintenance space for unit**



\* – only PE.

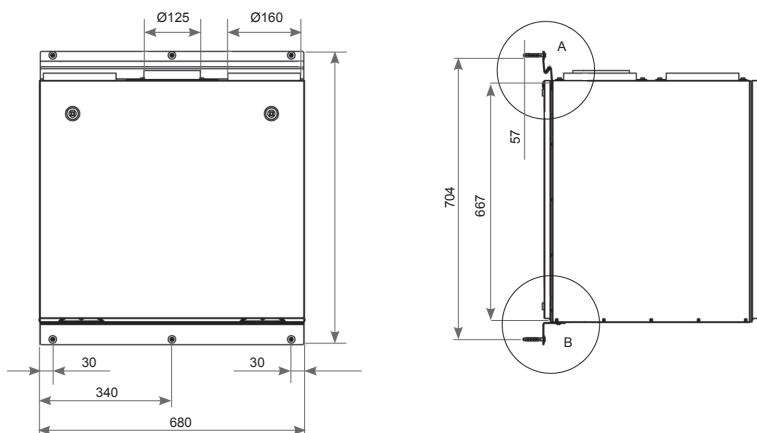
b – DOMEKT R ir DOMEKT P

### DOMEKT R 400 V Unit brackets' positions



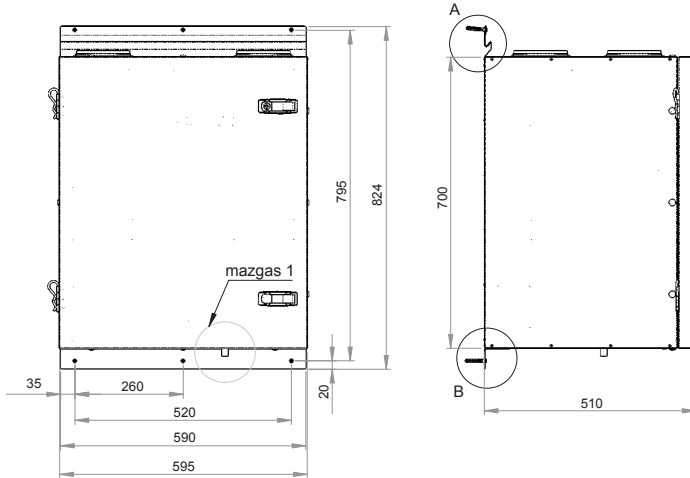
6 Picture

### DOMEKT R 450 V Unit brackets' positions



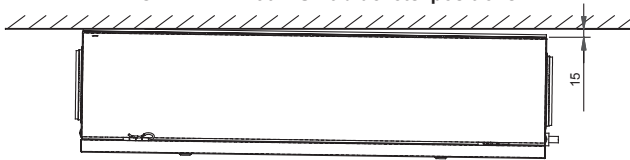
7 Picture

**Jrenginio DOMEKT CF 250 V Unit brackets' positions**



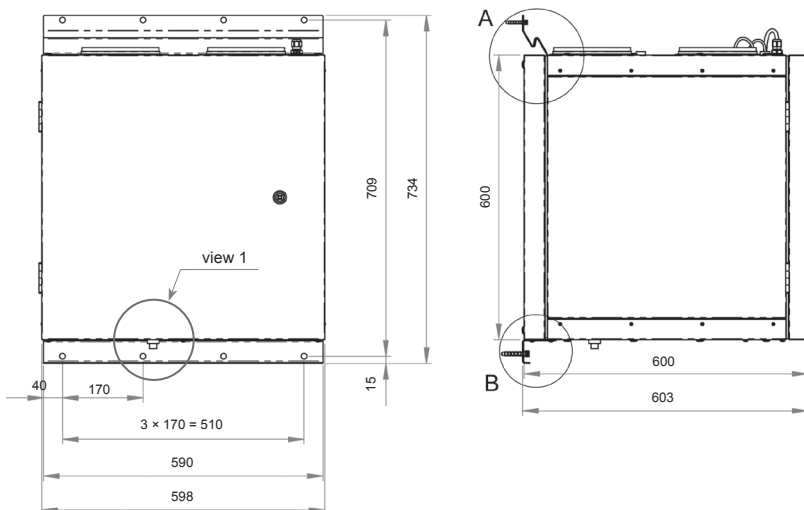
8 pav.

**DOMEKT CF 250 F Unit brackets' positions**



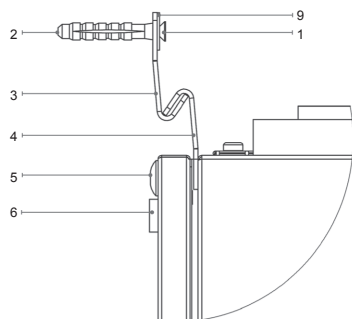
9 pav.

**DOMEKT CF 400 V Unit brackets' positions**

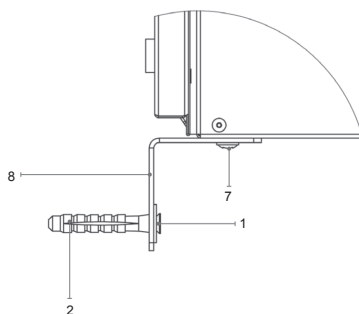


10 Picture

Pictures 11 a and 11 b show unit's upper and bottom fixing element.



