

komfovent[®]



VENTILATION EQUIPMENT

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VENTILATION EQUIPMENT



DOMEKT

Residential ventilation units
50–1 000 m³/h

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1000–34 000 m³/h

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150–25 000 m³/h

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Non residential ventilation units
1 000–90 000 m³/h

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Why KOMFOVENT?



High energy efficiency standards

All components and parts of the units are accurately selected and assembled to achieve the best efficiency in operation. An advanced control system optimizes unit's performance.



Silent operation and easy mounting

The units have tight, insulated and painted casing and high quality components, ensuring the extremely silent operation and easy mounting.



High efficiency EC/PM fans

High efficiency EC/PM (permanent magnet synchronous motors) motors of fans use significantly less energy than AC (alternating current) motors. Automation communicates with EC/PM motors through MODBUS protocol, and get a lot of valuable information.



The appropriate rotary wheel

Efficient heat recovery with an optional rotary wheel efficiency. EC motors are used to ensure an efficient rotary wheel performance and minimum operation expenses.



Connection versatility

One of the main advantages is the multipurpose application of one unit – the same unit can be connected to the ducts horizontally or vertically. An installer can always reverse the unit into the required version and choose the duct connection's position on site. One air handling unit – lots of connecting positions.



PLUG & PLAY solution

All units are completely prewired and have an integrated automatic control.



Intelligent control

Smartly designed controllers' algorithms execute a wide range of functions. The units can be controlled not only by control panel, but also via a web browser or mobile devices. Due to the implemented protocols the units are easily integrated into any desired BMS.



RHP solution

Added value to the indoor climate – heating and humidity recovery in winter, cooling and dehumidifying in summer. No need for condensing unit, chiller, piping or additional work to be provided.



Eco-friendly and protected

R410A and R134A refrigerants are used in units with heat pumps.



Laboratory tested units

Our products are tested not only in our own laboratory but also in the independent testing centers in Germany and Switzerland.



International quality approvals

Komfovent equipment is EUROVENT certified, TÜV and RLT approved and conforms to all required EU norms and regulations. Passive House Institute Certificate is also available for some type of the units.

Selection software

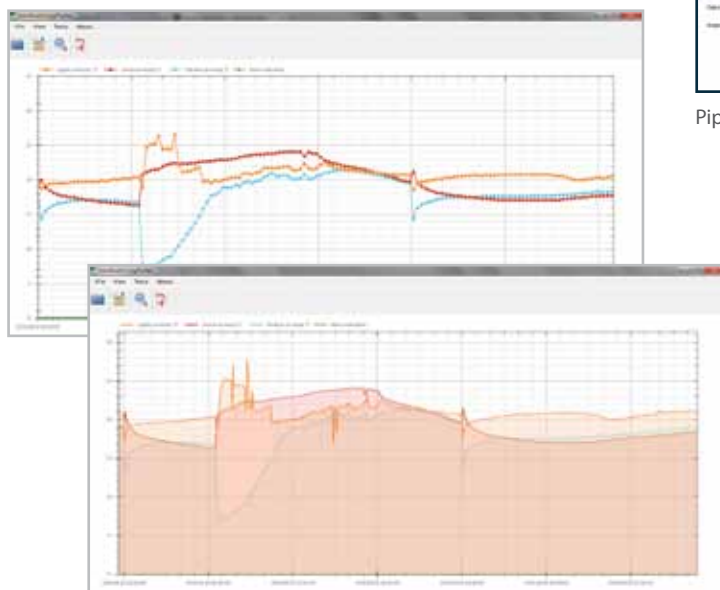
Technical data sheets present important technical parameters at a specified working point of the selected unit: efficiency, SFP, acoustics and other required data.

- DOMEKT
- VERSO
- RHP
- KLASIK

- Pipework Packages
- Rotary Heat Exchangers
- Water Coils and DX Coils
- Sound Attenuators

LogPlotter

The screenshot shows the 'Engineering tool' interface. On the left, a project tree lists 'Unit 1' under 'Process'. The main area displays a schematic diagram of a unit with various components like pumps, valves, and tanks. A data table for 'Unit 1' is visible on the right, showing parameters like 'Unit flow rate (m³/h)', 'Unit capacity (m³)', and 'Unit volume (m³)'.



The screenshot displays the VERSO software interface. The top toolbar contains icons for file operations (New, Open, Save, Print, etc.). The left sidebar shows a project tree with folders for '3D Model', '2D Model', '3D View', '2D View', '3D Render', '2D Render', '3D Animation', '2D Animation', '3D Simulation', and '2D Simulation'. The main workspace is divided into two panes. The left pane shows a 3D model of a building facade with various window and door types. The right pane shows a 2D section view of the building, highlighting the internal structure and the placement of windows and doors. The software is identified as VERSO 1.0.0.0.

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Automatic control system KOMFOVENT



Fully integrated control system KOMFOVENT ensures safe operation of the air handling unit, controls preset ventilation system parameters and optimize unit operating costs.

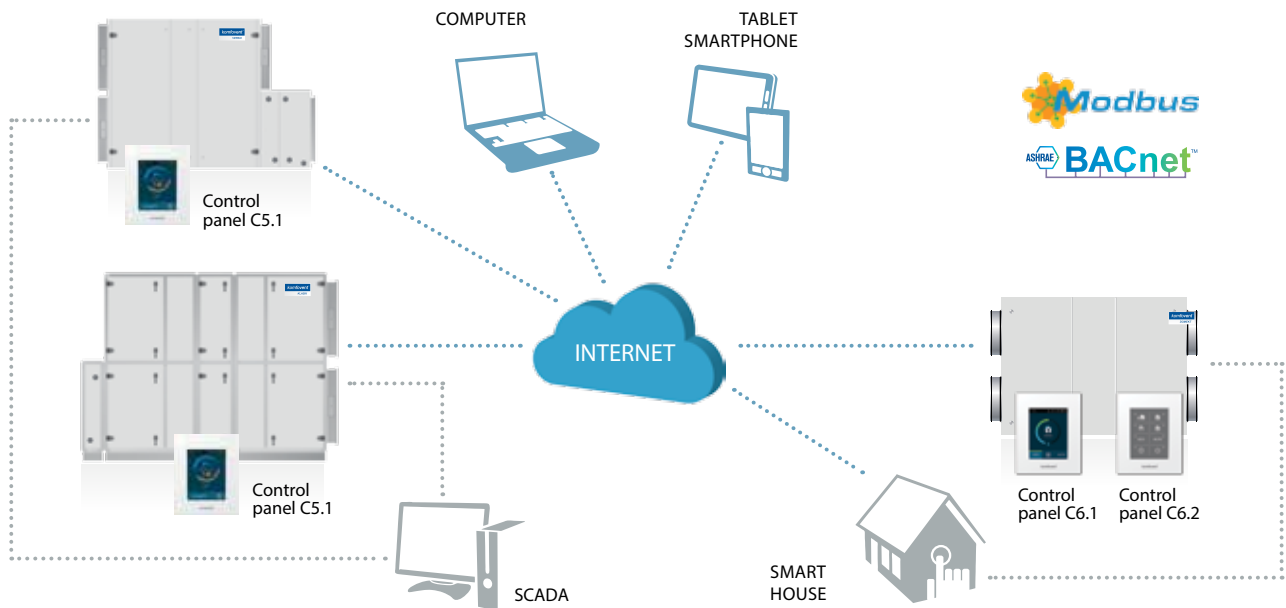
KOMFOVENT air handling units are offered by the principle PLUG & PLAY, without any external electrical boxes, ready for operation. To ensure reliable operation, reduce installation work costs and other expenses, automatic control is fully integrated in the air handling unit and the system of connected automatic elements ensures quick and easy assembling of the unit.

Everything is already prewired and tested in the manufacturing site. Only the modern and attractive design control panel must be installed inside the building in any user-convenient place. Each series of the air handling units have specially adapted KOMFOVENT controller, which in the best way ensures functionality and operational needs of the air handling unit.

Smartly designed controllers' algorithms allow wide range of functional possibilities, which ensure energy saving of the system at the same time let to maintain and keep comfort conditions in the ventilated premises: air quality control, operation on demand, summer night cooling, VAV, CAV and many others.

Implemented Modbus and BACnet protocols allow easy integration of Komfovent air handling units to any desired Building Management Systems.

All controllers are easy in operation, have convenient user-friendly menu, LCD display enables to monitor various parameters, touch-sensitive buttons allow pleasant and convenient setting operation modes of the unit by soft touching.



The units control system have integrated web server for controlling and monitoring the AHU's operation via internet.

AHU can be controlled via a web browser on your computer or mobile devices. Application softwares for Smartphones are specially developed for more convenient control. User-friendly interface enables clear and easy monitoring of air handling unit operation.



Scan the QR codes below and download mobile applications:



"Komfovent" application for units with integrated C5 control system



"Komfovent Home" application for units with integrated C6 control system

C6 SMART HOME



Panel C6.1

- Colored touch-sensitive LED display.
- Indication of parameters.
- Setting of all parameters from the panel.



Panel C6.2

- Modern panel with touch buttons.
- Factory preset parameters.
- Smart and easy control.

Control functions

Supply air temperature control	The unit supply a user-defined temperature air.
Extract air temperature control	The unit automatically delivers air at a temperature so that the set temperature of the exhaust air is maintained.
Room air temperature control	The unit supports the user-set ambient room temperature, according to the temperature sensor located in the panel.
Temperature balance control	The temperature support value of the supply air is automatically set on the basis of the current exhaust air temperature, i.e. the exhaust air temperature and the return air temperature will be the same.
Constant air volume control (CAV)	The unit supplies and/or exhausts a constant air volume as set by the user, regardless of changes in the ventilation system.
Variable air volume control (VAV) ¹	The unit supplies and exhausts air volume correspondingly to the ventilation requirements in different premises.
Directly controlled volume (DCV)	The air volumes are controlled by direct external control signals.
External water coil control	There is estimated an additional water duct heater or cooler control that can be activated by the user on the control panel.
External DX unit control	There is estimated an additional external direct evaporation (DX) unit control that can be activated by the user on the control panel.
Weekly operation schedule	It is possible to choose one of the four pre-set weekly operation schedules. If necessary, the schedule can be modified.
Holidays planning	The user can set the holiday dates for period when he is away. Then the unit will not operate for most of the time, but ventilate the premises occasionally.
Air quality control ¹	Upon connecting the external air quality/humidity sensors, the ventilation intensity is chosen automatically. In this way, the maximum room comfort is ensured with the minimum energy cost.
Operation on demand ¹	The ventilation unit will operate when the air quality in the premises exceeds the set levels.

Cool recovery	During the summer season, in the conditioned premises cool from exhaust air is returned back into the premises.
Temperature saving function	The automatic function attempts to maintain comfortable temperature conditions in the premises by reducing the ventilation intensity, i.e. it prevents excessive cooling down or overheating of the premises.
Free cooling	When the room temperature air exceeds the set value, and the outdoor temperature is lower than the room temperature, the heat recovery and the other heating/cooling processes is blocked automatically and freecooling are performed only by fans.
Ventilation control by external contacts	Air flow can be controlled by three external contacts, each of which can be assigned to different ventilation intensity.
Control via internet browser	When the device is connected to the computer network or the Internet, the user-friendly web interface allows the operator to control the equipment with a computer or with another mobile device.
Control with smartphones	The "Komfovent Home" mobile app has the same interface as the control panel and allows the user to control the ventilation unit from any point.
Safety functions	
Filter clogging indication	Clogging of the air filters is measured depending on the duration and intensity of the unit's operation. When it comes time to change the air filters, the user is warned about this by a message.
Water mixing system warming-up	For units with additional external water heaters/coolers, the circulation pump and mixing valve motion system is provided.
Rotor warm-up and cleaning function	In order to prevent the eventual contamination of the stopped rotary heat exchanger, the unit has a periodical forced activation.
Heat exchanger frost protection	Units with a counter-flow plate heat exchanger have a primary elected heater that is controlled as needed, and is operated only at the capacity to ensure frost protection. In this way, the ventilation unit can run in low outside temperatures.
Heat exchanger failure indication	In units with plate or rotary heat exchanger, a control system monitors the temperature efficiency, and if it does not reach the stated level, a fault is indicated.
Water heater frost protection	This ensures the maximum reduction of the possibility of water freezing during the unit's operation. When the unit is switched off, warm water circulation is supported.
Electric heater overheat protection	If there is danger of overheating, heater shuts down automatically. When unit is shut down during the heating operation, fans will continue to operate for set time period.
Low air flow indication	If the ventilation unit does not reach the set air volume during the specified time, the unit's operation is stopped.
Emergency shut down in case of fire	The external fire alarm is provided when the unit is connected to the building fire alarm system. There is also an internal fire alarm to detect an increased temperature inside the air handling unit or the ventilation system.
Emergency shut down when temperature reaches critical limits	When the supply air temperature drops below or exceeds the permitted value, the unit is stopped.
Intelligent self-diagnostic	Self-check function of controller and elements of the air handling unit. If a fault is detected, controller terminates the operation of the unit and warns about such a fault using the respective informative messages.

1 – these functions require additional accessories.

Komfovent C5



Panel C5.1

- Modern design.
- Extremely thin – only 12,5 mm.
- Coloured touch-sensitive LED display.
- Smart control.
- Integrated thermometer and hygrometer.
- Customized screen saver: up to 3 parameters can be displayed, when unit is in a stand-by mode.
- 3 ways of fixing the panel.

Detailed information for the user

- Air flow indication (m^3/h , m^3/s , l/s).
- Thermal efficiency of the heat exchanger (%).
- Heat exchanger energy recovery (kW).
- Thermal energy saving indicator (%).
- Air heater energy consumption (kWh).
- Heat exchanger recovered energy counter (kWh).
- Fans energy consumption (kWh).
- SFP factor of the fans.
- Clogging level of filters (%).

Various operating modes

- 5 different operation modes: *Comfort1*, *Comfort2*, *Economy1*, *Economy2*, and *Special*. User may set supply and extract air volumes as well as air temperature for each of mode separately.
- Temperature control modes: Supply air / Extract air / Room / Balance. Possibility to select which temperature to be maintained.
- Flow control modes: Constant Air Volume (CAV), Variable Air Volume (VAV), Directly Controlled Volume (DCV).
- Universal operating schedule with up to 20 events, for which of them user can assign weekday(s) and one of five operation modes.
- Holiday scheduling allows the user to change operation mode or switch off the air handling unit at some dates of the year. Up to 10 events are possible.

Extended control possibilities

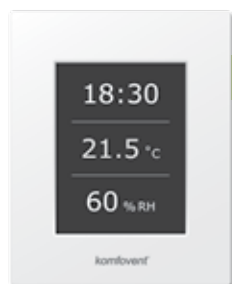
- Controlling up to 30 units connected into a network from one panel.
- Ability to connect the controller to the Internet network and manage it via a standard internet browser without any accessories.
- Possibility to control air handling unit by Smartphone via Android OS or iOS application software.
- Ability to control the unit not only by a control panel or a computer, but also by different external devices (switch, timer, etc.) and systems (e.g. the smart house system).

Connectivity & Protocols

- Modbus RTU over RS-485.
- Modbus TCP over Ethernet.
- BACnet/IP over Ethernet.

Extended C5 control functions in addition to C3	
Air quality control	Two different air quality values may be set for two different unit operating modes (e.g. <i>Comfort</i> and <i>Economy</i>). These values will be maintained by automatically increasing or reducing the intensity of ventilation.
Outdoor compensated ventilation	This function adjusts the air volume depending on the outdoor temperature. It is possible to enter four temperature points where two of them define winter conditions and the other two define summer conditions. Upon entering the compensation curve according to the outdoor temperature, the current intensity of ventilation is decreased or increased accordingly.
Summer night cooling	This function is intended for energy saving in summer: utilising the outside chill of night hours to cool down the heated rooms. The user may enable or disable function at any time as well as set the room temperature at which the function is automatically activated.
Override function	Override control of the unit can be performed by an external device (timer, switch, thermostat, etc.). The signal received from the outside activates the function which switches the unit to the pre-programmed mode ignoring the current operating mode.
Minimum temperature control	This function forces the reduction of the supply and extract air volumes set by the user when the heater capacity available in the unit is insufficient and/or heat recovery does not ensure the supply of the minimum temperature to the room.
Humidity control	An air handling unit can be ordered with an air humidity control function. If this function is available the user is able to choose the humidity control location: supply air, extract air or room. The user is also able to choose the method of control: humidification, dehumidification or both at a time.
Circulation pumps control on demand	Both heating and cooling pumps are controlled according to the current need for heating or cooling instead of a season control.
Air flow density compensation	Air density depends on the temperature. C5.1 has a function which adjusts the air flows automatically to avoid any misbalance in rooms while being ventilated.
Operation on demand	The air handling unit start-up function is designed to start the unit operating in off mode when one of the selected parameters (CO ₂ , air quality, humidity, or temperature) has exceeded the critical limit.
Change-over function	Control of combined water heater cooler and DX cooler reversing to the heating mode.
Additional zone control	Option for independently control of additional heaters and coolers in separately ventilated area. Up to two additional temperature zones can be controlled.
Recirculation control	The C5 controller has a modulated extract air recirculation function. There are four control options: 1) recirculation according to the air quality which may be defined by one of the selected parameters: CO ₂ , air pollution by organic components and chemical substances, humidity or temperature; 2) recirculation according to the external temperature curve; 3) recirculation according to a weekly schedule; 4) recirculation controlled by an external device.
Recirculation limitation by temperature	Recirculation may be limited according to the need for heating or cooling. In cases where recirculation is controlled automatically according to one of the air quality sensors or the recirculation level set by the user, the required value of extract air recirculation may be ignored if recirculation heats or cools down the supplied air too much. In such a case recirculation is forcibly reduced until the temperature of supply air set by the user has been reached.
New safety features	
Rotary or plate heat exchanger failure protection	This function observes the thermal efficiency of the heat exchanger. If it does not reach the required level a fault is recorded and indicated.
Rotary or plate heat exchanger anti-frost	Under the low outdoor temperature conditions, this function is constantly observing decreasing tendency of the heat exchanger thermal efficiency, determines the moment when the heat exchanger starts freezing, and activates the defrosting function automatically.
Service time	A warning message appears when the continuous operation of the AHU has reached 12 months.
Rotor cleaning function	This function ensures that the rotary heat exchanger does not pollute when turned-off. When the air handling unit operates without heat recovery, i.e. when the rotor does not rotate for some time, it is forcibly activated for a little so that moving air flows could blow possible dust.
Rotor warm-up function	This function forcibly activates the rotary heat exchanger if the air handling unit is turned off for some time and the temperature inside the unit or ventilation system is low enough for the rotor to freeze.
Circulation pumps start-up in off mode	This function starts water circulation pumps for a short period of time when they are off longer than the set period.
Warning for too low air flow	If the air handling unit does not reach the air volume set within the time set, the user is warned by an informative message.
External stop	Shut-down function from external device. May be used with or without an automatic unit restart.
Emergency shut-down in case of fire	The external fire alarm is provided when the unit is connected to the building fire alarm system. There is also an internal fire alarm to detect an increased temperature inside the air handling unit or the ventilation system.
Intelligent self-diagnostic	Self-check function of controller and elements of the air handling unit. If a fault is detected, controller terminates the operation of the unit and warns about such a fault using the respective informative messages.

Komfovent C3



Panel C3.1

- Essential functions.
- Integrated thermometer and hygrometer.
- Colored touch-sensitive LED display.
- Customized screen saver: up to 3 parameters can be displayed, when unit is in a stand-by mode.
- 3 ways of fixing the panel.
- Language selection.

Operating functions

Unit control using panel	Panel can be used to control unit operation: to change operation modes and parameters, to switch unit on or off anytime.
Remote switching on or off	The possibility to switch unit on or off using additional device.
Supply air temperature maintenance	The unit automatically supplies air according to the temperature preset by the user.
Room temperature maintenance	Unit automatically supplies air of such temperature to maintain preset room temperature (15...30 °C).
Set point sliding	Option to shift set value of the supply or room air temperature for the specified period of time.
Temperature maintaining mode setting	The user can select from the panel temperature to be maintained: supply air or room air temperature.
Automatic temperature maintaining mode selection	Depending on the outdoor temperature, maintaining mode can be selected automatically.
Ventilation intensity control	The user may set most economical and effective ventilation intensity level.
Remote unit intensity control (OVR) ¹	The ventilation unit intensity will be controlled by contacts. The fourth level of intensity can be activated with these contacts.
Constant air volume control (CAV)	The unit maintains set by the user supply and exhaust air volume.
Variable air volume control (VAV) ²	The unit supplies and exhausts air volume correspondingly to the ventilation requirements in different premises. In case of frequently changing ventilation demands this air volumes maintenance mode signally reduces the unit exploitation costs.
Air quality function (AQ) ²	The provided ventilation intensity correction according to the increased CO ₂ , humidity level and etc.
Ventilation correction in winter time	In winter time, if there is not enough heating power, temperature is maintained by decreasing ventilation intensity.
The unit weekly schedule programming	Weekly operation schedule with three daily events may be set. For each daily event, user can select ventilation intensity.
Season setting	For the most economic unit operation summer and winter settings are provided.
Automatic season change	Depending on the outside temperature, season can be changed automatically.
Pump control	Water pump is controlled depending on the outside temperature and according to the need.
Cooling energy recovery	In summer time, cooling energy is recovered to the room.
Summer night cooling ¹	In summer night time, when cooling is required, ventilation intensity level is automatically switched to the third intensity level. Air is cooled only by outdoor air, without heat or coolness recovery and additional air cooling or heating.
Exhaust air flow correction	The user for the set time period can adjust exhaust air fan speed.

Protection functions	
Water heater frost protection	Maximum protection from water freezing.
Electric heater overheating protection	If there is danger of overheating, heater shuts down automatically. The unit is equipped with heater cooling. When unit is shut down during the heating operation, fans will continue to operate for set time period.
Plate heat exchanger frost protection	When there is low outdoor temperature, heat exchanger is protected from freezing.
Fan overheating protection	Fan motor is protected from failure.
Rotary heat exchanger rotation guard	If heat exchanger has a failure, the unit operation is stopped.
Emergency shut down in case of fire	If the unit is connected to the building fire alarm system, in case of fire unit operation is stopped automatically.
Emergency shut down according to the temperature value limits	If supply air temperature reaches emergency level, unit operation is stopped.
Distance unit failure indication	Possibility to indicate unit failure in a distance from the unit.
Return water temperature maintenance	When unit is switched off in winter time, return water temperature of 25 °C is maintained in hot water air heater.
Other functions	
Filter clogging indication	In case of at least one filter clogging, warning appears on the panel display.
Mode operation, temperature and time indication	Supplied air filter clogging is indicated on the control panel by the red light signal.
Failure indication	In case of failure of a separate unit assembly or elements, the air handling unit is stopped. This is indicated by text message.
Language selection	Control panel provides menu for the language selection.
Air flow indication	Option to monitor unit supply and exhaust air flow (m ³ /h, m ³ /s, l/s).
Unit PC control ¹	Option to manage and control units by computer, when connected to the PC network, or Internet.

1 – additionally ordered function only for C3 control panel.

2 – accessories ordered additionally.

Komfovent C4



Panel C4.1

- Easy monitoring.
- Main settings are easily accessible from main window.
- Integrated thermometer and hygrometer.
- Colored touch-sensitive LED display.
- Customized screen saver: up to 3 parameters can be displayed, when unit is in a stand-by mode.
- 3 ways of fixing the panel.
- Language selection.

Operating functions

Unit control using panel	Panel can be used to control unit operation: to change operation modes and parameters, to switch unit on or off anytime.
Supply air temperature maintenance	The unit automatically supplies air according to the temperature preset by the user (15...30 °C).
Set point sliding	Option to shift set value of the supply or room air temperature for the specified period of time.
Ventilation intensity control	The user may set most economical and effective ventilation intensity level.
Remote unit intensity control (OVR)	The ventilation unit intensity will be controlled by contacts. The fourth level of intensity can be activated with these contacts.
The unit weekly schedule programming	Weekly operation schedule with three daily events may be set. For each daily event, user can select ventilation intensity.
Season setting	For the most economic unit operation summer and winter settings are provided.

Protection functions

Water heater frost protection	Maximum protection from water freezing.
Electric heater overheating protection	If there is danger of overheating, heater shuts down automatically. The unit is equipped with heater cooling. When unit is shut down during the heating operation, fans will continue to operate for set time period.
Plate heat exchanger frost protection	When there is low outdoor temperature, heat exchanger is protected from freezing.
Rotary heat exchanger rotation guard	If heat exchanger has a failure, the unit operation is stopped.
Emergency shut down according to the temperature value limits	If supply air temperature reaches emergency level, unit operation is stopped.
Return water temperature maintenance	When unit is switched off in winter time, return water temperature of 25 °C is maintained in hot water air heater.

Other functions

Notification of service time	A periodic inspection message appears on the control panel at a certain time.
Failure indication	In case of failure of a separate unit assembly or elements, the air handling unit is stopped. This is indicated by text message.
Language selection	Control panel provides menu for the language selection.
Unit PC control ¹	Option to manage and control units by computer, when connected to the PC network, or Internet.
Control via smartphone ¹	The units may be remotely controlled using "Komfovent Home" application, that can be downloaded from "Google Play".

¹ – accessories ordered additionally.



DOMEKT

Residential ventilation units

Komfovent DOMEKT

DOMEKT air handling units (AHU) are designed for the ventilation of residential premises. DOMEKT is a standardized series of the air handling units with a heat recovery for the air flow between 50 m³/h and 1 000 m³/h.



Capacity range
from 50 to 1000 m³/h

Features and benefits of DOMEKT units:

- Energy efficient solution;
- PLUG & PLAY concept – units are fully prepared for installation;
- DOMEKT air handling units are especially silent;
- Energy saving high performance EC fans in DOMEKT units;
- Integrated automatic control;
- Wide choice of automatic control functions already included as a standard – no options are needed;
- Integrated web server for clever control;
- Control via Smartphone available;
- Units color – RAL 9010.

A compact air handling units' design helps to integrate them in a limited dedicated space for installation.

All DOMEKT units are based on the PLUG & PLAY principle: each unit has the integrated control system and is delivered with a complete automatic control installed and prewired inside the unit. A modern control panel is included in each supplied DOMEKT unit.

Due to the availability of clever design and functions the units offer a great opportunity to keep running costs low. They are safe, reliable and durable in operation. The filtered air is supplied clean and fresh to the premises, which is extremely advisable for allergic people.



New casing technology

EPP (expanded polypropylene) advantages:

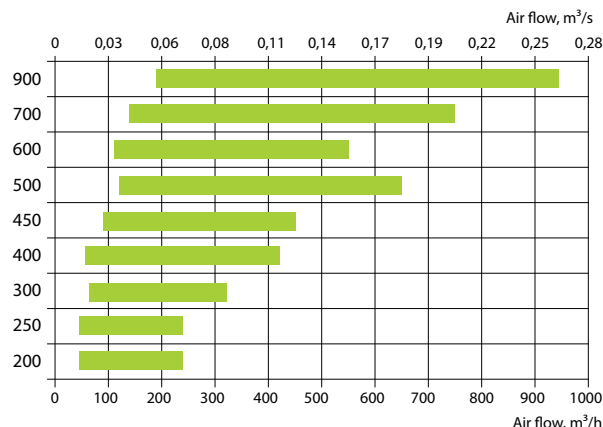
- No thermal bridges, no condensation;
- Better aerodynamics;
- Faster assembly;
- Reduced weight;
- Improved thermal insulation;
- The mechanical resistance;
- Special improved EPP;
- Hydrophobic;
- Good sound insulation.

Domekt R

Air handling units with a rotary heat exchanger.



Standard sizes of Domekt R units



Advantages of Domekt R units

Heat energy saving

In the process of ventilation the heat of the exhaust air is recovered to the supplied air.

Efficient heat

Under the normal operational conditions, the rotary heat exchanger does not freeze: even at outdoor temperatures below -20 °C, no additional warming up required of the outdoor air which results in efficient heat energy saving even at hard frosts. The application of the rotary heat exchanger allows reducing the energy consumption for warming up the supply air by approximately 4 times.

Air humidity balance

Under the normal operating conditions the condensate does not form in the process of heat exchange in the rotary heat exchanger, because most of the humidity is returned to the premises. The excess moisture is removed outside. The air in the premises is less drained and the air humidity balance is maintained. As the condensate does not form, the drainage is not necessary – this simplifies the mounting of the unit.

Low noise level

Domekt R air handling units are equipped with silently operating fans and sound insulation, which ensures low noise level.

Preheater

As an additional protection for very low outdoor temperatures such as -30 °C and lower, it is recommended to use duct mounted preheater.

Rotary heat exchanger

Advantages of rotary heat exchanger

- High efficiency coefficient.
- Not freezing.
- 4 times lower energy consumption for warming up the air.
- Humidity is transferred to supply air – a lower power humidifier may be needed.
- No drainage is necessary – easy unit installation.
- Very compact in size.
- Cooled air may be recovered that results in the reduced energy consumption for air cooling.

The efficiency on the demand: two levels of rotor efficiency are available. Optimum efficiency is achieved with L type rotor, higher values may be reached with optional XL type rotor. Air handling units are equipped with two types of rotary heat exchangers:

- **Heat exchanger is made from aluminum foil (AL).** It recovers heat (during the heating season) or cold (in summer, if the air is conditioned). It recovers moisture.
- **Heat exchanger is made from hygroscopic aluminum foil (AZ).** It recovers heat (during the heating season) or cold (in summer, if the air is conditioned). Heat exchangers of this type regenerate moisture more efficiently.

Energy efficient EC motor

Rotary heat exchangers are equipped with EC motors, which ensure the smooth rotor operation and control.

Heat exchanger is
EUROVENT certified



Domekt R range

Unit size	Heat exchanger				Supply/ exhaust air filter class		Heater			Cooler		Inspection side				Control system / panel			
	Type	Wave height			M5	F7	HE	HW	HCW	CW	CDX	R1	R2	L1	L2	C4	C5	C6	
Domekt R 200 V	●	○	●	○	●	○	●	△	△			○		○		●			
Domekt R 250 F	●	○	●	○	●	○	●	△	△				○		○			○	○
Domekt R 300 V	●	○	●	○	●	○	●	△	△			○		○				○	○
Domekt R 400 V	●	○	●	○	●	○	●	△	△	△	△	○		○				○	○
Domekt R 400 H	●	○	●	○	●	○	●	△	△	△	△	○		○				○	○
Domekt R 400 F	●	○	●	○	●	○	●	△	△	△	△	○		○				○	○
Domekt R 450 V	●	○	●	○	●	○	●	△	△	△	△	○		○				○	○
Domekt R 500 V/H	●	○	●	○	●	○	●	△	△	△	△	○		○				○	○
Domekt R 600 U	●	○	●	○	●	○	○	△	○	△	△	○		○			●		
Domekt R 600 H	●	○	●	○	●	○	●	△	△	△	△	○		○				○	○
Domekt R 700 V	●	○	●	○	●	○	●	△	△	△	△	○		○				○	○
Domekt R 700 H	●	○	●	○	●	○	●	△	△	△	△	○		○				○	○
Domekt R 700 F	●	○	●	○	●	○	●	△	△	△	△	○		○				○	○
Domekt R 900 U	●	○	●	○	●	○	○	△	○	△	△	○		○			●		
Domekt R 900 H/V	●	○	●	○	●	○	○	○		△	△	○		○			●		

- standard equipment
○ possible choice
△ ordered separately
* available only L wave height

■ Duct connection

H – horizontal.
V – vertical.
U – universal, 14 installation options.
F – false ceiling.

■ Heat exchanger

AZ – entalpic, sorption rotary heat exchanger coated with special 4Å coating. Wave height of this heat exchanger is L.
AL – aluminum, condensing rotor. As a standard, units are equipped with L wave height of the rotors. In exceptional cases, when increased thermal efficiency is required, the units can be equipped with XL wave.

■ Heater

HE – electric heater.
HW – water duct heater is installed on the duct and must be ordered separately. Heaters are mounted on the outside of the unit in any user-convenient place. 0...10 V heater control included in automatic control system.
HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

■ Cooler

CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.
CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

■ Inspection side

See p. 132.

■ Control system

C6 Control features:

- Temperature maintenance modes:
Supply air / Extract air / Room / Balance;
- Air flow indication: m³/h; l/s;
- Constant air volume control (CAV);
- Variable air volume control (VAV)*;
- Directly controlled volume (DCV);
- External water coil control;
- External DX unit control;
- Weekly operation schedule;
- Holidays planning;
- Air quality control*;
- Operation on demand*;
- Cool recovery;
- Temperature saving function;
- Free cooling;
- Ventilation control by external contacts;
- Control via internet browser;
- Control with smartphones;
- Filter clogging indication;
- Water mixing system warming-up;
- Rotor warm-up and cleaning function;
- Heat exchanger frost protection;
- Heat exchanger failure indication;
- Water heater frost protection;
- Electric heater overheat protection;
- Low air flow indication;
- Emergency shut down in case of fire;
- Emergency shut down when temperature reaches critical limits;
- Intelligent self-diagnostic;
- Indication of the heat exchanger thermal efficiency (%);
- Indication of heat exchanger energy recovery (kW);
- Energy consumption counters for heater and whole unit (kWh);
- Indication of the whole unit power consumption (kW);
- Specific power (SPI) indication;
- Unit operation parameters history storage and analysis;
- Possibility to choose desired control panel.

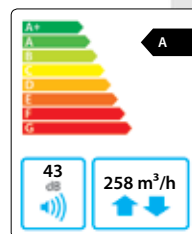
* these functions require additional accessories.

More information about C4 on p. 14.

More information about C5 on p. 10.

Domekt R 200 V

Maximal air flow, m ³ /h	258
Panel thickness, mm	25
Unit weight, kg	42
Supply voltage, V	1~230
Maximal operating current, A	HE 4,7
Thermal efficiency of heat recovery, %	82
Reference flow rate, m ³ /s	0,05
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,35
Filters dimensions BxHxL, mm	285x130x46-M5
Electric power input of the fan drive at reference flow rate, W	27
Electric power input of the fan drive at maximum flow rate, W	66
Electric air heater capacity, kW / Δt, °C	0,8 / 12,3
Control panel	C4.1
Maintenance space, mm	300



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	53
Supply outlet	66
Exhaust inlet	53
Exhaust outlet	66
Casing	43

A-weighted sound pressure level L_{pA} , dB(A)

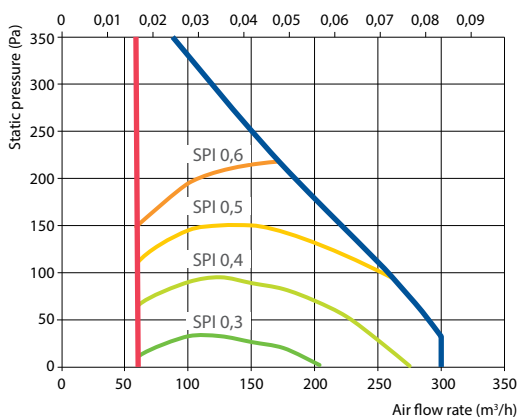
10 m² normally isolated room, distance from casing – 3 m.

Surroundings	33
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Performance

Unit with standard equipment

Air flow rate (m³/s)

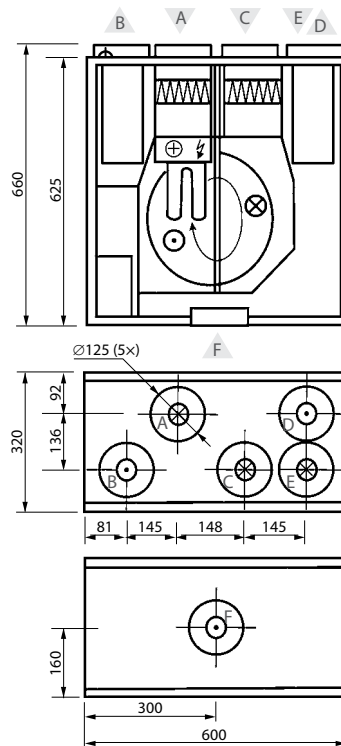


Temperature efficiency

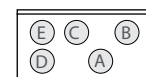
	Winter				
Outside temperature, °C	-23	-15	-10	-5	0
After heat exchanger*, °C	11,6	13,5	14,6	15,8	16,9

* indoor +22°C, 20 % RH

Shown as left (L1)



Shown as right (R1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air
- E additional extraction connection (by-pass – extraction without heat recovery)
- F kitchen hood connection (by-pass – extraction without heat recovery)

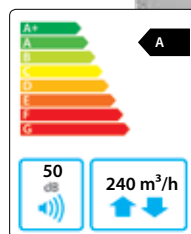
Accessories

Closing damper	AGUJ-M-125+LF230/LM230
Silencer	A/D AGS-125-50-600-M
	B/C AGS-125-50-900-M
Water heater	DH-125
PPU	PPU-HW-3R-15-0,4-W1
2-way valve (water heater)	VVP47.10-0,4

Water cooler	DHCW-125
2-way valve (water cooler)	VVP47.10-1,6
Kitchen hood	KH
Decorative panel	DP
Air distribution box	OSD-200 VE-125
Outdoor grill	LD-125

Domekt R 250 F

Maximal air flow, m ³ /h	240
Panel thickness, mm	50
Unit weight, kg	40
Supply voltage, V	1~230
Maximal operating current, A	HE 6
Thermal efficiency of heat recovery, %	82
Reference flow rate, m ³ /s	0,047
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,53
Filters dimensions BxHxL, mm	278x258x46-M5
Electric power input of the fan drive at reference flow rate, W	43
Electric power input of the fan drive at maximum flow rate, W	90
Electric air heater capacity, kW / Δt, °C	1/16,5
Control panel	C6.1 / C6.2
Maintenance space, mm	300



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	62
Supply outlet	71
Exhaust inlet	62
Exhaust outlet	71
Casing	50

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	39
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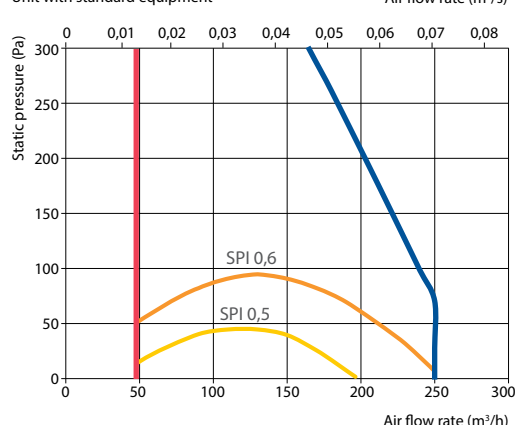
Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	12,0	13,8	14,9	16,0	17,1	22,7	23,8	24,9

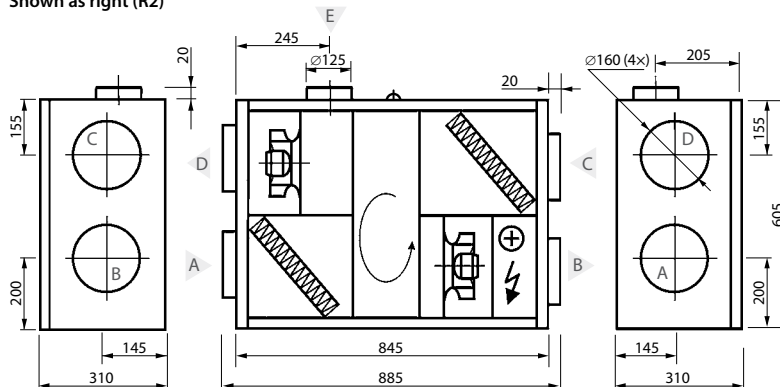
* indoor +22°C, 20 % RH

Performance

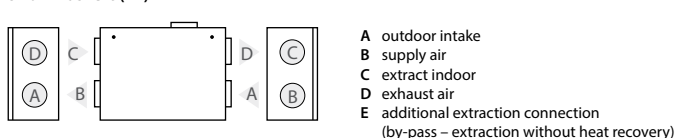
Unit with standard equipment



Shown as right (R2)



Shown as left (L2)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air
- E additional extraction connection (by-pass – extraction without heat recovery)

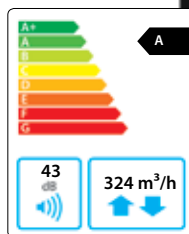
Accessories

Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
Water heater	DH-160

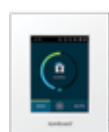
PPU	PPU-HW-3R-15-0,4-W1
2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DHCW-160
2-way valve (water cooler)	VVP47.10-1,6

Domekt R 300 V

Maximal air flow, m ³ /h	324
Panel thickness, mm	30
Unit weight, kg	25
Supply voltage, V	1~230
Maximal operating current, A	HE 3,2
Thermal efficiency of heat recovery, %	84
Reference flow rate, m ³ /s	0,063
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,33
Filters dimensions BxHxL, mm	290x205x46-M5
Electric power input of the fan drive at reference flow rate, W	34
Electric power input of the fan drive at maximum flow rate, W	76
Electric air heater capacity, kW / Δt, °C	0,5/6,1
Control panel	C6.1 / C6.2
Maintenance space, mm	400



The photo is intended for informational purposes only, exact details may vary.



C6.1



C6.2

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	54
Supply outlet	62
Exhaust inlet	54
Exhaust outlet	62
Casing	43

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	32
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Temperature efficiency

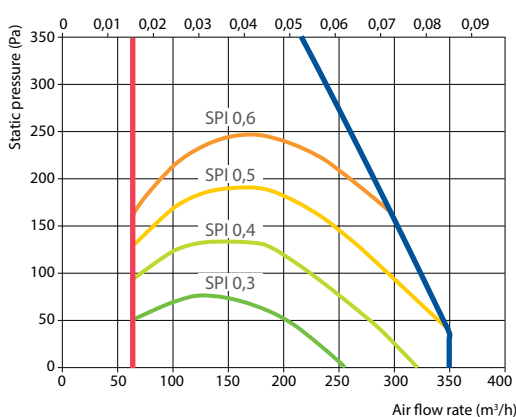
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	13,3	14,9	15,8	16,8	17,8	22,6	23,5	24,5

* indoor +22°C, 20 % RH

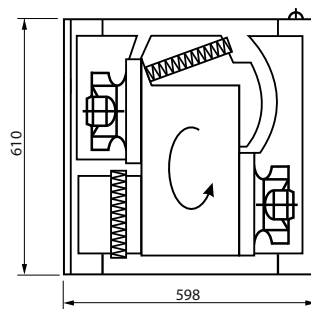
Performance

Unit with standard equipment

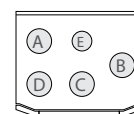
Air flow rate (m³/s)



Shown as left (L1)



Shown as right (R1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air
- E additional extraction connection (by-pass – extraction without heat recovery)

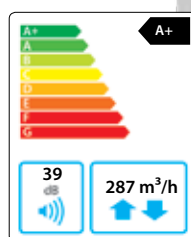
Accessories

Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
Water heater	DH-160
Electric heater	EH-160-0,5

PPU	PPU-HW-3R-15-0,4-W1
2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DHCW-160
2-way valve (water cooler)	VVP47.10-1,6

Domekt R 400 V

Maximal air flow, m ³ /h	287
Panel thickness, mm	25
Unit weight, kg	64
Supply voltage, V	1~230
Maximal operating current, A	HE5,5
Thermal efficiency of heat recovery, %	87
Reference flow rate, m ³ /s	0,056
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,27
Filters dimensions BxHxL, mm	450x210x46-M5
Electric power input of the fan drive at reference flow rate, W	23
Electric power input of the fan drive at maximum flow rate, W	71
Electric air heater capacity, kW / Δt, °C	1 / 13,8
Control panel	C6.1 / C6.2
Maintenance space, mm	450



Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	52
Supply outlet	65
Exhaust inlet	52
Exhaust outlet	65
Casing	39

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	29
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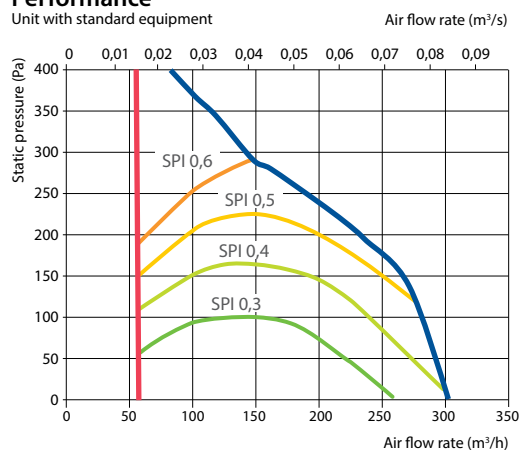
Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	15,2	16,4	17,2	17,9	18,7	22,5	23,2	24,0

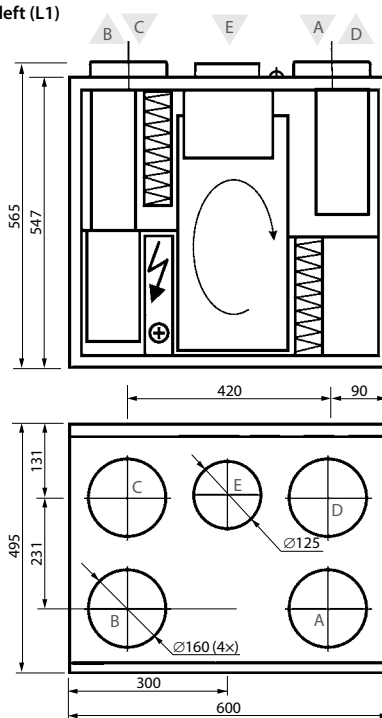
* indoor +22°C, 20 % RH

Performance

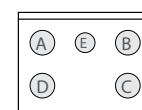
Unit with standard equipment



Shown as left (L1)



Shown as right (R1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air
- E additional extraction connection (by-pass – extraction without heat recovery)

Accessories

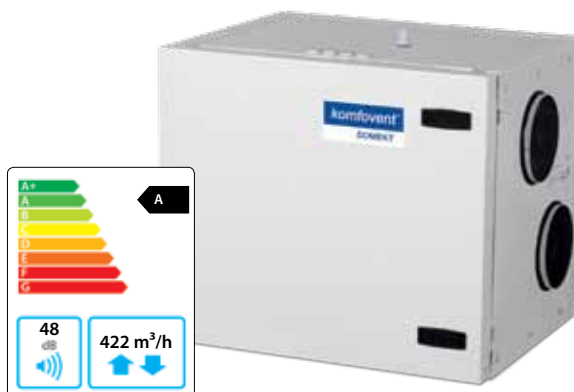
Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
Water heater	DH-160
PPU	PPU-HW-3R-15-0,4-W1

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,4-3 / DHCW-160
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,4-3

The photo is intended for informational purposes only, exact details may vary.

Domekt R 400 H

Maximal air flow, m ³ /h	422
Panel thickness, mm	50
Unit weight, kg	60
Supply voltage, V	1~230
Maximal operating current, A	HE 6,6
Thermal efficiency of heat recovery, %	85
Reference flow rate, m ³ /s	0,082
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,38
Filters dimensions BxHxL, mm	410x200x46-M5
Electric power input of the fan drive at reference flow rate, W	55
Electric power input of the fan drive at maximum flow rate, W	126
Electric air heater capacity, kW / Δt, °C	1/9,5
Control panel	C6.1 / C6.2
Maintenance space, mm	650



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	60
Supply outlet	69
Exhaust inlet	60
Exhaust outlet	69
Casing	48

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

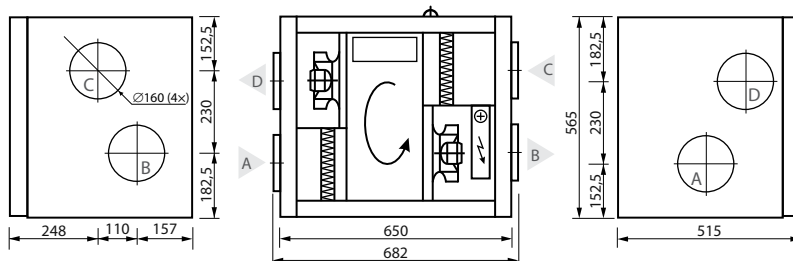
Surroundings	37
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Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	13,6	15,1	16,0	17,0	17,9	22,6	23,5	24,4

* indoor +22°C, 20 % RH

Shown as right (R1)



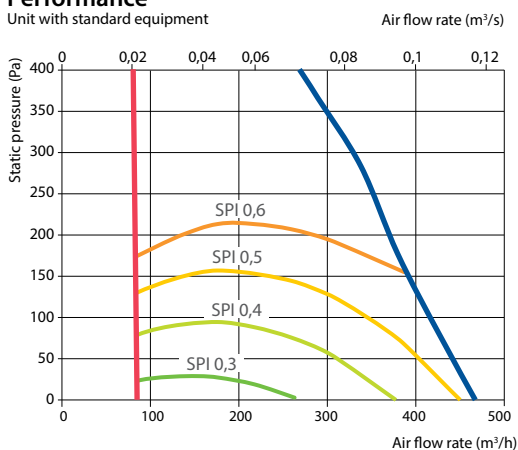
Shown as left (L1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air

Performance

Unit with standard equipment



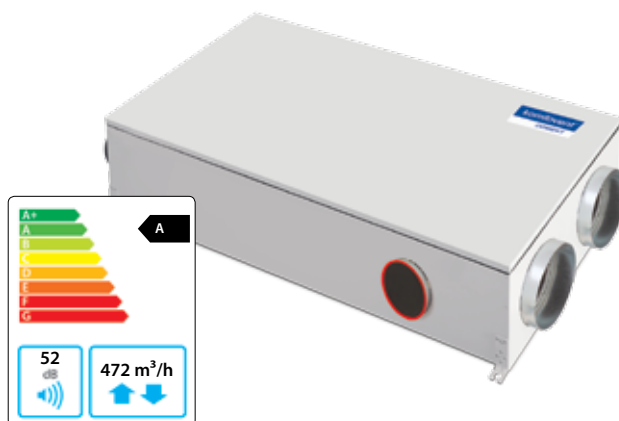
Accessories

Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
Water heater	DH-160
PPU	PPU-HW-3R-15-0,4-W1

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,4-3 / DHCW-160
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,4-3

Domekt R 400 F

Maximal air flow, m ³ /h	472
Panel thickness, mm	50
Unit weight, kg	67
Supply voltage, V	1~230
Maximal operating current, A	HE 7,2
Thermal efficiency of heat recovery, %	82
Reference flow rate, m ³ /s	0,092
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,44
Filters dimensions BxHxL, mm	278x258x46-M5
Electric power input of the fan drive at reference flow rate, W	72
Electric power input of the fan drive at maximum flow rate, W	165
Electric air heater capacity, kW / Δt, °C	1 / 8,4
Control panel	C6.1 / C6.2
Maintenance space, mm	300



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	63
Supply outlet	72
Exhaust inlet	63
Exhaust outlet	72
Casing	52

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

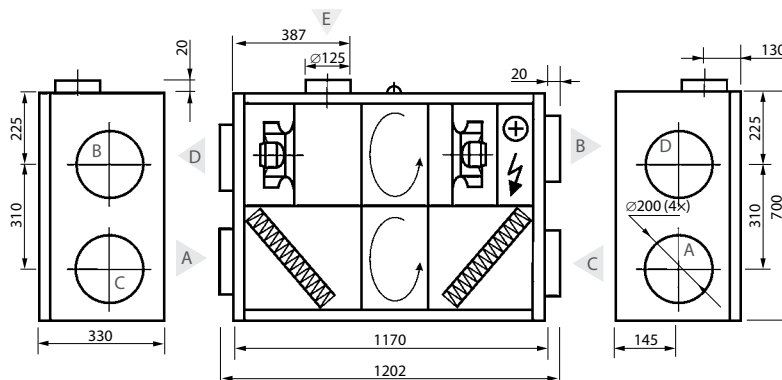
Surroundings	41
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Temperature efficiency

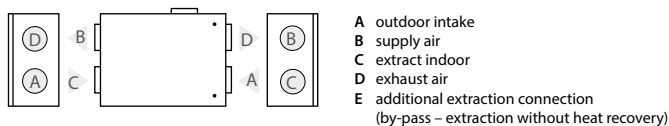
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	11,8	13,6	14,8	15,9	17,0	22,7	23,8	24,9

* indoor +22°C, 20 % RH

Shown as right (R1)

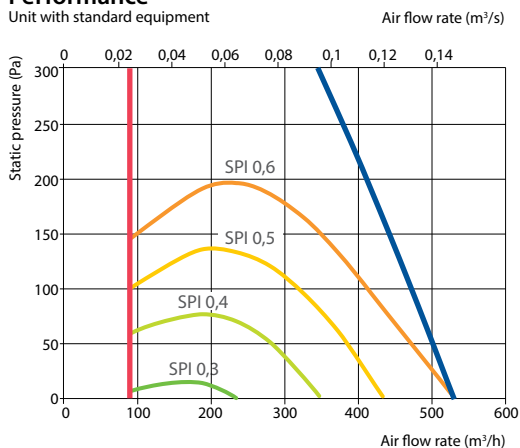


Shown as left (L1)



Performance

Unit with standard equipment



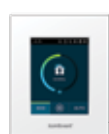
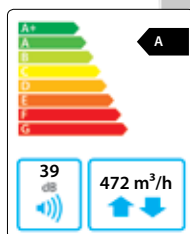
Accessories

Closing damper	AGUJ-M-200+LF230/LM230
Silencer	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,63-W1

2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,4-3 / DHCW-200
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,4-3

Domekt R 450 V

Maximal air flow, m³/h	472
Panel thickness, mm	50
Unit weight, kg	71
Supply voltage, V	1~230
Maximal operating current, A	HE 7,1
Thermal efficiency of heat recovery, %	85
Reference flow rate, m³/s	0,092
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,44
Filters dimensions BxHxL, mm	470x240x46-M5
Electric power input of the fan drive at reference flow rate, W	72
Electric power input of the fan drive at maximum flow rate, W	170
Electric air heater capacity, kW / Δt, °C	1 / 8,4
Control panel	C6.1 / C6.2
Maintenance space, mm	500



C6.1



C6.2

The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	58
Supply outlet	72
Exhaust inlet	58
Exhaust outlet	72
Casing	39

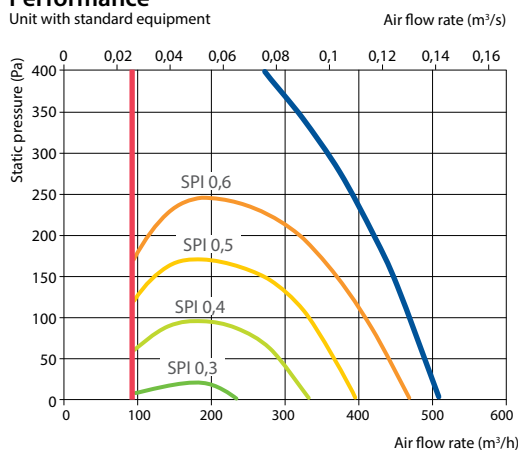
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	29
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Performance

Unit with standard equipment

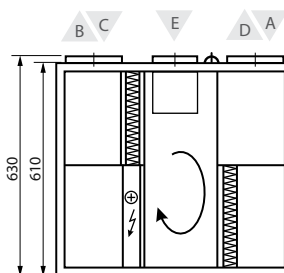


Temperature efficiency

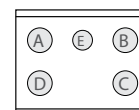
	Winter						Summer		
Outside temperature, °C	-23	-15	-10	-5	0		25	30	35
After heat exchanger*, °C	14,3	15,7	16,5	17,4	18,2		22,5	23,4	24,2

* indoor +22°C, 20 % RH

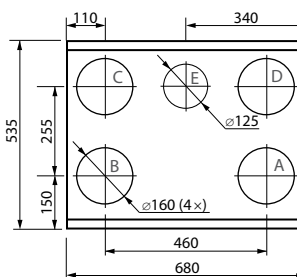
Shown as left (L1)



Shown as right (R1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air
- E additional extraction connection (by-pass – extraction without heat recovery)



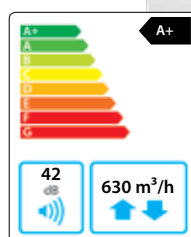
Accessories

Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
Water heater	DH-160
PPU	PPU-HW-3R-15-0,4-W1

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,5-3 / DHCW-160
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,5-3

Domekt R 500 V

Maximal air flow, m ³ /h	630
Panel thickness, mm	50
Unit weight, kg	140
Supply voltage, V	1~230
Maximal operating current, A	HE 7,2
Thermal efficiency of heat recovery, %	85
Reference flow rate, m ³ /s	0,12
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,27
Filters dimensions BxHxL, mm	540x260x46-M5
Electric power input of the fan drive at reference flow rate, W	57
Electric power input of the fan drive at maximum flow rate, W	125
Electric air heater capacity, kW / Δt, °C	1 / 6,3
Control panel	C6.1 / C6.2
Maintenance space, mm	1050



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	54
Supply outlet	62
Exhaust inlet	54
Exhaust outlet	62
Casing	42

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

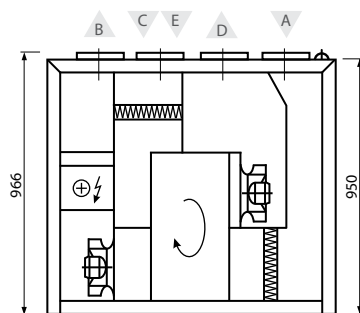
Surroundings	31
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Temperature efficiency

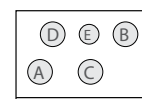
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	13,9	15,4	16,9	18,0	14,7	22,5	23,4	24,2

* indoor +22°C, 20 % RH

Shown as left (L1)



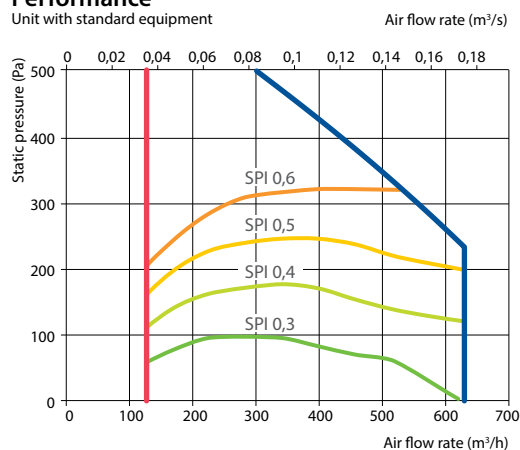
Shown as right (R1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air
- E additional extraction connection (by-pass – extraction without heat recovery)

Performance

Unit with standard equipment



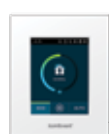
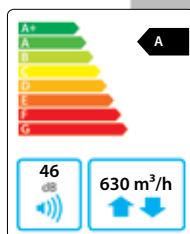
Accessories