11 a Picture



11 b Picture

1. Screw
2. Wall plug
3. Hanging bracket 1
4. Hanging bracket 2
5. Bolt M5
6. Gasket
7. Self tapping screw
8. L-shape bracket
9. Washer M5 DIN9021

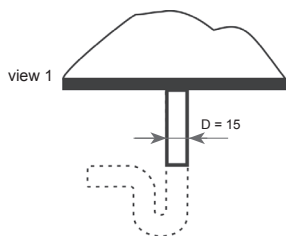
## 5. CONDENSATE DRAIN CONNECTIONS

All condensate drain connections must be correctly trapped. Incorrect trapping can result in flooding within the unit and consequent flooding of the immediate area. Fill the drain trap with water before starting up the unit.

All drain lines should be insulated where passing through any space where damage from condensation drip might occur. If the unit is installed in unheated premises the condensate pipe should be heat-insulated and heated with heating cable.

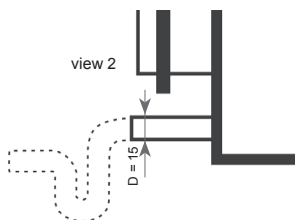
### A condensate pipe and a drain trap

Drain scheme of Vertical Unit



12 a Picture

Drain scheme of Horizontal Unit

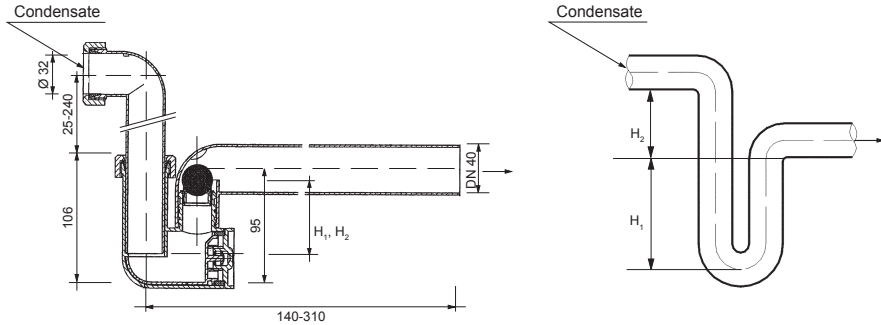


12 b Picture

The bend of the water trap can be repositioned by turning it to the right or the left. The drain line from the water trap must be arranged so that it will not damage adjacent unit sections or building elements. If the drain line is run through cold spaces, it should be insulated to prevent freezing. A heating cable may be required.

### 5.1. Water trap installation for a unit section mounted on the suction side

Since the fans in most air handling units are last in the chain of functions and generate sub-atmospheric pressure inside the unit, it is very important to correctly install the water trap. Because of that reason condensate can be hardly eliminated from the air handling unit and the technical premise may get covered with condensate. Height  $H_1$  must be at least equivalent in mm to half of the negative pressure inside the unit in mm water gauge. Height  $H_2$  must be at least equivalent in mm to the negative pressure inside the unit in mm water gauge.



**Precaution:** The drainage siphon should be mounted on the outlet fitting pipe of every drip tray for complete condensate drainage from the air handling unit and prevention of penetration of offensive odours from an effluent into the ventilation system.



In case of the outdoor operation of the air handling unit, the siphon and the bleeders should be heated with an electric thermal cable (if ambient air temperature  $t_{amb} < 0^{\circ}\text{C}$ ). The siphon and the bleeders should be heat-insulated with an insulating material.

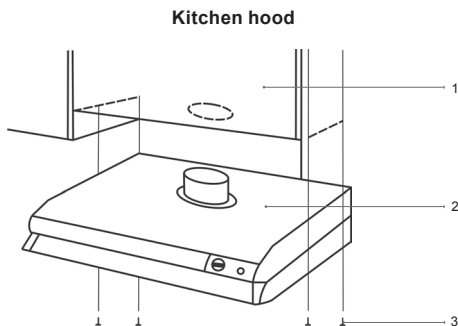
### 5.2. Water trap installation for a unit section mounted on the pressure side

Since the fans in most air handling units are not last in the chain of functions and generate over-atmospheric pressure inside the cooling section. In such case the consisted condensate can be easily removed from AHU and there will be no strict requirements for siphon's installation. A drainage siphon is enough with a minimum rake.

**RECOMMENDATION:** The drainage siphon must be installed in connection with not less size pipe diameter.

Any drainage systems must not be connected directly to the municipal sewage system. The condensate tray shall be easily accessible for cleaning and disinfection.

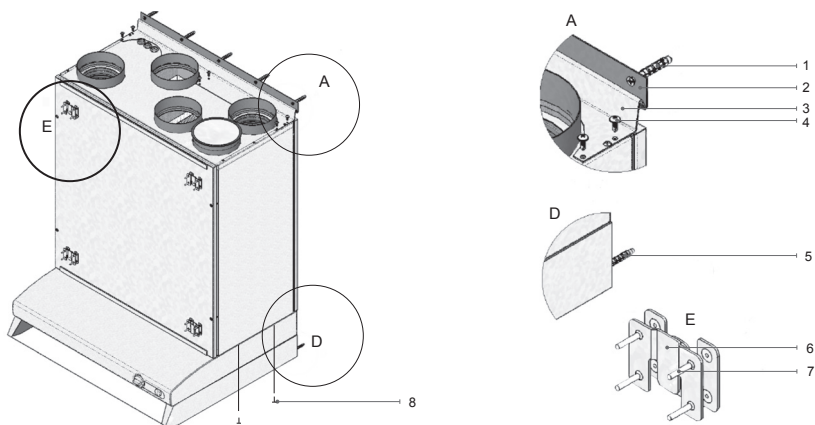
Air handling unit DOMEKT R 200 V is mounted on the kitchen hood (13, 14 Picture).



13 Picture

1. DOMEKT R 200 V
2. Kitchen hood
3. Screw for hood connection (screw M4x16 base in set of unit)

**DOMEKT R 200 V Unit hanging scheme**

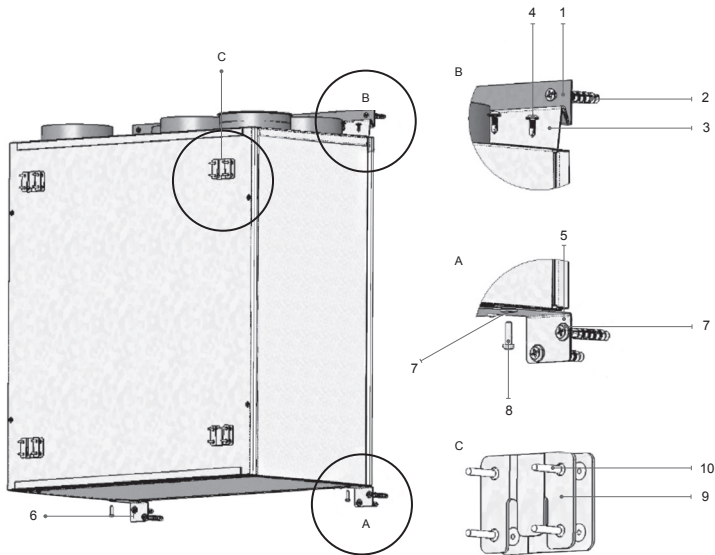


14 Picture

View E: Brackets for hanging the furniture or decorative panel.

	Marking	Description	pcs.
1	Wall plug KWP (nylon) 8×50 + screw 4,5×50		5
2	DOMEKT R 200 V -00.014	Mounting bracket	1
3	DOMEKT R 200 V -00.011	Unit bracket	1
4	Self tapping screw 4,2×13		16
5	Wall plug KWP (nylon) 6×35 + screw 3,5×35		2
6	Bracket for front cover 4260-2.293 Z (AGVA)		4
7	Screw 2.5×16 ZnG with cone head		16
8	Screw M4×16 for kitchen hood connection		4

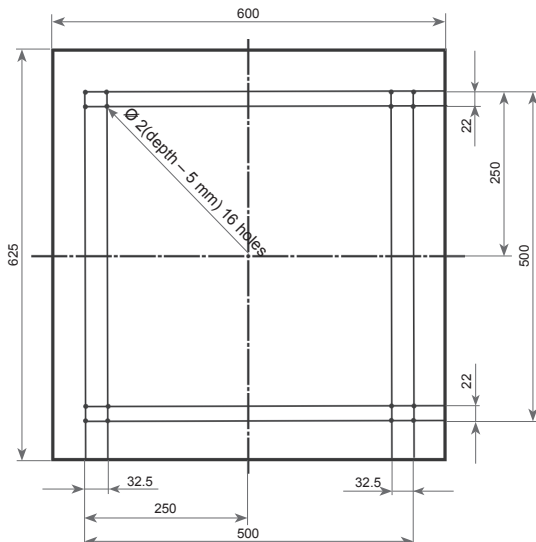


**DOMEKT R 200 V Unit hanging scheme without kitchen hood**

**15 Picture**

View C: Brackets for hanging the furniture or decorative panel.

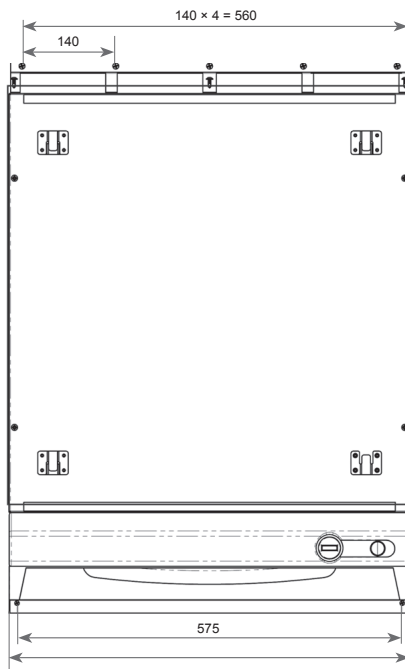
	Marking	Description	pcs.
1	DOMEKT R 200 V -00.014	Mounting bracket	1
2	Wall plug KWP (nylon) 8×50 + screw		9
3	DOMEKT R 200 V -00.011	Unit bracket	1
4	Self tapping screw 4,2×13		16
5	DOMEKT R 200 V -00.015	Bracket	1
6	DOMEKT R 200 V -00.016	Bracket	1
7	M6 (DIN 125 A)	Washer	6
8	M 4×16 (DIN 7985)	Screw	2
9	Bracket for front cover 4260-2.293 Z (AGVA)		4
10	Screw 2.5×16 ZnG with cone head		16