Closing damper	AGUJ-M-250+LF230/LM230
Silencer	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M
Water heater	DH-250
PPU	PPU-HW-3R-15-0,63-W1

2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,5-3 / DHCW-250
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,5-3

Domekt R 500 H

Maximal air flow, m³/h	630
Panel thickness, mm	50
Unit weight, kg	90
Supply voltage, V	1~230
Maximal operating current, A	HE 7,2
Thermal efficiency of heat recovery, %	85
Reference flow rate, m³/s	0,122
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,31
Filters dimensions BxHxL, mm	540x260x46-M5
Electric power input of the fan drive at reference flow rate, W	67
Electric power input of the fan drive at maximum flow rate, W	155
Electric air heater capacity, kW / Δt, °C	1 / 6,3
Control panel	C6.1 / C6.2
Maintenance space, mm	950



C6.1



C6.2

The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	58
Supply outlet	67
Exhaust inlet	58
Exhaust outlet	67
Casing	46

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

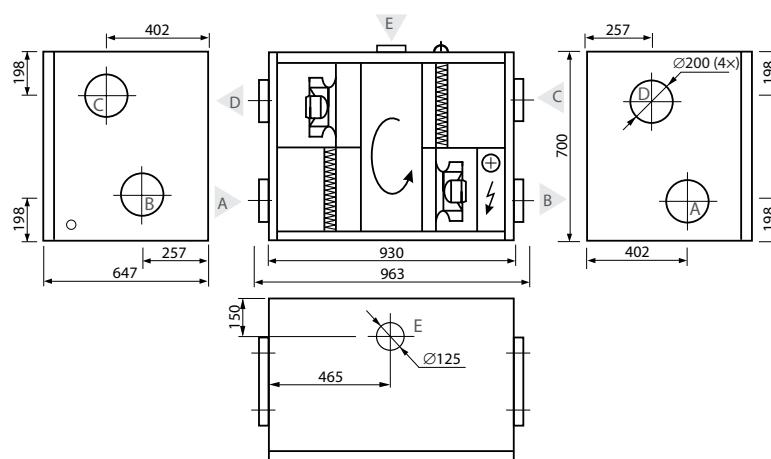
Surroundings	35
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Temperature efficiency

	Winter						Summer		
Outside temperature, °C	-23	-15	-10	-5	0		25	30	35
After heat exchanger*, °C	14,3	15,6	16,5	17,4	18,2		22,5	23,4	24,2

* indoor +22°C, 20 % RH

Shown as right (R1)



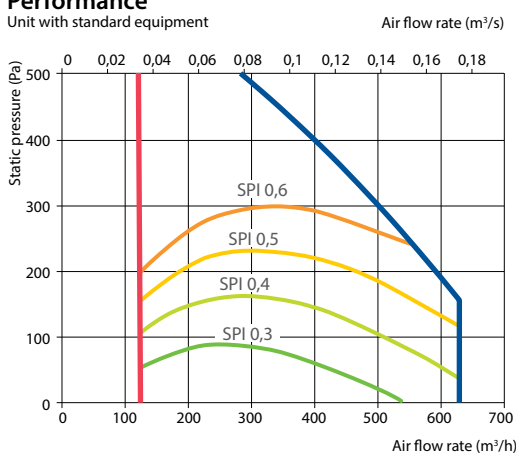
Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air
E additional extraction connection
(by-pass – extraction without heat recovery)

Performance

Unit with standard equipment



Accessories

Closing damper	AGUJ-M-200+LF230/LM230
Silencer	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,63-W1

2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,5-3 / DHCW-200
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,5-3

Domekt R 600 U

Maximal air flow, m ³ /h	630
Panel thickness, mm	50
Unit weight, kg	110
Supply voltage, V	1~230
Maximal operating current, A	HE 7,6
Thermal efficiency of heat recovery, %	85
Reference flow rate, m ³ /s	0,122
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,28
Filters dimensions BxHxL, mm	545x300x46-M5
Electric power input of the fan drive at reference flow rate, W	57
Electric power input of the fan drive at maximum flow rate, W	145
Electric air heater capacity, kW / Δt, °C	1 / 6,3
Control panel	C5.1
Maintenance space, mm	600

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	52
Supply outlet	65
Exhaust inlet	56
Exhaust outlet	60
Casing	44

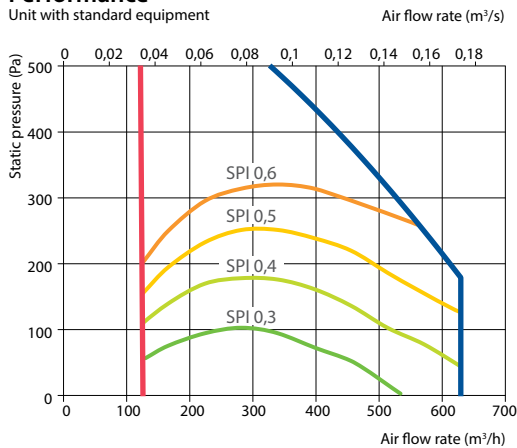
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	33
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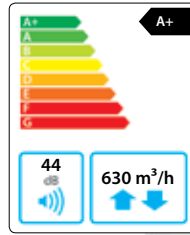
Performance

Unit with standard equipment



Accessories

Closing damper	AGUJ-M-200+LF24/LM24
Silencer	A/D AGS-200-50-600-M B/C AGS-200-50-900-M
PPU	PPU-HW-3R-15-0,4-W1
Air heater-cooler	DCW-0,7-5; DHCW-200
2-way valve	VVP47.15-2,5+SSP61
DX cooler	DCF-0,7-5
Cooling unit	MOU-18HFN6+KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

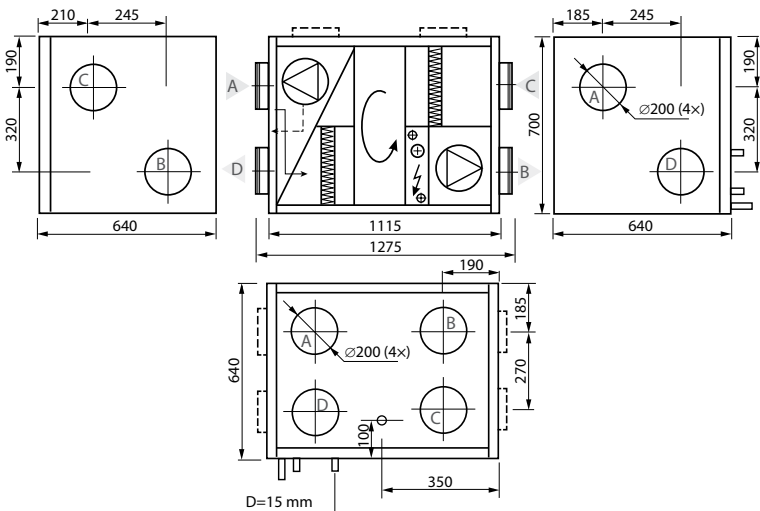
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	14,3	15,6	16,5	17,4	18,2	22,5	23,4	24,2

* indoor +22°C, 20 % RH

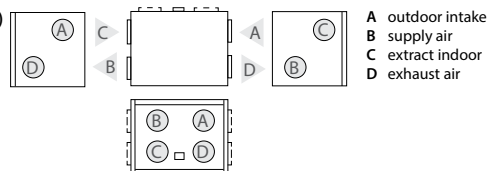
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	1,6	1,6	1,6	1,6	2,3
Flow rate, dm ³ /h	72	72	71	71	391
Pressure drop, kPa	1,2	1,2	1,3	1,3	33
Temperature in/out, °C	14,3/22				23,4/18
Maximal capacity, kW	6,2	5	3,8	2,7	2,3
Connection, "	½				

Shown as right (R1)



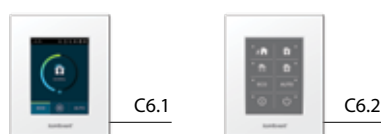
Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Domekt R 600 H

Maximal air flow, m ³ /h	584
Panel thickness, mm	50
Unit weight, kg	90
Supply voltage, V	1~230
Maximal operating current, A	HE 7,1
Thermal efficiency of heat recovery, %	84
Reference flow rate, m ³ /s	0,114
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,38
Filters dimensions BxHxL, mm	475x235x46-M5
Electric power input of the fan drive at reference flow rate, W	77
Electric power input of the fan drive at maximum flow rate, W	179
Electric air heater capacity, kW / Δt, °C	1 / 6,8
Control panel	C6.1 / C6.2
Maintenance space, mm	500



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	58
Supply outlet	67
Exhaust inlet	58
Exhaust outlet	67
Casing	47

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

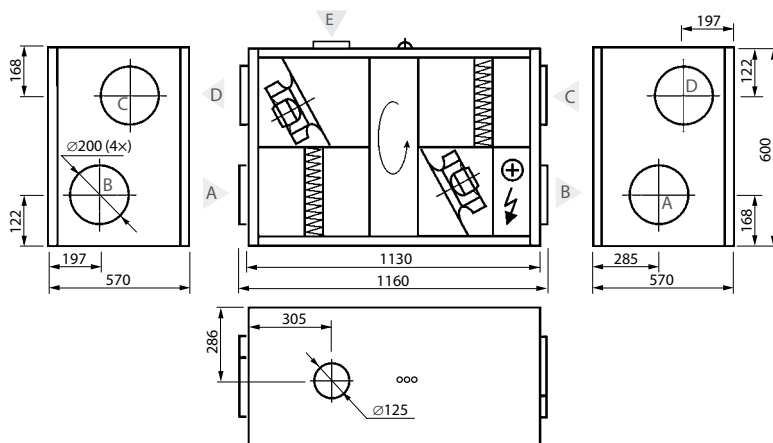
Surroundings	36
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Temperature efficiency

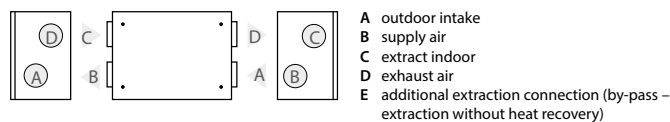
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	13,3	14,9	15,8	16,8	17,8	22,6	23,5	24,5

* indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)

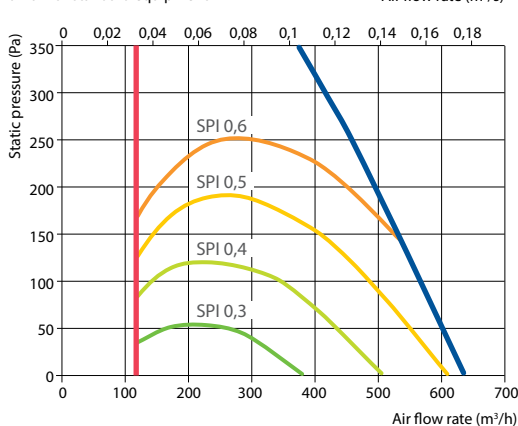


A outdoor intake
B supply air
C extract indoor
D exhaust air
E additional extraction connection (by-pass – extraction without heat recovery)

Performance

Unit with standard equipment

Air flow rate (m³/s)



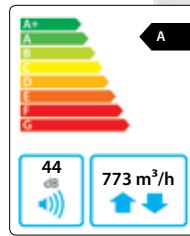
Accessories

Closing damper	AGUJ-M-200+LF230/LM230
Silencer	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,63-W1

2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,7-5 / DHCW-200
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,7-5
Cooling unit	MOU-18HFN6-KA8243

Domekt R 700 V

Maximal air flow, m ³ /h	773
Panel thickness, mm	50
Unit weight, kg	140
Supply voltage, V	1~230
Maximal operating current, A	HE 11,6
Thermal efficiency of heat recovery, %	84
Reference flow rate, m ³ /s	0,15
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,31
Filters dimensions BxHxL, mm	540x260x46-M5
Electric power input of the fan drive at reference flow rate, W	83
Electric power input of the fan drive at maximum flow rate, W	180
Electric air heater capacity, kW / Δt, °C	2 / 10,3
Control panel	C6.1 / C6.2
Maintenance space, mm	1050



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	55
Supply outlet	64
Exhaust inlet	55
Exhaust outlet	64
Casing	44

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

Surroundings	33
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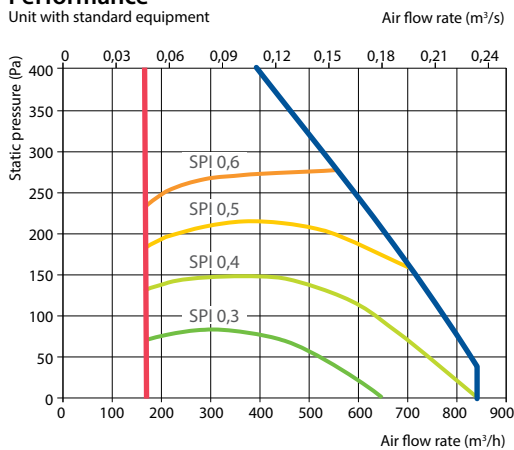
Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	13,3	14,9	15,8	16,8	17,8	22,6	23,5	24,5

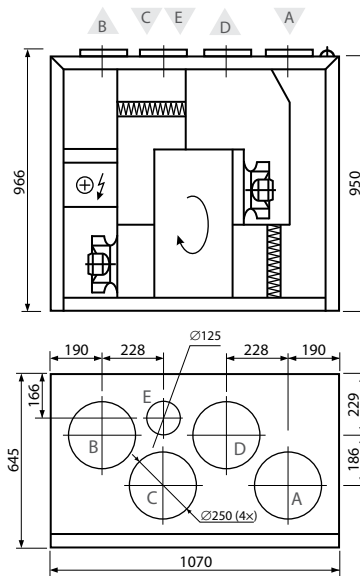
* indoor +22°C, 20 % RH

Performance

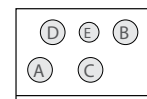
Unit with standard equipment



Shown as left (L1)



Shown as right (R1)



A outdoor intake
B supply air
C extract indoor
D exhaust air
E additional extraction connection (by-pass – extraction without heat recovery)

Accessories

Closing damper	AGUJ-M-250+LF230/LM230
Silencer	A/D AGS-250-50-600-M B/C AGS-250-50-900-M
Water heater	DH-250
PPU	PPU-HW-3R-15-0,63-W1

2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,7-5 / DHCW-250
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,7-5
Cooling unit	MOU-18HFN6-KA8243

Domekt R 700 H

Maximal air flow, m ³ /h	719
Panel thickness, mm	50
Unit weight, kg	90
Supply voltage, V	1~230
Maximal operating current, A	HE 11,6
Thermal efficiency of heat recovery, %	85
Reference flow rate, m ³ /s	0,14
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,34
Filters dimensions BxHxL, mm	540x260x46-M5
Electric power input of the fan drive at reference flow rate, W	85
Electric power input of the fan drive at maximum flow rate, W	180
Electric air heater capacity, kW / Δt, °C	2 / 11
Control panel	C6.1 / C6.2
Maintenance space, mm	950

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	59
Supply outlet	68
Exhaust inlet	59
Exhaust outlet	68
Casing	48

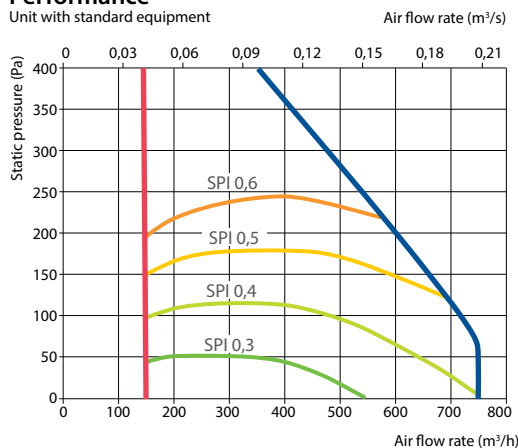
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	36
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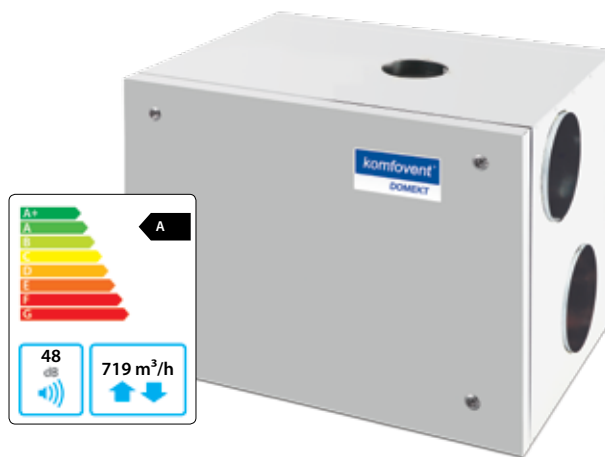
Performance

Unit with standard equipment



Accessories

Closing damper	AGUJ-M-250+LF230/LM230
Silencer	A/D AGS-250-50-600-M B/C AGS-250-50-900-M
Water heater	DH-250
PPU	PPU-HW-3R-15-0,63-W1



C6.1



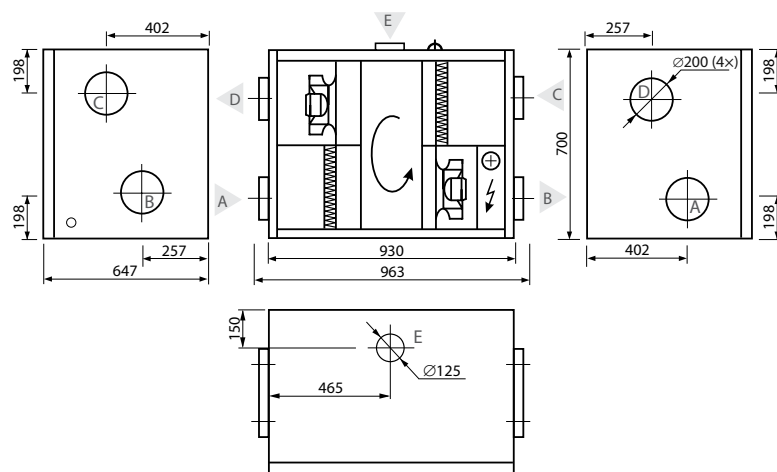
C6.2

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	13,7	15,2	16,1	17,0	17,9	22,6	23,5	24,4

* indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)



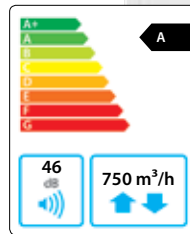
- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air
- E additional extraction connection (by-pass – extraction without heat recovery)

2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,7-5 / DHCW-250
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,7-5
Cooling unit	MOU-18HFN6-KA8243

The photo is intended for informational purposes only, exact details may vary.

Domekt R 700 F

Maximal air flow, m ³ /h	750
Panel thickness, mm	50
Unit weight, kg	80
Supply voltage, V	1~230
Maximal operating current, A	HE 11,6
Thermal efficiency of heat recovery, %	82
Reference flow rate, m ³ /s	0,146
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,27
Filters dimensions B×H×L, mm	370×360×46-M5
Electric power input of the fan drive at reference flow rate, W	70
Electric power input of the fan drive at maximum flow rate, W	166
Electric air heater capacity, kW / Δt, °C	2 / 10,6
Control panel	C6.1 / C6.2
Maintenance space, mm	400



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	53
Supply outlet	65
Exhaust inlet	53
Exhaust outlet	66
Casing	46

A-weighted sound pressure level L_{PA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

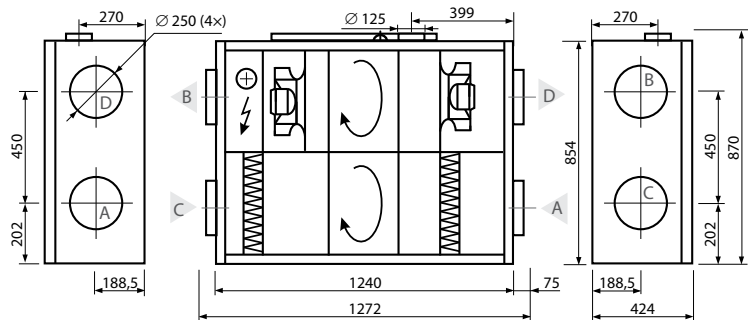
Surroundings	35
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Temperature efficiency

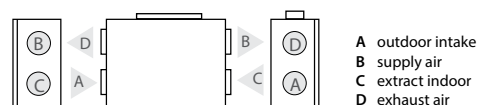
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	12,6	14,0	16,0	17,4	13,4	22,6	23,7	24,8

* indoor +22°C, 20 % RH

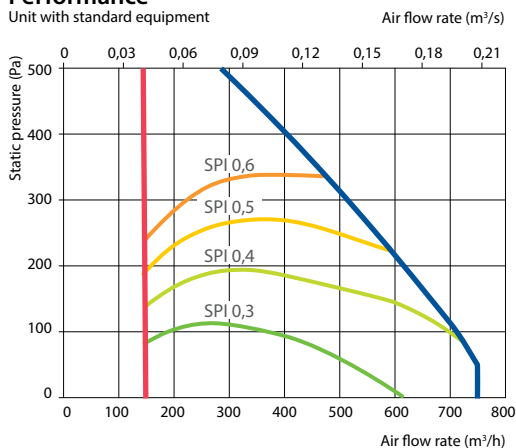
Shown as left (L1)



Shown as right (R1)



Performance



Accessories

Closing damper	AGUJ-M-250+LF230/LM230
Silencer	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M
Water heater	DH-250
PPU	PPU-HW-3R-15-0,63-W1

2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,7-5 / DHCW-250
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,7-5
Cooling unit	MOU-18HFN6-KA8243

A outdoor intake
B supply air
C extract indoor
D exhaust air

Domekt R 900 U/H/V

Maximal air flow, m³/h	993
Panel thickness, mm	50
Unit weight, kg	195
Supply voltage, V	3~400
Maximal operating current, A	HE 7,6
Thermal efficiency of heat recovery, %	88
Reference flow rate, m³/s	0,193
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,26
Filters dimensions BxHxL, mm	800x400x46-M5
Electric power input of the fan drive at reference flow rate, W	85
Electric power input of the fan drive at maximum flow rate, W	182
Electric air heater capacity, kW / Δt, °C	3 / 12,0
Control panel	C5.1
Maintenance space, mm	800

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	53
Supply outlet	66
Exhaust inlet	57
Exhaust outlet	62
Casing	44

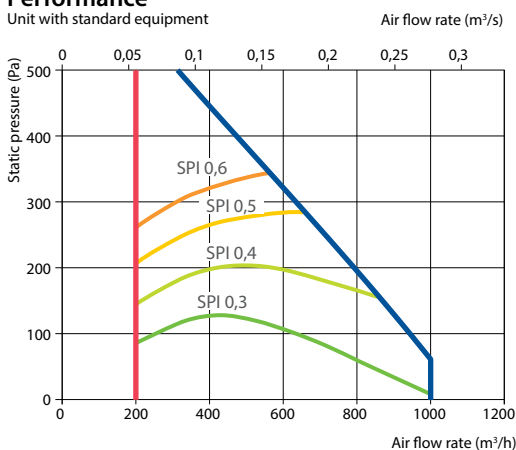
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	33
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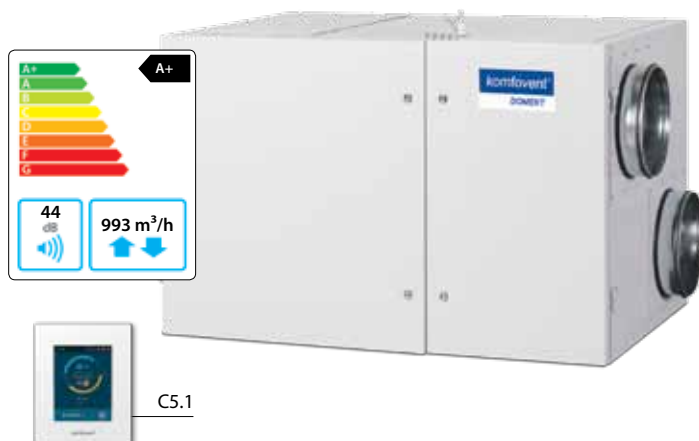
Performance

Unit with standard equipment



Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M B/C AGS-315-100-1200-M
PPU	PPU-HW-3R-15-0,63-W1
Air heater-cooler	DCW-0,9-6
2-way valve	VVP47.15-2,5+SSP61
DX cooler	DCF-0,9-6
Cooling unit	MOU-18HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

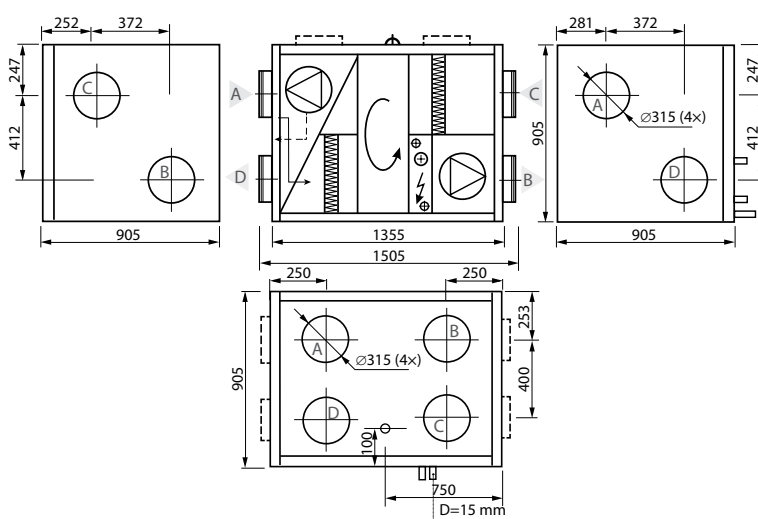
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	14,6	15,9	16,7	17,5	18,4	22,4	23,3	23,9

* indoor +22°C, 20 % RH

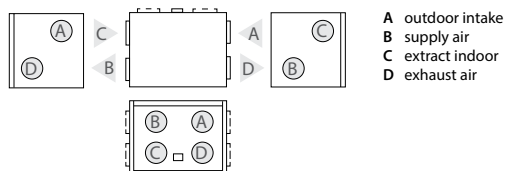
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	2,4	2,4	2,4	2,4	3,4
Flow rate, dm³/h	104	103	103	102	583
Pressure drop, kPa	1	1	1	1	6,0
Temperature in/out, °C	14,6/22				23,3/18
Maximal capacity, kW	21,5	15,8	9,9	6,7	6,5
Connection, "	½				

Shown as right (R1)



Shown as left (L1)



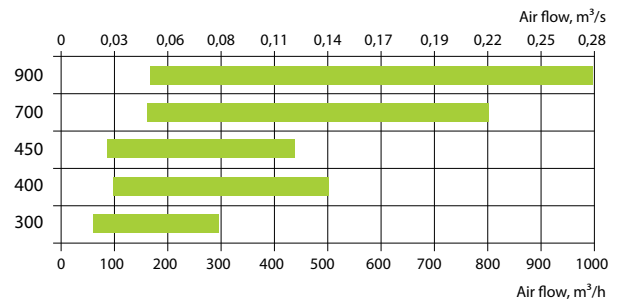
A outdoor intake
B supply air
C extract indoor
D exhaust air

Domekt P

Air handling units with a plate heat exchanger.



Standard sizes of Domekt P units



Advantages of Domekt P units

Heat energy saving

In the process of ventilation the heat of the exhaust air is recovered to the supplied air.

Totally separated airflows

The supply and exhaust airflows are separated, thus making possible utilization of the heat of the extracted foul air.

Long term efficient operation

The absence of movable parts ensures effective heat exchange and long run.

Low noise level

Domekt P air handling units are equipped with silently operating fans and sound insulation, which ensures low noise level.

Standard plate heat exchanger

Design:

- A packet of thin aluminum plates with spacing left between them.
- Exhaust warm air flows through every second channel between the plates warming up fresh air flowing through the remaining channels.
- To prevent the plates from bending under the impact of differential pressure of the air flows, strengthening gaskets are inserted between the plates.
- Rough surface of the aluminum plates generates the turbulent air stream thus intensifying heat exchange.

Anti-frosting protection

Decreasing of the outdoor air temperature below -10 °C (it is an approximate value depending on the relative humidity of the air flows and temperature) the exhaust air enhances the danger of the heat exchanger freezing. For the conditions when outdoor temperatures may be lower than -4 °C, duct mounted preheater is recommended.

Defrosting of the heat exchanger is controlled automatically in response to sensor signals.

Temperature sensors are supplied with the unit.

Note: The water trap must be installed for condensate drain!

Heat exchanger is
EUROVENT certified



Domekt P range

Unit size	Supply/ exhaust air filter class		Fan motor technology	Heater			Cooler		Inspection side		Bypass		Control system	
	M5	F7		HE	HW	HCW	CW	CDX	R1	L1	Inner	External	C3 panel C3.1	C4 panel C4.1
Domekt PP 300 V	●	○	●	●	△	△			○	○	●			●
Domekt P 400 V	●	○	●	●	△	△	△	△	○	○		●	●	
Domekt P 400 H	●	○	●	●	△	△	△	△	○	○		●	●	
Domekt PP 450 V	●	○	●	●	△	△			○	○	●			●
Domekt P 700 V	●	○	●	●	△	△	△	△	○	○		●	●	
Domekt P 700 H	●	○	●	●	△	△	△	△	○	○		●	●	
Domekt P 900 V	●	○	●	●	△	△	△	△	○	○		●	●	
Domekt P 900 H	●	○	●	●	△	△	△	△	○	○			●	

● standard equipment
○ possible choice
△ ordered separately

Duct connection

H – horizontal.
V – vertical.