The dimensions of suspended furniture panel

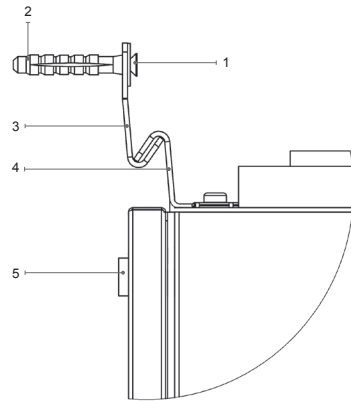
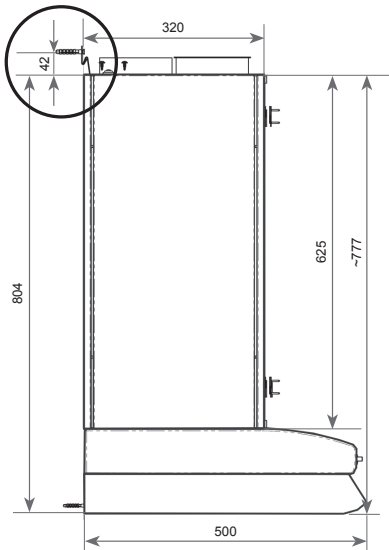


16 Picture

The dimensions of the place of the DOMEKT R 200 V suspended



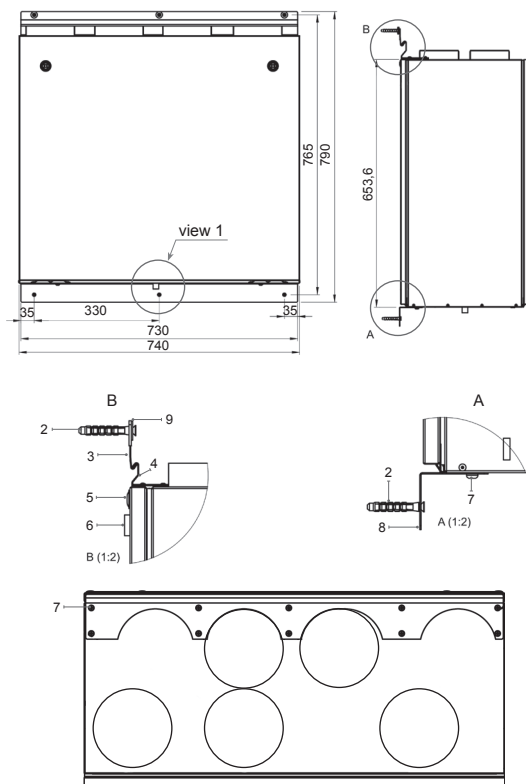
17 Picture



- 1. Screw
- 2. Wall plug
- 3. Hanging bracket 1
- 4. Hanging bracket 2
- 5. Gasket

**18 Picture**

# DOMEKT PP 300 V / DOMEKT PP 450 V Unit brackets' positions



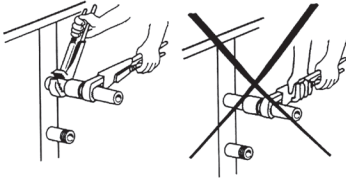
19 Picture

1. Screw
2. Wall plug
3. Hanging bracket 1
4. Hanging bracket 2
5. Bolt M5
6. Gasket
7. Self tapping screw
8. L-shape bracket
9. Washer M5 DIN9021

## 6. HEATING COIL CONNECTION<sup>1</sup>

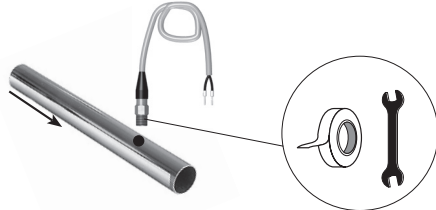
Pipe work should be connected in accordance with good engineering practice. All pipe work must be adequately supported to ensure that no additional load is stressing the unit. Mounting the pipes on the heating coil, tight the pipes with spanners. As shown in 20 Picture.

**Fitting Pipes Connection**



**20 a Picture**

**Sensors Installation**



**20 b Picture**

The pipe work should be done in order to ensure the space for maintenance and service work. When carrying out the installation of heater pipes, make sure that hot water supply is completely disconnected. Before start-up of the air handling unit, the heater system should be filled in with water. Glycol is used in the air handling units with coil heat exchanger. Never pour glycol down a drain; collect it in a receptacle and leave it at a recycling centre or the like. Glycol is highly dangerous to consume and can cause fatal poisoning or damage the kidneys. Contact a doctor! Avoid breathing glycol vapour in confined spaces. If you get glycol in your eyes, flush them thoroughly with water (for about 5 minutes).



When operating air handling unit in the temperatures lower than 0 °C, it is necessary to use glycol additionally or assure the reversible heating agent temperature more than 25 °C.



It is important to maintain air heaters and coolers cleanliness; that is to change filters installed in the air handling unit on time. If the air heater or cooler gets dirty, to perform periodical cleaning.

### Ductwork

The air flows in/out air handling unit through ductwork. We recommend using galvanized steel (Zn 275 gr/m<sup>2</sup>) ductwork, to ensure easy cleaning and durability. It is necessary to use the ductwork system with low air flow rate and small pressure drop to have necessary air volume and low sound level and save the energy. The appropriate sound attenuators will reduce the noise level of the fans in the premises. All ductwork should be insulated with 50–100 mm thickness insulation to avoid the condensation.

**Note:** temperature sensor B1 has to be mounted in the supply air duct under electric heater (see the functional diagram in Control System Electrical Installation and Operation Manual). It is necessary to leave space in straight air duct for sensor mounting and guarantee the space for maintenance and service work. Minimal space between the unit and B1 sensor is the space of double air duct diameter.



Ductwork, steelwork and any other services should not be supported off the unit.



In duct system, for units with electric air heater, use air closing damper without spring return mechanism.

<sup>1</sup> If water heater build in.

## Final Inspection

After installation of the unit, a thorough inspection should be carried out. This should include inspecting the inside of the unit and removing debris and tools, which may have been left behind by on site contractors. Replace any panels, which may have been removed and close all access doors, ensuring that the door sealing gaskets have not been damaged.

## 7. MAINTENANCE

It is recommended to carry out routine maintenance of the air handling unit 3–4 times per year. With units mounted on ceiling do not release the door to the key to open the door. Do not release the door to swing freely, but open it slowly at a 90 degree angle. Be careful while opening, because clogged filters might fall out.

**Besides preventive maintenance inspection, the following operations should be performed:**

1. **Rotary heat exchanger check.** Inspection of the rotary heat exchanger is performed once per year. Free rotation of the rotary heat exchanger, continuity of the rotating belt, absence of damages of the rotor drums and the seal gasket are checked. It is necessary to check the stretch of belt. Free belt will slide and the efficiency of rotary heat exchanger will fall down. To reach maximal efficiency, rotor must turn at least 8 times per minute. Polluted heat exchanger will decrease efficiency. Clean heat exchanger with an air blast or wash with tepid water. Check out water falling on the electric motor.

2. **Plate heat exchanger check.** Inspection and dedusting of the plate heat exchanger is performed once per year (it is removed from the unit and blown with an air blast or washed with tepid water).

**Plate heat exchanger cleaning.** If plate heat exchanger cleaning by compressed air is not effective, it can be washed with soapsuds, or if needed – use degreasing soak for metal (aluminum) cleaning. Leave plate heat exchanger to dry in a warm place. It can be mounted only when it is absolutely dry.

**Note:** plate heat exchanger may be replaced with summer cassette (for units without by pass), when recuperation is needless.

3. **Fans check (once per year).** Polluted fans decrease efficiency.



Before performing any inspection work, check whether the unit is switched off from the electric power supply.

Fans should be carefully cleaned with textile or soft brush. Do not use water. Do not break balance. Check if direction of fan turns is right, because wrong direction of turns gives only 30 % rating. Check if fan freely rotates and is not mechanically damaged, if impeller does not touch suction nozzles, fan does not spread noise, the pressure tubes are connected to the nozzle (if it is required), mounting bolts are screwed.

The rubber couplings connecting the motor base and the unit should be visually inspected for signs of wear and replaced as necessary.

Any unusual noise or vibration when the fan is running should be immediately investigated, as this usually an indication of wear or imbalance in the fan system.

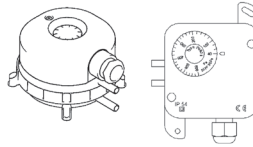
4. **Air heater check.** Recommended to perform periodical inspection and cleaning of heater. Check the plates of water air heater. The air heater is cleaned with Hoover from supply air side or with air blast from exhaust air side. If it is very dirty, wash with tepid water, which will not make corrosion of aluminium. Check if position of return water temperature sensor is right. Check if electric air heater is properly fixed, wires connections are not damaged and heating elements are not bent. They can be damaged or bent due to uneven heat or uneven and turbulent air direction. Check if electric air heater is clear of unnecessary things and heating elements are not clogged, because this can cause unpleasant smell or in the worst case – dust can start burning. Air flow through the air heater should be greater than 1,5 m/s. Heating elements can be cleaned with Hoover or wet textile.

5. **Air damper check (if it is required).** Not fully opened outside air damper rises up the pressure in the system. Water air heater can freeze if outside air damper does not fully close in not working air handling unit. Mounting and running of air damper should be checked and regulated.

6. **Air filter clogging check.** Change air filters when air filter clogging is indicated. We recommend changing filters at least twice per year: before and after heating season or more<sup>1</sup>. Filters are one time used. We do not recommend cleaning them. Stop the air handling unit before changing filters.