Heater

HE – electric heater.

HW – water duct heater is installed on the duct and must be ordered separately. Heaters are mounted on the outside of the unit in any user-convenient place. There is heater control possibility in automatic control system.

HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

Cooler

CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.

CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

Inspection side

See p. 132.

Bypass

Inner bypass is controlled by smart control system.

External bypass (summer cassette) is inserted instead of plate heat exchanger in summertime.

Control system

C3 Control features:

- Unit mode selection: On / Off / Auto;
- Setting intensity level (1, 2, 3);
- Adjusting of intensity levels every 1%;
- Exhaust air flow correction;
- Constant air flow control and indication (CAV);
- Weekly schedule programming;
- Setting temperature from the panel 15–30 °C;
- Temperature control selection: Supply / Room / Auto;
- Temperature setpoint sliding +/- 9 °C for time period;
- Season setting: Summer / Winter / Auto;
- Correction of ventilation intensity in winter time;
- Remote control via external contact;
- Remote unit failure indication;
- Choosing of panel language;
- Errors indication and registration log (error log with 50 events);
- Settings menu blocking with PIN;
- Air quality control;
- Summer night cooling;
- VAV control;
- OVR function;
- Unit PC control*.

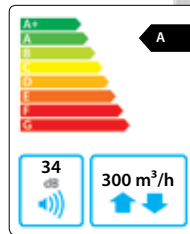
C4 Control features:

- Unit mode selection: On / Off / Auto;
- Setting intensity level (1, 2, 3);
- Weekly schedule programming;
- Setting temperature from the panel 15–30 °C;
- Temperature setpoint sliding +/- 9 °C for time period;
- Summer / winter selection;
- Adjusting of intensity levels every 1% from the panel;
- OVR functions activation via external contact;
- OVR functions activation in the panel for adjusted time period (1...90 min.);
- Choosing of panel language (1 of 15);
- Errors indication and registration log (error log with 50 events);
- Settings menu blocking with PIN;
- Application software for smartphones based on "Android"

* required PING2 module.

Domekt PP 300 V

Maximal air flow, m ³ /h	300
Panel thickness, mm	25
Unit weight, kg	42
Supply voltage, V	1~230
Maximal operating current, A	HE 5,5
Thermal efficiency of heat recovery, %	76
Reference flow rate, m ³ /s	0,058
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,23
Filters dimensions BxHxL, mm	300x200x46-M5
Electric power input of the fan drive at reference flow rate, W	23
Electric power input of the fan drive at maximum flow rate, W	67
Electric air heater capacity, kW / Δt, °C	1 / 13,2
Control panel	C4.1
Maintenance space, mm	300



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	45
Supply outlet	65
Exhaust inlet	45
Exhaust outlet	65
Casing	34

A-weighted sound pressure level L_{PA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	24
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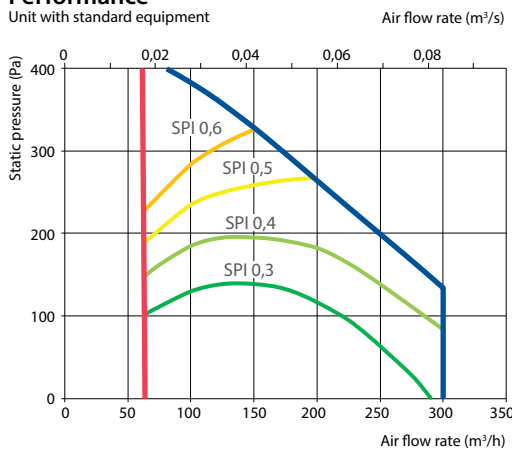
Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	11,9	12	12,7	14,2	15,6	22,9	24,3	25,7

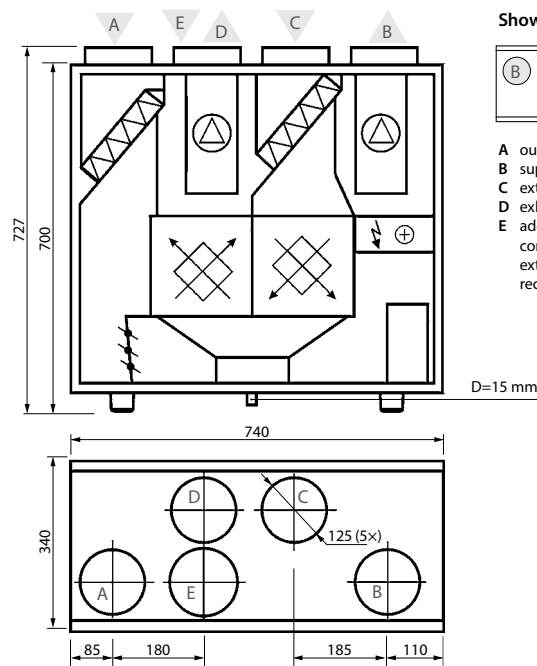
* indoor +22°C, 20 % RH

Performance

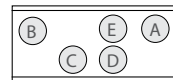
Unit with standard equipment



Shown as right (R1)



Shown as left (L1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air
- E additional extraction connection (by-pass – extraction without heat recovery)

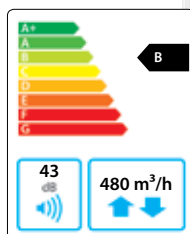
Accessories

Closing damper	AGUJ-M-125+LF230/LM230
Silencer	A/D AGS-125-50-600-M
	B/C AGS-125-50-900-M
Water heater	DH-125

PPU	PPU-HW-3R-15-0,4-W1
2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DHCW-125
2-way valve (water cooler)	VVP47.10-1,6

Domekt P 400 V

Maximal air flow, m³/h	480
Panel thickness, mm	45
Unit weight, kg	62
Supply voltage, V	1~230
Maximal operating current, A	HE 10,8
Thermal efficiency of heat recovery, %	56
Reference flow rate, m³/s	0,093
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,21
Filters dimensions BxHxL, mm	300x195x46-M5
Electric power input of the fan drive at reference flow rate, W	33
Electric power input of the fan drive at maximum flow rate, W	93
Electric air heater capacity, kW / Δt, °C	2 / 16,5
Control panel	C3.1
Maintenance space, mm	900



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	50
Supply outlet	63
Exhaust inlet	50
Exhaust outlet	64
Casing	43

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	34
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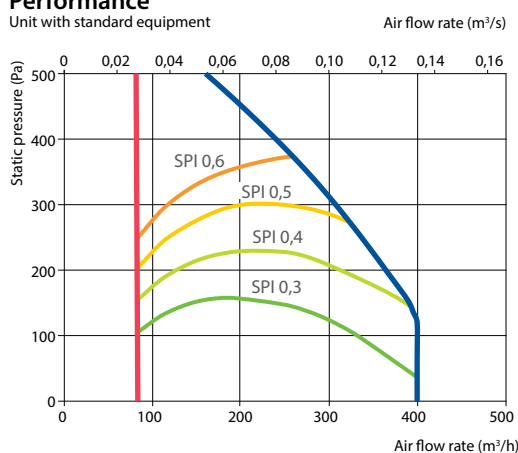
Temperature efficiency

	Winter						Summer		
Outside temperature, °C	-23	-15	-10	-5	0		25	30	35
After heat exchanger*, °C	2,4	5,4	7,5	9,7	12		23,4	25,6	27,9

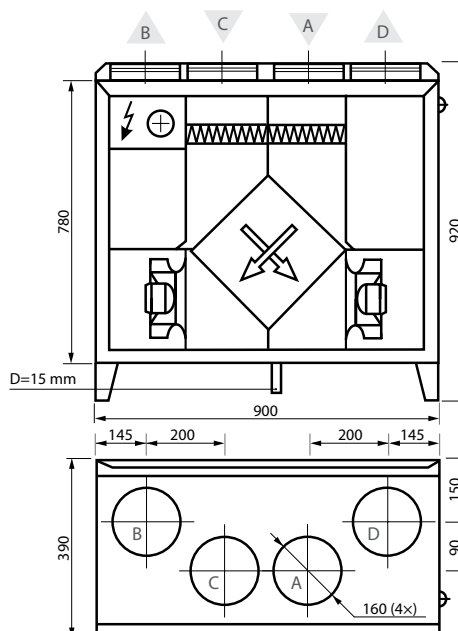
* indoor +22°C, 20 % RH

Performance

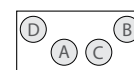
Unit with standard equipment



Shown as left (L1)



Shown as right (R1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

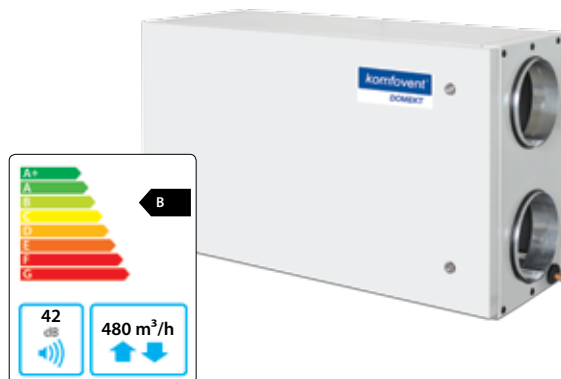
Accessories

Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M B/C AGS-160-50-900-M
Water heater	DH-160
PPU	PPU-HW-3R-15-0,4-W1

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,4-3 / DHCW-160
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,4-3

Domekt P 400 H

Maximal air flow, m ³ /h	480
Panel thickness, mm	45
Unit weight, kg	55
Supply voltage, V	1~230
Maximal operating current, A	HE 10,8
Thermal efficiency of heat recovery, %	56
Reference flow rate, m ³ /s	0,093
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,21
Filters dimensions BxHxL, mm	300x195x46-M5
Electric power input of the fan drive at reference flow rate, W	33
Electric power input of the fan drive at maximum flow rate, W	93
Electric air heater capacity, kW / Δt, °C	2 / 16,5
Control panel	C3.1
Maintenance space, mm	1000



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	50
Supply outlet	61
Exhaust inlet	50
Exhaust outlet	61
Casing	42

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

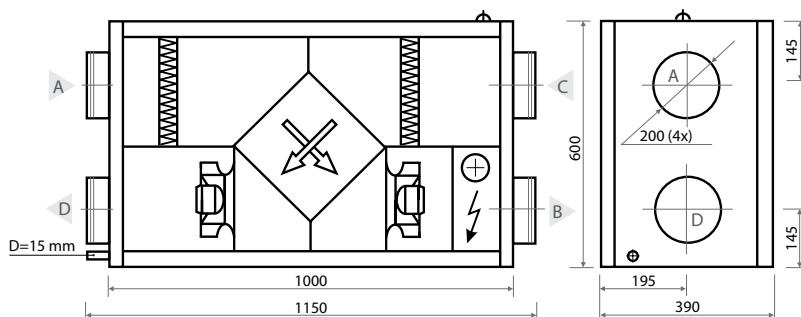
Surroundings	32
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Temperature efficiency

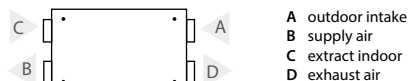
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	2,4	5,4	7,5	9,7	12	23,4	25,6	27,9

* indoor +22°C, 20 % RH

Shown as right (R1)



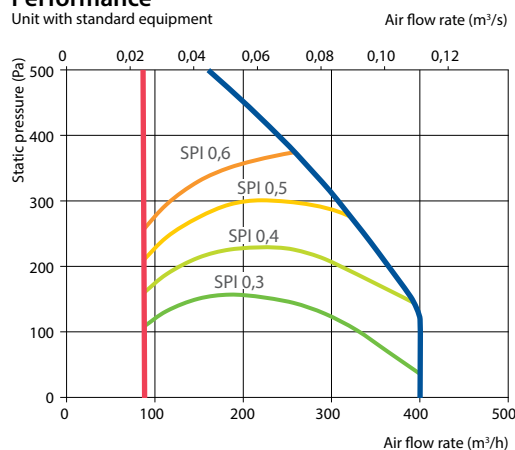
Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Performance

Unit with standard equipment



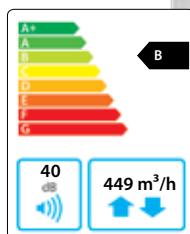
Accessories

Closing damper	AGUJ-M-200+LF230/LM230
Silencer	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,4-W1

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,4-3 / DHCW-200
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,4-3

Domekt PP 450 V

Maximal air flow, m³/h	449
Panel thickness, mm	25
Unit weight, kg	42
Supply voltage, V	1~230
Maximal operating current, A	HE 6,7
Thermal efficiency of heat recovery, %	71
Reference flow rate, m³/s	0,087
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,38
Filters dimensions BxHxL, mm	300x200x46-M5
Electric power input of the fan drive at reference flow rate, W	60
Electric power input of the fan drive at maximum flow rate, W	167
Electric air heater capacity, kW / Δt, °C	1 / 8,8
Control panel	C4.1
Maintenance space, mm	300



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	51
Supply outlet	74
Exhaust inlet	51
Exhaust outlet	74
Casing	40

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	29
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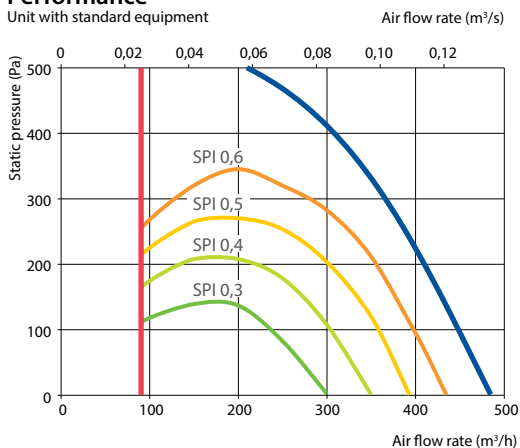
Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	8,1	9,5	11,1	12,8	14,5	23	24,7	26,3

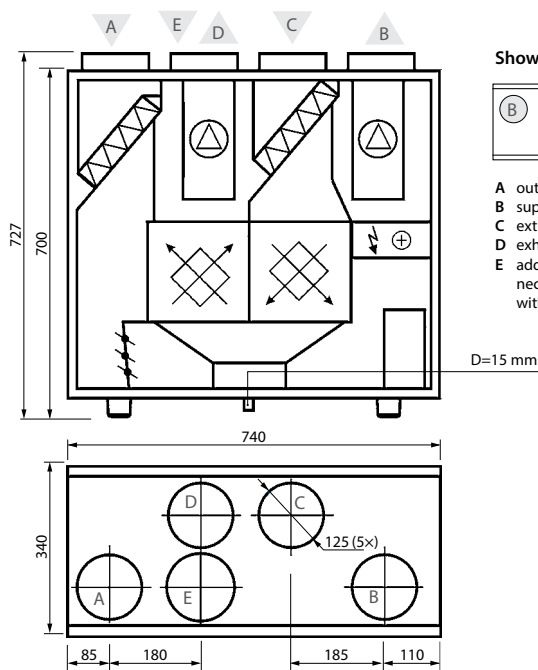
* indoor +22°C, 20 % RH

Performance

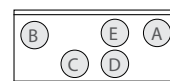
Unit with standard equipment



Shown as right (R1)



Shown as left (L1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air
- E additional extraction connection (by-pass – extraction without heat recovery)

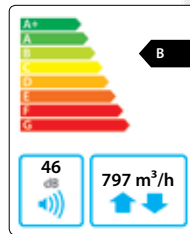
Accessories

Closing damper	AGUJ-M-125+LF230/LM230
Silencer	A/D AGS-125-50-600-M
	B/C AGS-125-50-900-M
Water heater	DH-125
PPU	PPU-HW-3R-15-0,4-W1

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,4-3 / DHCW-125
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,4-3

Domekt P 700 V

Maximal air flow, m ³ /h	797
Panel thickness, mm	45
Unit weight, kg	85
Supply voltage, V	1~230
Maximal operating current, A	HE 14,1
Thermal efficiency of heat recovery, %	55
Reference flow rate, m ³ /s	0,155
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,25
Filters dimensions BxHxL, mm	400x235x46-M5
Electric power input of the fan drive at reference flow rate, W	69
Electric power input of the fan drive at maximum flow rate, W	181
Electric air heater capacity, kW / Δt, °C	2,5 / 12,5
Control panel	C3.1
Maintenance space, mm	400



C3.1



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	52
Supply outlet	65
Exhaust inlet	52
Exhaust outlet	65
Casing	46

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	35
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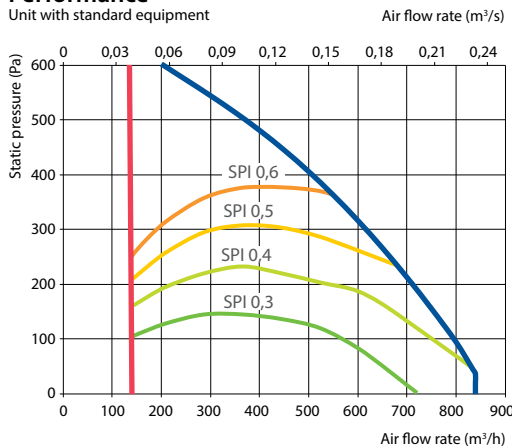
Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	1,9	5,1	7,2	9,5	11,8	23,4	25,7	28

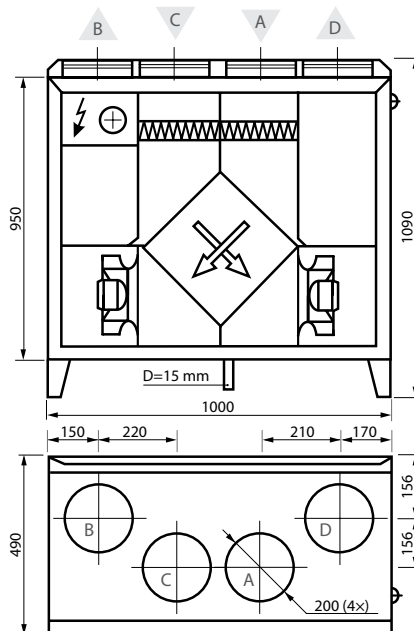
* indoor +22°C, 20 % RH

Performance

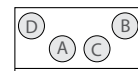
Unit with standard equipment



Shown as left (L1)



Shown as right (R1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

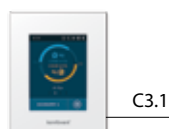
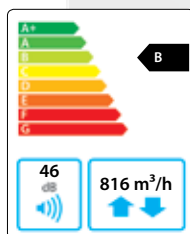
Accessories

Closing damper	AGUJ-M-200+LF230/LM230
Silencer	A/D AGS-200-50-600-M B/C AGS-200-50-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,4-W1

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,7-5 / DHCW-200
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,7-5
Cooling unit	MOU-18HFN6-KA8243

Domekt P 700 H

Maximal air flow, m³/h	816
Panel thickness, mm	45
Unit weight, kg	75
Supply voltage, V	1~230
Maximal operating current, A	HE 14,1
Thermal efficiency of heat recovery, %	55
Reference flow rate, m³/s	0,159
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,26
Filters dimensions BxHxL, mm	400x235x46-M5
Electric power input of the fan drive at reference flow rate, W	75
Electric power input of the fan drive at maximum flow rate, W	181
Electric air heater capacity, kW / Δt, °C	2,5 / 12,2
Control panel	C3.1
Maintenance space, mm	400



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	52
Supply outlet	66
Exhaust inlet	52
Exhaust outlet	66
Casing	46

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	35
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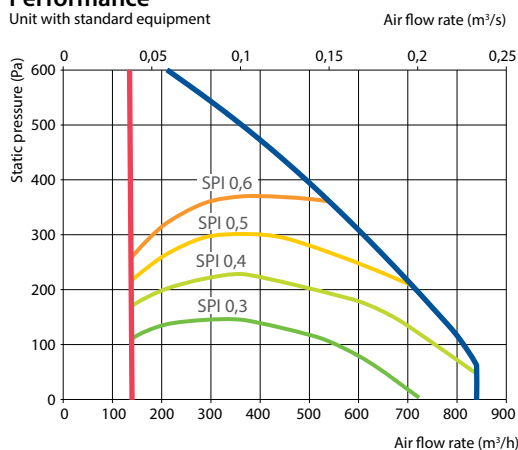
Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	1,9	5,0	7,1	9,4	11,8	23,4	25,7	28

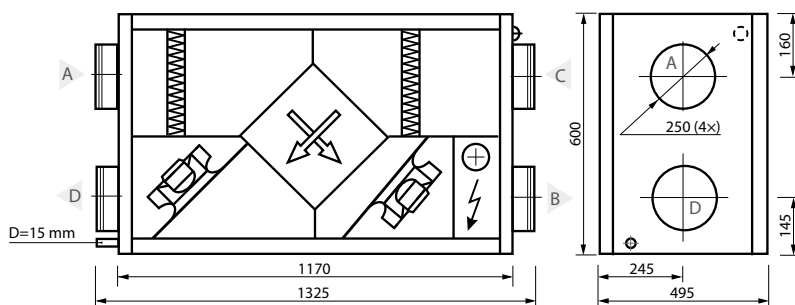
* indoor +22°C, 20 % RH

Performance

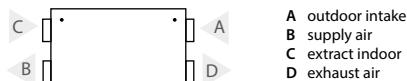
Unit with standard equipment



Shown as right (R1)



Shown as left (L1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air

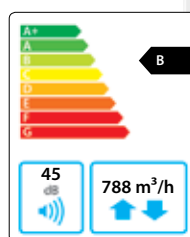
Accessories

Closing damper	AGUJ-M-250+LF230/LM230
Silencer	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M
Water heater	DH-250
PPU	PPU-HW-3R-15-0,63-W1

2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,7-5 / DHCW-250
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,7-5
Cooling unit	MOU-18HFN6-KA8243

Domekt P 900 V

Maximal air flow, m ³ /h	788
Panel thickness, mm	45
Unit weight, kg	90
Supply voltage, V	HE 3~400
Maximal operating current, A	HE 9,8
Thermal efficiency of heat recovery, %	55
Reference flow rate, m ³ /s	0,153
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,26
Filters dimensions BxHxL, mm	400x235x46-M5
Electric power input of the fan drive at reference flow rate, W	71
Electric power input of the fan drive at maximum flow rate, W	181
Electric air heater capacity, kW / Δt, °C	4,5 / 22,7
Control panel	C3.1
Maintenance space, mm	400



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	51
Supply outlet	64
Exhaust inlet	51
Exhaust outlet	65
Casing	45

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	34
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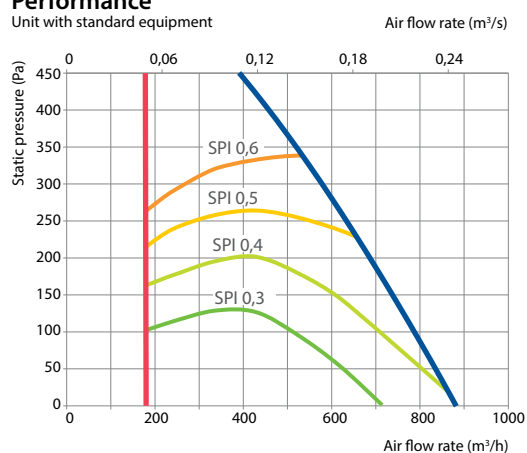
Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	1,7	4,9	7,1	9,4	11,7	23,4	25,7	28

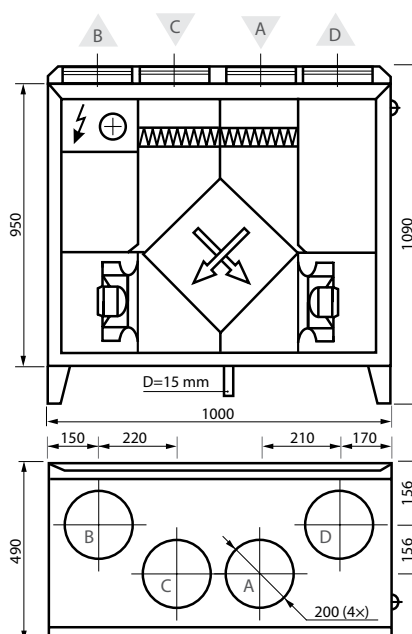
* indoor +22°C, 20 % RH

Performance

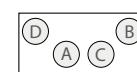
Unit with standard equipment



Shown as left (L1)



Shown as right (R1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

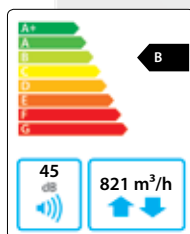
Accessories

Closing damper	AGUJ-M-200+LF230/LM230
Silencer	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,63-W1

2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,9-6 / DHCW-200
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,9-6
Cooling unit	MOU-18HFN6-KA8243

Domekt P 900 H

Maximal air flow, m³/h	821
Panel thickness, mm	45
Unit weight, kg	78
Supply voltage, V	HE 3~400
Maximal operating current, A	HE 9,8
Thermal efficiency of heat recovery, %	55
Reference flow rate, m³/s	0,16
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,27
Filters dimensions BxHxL, mm	400x235x46-M5
Electric power input of the fan drive at reference flow rate, W	79
Electric power input of the fan drive at maximum flow rate, W	181
Electric air heater capacity, kW / Δt, °C	4,5 / 21,8
Control panel	C3.1
Maintenance space, mm	400



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	52
Supply outlet	65
Exhaust inlet	52
Exhaust outlet	65
Casing	45

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

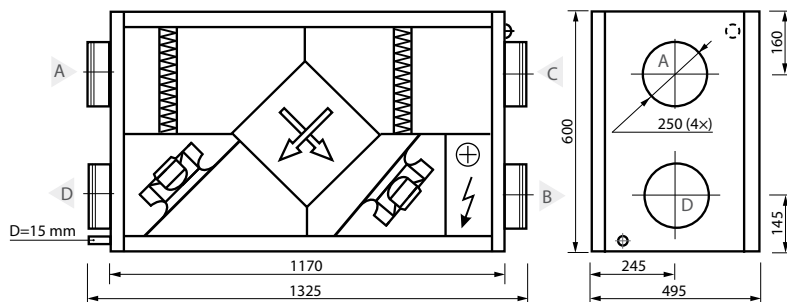
Surroundings	34
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Temperature efficiency

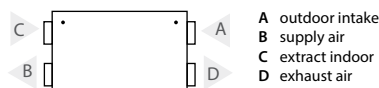
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	1,6	4,0	7,0	9,3	11,6	23,5	25,8	28,1

* indoor +22°C, 20 % RH

Shown as right (R1)



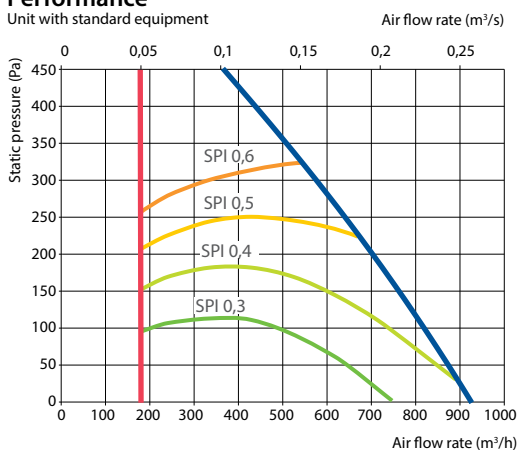
Shown as left (L1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air

Performance

Unit with standard equipment



Accessories

Closing damper	AGUJ-M-250+LF230/LM230
Silencer	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M
Water heater	DH-250
PPU	PPU-HW-3R-15-0,63-W1

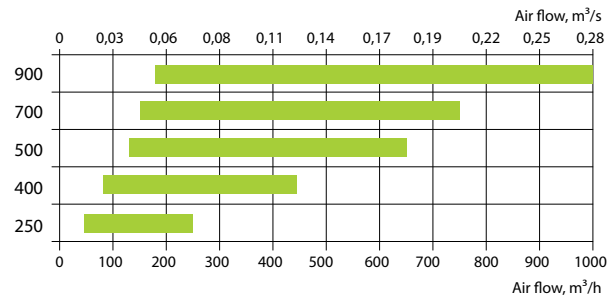
2-way valve (water heater)	VVP47.10-0,63
Air heater-cooler	DCW-0,9-6 / DHCW-250
2-way valve (water cooler)	VVP47.10-2,5
DX cooler	DCF-0,9-6
Cooling unit	MOU-18HFN6-KA8243

Domekt CF

Air handling units with a counterflow plate heat exchanger.



Standard sizes of Domekt CF units



Advantages of Domekt CF units

Heat energy saving

In the process of ventilation the heat of the exhaust air is recovered to the supplied air.

Totally separated airflows

The supply and exhaust airflows are separated, thus making possible utilization of the heat of the extracted foul air.

Long term efficient operation

The absence of movable parts ensures effective heat exchange and long run.

Low noise level

Domekt CF air handling units are equipped with silently operating fans and sound insulation, which ensures low noise level.

Counterflow polystyrene plate heat exchanger

The exchanger is constructed completely from polystyrene. Only solvent-free elastic adhesives are used.

- The patented design makes this exchanger's outstanding performance.
- The triangular ducts in the recuperator are arranged so that each one is surrounded by parallel ducts in which the air is in counter flow.
- Each fresh-air duct is surrounded by three ducts filled with warmer exhaust air. Likewise, each duct with exhaust air is surrounded by three fresh-air ducts. This maximizes the surface area over which energy can efficiently be transferred, recaptured and reused.

Anti-frosting Protection

If the temperature of the exhaust air drops below 4°C, freezing may occur at the exhaust air corner of the heat exchanger. To avoid freezing the temperature sensor is installed in this zone to give a signal to the automatic control. If for some period of time temperature will not rise up, by-pass damper is opened to redirect outdoor air through by-pass channel and only warm exhaust air flows through exchanger to defrost risky zone. For the conditions when outdoor temperatures may be lower than -4°C, duct mounted preheater is recommended.