<sup>1</sup> Clogged filters unbalance ventilation system, air handling unit uses more power.

### Pressure sensor

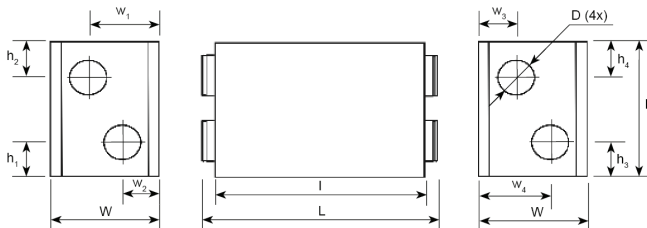


21 Picture

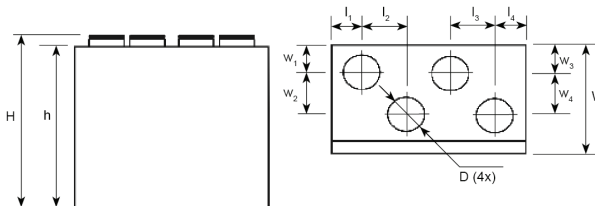
- 7. Pressure sensor setting, which indicates impurity of filters.** Pressure sensor is set according to EN 13779:2007 standard: 100 Pa for small systems, 150 Pa for big systems. Remove cover from the pressure sensor and turn the cursor due to proper position. The indicator will turn on when filters will be clogged.
- One of pressure sensors shown in 21 Picture can be mounted in the air handling unit.
  - Close the door after pressure sensor regulating process. Be sure that sensor does not indicate impurity of clear filters.
  - Pressure sensors in the air handling units up to size 900 are regulated and set in factory.

## 8. TECHNICAL INFORMATION

### Horizontal / Ceiling units



### Vertical units



Type	Parameters	Dimensions			Weight	Supply voltage	Opera-ting current	Heater capacity		Fans input power at max. flow rate	Ducts connection D
		Width, W	Length, L/l (L <sub>1</sub> , L <sub>2</sub> , L <sub>3</sub> ) <sup>1</sup>	Height, H/h				Hot water	Elec-tric		
DOMEKT R											
200 V		320	600	660/625	42	1~230	4,7 / 1,5	1,2	0,8	2*66	125
250 F		310	830/790	550	41	1~230	6,3 / 2,3	1,0	1,0	2*98	4×160, 1×125
400 V		495	600	563/547	42	1~230	5,5 / 1,5	1,2	1,0	2*63	4×160, 1×125
400 H		510	790/640	585	48	1~ 230	6,6 / 2	-	1	2*102	160
400 F		310	1160/1120	650	62	1~230	7,3 / 3,3	1,5	1,0	2*166	4×200, 1×125
450 V		535	680	630/610	46	1~230	7,2 / 3,2	1,2	1,0	2*170	4×160, 1×125
500 H		635	1080/930	700	90	1~ 230	7,6	-	1	2*155	200
500 V		635	1060	1015/940	140	1~ 230	7,6	-	1	2*125	250
600 UH		640	1115/1275	700	110	1~ 230	7,6	-	1	2*145	200
600 UH		640	1115/1275	700	110	1~ 230	3,3	1,5	-	2*145	200
600 UV		640	1115/1275	700	110	1~ 230	7,6	-	1	2*145	200
600 UV		640	1115/1275	700	110	1~ 230	3,3	1,5	-	2*145	200
600 HE		570	1150/1130	600	90	1~230	7,3	-	1	2*174	200
600 HW		570	1150/1130	600	90	1~230	3,3	3,0	-	2*174	200
700 VE		635	1060	1015/940	140	1~ 230	12	-	2	2*180	250
700 VW		635	1060	1015/940	140	1~ 230	3,3	4,5	-	2*180	250
700 HE		635	1080/930	700	90	1~ 230	12	-	2	2*180	250
700 HW		635	1080/930	700	90	1~ 230	3,3	4,5	-	2*180	250
700 F		420	1240/1390	854	104	1~ 230	12	-	2	2*176	250
700 FW		420	1240/1390	854	104	1~ 230	3,3	1,5	-	2*176	250
900 U		895	1505/1355	895	195	3~ 400 <sup>3</sup>	7,6	-	3	2*182	315
900 U		895	1505/1355	895	195	1~ 230	3,3	2,7		2*182	315
900 U		895	1355	895	195	3~ 400 <sup>3</sup>	7,6	-	3	2*182	315
900 U		895	1355	895	195	1~ 230	3,3	2,7		2*182	315
DOMEKT P											
300 V		340	740	727/700	42	1~230	5,5 / 1,5	1,0	1,0	2*67	125
400 VE		390	870	920/700	62	1~ 230	10,8		2	2*93	160
400 VW		390	870	920/700	62	1~ 230	1,5	2,65		2*93	160
400 HE		390	1150/1000	600	55	1~ 230	10,8		2	2*93	200
400 HW		390	1150/1000	600	55	1~ 230	1,5	2,65		2*93	200
450 V		340	740	727/700	42	1~230	6,7/2,7	1,5	1,5	2*167	125
700 VE		490	1000	1090/950	85	1~ 230	14,1		2,5	2*181	200
700 VW		490	1000	1090/950	85	1~ 230	3,8	3,64		2*181	200
700 VE		490	1000	1090/950	85	1~ 230	13,7		2,5	2*240	200
700 VW		490	1000	1090/950	85	1~ 230	4,5	3,64		2*240	200
700 HE		495	1325/1170	600	75	1~ 230	14,1		2,5	2*181	250
700 HW		495	1325/1170	600	75	1~ 230	3,8	4,47		2*181	250
700 HE		495	1325/1170	600	75	1~ 230	14		2,5	2*240	250
700 HW		495	1325/1170	600	75	1~ 230	4,5	4,47		2*240	250
900 V		490	1000	1090/950	90	3~ 400	9,8		4,5	2*181	200
900 V		490	1000	1090/950	90	1~ 230	3,9	4,9		2*181	200
900 V		490	1000	1090/950	90	3~ 400	9,2		4,5	2*254	200



Type	Parameters	Dimensions			Weight	Supply voltage	Opera-ting current	Heater capacity		Fans input power at max. flow rate	Ducts connection D
		Width, W	Length, L/l (L <sub>1</sub> , L <sub>2</sub> , L <sub>3</sub> ) <sup>1</sup>	Height, H/h				Hot water	Elec-tric		
900 V		490	1000	1090/950	90	1~ 230	3,2	4,9		2*254	200
900 H		495	1325/1170	600	78	3~ 400	9,8		4,5	2*181	250
900 H		495	1325/1170	600	78	1~ 230	3,8	4,9		2*181	250
900 H		495	1325/1170	600	78	3~ 400	9,2		4,5	2*256	250
900 H		495	1325/1170	600	78	1~ 230	3,2	4,9		2*256	250
DOMEKT CF											
250 V <sup>5</sup>		510	595	762/700	41	1~ 230	1,7	-	-	2*90	125
250 F <sup>5</sup>		290	1132/1100	600	43	1~ 230	1,7	-	-	2*90	160
400 VE		600	600	670/650	55	1~ 230	6,3	-	1	2*103	160
400 VW		600	600	670/650	55	1~ 230	2,8	1,2	-	2*103	160
500 FE		290	1220/1180	1050	70	1~ 230	7,3	-	1	2*177	200
500 FW		290	1220/1180	1050	70	1~ 230	3,3	1,5	-	2*177	200
700 VE		490	1020	1145/1040	95	1~ 230	12	-	2	2*177	200
700 VW		490	1020	1145/1040	95	1~ 230	3,8	4,5	-	2*177	200
700 HE		490	1540/1500	700	95	1~ 230	12	-	2	2*180	250
700 HW		490	1540/1500	700	95	1~ 230	3,8	4,5	-	2*180	250
900 UV-HE		905	1962/1810	910	267	3~ 400	9,8	-	4,5	2*152	315
900 UV-HW		905	1962/1810	910	267	1~ 230	3,3		-	2*152	315
900 UH-HE		910	1962/1810	905	267	3~ 400	9,8	-	4,5	2*152	315
900 UH-HW		910	1962/1810	905	267	1~ 230	3,3		-	2*152	315
900 F HE		527	1795/1650	1100	161	3~ 402	9,8	-	4,5	2*167	315
900 F HW		527	1795/1650	1100	161	1~ 230	3,3		-	2*167	315
DOMEKT S											
650 F-HE/3		475	873	297	35	1~ 230	14,2	-	3	172	160
650 F-HE/6		475	873	297	35	3~ 400	10,0	-	6	172	160
700 F		440	850	350	32,5	1~ 230	13,8	-	3	165	200
700 F		440	850	350	32,5	3~ 400	9,4	-	6	165	200
700 F		440	850	350	32,5	3~ 400	13,8	-	9	165	200
800 F-HE/3		475	973	350	37	1~ 230	14,9	-	3	181	200
800 F-HE/6		475	973	350	37	3~ 400	10,6	-	6	181	200
800 F-HE/9		475	973	350	37	3~ 400	14,9	-	9	181	200
800 F-HW		475	973	350	37	1~ 230	1,9	-	-	181	200
1000 F-HE/6		700	893	350	46	3~ 400	11,0	-	6	182	250
1000 F-HE/9		700	893	350	46	3~ 400	15,4	-	9	182	250
1000 F-HE/15		700	893	350	46	3~ 400	24,1	-	15	182	250
1000 F-HW		700	893	350	46	1~ 230	2,4	-	-	182	250

Parameters with nominal air volume,  $t_{\text{outside}} = -23\text{ }^{\circ}\text{C}$ ,  $t_{\text{inside}} = 22\text{ }^{\circ}\text{C}$ .

<sup>1</sup> (L<sub>1</sub>, L<sub>2</sub>) – sectional unit.

<sup>2</sup> Parameters of hot water 80–60 °C, connection DOMEKT R 500 – 1/2".

<sup>3</sup> 3~ 230 V is available as an option. <sup>4</sup> Air heater and cooler combined in one water coil.

DOMEKT R 400-700 H(V) (REGO 400-700) – Ducted DH water heater.

<sup>5</sup> If duct mounted preheater is ordered, it should maintain -4 °C temperature for optimal air handling unit performance.