Heat exchanger is
EUROVENT certified



Domekt CF range

Unit size	Supply/exhaust air filter class		Heater			Cooler		Inspection side				By-pass	Control system / panel			
	M5	F7	HE	HW	HCW	CW	CDX	R1	R2	L1	L2		C4	C5	C6	
Domekt CF 250 V	●	○		△				○		○		●	●			
Domekt CF 250 F	●	○		△				○		○		●	○		○	○
Domekt CF 400 V	●	○	●	△	△			○		○		●	○		○	○
Domekt CF 500 F	●	○	●	△	△				○		○	●	○		○	○
Domekt CF 700 V	●	○	●	△	△	△	△	○		○		●			○	○
Domekt CF 700 H	●	○	●	△	△	△	△	○		○		●			○	○
Domekt CF 900 U	●	○	○		○	△	△	○		○		●		●		
Domekt CF 900 H/V	●	○	○	○		△	△	○		○		●		●		
Domekt CF 900 F	●	○	●	△	△	△	△	○		○		●		●		

● standard equipment
○ possible choice
△ ordered separately

■ Duct connection

H – horizontal.

V – vertical.

U – universal, 14 installation options.

F – false ceiling.

■ Heater

HE – electric heater.

HW – water duct heater is installed on the duct and must be ordered separately. Heaters are mounted on the outside of the unit in any user-convenient place. There is heater control possibility in automatic control system.

HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

■ Cooler

CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.

CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

■ Inspection side

See p. 132.

■ Bypass

Inner bypass is controlled by smart control system.

■ Control system

C6 Control features:

- Temperature maintenance modes:
Supply air / Extract air / Room / Balance;
- Air flow indication: m³/h; l/s;
- Constant air volume control (CAV);
- Variable air volume control (VAV)*;
- Directly controlled volume (DCV);
- External water coil control;
- External DX unit control;
- Weekly operation schedule;
- Holidays planning;
- Air quality control*;
- Operation on demand*;
- Cool recovery;
- Temperature saving function;
- Free cooling;
- Ventilation control by external contacts;
- Control via internet browser;
- Control with smartphones;
- Filter clogging indication;
- Water mixing system warming-up;
- Rotor warm-up and cleaning function;
- Heat exchanger frost protection;
- Heat exchanger failure indication;
- Water heater frost protection;
- Electric heater overheat protection;
- Low air flow indication;
- Emergency shut down in case of fire;
- Emergency shut down when temperature reaches critical limits;
- Intelligent self-diagnostic;
- Indication of the heat exchanger thermal efficiency (%);
- Indication of heat exchanger energy recovery (kW);
- Energy consumption counters for heater and whole unit (kWh);
- Indication of the whole unit power consumption (kW);
- Specific power (SPI) indication;
- Unit operation parameters history storage and analysis;
- Possibility to choose desired control panel.

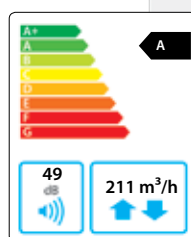
* these functions require additional accessories.

More information about C4 on p. 14.

More information about C5 on p. 10.

Domekt CF 250 V

Maximal air flow, m ³ /h	211
Panel thickness, mm	30
Unit weight, kg	41
Supply voltage, V	1~230
Maximal operating current, A	1,7
Thermal efficiency of heat recovery, %	89
Reference flow rate, m ³ /s	0,041
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,44
Filters dimensions BxHxL, mm	145x350x46-M5
Electric power input of the fan drive at reference flow rate, W	33
Electric power input of the fan drive at maximum flow rate, W	90
Electric air heater capacity, kW / Δt, °C	–
Control panel	C4.1
Maintenance space, mm	600



C4.1



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	48
Supply outlet	70
Exhaust inlet	53
Exhaust outlet	70
Casing	49

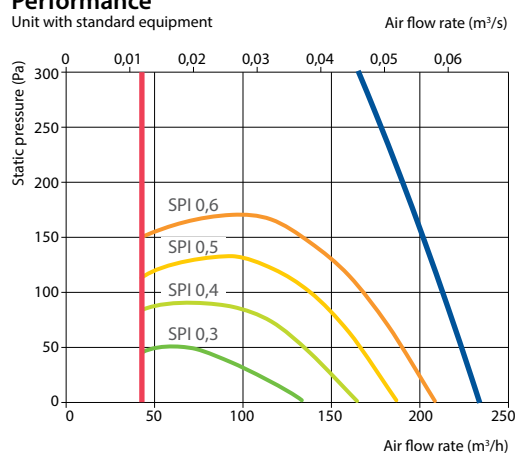
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	38
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Performance

Unit with standard equipment

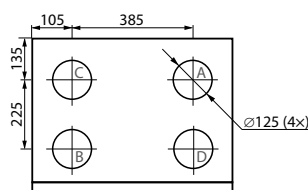
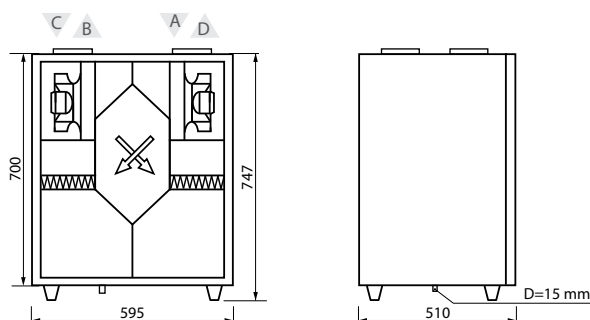


Temperature efficiency

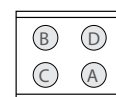
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	16,6	17,3	17,7	18,1	18,8	22,4	23,2	23,9

* indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

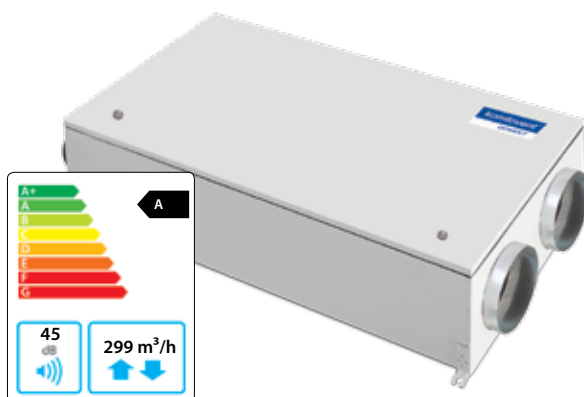
Accessories

Closing damper	AGUJ-M-125+LF230/LM230
Silencer	A/D AGS-125-50-600-M
	B/C AGS-125-50-900-M
Water heater	DH-125

PPU	PPU-HW-3R-15-0,4-W1
2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DHCW-125
2-way valve (water cooler)	VVP47.10-1,6

Domekt CF 250 F

Maximal air flow, m³/h	299
Panel thickness, mm	30
Unit weight, kg	43
Supply voltage, V	1~230
Maximal operating current, A	1,7
Thermal efficiency of heat recovery, %	86
Reference flow rate, m³/s	0,058
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,31
Filters dimensions BxHxL, mm	265x250x46-M5
Electric power input of the fan drive at reference flow rate, W	32
Electric power input of the fan drive at maximum flow rate, W	90
Electric air heater capacity, kW / Δt, °C	–
Control panel	C4.1
Maintenance space, mm	300



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	53
Supply outlet	64
Exhaust inlet	53
Exhaust outlet	64
Casing	45

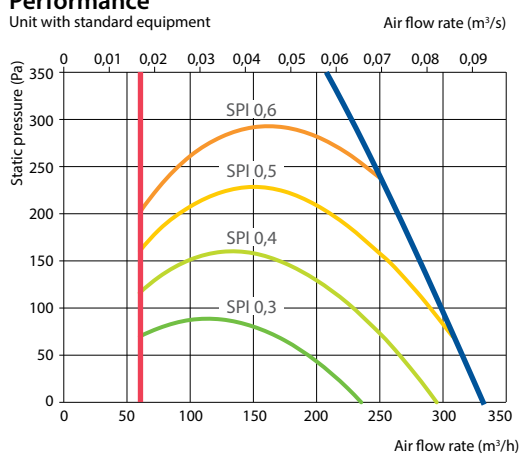
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	34
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Performance

Unit with standard equipment

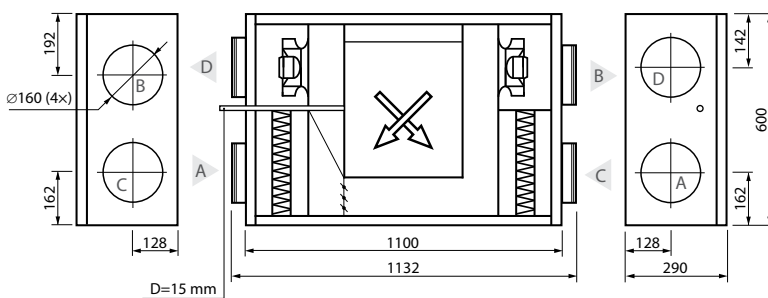


Temperature efficiency

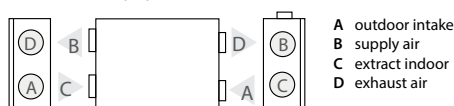
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	14,8	15,7	16,2	16,8	17,8	22,6	23,5	24,5

* indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)



Accessories

Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
Water heater	DH-160

PPU	PPU-HW-3R-15-0,4-W1
2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DHCW-160
2-way valve (water cooler)	VVP47.10-1,6

Domekt CF 250 F

Maximal air flow, m ³ /h	299
Panel thickness, mm	30
Unit weight, kg	43
Supply voltage, V	1~230
Maximal operating current, A	1,7
Thermal efficiency of heat recovery, %	86
Reference flow rate, m ³ /s	0,06
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,32
Filters dimensions BxHxL, mm	265x250x46-M5
Electric power input of the fan drive at reference flow rate, W	32
Electric power input of the fan drive at maximum flow rate, W	90
Electric air heater capacity, kW / Δt, °C	0,5 / 6,4
Electric preheater capacity, kW / Δt, °C	1 / 12,8
Control panel	C6.1 / 6.2
Maintenance space, mm	300

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	53
Supply outlet	64
Exhaust inlet	56
Exhaust outlet	64
Casing	45

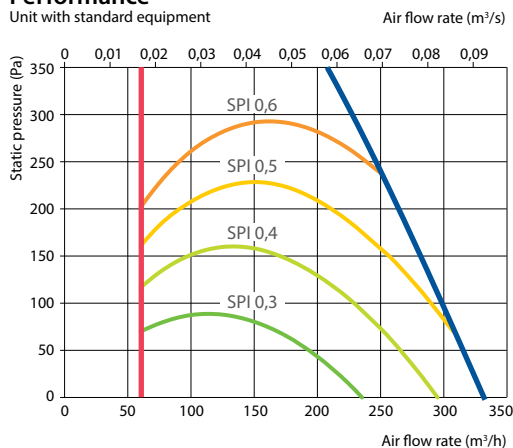
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

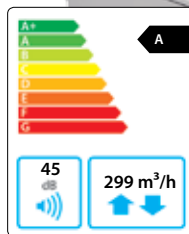
Surroundings	34
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Performance

Unit with standard equipment



PRELIMINARY DATA



The photo is intended for informational purposes only, exact details may vary.

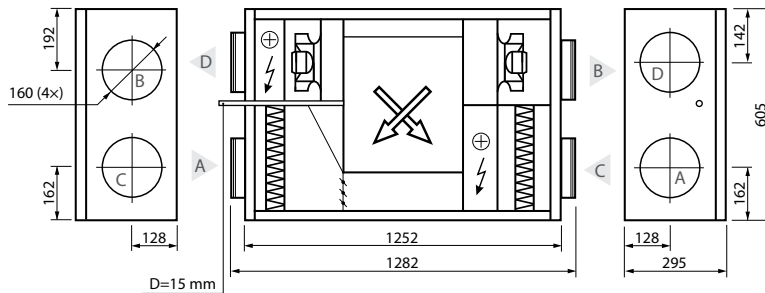


Temperature efficiency

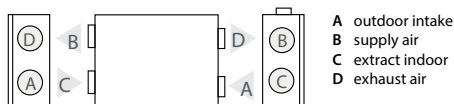
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	16,5	17	17,3	17,8	18,5	22,5	23,4	24,3

* indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)



Accessories

Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
Water heater	DH-160

PPU	PPU-HW-3R-15-0,4-W1
2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DHCW-160
2-way valve (water cooler)	VVP47.10-1,6

Domekt CF 400 V

Maximal air flow, m ³ /h	430
Panel thickness, mm	45
Unit weight, kg	55
Supply voltage, V	1~230
Maximal operating current, A	HE 6,3
Thermal efficiency of heat recovery, %	80
Reference flow rate, m ³ /s	0,084
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,27
Filters dimensions BxHxL, mm	235x350x46-M5
Electric power input of the fan drive at reference flow rate, W	41
Electric power input of the fan drive at maximum flow rate, W	103
Electric air heater capacity, kW / Δt, °C	1 / 9,8
Control panel	C4.1
Maintenance space, mm	600

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	61
Supply outlet	56
Exhaust inlet	61
Exhaust outlet	56
Casing	43

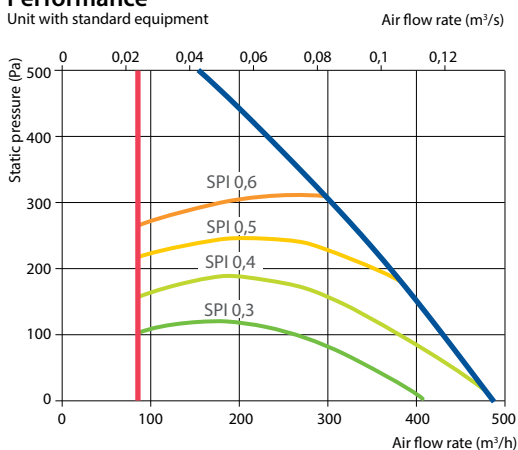
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	33
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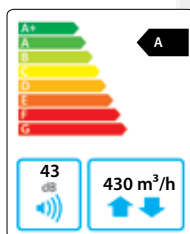
Performance

Unit with standard equipment



Accessories

Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M B/C AGS-160-50-900-M
Water heater	DH-160
PPU	PPU-HW-3R-15-0,4-W1



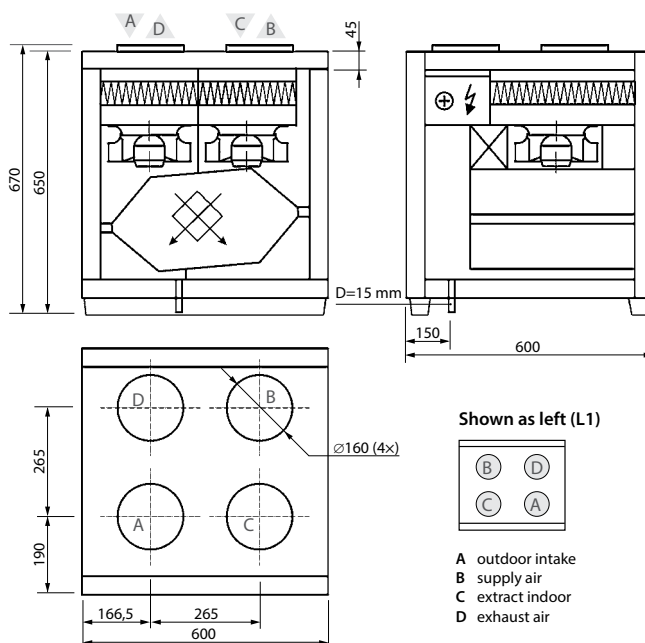
The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter						Summer		
Outside temperature, °C	-23	-15	-10	-5	0		25	30	35
After heat exchanger*, °C	13,2	14,3	15,3	16,3	17,3		22,6	23,8	24,8

* indoor +22°C, 20 % RH

Shown as right (R1)



2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,4-3 / DHCW-160
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,4-3

Domekt CF 400 V

Maximal air flow, m ³ /h	430
Panel thickness, mm	45
Unit weight, kg	55
Supply voltage, V	1~230
Maximal operating current, A	HE 6,3
Thermal efficiency of heat recovery, %	80
Reference flow rate, m ³ /s	0,08
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,28
Filters dimensions BxHxL, mm	235x350x46-M5
Electric power input of the fan drive at reference flow rate, W	41
Electric power input of the fan drive at maximum flow rate, W	103
Electric air heater capacity, kW / Δt, °C	0,5 / 4,6
Electric preheater capacity, kW / Δt, °C	1,5 / 13,8
Control panel	C6.1 / 6.2
Maintenance space, mm	600

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	61
Supply outlet	56
Exhaust inlet	62
Exhaust outlet	56
Casing	43

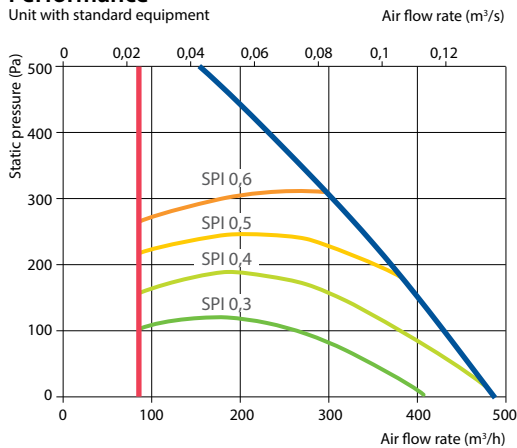
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	33
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Performance

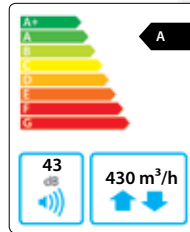
Unit with standard equipment



Accessories

Closing damper	AGUJ-M-160+LF230/LM230
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
Water heater	DH-160
PPU	PPU-HW-3R-15-0,4-W1

PRELIMINARY DATA

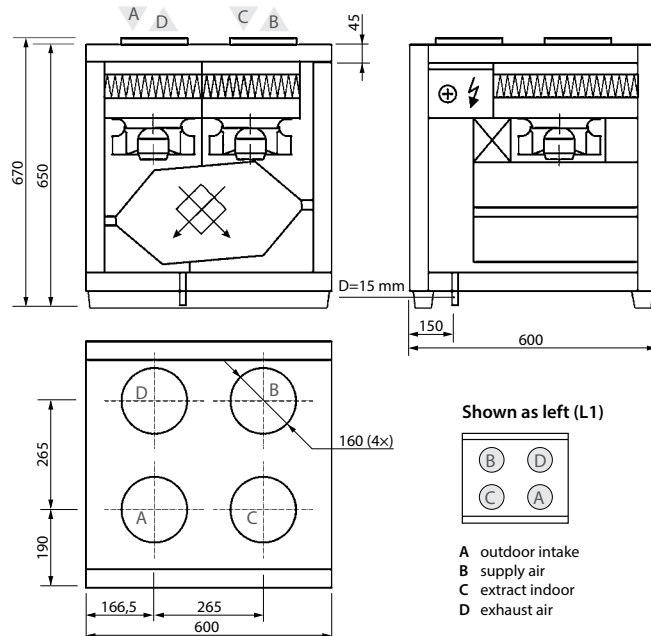


Temperature efficiency

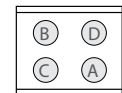
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	14,9	15,5	15,9	16,7	17,6	22,6	23,7	24,8

* indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)



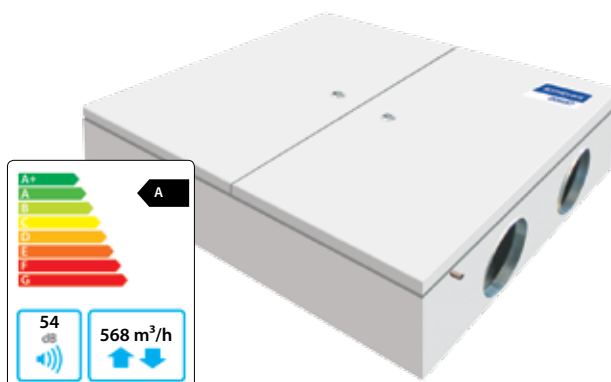
A outdoor intake
B supply air
C extract indoor
D exhaust air

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,4-3 / DHCW-160
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,4-3

The photo is intended for informational purposes only, exact details may vary.

Domekt CF 500 F

Maximal air flow, m³/h	568
Panel thickness, mm	25
Unit weight, kg	70
Supply voltage, V	1~230
Maximal operating current, A	HE 7,3
Thermal efficiency of heat recovery, %	88
Reference flow rate, m³/s	0,111
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,39
Filters dimensions BxHxL, mm	410x200x46-M5
Electric power input of the fan drive at reference flow rate, W	82
Electric power input of the fan drive at maximum flow rate, W	177
Electric air heater capacity, kW / Δt, °C	1 / 7,4
Control panel	C4.1
Maintenance space, mm	400



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	57
Supply outlet	71
Exhaust inlet	57
Exhaust outlet	71
Casing	54

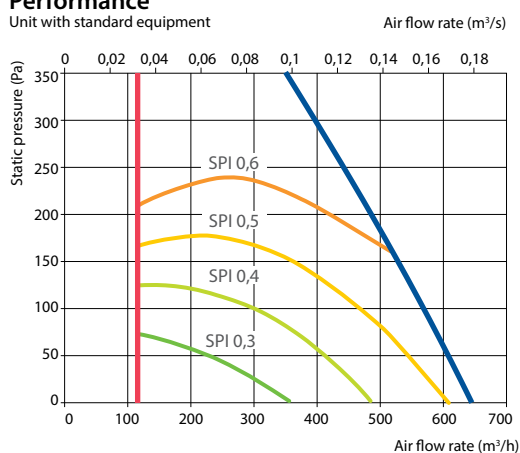
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	43
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Performance

Unit with standard equipment

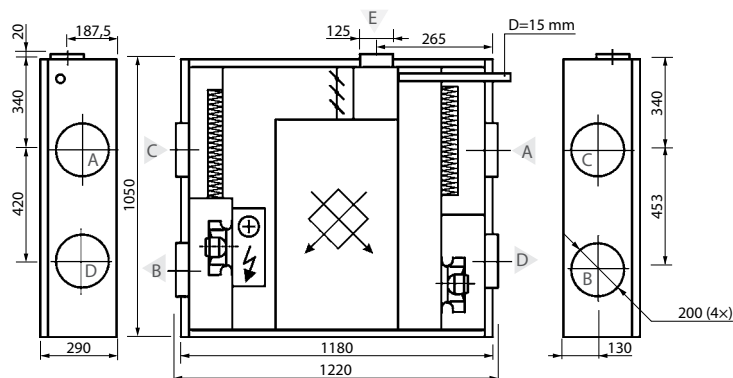


Temperature efficiency

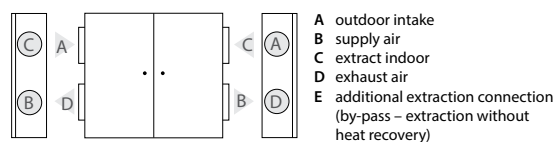
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	15,9	16,7	17,1	17,6	18,4	22,5	23,3	24,1

* indoor +22°C, 20 % RH

Shown as left (L2)



Shown as right (R2)



Accessories

Closing damper	AGUJ-M-200+LF230/LM230
Silencer	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,4-W1

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,5-3 / DHCW-200
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,5-3

Domekt CF 500 F

Maximal air flow, m ³ /h	568
Panel thickness, mm	25
Unit weight, kg	70
Supply voltage, V	1~230
Maximal operating current, A	HE 7,3
Thermal efficiency of heat recovery, %	88
Reference flow rate, m ³ /s	0,11
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,41
Filters dimensions BxHxL, mm	410x200x46-M5
Electric power input of the fan drive at reference flow rate, W	81
Electric power input of the fan drive at maximum flow rate, W	177
Electric air heater capacity, kW / Δt, °C	0,5 / 3,5
Electric preheater capacity, kW / Δt, °C	1,5 / 10,5
Control panel	C6.1 / 6.2
Maintenance space, mm	400

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	57
Supply outlet	71
Exhaust inlet	57
Exhaust outlet	71
Casing	54

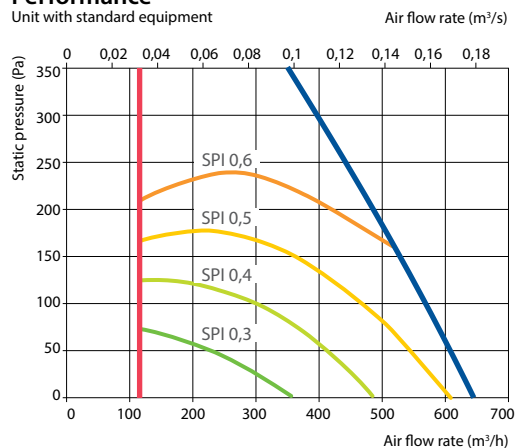
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	43
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Performance

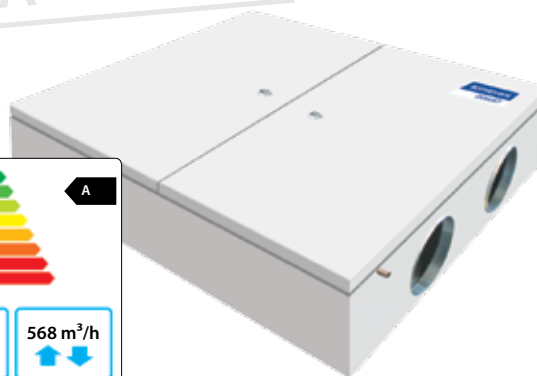
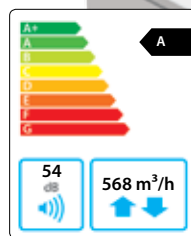
Unit with standard equipment



Accessories

Closing damper	AGUJ-M-200+LF230/LM230
Silencer	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,4-W1

PRELIMINARY
DATA



The photo is intended for informational purposes only, exact details may vary.