## Dimensions of Ductwork Connection

Type	Parameter	w <sub>1</sub> mm	w <sub>2</sub> mm	w <sub>3</sub> mm	w <sub>4</sub> mm	l <sub>1</sub> mm	l <sub>2</sub> mm	l <sub>3</sub> mm	l <sub>4</sub> mm	h <sub>1</sub> mm	h <sub>2</sub> mm	h <sub>3</sub> mm	h <sub>4</sub> mm
<b>DOMEXT R</b>													
200 V		92	136	92	136	81	145	145	81	-	-	-	-
250 FE		155	155	155	155	-	-	-	-	175	125	125	175
250 FW*		155	155	155	155	-	-	-	-	175	125	125	175
400 V		131	231	131	231	90	0	0	90	-	-	-	-
400 FE		155	155	155	155	-	-	-	-	140	200	140	200
400 FW*		155	155	155	155	-	-	-	-	140	200	140	200
400 H		310	150	310	150	-	-	-	-	160	205	160	205
450 V		131	255	131	255	110	0	0	110	-	-	-	-
500 H(V) / 700 H(V)		390	245	245	390	-	-	-	-	220	175	175	220
500 V(W) / 700 V(W)		220	195	220	195	145	250	250	145	-	-	-	-
600 H		375	285	375	285	-	-	-	-	170	120	170	120
600 U		455	210	185	430	-	-	-	-	190	190	190	190
700 F		182	182	182	182	-	-	-	-	202	202	202	202
900 UH		647	248	248	647	-	-	-	-	238	237	238	237
900 UV		647	400	248	400	248	0	0	248	-	-	-	-
<b>DOMEXT P</b>													
300V		90	140	90	140	85	180	185	110	-	-	-	-
400 V		150	90	150	90	145	200	200	145	-	-	-	-
400 H		195	195	195	195	-	-	-	-	145	145	145	145
450 V		90	140	90	140	85	180	185	110	-	-	-	-
700 V		170	130	170	130	160	210	210	160	-	-	-	-
700 H		245	245	245	245	-	-	-	-	145	160	145	160
900 V		170	130	170	130	160	210	210	170	-	-	-	-
900 H		245	245	245	245	-	-	-	-	145	160	145	160
<b>DOMEXT CF</b>													
250 V		134	230	134	230	105	0	0	105	-	-	-	-
250 F		128	128	128	128	-	-	-	-	192	162	142	162
400 V		145	265	145	265	167	0	0	167	-	-	-	-
500 F		130	130	130	130	-	-	-	-	290	420	260	453
700 H		245	245	245	245	-	-	-	-	200	200	200	200
700 V		160	160	160	160	155	255	255	155	-	-	-	-
900 UH		657	285	253	625	-	-	-	-	242	242	242	242
900 UV		253	393	253	393	253	0	0	253	-	-	-	-
900 F		275	275	275	275	-	-	-	-	263	263	263	263

**Filters**

Unit	Type	Overall dimensions		Supply	Exhaust
		Width	Height	Length	Length
DOMEKT R					
200 V	KF5/KF7*	285	130	45	45
250 F	KF5/KF7*	278	258	46	46
400 V	KF5/KF7*	450	210	46	46
400 H	KF5/KF7*	410	200	46	46
400 F	KF5/KF7*	278	258	46	46
450 V	KF5/KF7*	470	240	46	46
500 V/H	KF5/KF7*	540	260	46	46
600 U	KF5/KF7*	545	300	46	46
600 H	KF5/KF7*	475	235	46	46
700 V/H	KF5/KF7*	540	260	46	46
700 F	KF5/KF7*	320	360	46	46
900 V/H/U	KF5/KF7*	800	400	46	46
DOMEKT P					
300 V	KF5/KF7*	300	200	46	46
400 V/H	KF5/KF7*	300	195	46	46
450 V	KF5/KF7*	300	200	46	46
700 V/H	KF5/KF7*	400	235	46	46
900 V/H	KF5/KF7*	400	235	46	46
DOMEKT CF					
250 V	KF5/KF7*	145	350	46	46
250 F	KF5/KF7*	265	250	46	46
400 V	KF5/KF7*	235	350	46	46
500 F	KF5/KF7*	410	200	46	46
700 V/H	KF5/KF7*	390	300	46	46
900 U	KF5/KF7*	800	400	46	46
900 F	KF5/KF7*	550	420	46	46
DOMEKT S					
650 F	KF5/KF7*	235	371	46	-
700 F	KF5/KF7*	345	287	46	-
800 F	KF5/KF7*	287	371	46	-
1000 F	KF5/KF7*	558	287	46	-
Supply/Exhaust air					
DOMEKT R / DOMEKT P					
KF5	Compact, class M5 (EN779)		KF7	Compact, class F7 (EN779)	
BF5	Bag filter, class M5 (EN779)		BF7	Bag filter, class F7 (EN779)	

\* F7 class filter is available as an option.



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NL	Ventilair group	www.ventilairgroup.com
	Vortvent B.V.	www.vortvent.nl
NO	Ventistål AS	www.ventistal.no
	Thermo Control AS	www.thermocontrol.no
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