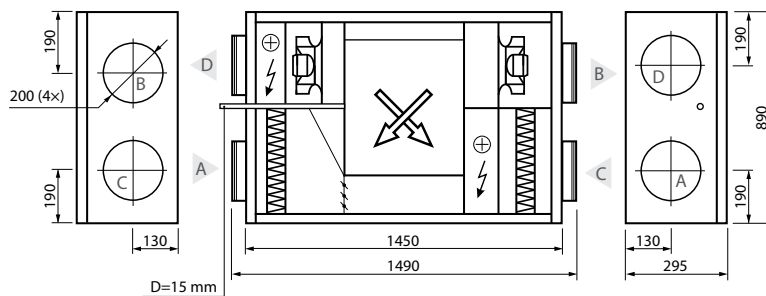


Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	17,1	17,4	17,7	18,2	18,8	22,5	23,3	24,2

* indoor +22°C, 20 % RH

Shown as left (L2)



Shown as right (R2)



A outdoor intake
B supply air
C extract indoor
D exhaust air

2-way valve (water heater)	VVP47.10-0,4
Air heater-cooler	DCW-0,5-3 / DHCW-200
2-way valve (water cooler)	VVP47.10-1,6
DX cooler	DCF-0,5-3

Domekt CF 700 V

Maximal air flow, m ³ /h	665
Panel thickness, mm	45
Unit weight, kg	95
Supply voltage, V	1~230
Maximal operating current, A	HE 12
Thermal efficiency of heat recovery, %	87
Reference flow rate, m ³ /s	0,13
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,31
Filters dimensions BxHxL, mm	390x300x46-M5
Electric power input of the fan drive at reference flow rate, W	72
Electric power input of the fan drive at maximum flow rate, W	177
Electric air heater capacity, kW / Δt, °C	0,5 / 3
Electric preheater capacity, kW / Δt, °C	1,5 / 8,9
Control panel	C6.1 / 6.2
Maintenance space, mm	1000

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	47
Supply outlet	67
Exhaust inlet	52
Exhaust outlet	67
Casing	47

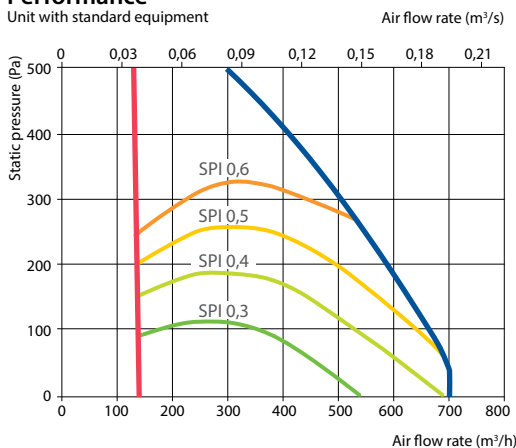
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	36
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Performance

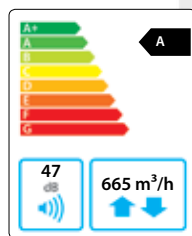
Unit with standard equipment



Accessories

Closing damper	AGUJ-M-200+LF230/LM230
Silencer	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,4-W1

PRELIMINARY
DATA



C6.1



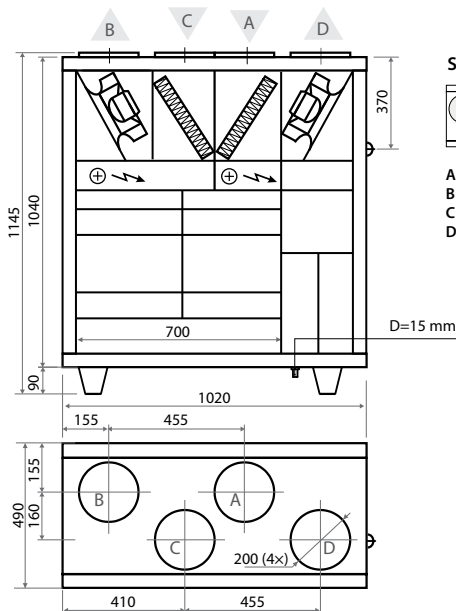
C6.2

Temperature efficiency

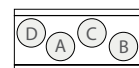
	Winter						Summer		
Outside temperature, °C	-23	-15	-10	-5	0		25	30	35
After heat exchanger*, °C	15,6	16,4	16,8	17,3	18,2		22,5	23,4	24,5

* indoor +22°C, 20 % RH

Shown as left (L1)



Shown as right (R1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Domekt CF 700 H

Maximal air flow, m ³ /h	766
Panel thickness, mm	45
Unit weight, kg	95
Supply voltage, V	1~230
Maximal operating current, A	HE 12
Thermal efficiency of heat recovery, %	85
Reference flow rate, m ³ /s	0,15
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,3
Filters dimensions BxHxL, mm	390x300x46-M5
Electric power input of the fan drive at reference flow rate, W	78
Electric power input of the fan drive at maximum flow rate, W	180
Electric air heater capacity, kW / Δt, °C	0,5 / 2,6
Electric preheater capacity, kW / Δt, °C	1,5 / 7,7
Control panel	C6.1 / 6.2
Maintenance space, mm	500

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

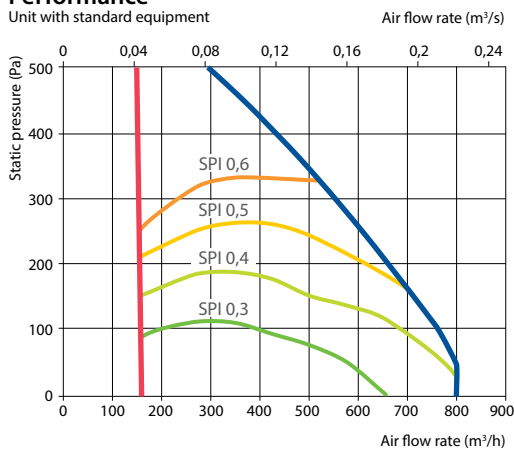
Supply inlet	47
Supply outlet	67
Exhaust inlet	52
Exhaust outlet	67
Casing	47

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	36
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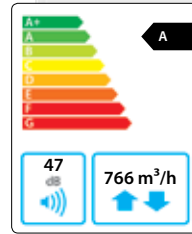
Performance



Accessories

Closing damper	AGUJ-M-250+LF230/LM230
Silencer	A/D AGS-250-50-600-M B/C AGS-250-50-900-M
Water heater	DH-250
PPU	PPU-HW-3R-15-0,63-W1

PRELIMINARY DATA

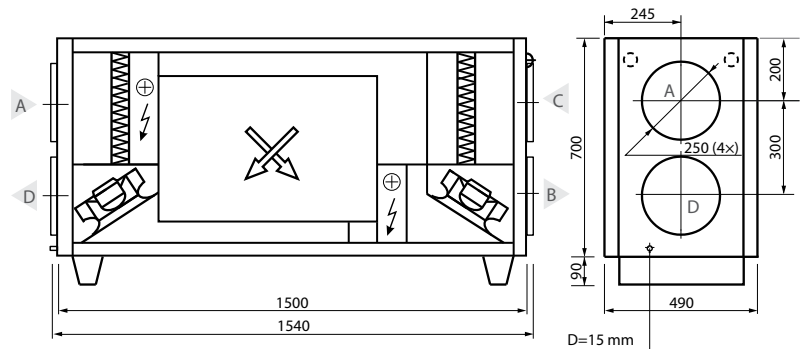


Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	14,8	15,7	16,1	16,8	17,8	22,5	23,5	24,6

* indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air

The photo is intended for informational purposes only, exact details may vary.

Domekt CF 900 U/H/V

Maximal air flow, m ³ /h	1000
Panel thickness, mm	50
Unit weight, kg	267
Supply voltage, V	HE 3~400 / HW 1~230
Maximal operating current, A	HE 9,8 / HW 3,3
Thermal efficiency of heat recovery, %	82
Reference flow rate, m ³ /s	0,194
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,17
Filters dimensions BxHxL, mm	800x400x46-M5
Electric power input of the fan drive at reference flow rate, W	57
Electric power input of the fan drive at maximum flow rate, W	162
Electric air heater capacity, kW / Δt, °C	4,5/19,1
Control panel	C5.1
Maintenance space, mm	

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	49
Supply outlet	64
Exhaust inlet	49
Exhaust outlet	64
Casing	43

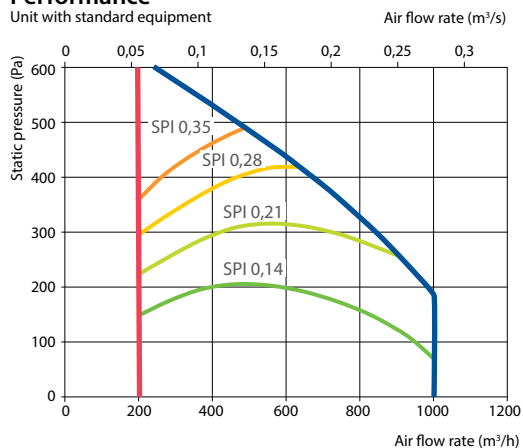
A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	33
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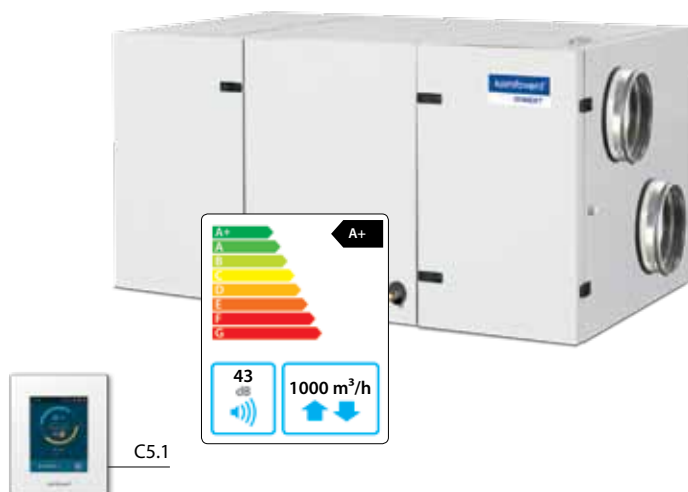
Performance

Unit with standard equipment



Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M B/C AGS-315-100-1200-M
PPU	PPU-HW-3R-15-1,0-W2
Air heater-cooler	DCW-0,7-5
2-way valve	VVP47.15-2,5+SSP61
DX cooler	DCF-0,7-5
Cooling unit	MOU-18HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	14,1	15	15,9	16,8	17,8	22,6	23,6	24,6

* indoor +22°C, 20 % RH

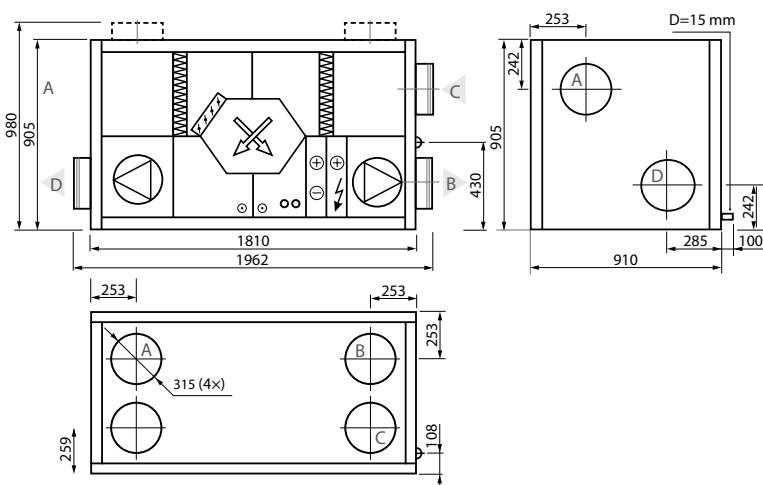
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	2,7	2,7	2,7	2,7	3,8
Flow rate, dm ³ /h	117	117	116	116	644
Pressure drop, kPa	1	1	1	1	6,8
Temperature in/out, °C	14,1/22				23,6/18
Maximal capacity, kW	21,5	16,5	11,4	6,5	6,4
Connection, "	½				

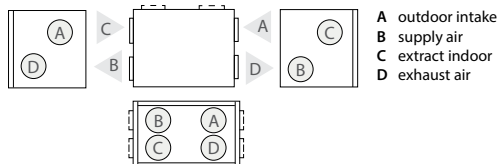
Available versions:

- 1) Electric air heater (HE);
- 2) Changeover water heating/cooling exchanger (HCW);
- 3) Changeover water heating/cooling exchanger (HCW) and electric air heater (HE).

Shown as right (R1)

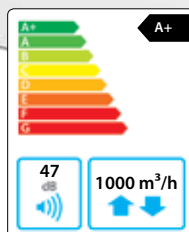
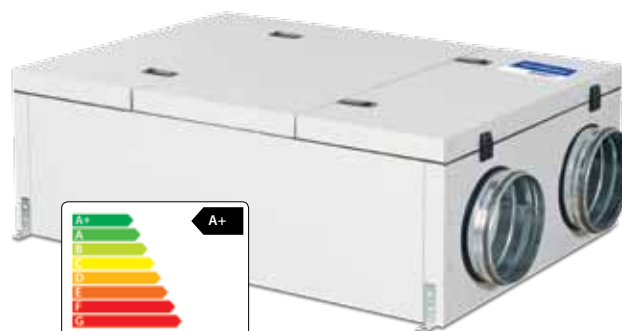


Shown as left (L1)



Domekt CF 900 F

Maximal air flow, m ³ /h	1000
Panel thickness, mm	50
Unit weight, kg	161
Supply voltage, V	HE 3~400 / HW 1~230
Maximal operating current, A	HE 9,8 / HW 3,3
Thermal efficiency of heat recovery, %	82
Reference flow rate, m ³ /s	0,194
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,17
Filters dimensions BxHxL, mm	550x420x46-M5
Electric power input of the fan drive at reference flow rate, W	56
Electric power input of the fan drive at maximum flow rate, W	167
Electric air heater capacity, kW / Δt, °C	3 / 12,8
Control panel	C5.1
Maintenance space, mm	400



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	54
Supply outlet	68
Exhaust inlet	54
Exhaust outlet	68
Casing	47

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	36
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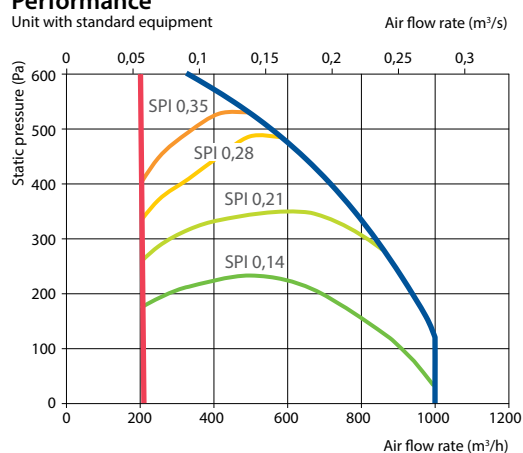
Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	14	15	15,9	16,8	17,8	22,6	23,6	24,6

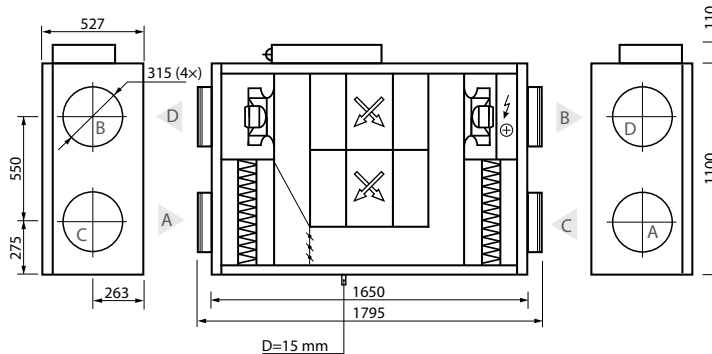
* indoor +22°C, 20 % RH

Performance

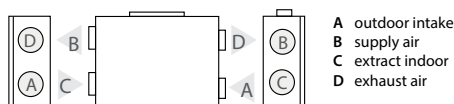
Unit with standard equipment



Shown as right (R1)



Shown as left (L1)



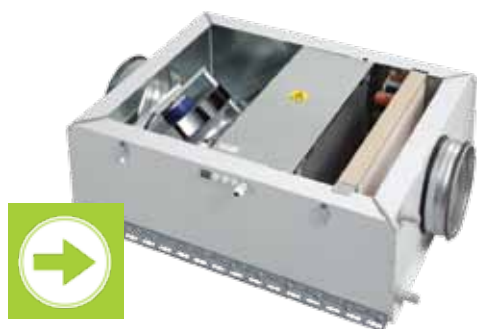
Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M
	B/C AGS-315-100-1200-M
Water heater	DH-315
PPU	PPU-HW-3R-15-1,0-W2

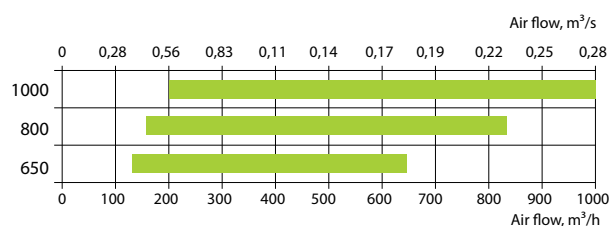
Air heater-cooler	DCW-0,9-6; DHCW-315
2-way valve (water cooler)	VVP47.15-2,5+SSP61
DX cooler	DCF-0,9-6
Cooling unit	MOU-18HFN6-KA8243

Domekt S

False ceiling supply air handling units.



Standard sizes of Domekt S units



Advantages of Domekt S units

- Height is only 297 mm / 350 mm – easy to choose the place for installation.
- Units are complemented with fastening profiles and vibration absorbing holders.
- Safe and handy design of removable cover ensures easy fixing of cover at different opening levels for performing maintenance and service inspection.
- Air handling units have integrated control system.
- Control panel may be installed in any user-convenient place.
- Control panel display enables to set the operation parameters of the unit and monitor them.
- There is a possibility to complement and control the duct mounted cooling section.

Domekt S range

Unit size	Supply/exhaust air filter class		Heater			Cooler		Inspection side	C5 panel
	M5	F7	HE	HW	HCW	CW	CDX		
Domekt S 650 F	●	○	●			△	△	●	●
Domekt S 800 F	●	○	●	○	△	△	△	●	●
Domekt S 1000 F	●	○	●	○	△	△	△	●	●

● standard equipment
○ possible choice
△ ordered separately

■ Duct connection

F – false ceiling.

■ Heater

HE – electric heater.

HW – water air heater.

HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

■ Cooler

CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.

CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

■ Inspection side

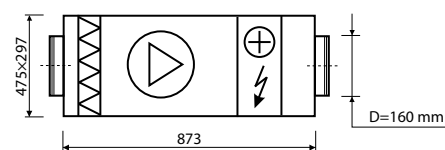
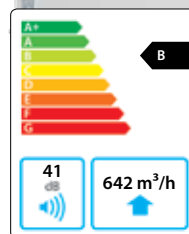
See p. 132.

■ Control system

More information about C5 on p. 10.

Domekt S 650 F

Maximal air flow, m ³ /h	642
Panel thickness, mm	50
Unit weight, kg	35
Reference flow rate, m ³ /s	0,125
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,15
Filters dimensions B×H×L, mm	235×371×46-M5
Electric power input of the fan drive at reference flow rate, W	63
Electric power input of the fan drive at maximum flow rate, W	172
Control panel	C5.1
Maintenance space, mm	300



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	63
Supply outlet	69
Casing	41

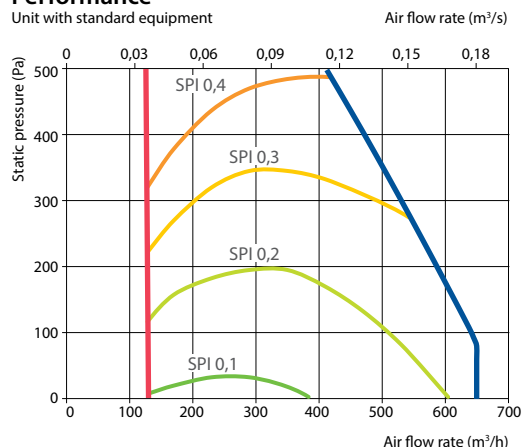
A-weighted sound pressure level L_{PA} , dB(A)
10 m² normally isolated room, distance from casing – 3 m.

Surroundings	30
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Technical data

Supply air handling unit	Supply voltage, V	Air heater capacity, kW	Maximal operating current, A	ΔT , °C
Domekt S 650 F-HE/3	1~230	3,0	14,2	13
Domekt S 650 F-HE/6	3~400	6,0	10,0	26

Performance



Accessories

Closing damper	AGUJ-M-160+LF24/LM24
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
PPU	–
Air heater-cooler	DCW-0,7-5
2-way valve	VVP47.15-2,5+SSP61
DX cooler	DCF-0,7-5
Cooling unit	MOU-18HFN6+KA8243

Domekt S 800 F

Maximal air flow, m³/h	826
Panel thickness, mm	50
Unit weight, kg	37
Reference flow rate, m³/s	0,161
Reference pressure difference, Pa	50
SPI, W/(m³/h)	0,14
Filters dimensions BxHxL, mm	287x371x46-M5
Electric power input of the fan drive at reference flow rate, W	75
Electric power input of the fan drive at maximum flow rate, W	181
Control panel	C5.1
Maintenance space, mm	400

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

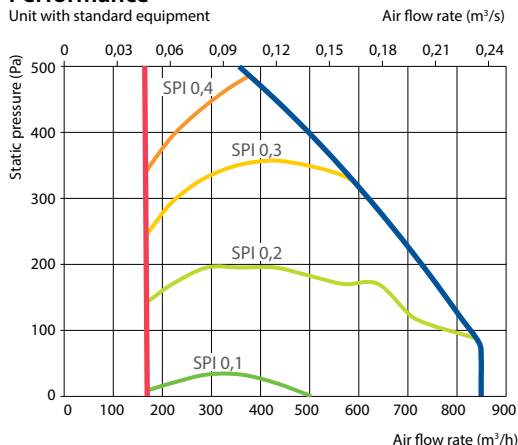
Supply inlet	60
Supply outlet	66
Casing	44

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

Surroundings	33
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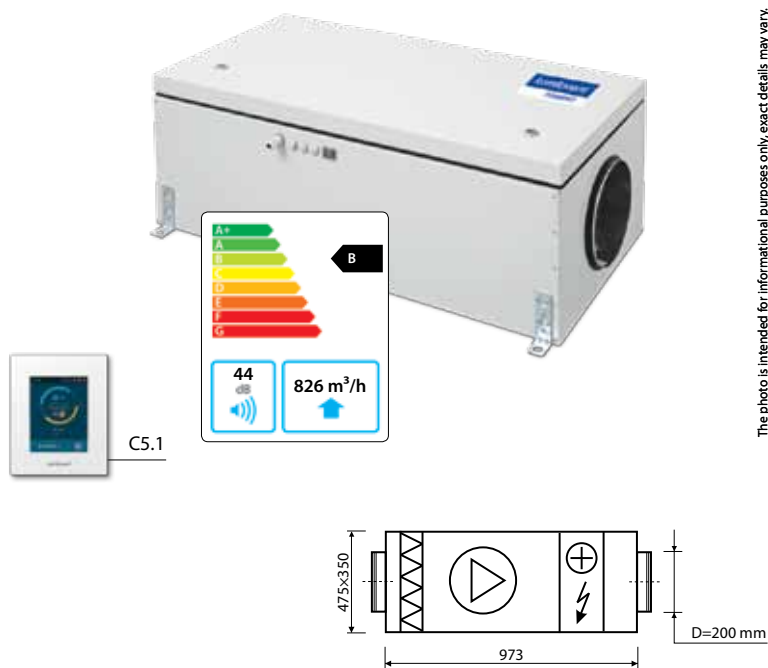
Performance

Unit with standard equipment



Accessories

Closing damper	AGUJ-M-200+LF24/LM24
Silencer	A/D AGS-200-50-600-M B/C AGS-200-50-900-M
PPU	PPU-HW-3R-15-2,5-W2
Air heater-cooler	DCW-0,9-6
2-way valve	VVP47.15-2,5+SSP61
DX cooler	DCF-0,9-6
Cooling unit	MOU-18HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Technical data

Supply air handling unit	Supply voltage, V	Air heater capacity, kW	Maximal operating current, A	ΔT , °C
Domekt S 800 F-HE/3	1~230	3,0	14,9	10
Domekt S 800 F-HE/6	3~400	6,0	10,6	20
Domekt S 800 F-HE/9	3~400	9,0	14,9	30
Domekt S 800 F-HW	1~230	–	1,9	–

Hot water air heater

Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	11,3	11,1	9,5	5,9
Flow rate, dm³/h	499	488	414	257
Pressure drop, kPa	4,2	4,1	3,1	1,4
Temperature in/out, °C	-23/20	-23/19,2	-23/13	-10/12,4
Maximal capacity, kW	12,6	11,1	9,5	5,9
Connection, "	½			

Domekt S 1000 F

Maximal air flow, m ³ /h	1000
Panel thickness, mm	50
Unit weight, kg	46
Reference flow rate, m ³ /s	0,194
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,12
Filters dimensions B×H×L, mm	558×287×46-M5
Electric power input of the fan drive at reference flow rate, W	82
Electric power input of the fan drive at maximum flow rate, W	182
Control panel	C5.1
Maintenance space, mm	400

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

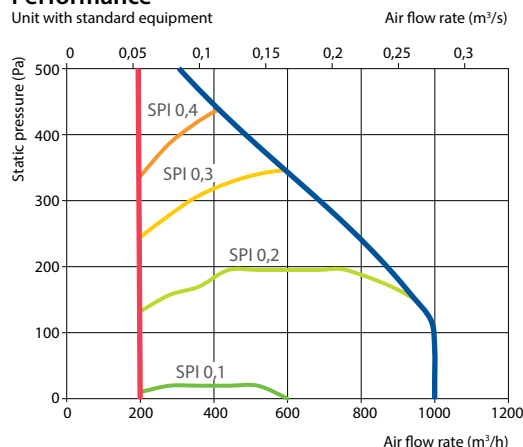
Supply inlet	60
Supply outlet	66
Casing	43

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

Surroundings	32
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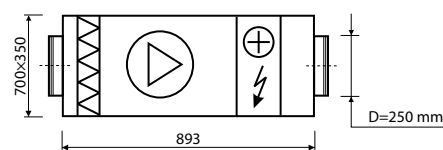
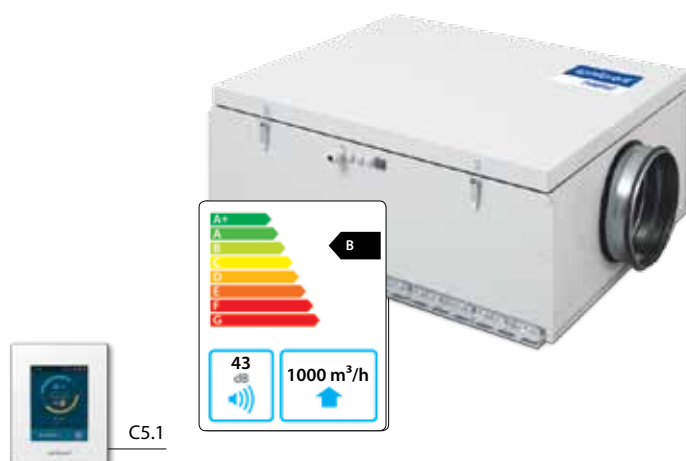
Performance

Unit with standard equipment



Accessories

Closing damper	AGUJ-M-250+LF24/LM24
Silencer	A/D AGS-250-50-600-M B/C AGS-250-50-900-M
PPU	PPU-HW-3R-20-4,0-W2
Air heater-cooler	DCW-0,9-6
2-way valve	VVP47.15-2,5+SSP61
DX cooler	DCF-0,9-6
Cooling unit	MOU-18HFN6-KA8243



Technical data

Supply air handling unit	Supply voltage, V	Air heater capacity, kW	Maximal operating current, A	ΔT, °C
Domekt S 1000 F-HE/9	3~400	9,0	15,4	25
Domekt S 1000 F-HE/15	3~400	15,0	24,1	42
Domekt S 1000 F-HW	1~230	–	2,4	–

Hot water air heater

Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	14,4	14,4	12,3	7,5
Flow rate, dm ³ /h	636	633	537	325
Pressure drop, kPa	1,5	1,5	1,1	1
Temperature in/out, °C	-23/20	-23/20	-23/13,6	-10/12,2
Maximal capacity, kW	16,4	14,5	12,3	7,5
Connection, "	½			

The photo is intended for informational purposes only, exact details may vary.



VERSO

Non residential ventilation units

Komfovent VERS0

VERS0 series consists of two groups: VERS0 STANDARD is a standardized range of AHUs and VERS0 PRO units are designed to conform particular professional projects. All units can be with a heat recovery or just air supply units.



Capacity range
from 1 000 to 34 000 m³/h

Features and benefits of VERS0 units:

- All units are completely prewired and have an integrated automatic control.
- Wide choice of control functions is already included as a standard feature.
- Extremely silent in operation.
- Low energy consumption.
- Energy efficiency tested and approved by EUROVENT.
- Fans are balanced statically and dynamically to avoid vibration and ensure silent operation.
- All casings are powder painted and could have desired color.
- Steady baseframe with on-site regulation possibilities.
- Easy and quick assembling on-site.
- Integrated web server for clever control.
- Control via Smartphone available.

VERS0 series ensures the best performance and required operation parameters being designed in very compact dimensions: VERS0 STANDARD and VERS0 PRO 10–70 each section size allows bringing it through a standard 900 mm width door opening.

All VERS0 STANDARD units are based on the principle "Plug & Play": each unit has the integrated control system and is delivered with a complete automatic control installed and prewired inside the unit. VERS0 STANDARD units can be delivered fast as they are available on stock. The airflow ranges from 1 000 to 8 000 m³/h. Universal units have 8 duct connections available for connection universality and convenience.

VERS0 PRO units have wide design possibilities, the customer can select the unit using the selection software. For customers' convenience air heaters, coolers and dampers are mounted outside next to the unit as a separate section that gives flexibility in mounting and saving the installation area. Indoor and outdoor mounting is possible. Units have a complete integrated automatic control, ensuring lower exploitation and installing costs on site. The units air flow performance ranges from 1 000 m³/h to 34 000 m³/h.

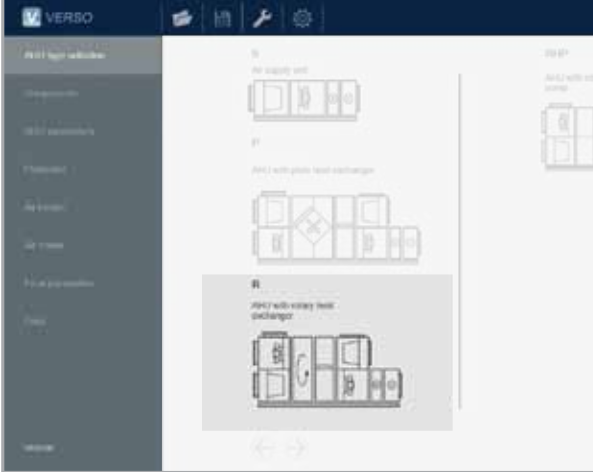


Convenient and accurate units' selection


All VERSO range units are selected by VERSO selection software, which can be downloaded from the webpage www.komfovent.com/resources.




1 Select the type of unit.



2 Choose the group VERSO STANDARD or project oriented VERSO PRO units.



3 Technical data sheets present important technical parameters at a specified working point of the selected unit: efficiency, SFP, acoustics and other projects' required data.



Verso R
units with a rotary
heat exchanger

Verso P
units with a plate
heat exchanger

Verso CF
units with a counterflow
plate heat exchanger

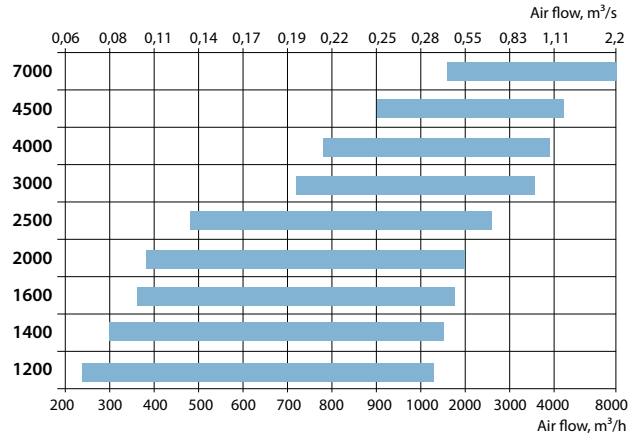
Verso S
supply air
units

Verso R

Air handling units with a rotary heat exchanger.



Standard sizes of Verso R units



Advantages of Verso R units

Heat energy saving

In the process of ventilation the heat of the exhaust air is recovered to the supplied air.

Efficient heat

Under the normal operational conditions, the rotary heat exchanger does not freeze: even at outdoor temperatures below -20 °C, no additional warming up required of the outdoor air which results in efficient heat energy saving even at hard frosts. The application of the rotary heat exchanger allows reducing the energy consumption for warming up the supply air by approximately 4 times.

Air humidity balance

Under the normal operating conditions the condensate does not form in the process of heat exchange in the rotary heat exchanger, because most of the humidity is returned to the premises. The excess moisture is removed outside. The air in the premises is less drained and the air humidity balance is maintained. As the condensate does not form, the drainage is not necessary – this simplifies the mounting of the unit.

Low noise level

Verso R air handling units are equipped with silently operating fans and sound insulation, which ensures low noise level.

Rotary heat exchanger

Advantages of rotary heat exchanger

- High efficiency coefficient.
- Not freezing.
- 4 times lower energy consumption for warming up the air.
- Humidity is transferred to supply air – a lower power humidifier may be needed.
- No drainage is necessary – easy unit installation.
- Very compact in size.
- Cooled air may be recovered that results in the reduced energy consumption for air cooling.

The efficiency on the demand: two levels of rotor efficiency are available. Optimum efficiency is achieved with L type rotor, higher values may be reached with optional XL type rotor. Air handling units are equipped with three types of rotary heat exchangers:

- **Heat exchanger is made from aluminum foil (AL).** It recovers moisture.
- **Heat exchanger is made from hygroscopic and aluminium foil (AZM).** It recovers moisture more efficiently than AL type exchanger.
- **Heat exchanger is made from hygroscopic aluminum foil (AZ).** Heat exchangers of this type regenerate moisture the most efficiently.

Energy efficient EC motor

Rotary heat exchangers are equipped with EC motors, which ensure the smooth rotor operation and control.

Preheater

As an additional protection for very low outdoor temperatures such as -30°C and lower, it is recommended to use duct mounted preheater.

Verso R range

Unit size	Heat exchanger					Supply/exhaust air filter class		Heater			Cooler		Inspection side		Control system C5
	Type			Wave height											
	AL	AZ	AZM	L	XL	M5	F7	HE	HW	HCW	CW	CDX	R1	L1	panel C5.1
Verso R 1200 U	●	○	○	●	○	●	○	○		○	△	△	○	○	●
Verso R 1200 H/V	●	○	○	●	○	●	○	○	○		△	△	○	○	●
Verso R 1200 F	●	○	○	●	○	●	○	○	△	△	△	△	○	○	●
Verso R 1400 U	●	○	○	●	○	●	○	○		○	△	△	○	○	●
Verso R 1400 H/V	●	○	○	●	○	●	○	○	○		△	△	○	○	●
Verso R 1600 U	●	○	○	●	○	●	○	○		○	△	△	○	○	●
Verso R 1600 H/V	●	○	○	●	○	●	○	○	○		△	△	○	○	●
Verso R 2000 U	●	○	○	●	○	●	○	○		○	△	△	○	○	●
Verso R 2000 H/V	●	○	○	●	○	●	○	○	○		△	△	○	○	●
Verso R 2000 F	●			○	●	●	○	○	△	△	△	△	○	○	●
Verso R 2500 U	●	○	○	●	○	●	○	○		○	△	△	○	○	●
Verso R 2500 H/V	●	○	○	●	○	●	○	○	○		△	△	○	○	●
Verso R 3000 U	●	○	○	●	○	●	○	○		○	△	△	○	○	●
Verso R 3000 H/V	●	○	○	●	○	●	○	○	○		△	△	○	○	●
Verso R 4000 U	●	○	○	●	○	●	○	○		○	△	△	○	○	●
Verso R 4000 H/V	●	○	○	●	○	●	○	○	○		△	△	○	○	●
Verso R 4500 U	●	○	○	●	○	●	○	○		○	△	△	○	○	●
Verso R 4500 H/V	●	○	○	●	○	●	○	○	○		△	△	○	○	●
Verso R 7000 H	●	○	○	●	○	●	○		●		△	△	○	○	●

● standard equipment
○ possible choice
△ ordered separately

Duct connection

H – horizontal.

V – vertical.

U – universal, 14 installation options.

F – false ceiling.

Heat exchanger

AL – aluminum, condensing rotor. As a standard, units are equipped with L wave height of the rotors. In exceptional cases, when increased thermal efficiency is required, the units can be equipped with XL wave.

AZ – entalpic, sorption rotary heat exchanger coated with special 4Å coating. Wave height of this heat exchanger is L.

AZM – hygroscopic rotor is "hybrid" that combines the good condensing and sorptive heat exchanger properties, e.g. high temperature efficiency and good performance of latent (the hidden) energy transfer, thus effectively operates both in winter and summer. Wave height of this heat exchanger is L.

Heater

HE – electric heater.

HW – water duct heater is installed on the duct and must be ordered separately. Heaters are mounted on the outside of the unit in any user-convenient place. 0...10 V heater control included in automatic control system.

HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

Cooler

CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.

CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

Inspection side

See p. 132.

Control system

C5 Control features:

- 5 different operation modes: *Comfort1*, *Comfort2*, *Economy1*, *Economy2* and *Special*;
- Temperature control modes: Supply air / Extract air / Room;
- Energy parameters indication: thermal efficiency of the heat exchanger, heat exchanger's recovered energy, energy saving indicator;
- Air quality, minimum temperature control;
- Flow control modes: CAV, VAV and DCV;
- Weekly operating schedule;
- Air flow indication (m³/h, m³/s, l/s);
- Rotary or plate heat exchanger failure protection;
- Rotary heat exchanger cleaning and warm-up function;
- Intelligent self-diagnostic;
- Summer night cooling;
- Air quality function;
- Supply air temperature control;
- Min. supply air temperature maintenance;
- Combined water heater & cooler control;
- Inverter-type DX outdoor unit control;
- Cooling recovery function;
- Outdoor compensated ventilation;
- Humidity control: air humidification and dehumidification*;
- Circulation pumps control by demand;
- Warm-up function of circulation pumps and mixing valves;
- Air filter clogging indication;
- Operation hours and energy counters;
- Remote control via web interface;
- Built-in data logger for all air handling unit parameters;
- Application software for smartphones based on "Android" and "iOS".

* additionally ordered function.

Verso R 1200 U/H/V

Verso R 1200 UH data

Nominal air flow, m ³ /h	1300
Panel thickness, mm	50
Unit weight, kg	195
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	13,2
Maximal operating current HW, A	7,2
Filters dimensions BxHxL, mm	800x400x46-M5
Electric power input of the fan drive at maximum flow rate, W	470
Electric air heater capacity, kW / Δt, °C	4,5 / 9,6
Control panel	C5.1
Maintenance space, mm	800

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	57
Supply outlet	71
Exhaust inlet	57
Exhaust outlet	68
Casing	50

A-weighted sound pressure level L_{PA} , dB(A)

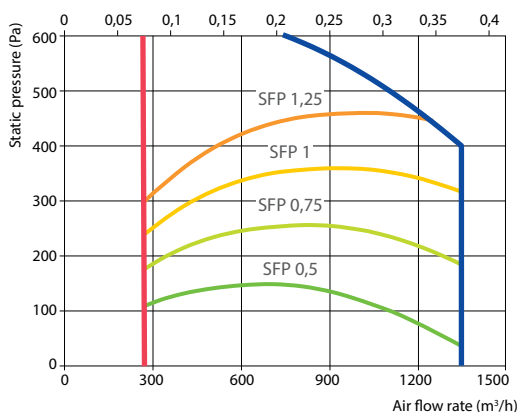
10 m² normally isolated room, distance from casing – 3 m.

Surroundings	40
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Performance

Unit with standard equipment and HE

Air flow rate (m³/s)



Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M
	B/C AGS-315-100-1200-M
PPU	PPU-HW-3R-15-1,0-W2
Air heater-cooler	DCW-1,2-8
2-way valve	VVP47.15-2,5+SSP61
DX cooler	DCF-1,2-8
Cooling unit	MOU-24HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

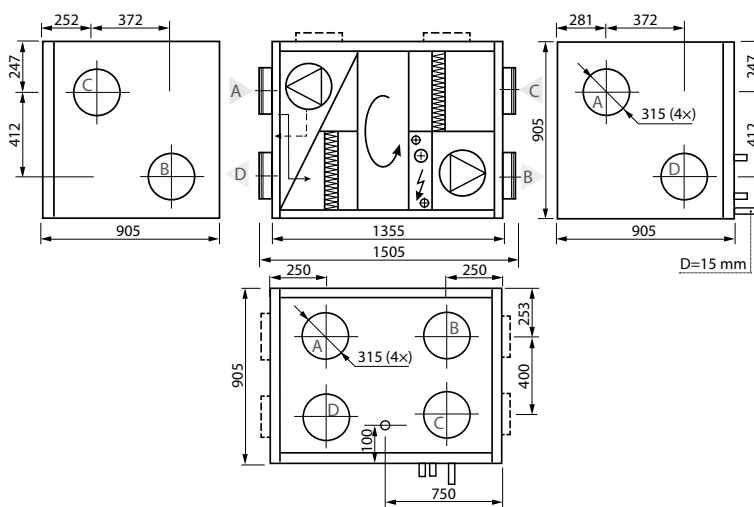
	Winter				Summer	
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	14,5	15,9	16,7	17,5	18,4	23,3

* indoor +22°C, 10% RH

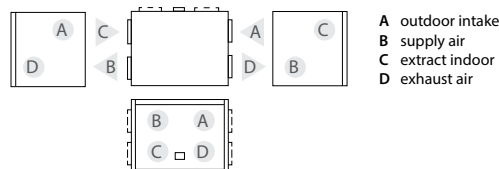
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	3,3	3,3	3,3	3,3	4,7
Flow rate, dm ³ /h	144	144	143	142	803
Pressure drop, kPa	1	1	1	1	10,5
Temperature in/out, °C	14,5/22				23,3/18
Maximal capacity, kW	29,5	23,1	16,9	10,7	8,5
Connection, "	1/2				

Shown as right (R1)



Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Verso R 1200 F

Nominal air flow, m ³ /h	1200
Panel thickness, mm	50
Unit weight, kg	135
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	11
Maximal operating current HW, A	7,2
Filters dimensions BxHxL, mm	410x420x46-M5
Electric power input of the fan drive at maximum flow rate, W	470
Electric air heater capacity, kW / Δt, °C	3 / 6,9
Control panel	C5.1
Maintenance space, mm	400

Acoustic data

A-weighted sound power level L_{WA} dB(A) at nominal flow rate

Supply inlet	64
Supply outlet	73
Exhaust inlet	64
Exhaust outlet	73
Casing	54

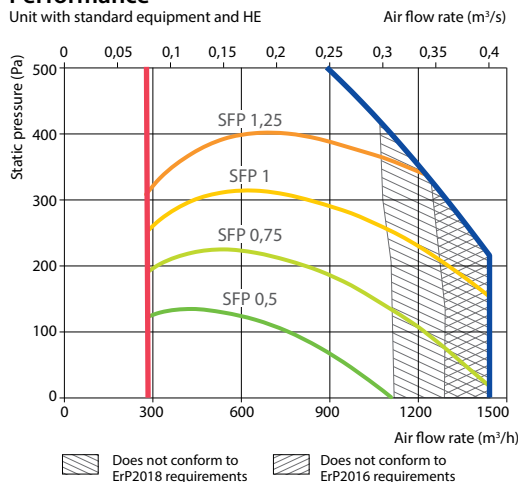
A-weighted sound pressure level L_{pA} dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	44
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Performance

Unit with standard equipment and HE



Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M B/C AGS-315-100-1200-M
PPU	PPU-HW-3R-15-1,0-W2
Air heater-cooler	DCW-1,2-8
2-way valve	VVP47.15-2,5+SSP61
DX cooler	DCF-1,2-8
Cooling unit	MOU-24HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter					Summer
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	11,7	13,6	14,7	15,8	17	23,8

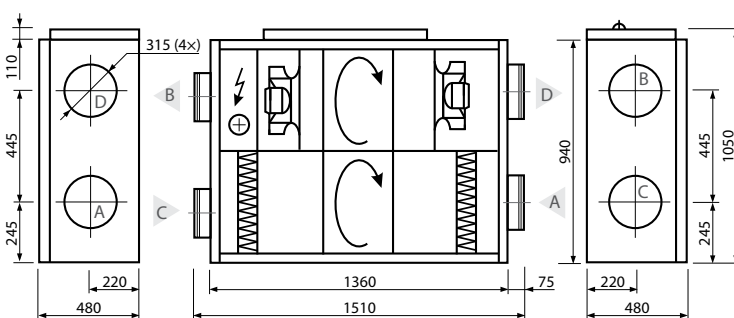
* indoor +22°C, 10% RH

Hot water duct air heater (DH)**

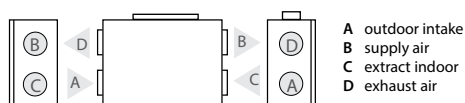
	Winter			
Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	4,2	4,2	4,2	4,2
Flow rate, dm ³ /h	183	182	181	181
Pressure drop, kPa	3,5	3,5	3,6	3,7
Temperature in/out, °C	11,7/22			
Maximal capacity, kW	12,8	10,5	8,3	6,0
Connection, "	½			
Dimensions, mm	510x470x270			
Hot water duct heater type	DH-315			

** option

Shown as left (L1)



Shown as right (R1)



Verso R 1200 F – with removable doors.
Verso R 1200 F S – with sliding doors.

Verso R 1400 U/H/V

Verso R 1400 UH data

Nominal air flow, m ³ /h	1500
Panel thickness, mm	50
Unit weight, kg	195
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	13,2
Maximal operating current HW, A	7,2
Filters dimensions BxHxL, mm	800x400x46-M5
Electric power input of the fan drive at maximum flow rate, W	470
Electric air heater capacity, kW / Δt, °C	4,5 / 8,3
Control panel	C5.1
Maintenance space, mm	800



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	59
Supply outlet	74
Exhaust inlet	60
Exhaust outlet	71
Casing	54

A-weighted sound pressure level L_{PA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	44
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Temperature efficiency

	Winter				Summer	
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	14	15,4	16,3	17,2	18,1	23,4

* indoor +22°C, 10% RH

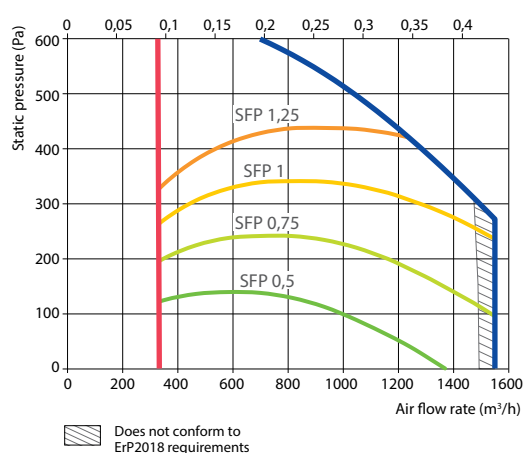
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	4	4	4	4	5,5
Flow rate, dm ³ /h	178	177	176	175	939
Pressure drop, kPa	1	1	1	1	13,8
Temperature in/out, °C	14/22				23,4/18
Maximal capacity, kW	33,8	26,8	20	13,5	9,6
Connection, "	1/2				

Performance

Unit with standard equipment and HE

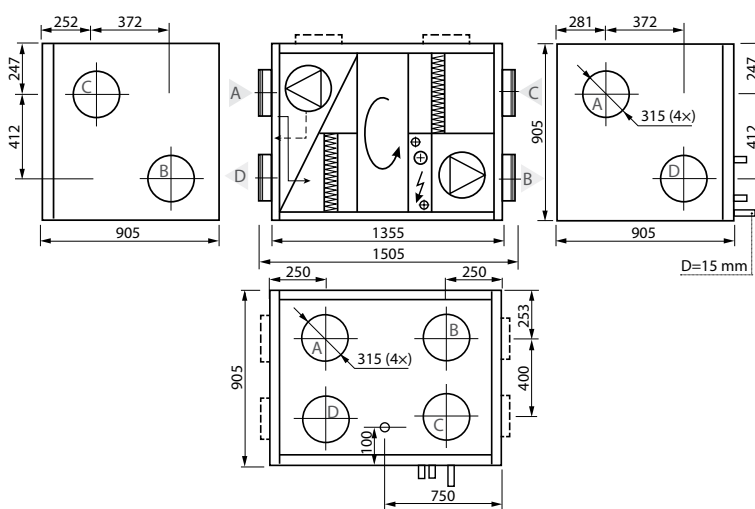
Air flow rate (m³/s)



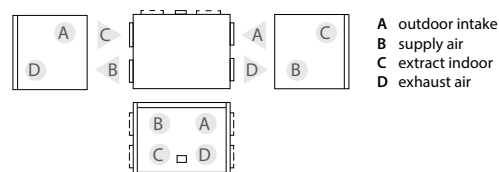
Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M B/C AGS-315-100-1200-M
PPU	PPU-HW-3R-15-1,0-W2
Air heater-cooler	DCW-1,4-9
2-way valve	VVP47.20-4,0+SSP61
DX cooler	DCF-1,4-10
Cooling unit	MOU-36HFN6-KA8243

Shown as right (R1)



Shown as left (L1)



Verso R 1600 U/H/V

Verso R 1600 UH data

Nominal air flow, m ³ /h	1800
Panel thickness, mm	50
Unit weight, kg	270
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	13,2
Maximal operating current HW, A	7,2
Filters dimensions BxHxL, mm	800x450x46-M
Electric power input of the fan drive at maximum flow rate, W	470
Electric air heater capacity, kW / Δt, °C	4,5 / 6,9
Control panel	C5.1
Maintenance space, mm	800

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	61
Supply outlet	76
Exhaust inlet	61
Exhaust outlet	73
Casing	55

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	45
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The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter				Summer
Outside temperature, °C	-23	-15	-10	-5	0
After heat exchanger*, °C	13,1	14,7	15,7	16,7	17,6

* indoor +22°C, 10% RH

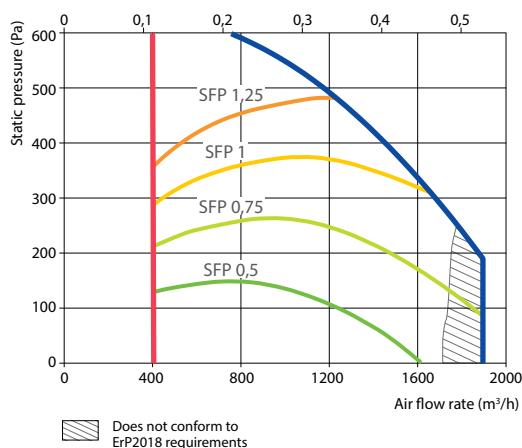
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	5,4	5,4	5,4	5,4	4,2
Flow rate, dm ³ /h	237	236	235	234	716
Pressure drop, kPa	1	1	1	1	1
Temperature in/out, °C	13,1/22				23,6/18
Maximal capacity, kW	18,6	15,3	11,9	8,6	4,2
Connection, "	¾				

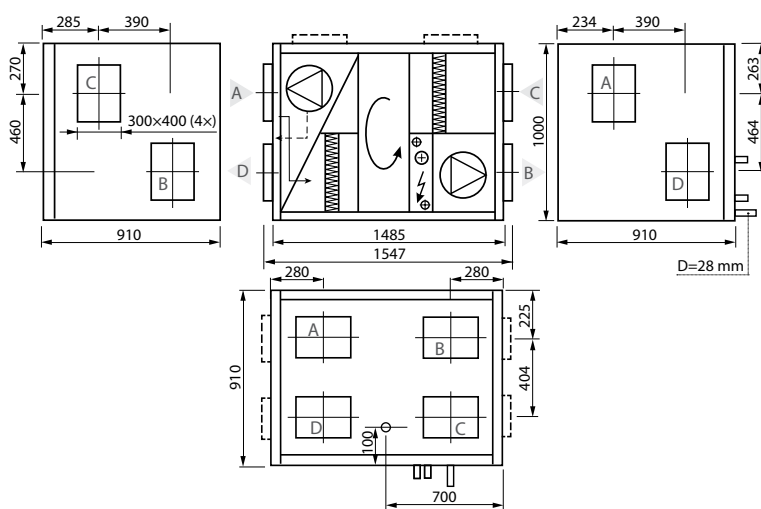
Performance

Unit with standard equipment and HE

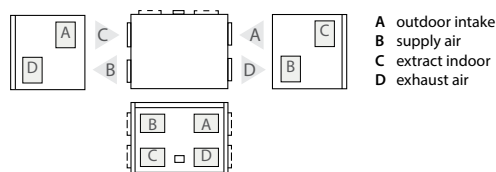
Air flow rate (m³/s)



Shown as right (R1)



Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Accessories

Closing damper	H	SRU-M-300x400+LF24/LM24
	V	SRU-M-400x300+LF24/LM24
Silencer	A/D	STS-IVR3BA-600-300-700-S
	B/C	STS-IVR3BA-600-300-1250-S
PPU		PPU-HW-3R-15-1,0-W2
Air heater-cooler		DCW-1,6-11
2-way valve		VVP47.20-4,0+SSP61
DX cooler		DCF-1,6-11
Cooling unit		MOU-36HFN6-KA8243

Verso R 2000 U/H/V

Verso R 2000 UH data

Nominal air flow, m ³ /h	2000
Panel thickness, mm	50
Unit weight, kg	285
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	15,3
Maximal operating current HW, A	5
Filters dimensions BxHxL, mm	800x450x46-M5
Electric power input of the fan drive at maximum flow rate, W	500
Electric air heater capacity, kW / Δt, °C	7,5/10,4
Control panel	C5.1
Maintenance space, mm	800

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	63
Supply outlet	78
Exhaust inlet	63
Exhaust outlet	75
Casing	57

A-weighted sound pressure level L_{PA} , dB(A)

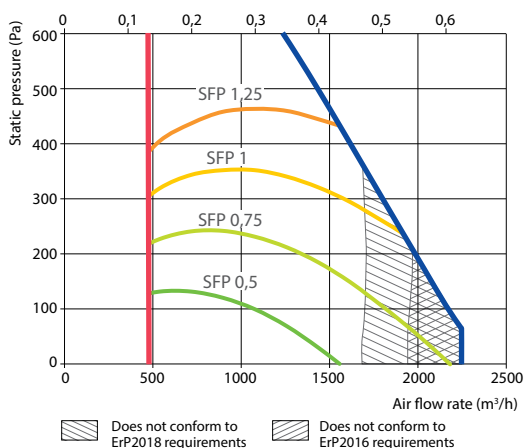
10 m² normally isolated room, distance from casing – 3 m.

Surroundings	46
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Performance

Unit with standard equipment and HE

Air flow rate (m³/s)



Accessories

Closing damper	H	SRU-M-300x400+LF24/LM24
	V	SRU-M-400x300+LF24/LM24
Silencer	A/D	STS-IVR3BA-600-300-700-S
	B/C	STS-IVR3BA-600-300-1250-S
PPU		PPU-HW-3R-15-1,6-W2
Air heater-cooler		DCW-2,0-13
2-way valve		VVP47.20-4,0+SSP61
DX cooler		DCF-2,0-14
Cooling unit		MOU-48HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

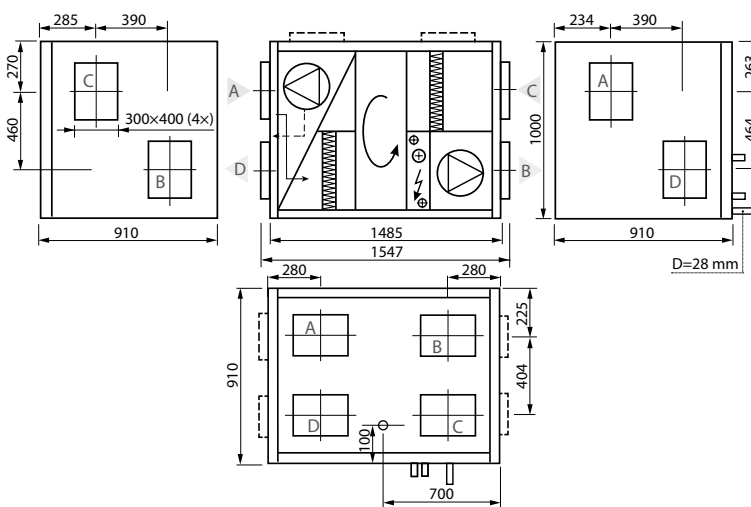
	Winter				Summer	
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	12,5	14,2	15,2	16,3	17,4	23,7

* indoor +22°C, 10% RH

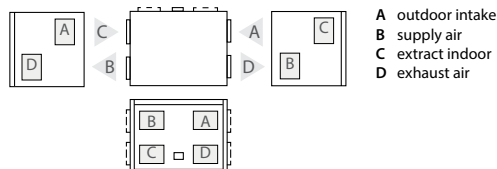
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	6,4	6,4	6,4	6,4	8,2
Flow rate, dm ³ /h	281	280	279	278	1408
Pressure drop, kPa	1	1	1	1	1,7
Temperature in/out, °C	12,5/22				23,7/18
Maximal capacity, kW	24,8	16,2	12,7	9,2	8,2
Connection, "	¾				

Shown as right (R1)



Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Verso R 2000 F

Nominal air flow, m ³ /h	2000
Panel thickness, mm	50
Unit weight, kg	280
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	17,1
Maximal operating current HW, A	6,8
Filters dimensions BxHxL, mm	560x420x96-M5
Electric power input of the fan drive at maximum flow rate, W	660
Electric air heater capacity, kW / Δt, °C	7,5/10,4
Control panel	C5.1
Maintenance space, mm	400

Acoustic data

A-weighted sound power level L_{WA} dB(A) at nominal flow rate

Supply inlet	69
Supply outlet	79
Exhaust inlet	69
Exhaust outlet	79
Casing	59

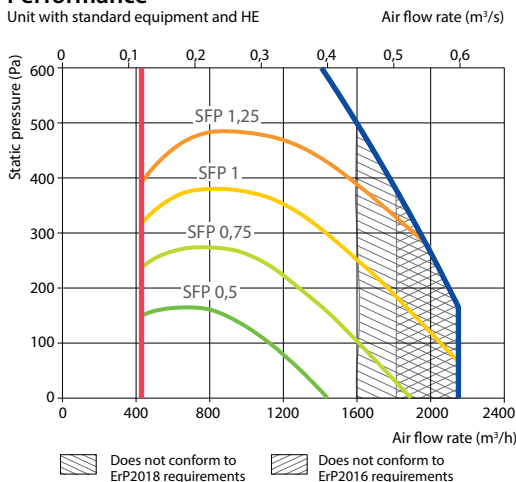
A-weighted sound pressure level L_{pA} dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	49
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Performance

Unit with standard equipment and HE



Accessories

Closing damper	AGUJ-M-355+LF24/LM24
Silencer	A/D AGS-355-100-900-M B/C AGS-355-100-1200-M
PPU	PPU-HW-3R-15-1,6-W2
Air heater-cooler	DCW-2,0-13
2-way valve	VVP47.20-4,0+SSP61
DX cooler	DCF-2,0-14
Cooling unit	MOU-48HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter					Summer
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	14,2	15,6	16,5	17,3	18,2	23,4

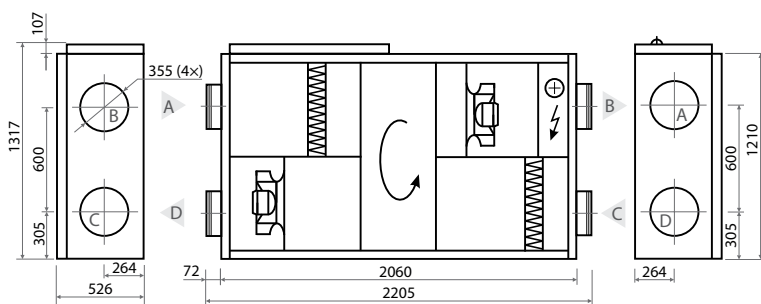
* indoor +22°C, 10% RH

Hot water duct air heater (DH)**

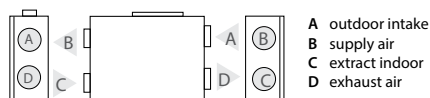
	Winter			
Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	5,2	5,2	5,2	5,2
Flow rate, dm ³ /h	231	230	229	228
Pressure drop, kPa	6	6,1	6,3	6,4
Temperature in/out, °C	14,2/22			
Maximal capacity, kW	18,6	15,2	11,7	8,4
Connection, "	½			
Dimensions, mm	600x510x310			
Hot water duct heater type	DH355			

** option

Shown as right (R1)



Shown as left (L1)



Verso R 2500 U/H/V

Verso R 2500 UH data

Nominal air flow, m ³ /h	2500
Panel thickness, mm	50
Unit weight, kg	285
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	17,1
Maximal operating current HW, A	6,8
Filters dimensions BxHxL, mm	800x450x46-M5
Electric power input of the fan drive at maximum flow rate, W	660
Electric air heater capacity, kW / Δt, °C	7,5/8,3
Control panel	C5.1
Maintenance space, mm	800



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	67
Supply outlet	82
Exhaust inlet	67
Exhaust outlet	79
Casing	60

A-weighted sound pressure level L_{PA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	49
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Temperature efficiency

	Winter				Summer
Outside temperature, °C	-23	-15	-10	-5	0
After heat exchanger*, °C	11,1	13	14,2	15,4	16,7

* indoor +22°C, 10% RH

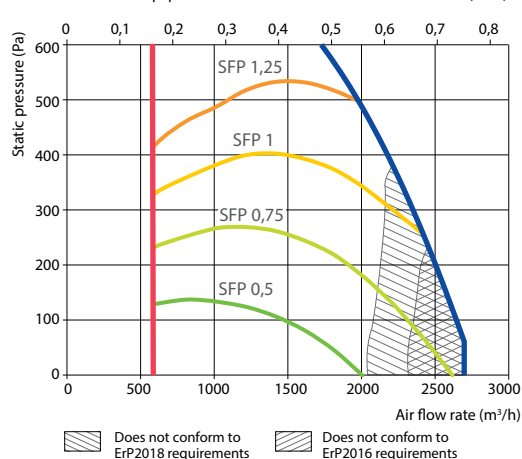
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	9,1	9,1	9,1	9,1	10,2
Flow rate, dm ³ /h	404	402	400	398	1749
Pressure drop, kPa	1	1	1	1	2,5
Temperature in/out, °C	11,1/22				23,9/18
Maximal capacity, kW	38,4	29,7	20,8	12,1	10,2
Connection, "	3/4				

Performance

Unit with standard equipment and HE

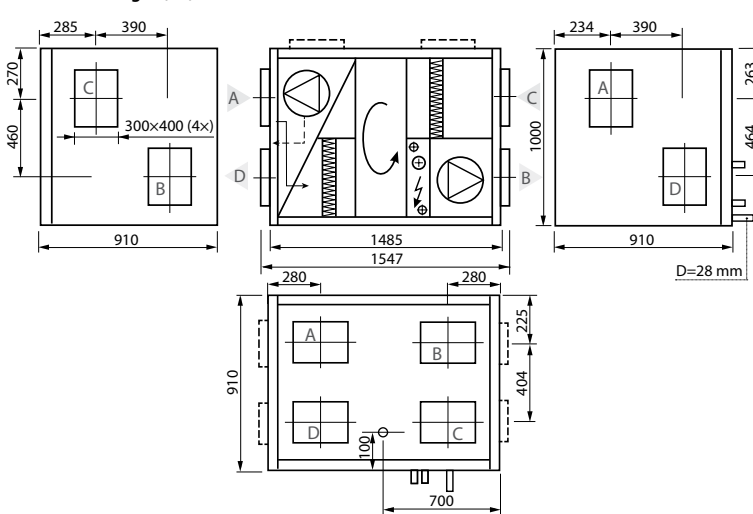
Air flow rate (m³/s)



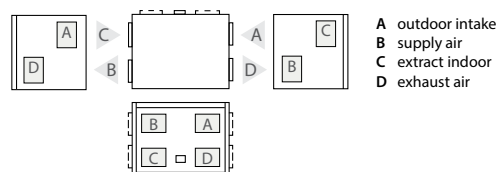
Accessories

Closing damper	H	SRU-M-300x400+LF24/LM24
	V	SRU-M-400x300+LF24/LM24
Silencer	A/D	STS-IVR3BA-600-400-700-S
	B/C	STS-IVR3BA-600-400-1250-S
PPU		PPU-HW-3R-15-1,6-W2
Air heater-cooler		DCW-2,5-17
2-way valve		VVP45.25-6,3+SSB61
DX cooler		DCF-2,5-17
Cooling unit		MOU-55HFN6-KA8243

Shown as right (R1)



Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Verso R 3000 U/H/V

Verso R 3000 UH data

Nominal air flow, m ³ /h	3600
Panel thickness, mm	50
Unit weight, kg	440 (135/160/145)
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	16,7
Maximal operating current HW, A	4,2
Filters dimensions BxHxL, mm	525x510x46-M5 (x2)
Electric power input of the fan drive at maximum flow rate, W	1000
Electric air heater capacity, kW / Δt, °C	9/6,9
Control panel	C5.1
Maintenance space, mm	1000

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	66
Supply outlet	83
Exhaust inlet	67
Exhaust outlet	80
Casing	57

A-weighted sound pressure level L_{pA} , dB(A)

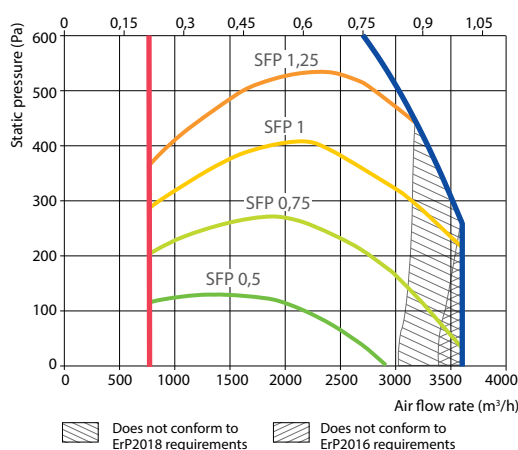
10 m² normally isolated room, distance from casing – 3 m.

Surroundings	46
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Performance

Unit with standard equipment and HE

Air flow rate (m³/s)



Accessories

Closing damper	H	SRU-M-400x500+LF24/LM24
	V	SRU-M-500x400+LF24/LM24
Silencer	A/D	STS-IVR3BA-600-500-700-S
	B/C	STS-IVR3BA-600-500-1250-S
PPU		PPU-HW-3R-15-2,5-W2
Air heater-cooler		DCW-3,0-20
2-way valve		VVP45.25-6,3+SSB61
DX cooler		DCF-3,0-20-2
Cooling unit		2xMOU-36HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

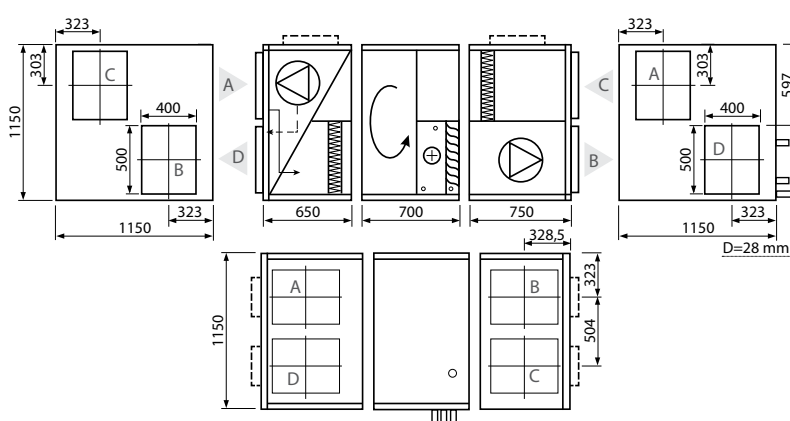
	Winter					Summer
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger* °C	12.4	14.1	15.2	16.3	17.3	23.7

* indoor +22°C, 10% RH

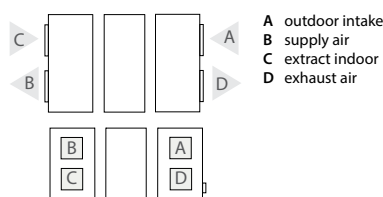
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	11,6	11,6	11,6	11,6	13,1
Flow rate, dm ³ /h	512	509	507	505	2252
Pressure drop, kPa	1	1	1	1	3,8
Temperature in/out, °C	12,4/22				23,7/18
Maximal capacity, kW	58,1	45,8	33,7	21,5	16,1
Connection, "	1				

Shown as right (R1)



Shown as left (L1)



Verso R 4000 U/H/V

Verso R 4000 UH data

Nominal air flow, m ³ /h	3900
Panel thickness, mm	50
Unit weight, kg	450 (140/160/150)
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	25,6
Maximal operating current HW, A	4,4
Filters dimensions BxHxL, mm	525x510x46-M5 (x2)
Electric power input of the fan drive at maximum flow rate, W	1000
Electric air heater capacity, kW / Δt, °C	15/10,7
Control panel	C5.1
Maintenance space, mm	1000

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	67
Supply outlet	83
Exhaust inlet	67
Exhaust outlet	81
Casing	59

A-weighted sound pressure level L_{PA} , dB(A)

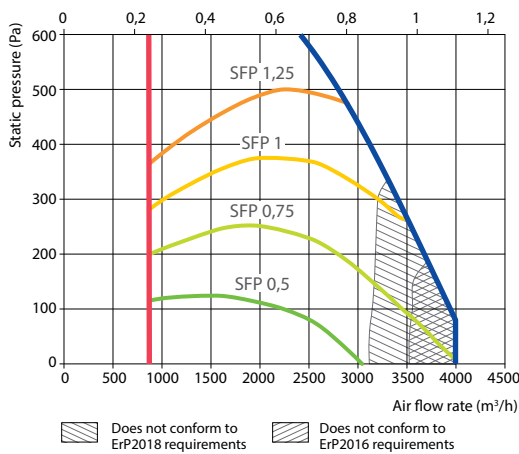
10 m² normally isolated room, distance from casing – 3 m.

Surroundings	48
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Performance

Unit with standard equipment and HE

Air flow rate (m³/s)



Accessories

Closing damper	H	SRU-M-400x500+LF24/LM24
	V	SRU-M-500x400+LF24/LM24
Silencer	A/D	STS-IVR3BA-800-500-700-S
	B/C	STS-IVR3BA-800-500-1250-S
PPU		PPU-HW-3R-15-2,5-W2
Air heater-cooler		DCW-4,0-27
2-way valve		VVP45.25-10+SSC61
DX cooler		DCF-4,0-27-2
Cooling unit		2xMOU-48HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter				Summer	
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	11,9	13,7	14,8	16	17,1	23,8

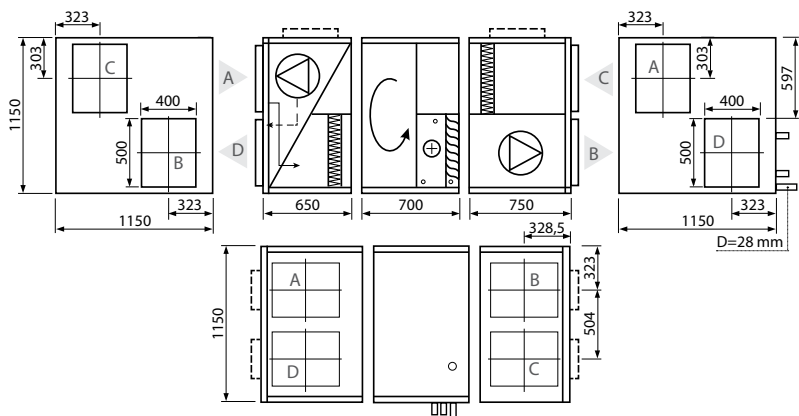
* indoor +22°C, 10% RH

Changeover water heating/cooling exchanger (HCW)

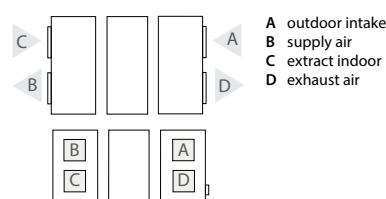
	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	12,7	12,7	12,7	12,7	14,2
Flow rate, dm ³ /h	560	558	555	553	2429
Pressure drop, kPa	1	1	1	1	4,4
Temperature in/out, °C	11,9/22				23,8/18
Maximal capacity, kW	61,2	48,5	36,3	24,3	17,3
Connection, "	1				

Max air flow – 3743 m³.

Shown as right (R1)



Shown as left (L1)



Verso R 4500 U/H/V

Verso R 4500 UH data

Nominal air flow, m ³ /h	4500
Panel thickness, mm	50
Unit weight, kg	450 (140/160/150)
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	27,4
Maximal operating current HW, A	6,2
Filters dimensions BxHxL, mm	525x510x46-M5 (x2)
Electric power input of the fan drive at maximum flow rate, W	1700
Electric air heater capacity, kW / Δt, °C	15/9,3
Control panel	C5.1
Maintenance space, mm	1000

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	67
Supply outlet	84
Exhaust inlet	67
Exhaust outlet	81
Casing	58

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	47
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The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter				Summer
Outside temperature, °C	-23	-15	-10	-5	30
After heat exchanger*, °C	11	12,9	14,2	15,4	24

* indoor +22°C, 10% RH

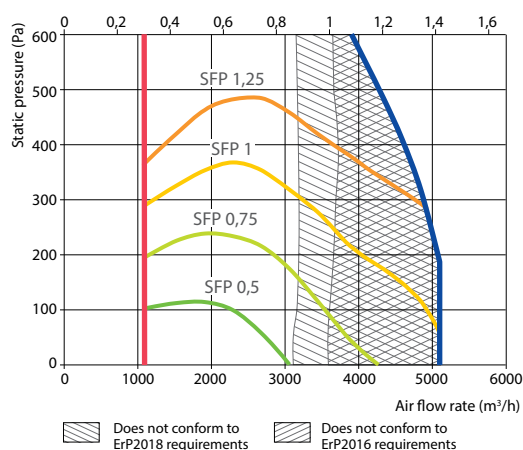
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	16,6	16,6	16,6	16,6	17,2
Flow rate, dm ³ /h	733	730	727	724	2943
Pressure drop, kPa	1	1	1	1	6,1
Temperature in/out, °C	11/22				24/18
Maximal capacity, kW	73,3	58,9	44,9	31,6	20
Connection, "	1				

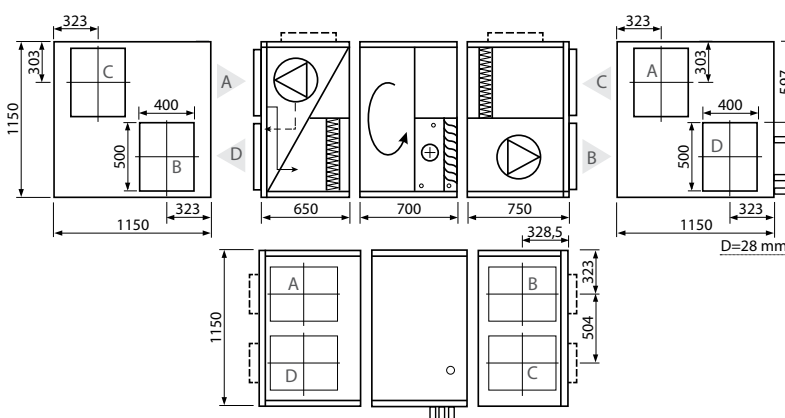
Performance

Unit with standard equipment and HE

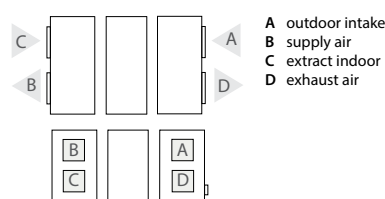
Air flow rate (m³/s)



Shown as right (R1)



Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Accessories

Closing damper	H	SRU-M-400x500+LF24/LM24
	V	SRU-M-500x400+LF24/LM24
Silencer	A/D	STS-IVR3BA-800-500-700-S
	B/C	STS-IVR3BA-800-500-1250-S
PPU		PPU-HW-3R-15-2,5-W2
Air heater-cooler		DCW-4,5-30
2-way valve		VVP45.25-10+SSC61
DX cooler		DCF-4,5-31-2
Cooling unit		2xMOU-55HFN6-KA8243

Verso R 7000 H

Nominal air flow, m ³ /h	8000
Panel thickness, mm	50
Unit weight, kg	780 (270/230/280)
Supply voltage, V	3~400
Maximal operating current, A	12,8
Filters dimensions B×H×L, mm	592×592-8×635-M5(×2)
Electric power input of the fan drive at maximum flow rate, W	2730
Control panel	C5.1
Maintenance space, mm	1400



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	70
Supply outlet	89
Exhaust inlet	72
Exhaust outlet	88
Casing	64

A-weighted sound pressure level L_{PA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	53
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Temperature efficiency

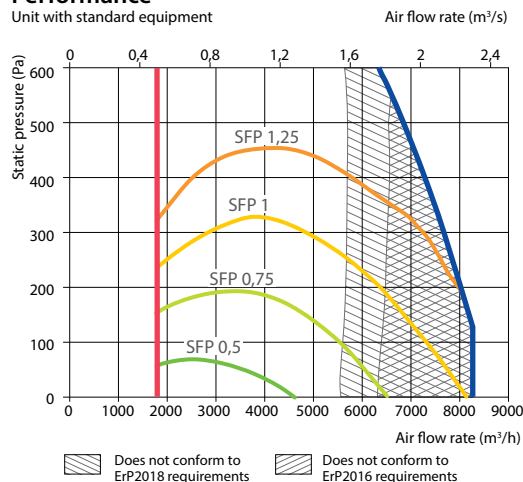
	Winter					Summer
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	11,6	13,4	14,6	15,8	16,9	23,8

* indoor +22°C, 10% RH

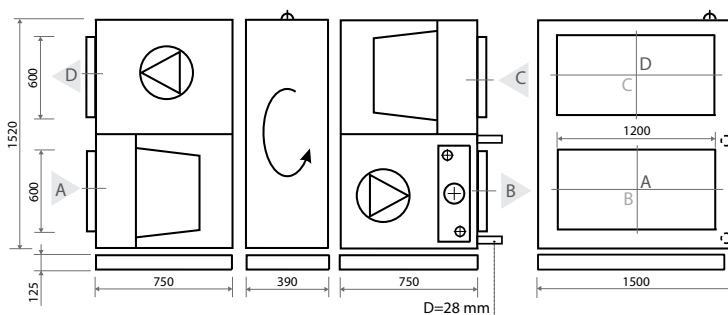
Hot water air heater

	Winter			
Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	27,9	27,9	27,9	27,9
Flow rate, dm ³ /h	1232	1226	1221	1216
Pressure drop, kPa	5,9	6,1	6,2	6,4
Temperature in/out, °C	11,6/22			
Maximal capacity, kW	83	66,4	58,1	41
Connection, "	1			

Performance



Shown as right (R1)



Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Accessories

Closing damper	SRU-M-1200x600+LF24/LM24
Silencer	A/D STS-IVR3BA-1200-600-700-S B/C STS-IVR3BA-1200-600-1250-S
PPU	PPU-HW-3R-20-4,0-W2
Air heater-cooler	DCW-7,0-47
2-way valve	HRB3 32 16+AMB162
DX cooler	DCF-7,0-48-3
Cooling unit	3xMOU-55HFN6-KA8243

Verso P

Air handling units with a plate heat exchanger.

Advantages of Verso P units

Heat energy saving

In the process of ventilation the heat of the exhaust air is recovered to the supplied air.

Totally separated airflows

The supply and exhaust airflows are separated, thus making possible utilization of the heat of the extracted foul air.

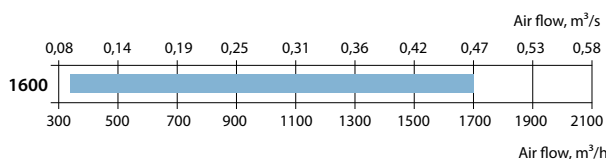
Long term efficient operation

The absence of movable parts ensures effective heat exchange and long run.

Low noise level

Verso P air handling units are equipped with silently operating fans and sound insulation, which ensures low noise level.

Standard sizes of Verso P units



Unit size	Supply/exhaust air filter class		Heater			Cooler		Inspection side		Control system C3 panel C3.1
	M5	F7	HE	HW	HCW	CW	CDX	R1	L1	
Verso P 1600 F	●	○	○	○	△	△	△	○	○	●

● standard equipment
○ possible choice
△ ordered separately

Duct connection

F – false ceiling.

Heater

HE – electric heater.

HW – water duct heater is installed on the duct and must be ordered separately. Heaters are mounted on the outside of the unit in any user-convenient place. 0...10 V heater control included in automatic control system.

HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

Cooler

CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.

CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

Inspection side

See p. 132.

Standard plate heat exchanger

Design:

- A packet of thin aluminum plates with spacing left between them.
- Exhaust warm air flows through every second channel between the plates warming up fresh air flowing through the remaining channels.
- To prevent the plates from bending under the impact of differential pressure of the air flows, strengthening gaskets are inserted between the plates.
- Rough surface of the aluminum plates generates the turbulent air stream thus intensifying heat exchange.

Anti-frosting protection

Decreasing of the outdoor air temperature below -10°C (it is an approximate value depending on the relative humidity of the air flows and temperature) the exhaust air enhances the danger of the heat exchanger freezing. For the conditions when outdoor temperatures may be lower than -4°C, duct mounted preheater is recommended.

Defrosting of the heat exchanger is controlled automatically in response to sensor signals.

Temperature sensors are supplied with the unit.

Note: The water trap must be installed for condensate drain!

Control system

C3 Control features:

- Unit mode selection: On / Off / Auto;
- Setting intensity level (1,2,3);
- Adjusting of intensity levels every 1% for each fan;
- Exhaust air flow correction;
- Constant air flow control and indication (CAV);
- Weekly schedule programming;
- Setting temperature from the panel 15–30 °C;
- Temperature control selection: Supply / Room / Auto;
- Temperature setpoint sliding +/- 9 °C for time period;
- Season setting: Summer / Winter / Auto;
- Correction of ventilation intensity in winter time;
- Remote control via external contact;
- Remote unit failure indication;
- Choosing of panel language (1 of 15);
- Errors indication and registration log (error log with 50 events with time, date in the panel);
- Settings menu blocking with PIN;
- Air quality control;
- Summer night cooling;
- VAV control;
- OVR function;
- Unit PC control (required PING2 module).

Verso P 1600 F

Nominal air flow, m ³ /h	1700
Panel thickness, mm	50
Unit weight, kg	190
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	17,5
Maximal operating current HW, A	7,2
Filters dimensions BxHxL, mm	600x420x96-M5
Electric power input of the fan drive at maximum flow rate, W	470
Electric air heater capacity, kW / Δt, °C	7,5/12,3
Control panel	3.1
Maintenance space, mm	400

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	59
Supply outlet	74
Exhaust inlet	60
Exhaust outlet	74
Casing	55

A-weighted sound pressure level L_{PA} , dB(A)

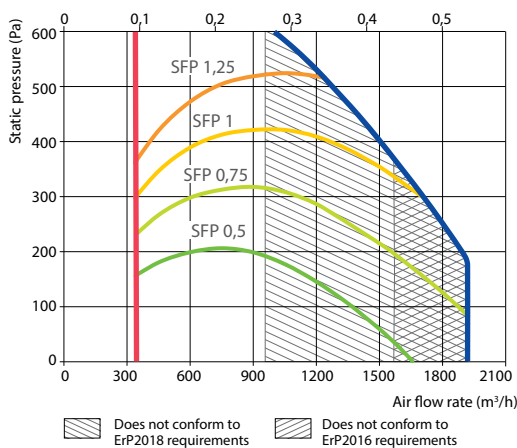
10 m² normally isolated room, distance from casing – 3 m.

Surroundings	44
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Performance

Unit with standard equipment and HE

Air flow rate (m³/s)



Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M B/C AGS-315-100-1200-M
PPU	PPU-HW-3R-20-4,0-W2
Air heater-cooler	DCW-1,6-11
2-way valve	VVP47.20-4,0+SSP61
DX cooler	DCF-1,6-11
Cooling unit	MOU-36HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter				Summer	
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	6,5	9,3	11	12,8	14,5	24,7

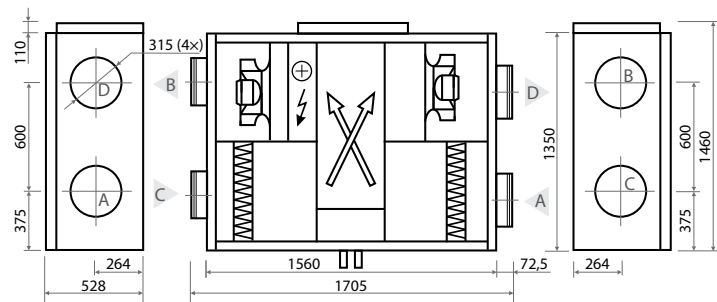
* indoor +22°C, 10% RH

Hot water duct air heater (DH)**

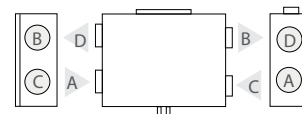
	Winter			
Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	8,9	8,9	8,9	8,9
Flow rate, dm ³ /h	391	389	387	386
Pressure drop, kPa	1,1	1,2	1,2	1,2
Temperature in/out, °C	6,5/22			
Maximal capacity, kW	33,9	28,1	22,3	16,7
Connection, "	½			
Dimensions, mm	510x470x270			
Hot water duct heater type	DH-315			

** option

Shown as left (L1)



Shown as right (R1)



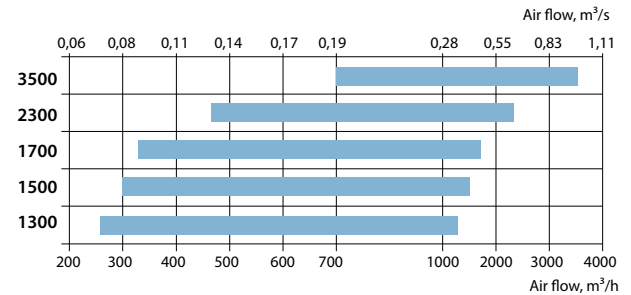
- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air

Verso CF

Air handling units with a counterflow plate heat exchanger.



Standard sizes of Verso CF units



Advantages of Verso CF units

Heat energy saving

In the process of ventilation the heat of the exhaust air is recovered to the supplied air.

Totally separated airflows

The supply and exhaust airflows are separated, thus making possible utilization of the heat of the extracted foul air.

Long term efficient operation

The absence of movable parts ensures effective heat exchange and long run.

Low noise level

Verso CF air handling units are equipped with silently operating fans and sound insulation, which ensures low noise level.

Counterflow aluminium plate heat exchanger

Temperature efficiency factor – up to 92% in wet conditions and up to 88% in dry conditions.

- Heat exchanger is tight, both air flows are separated, use of heat of polluted air is possible.
- Aluminium construction is resistant to sea water, it has long service life.
- There is a build-in bypass with damper for heat recovery regulation and exchanger frost protection.
- Each unit with plate heat exchanger is equipped with stainless steel sloping drain tray and water trap.

Anti-frosting protection

If the temperature of the exhaust air drops below 4 °C, freezing may occur at the exhaust air corner of the heat exchanger. To avoid freezing the temperature sensor is installed in this zone to give a signal to the automatic control. If for some period of time temperature will not rise up, by-pass damper is opened to redirect outdoor air through by-pass channel and only warm exhaust air flows through exchanger to defrost risky zone.

Verso CF range

Unit size	Supply / exhaust air filter class		Heater			Cooler		Inspection side		Control system C5 panel C5.1
	M5	F7	HE	HW	HCW	CW	CDX	R1	L1	
Verso CF 1300 U	●	○	○		○	△	△	○	○	●
Verso CF 1300 F	●	○	●	△	△	△	△	○	○	●
Verso CF 1500 F	●	○	●	△	△	△	△	○	○	●
Verso CF 1700 U	●	○	○		○	△	△	○	○	●
Verso CF 2300 U	●	○	○		○	△	△	○	○	●
Verso CF 3500 U	●	○		●		△	△	○	○	●

● standard equipment
○ possible choice
△ ordered separately

■ Duct connection

H – horizontal.
V – vertical.
U – universal, 14 installation options.
F – false ceiling.

■ Heater

HE – electric heater.

HW – water duct heater is installed on the duct and must be ordered separately. Heaters are mounted on the outside of the unit in any user-convenient place. 0...10 V heater control included in automatic control system.

HCW – heater-cooler one for both – heating and cooling. Ideal for buildings using geothermal energy.

■ Cooler

CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.

CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

■ Inspection side

See p. 132

■ Control system

C5 Control features:

- 5 different operation modes: *Comfort1*, *Comfort2*, *Economy1*, *Economy2* and *Special*;
- Temperature control modes: Supply air / Extract air / Room;
- Energy parameters indication: thermal efficiency of the heat exchanger, heat exchanger's recovered energy, energy saving indicator;
- Air quality, minimum temperature control;
- Flow control modes: CAV, VAV and DCV;
- Weekly operating schedule;
- Air flow indication (m³/h, m³/s, l/s);
- Rotary or plate heat exchanger failure protection;
- Rotary heat exchanger cleaning and warm-up function;
- Intelligent self-diagnostic;
- Summer night cooling;
- Air quality function;
- Supply air temperature control;
- Min. supply air temperature maintenance;
- Combined water heater & cooler control;
- Inverter-type DX outdoor unit control;
- Cooling recovery function;
- Outdoor compensated ventilation;
- Humidity control: air humidification and dehumidification*;
- Circulation pumps control by demand;
- Warm-up function of circulation pumps and mixing valves;
- Air filter clogging indication;
- Operation hours and energy counters;
- Remote control via web interface;
- Built-in data logger for all air handling unit parameters;
- Application software for smartphones based on "Android" and "iOS".

* additionally ordered function.

Verso CF 1300 U/H/V

Nominal air flow, m ³ /h	1300
Panel thickness, mm	50
Unit weight, kg	269
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	10,8
Maximal operating current HW, A	4,8
Filters dimensions BxHxL, mm	800x400x46-M5
Electric power input of the fan drive at maximum flow rate, W	273
Electric air heater capacity, kW / Δt, °C	4,5/9,6
Control panel	C5.1
Maintenance space, mm	800



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	62
Supply outlet	80
Exhaust inlet	62
Exhaust outlet	80
Casing	58

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	47
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Temperature efficiency

	Winter				Summer
Outside temperature, °C	-23	-15	-10	-5	0
After heat exchanger*, °C	13	14,5	15,5	16,5	17,5

* indoor +22°C, 10% RH

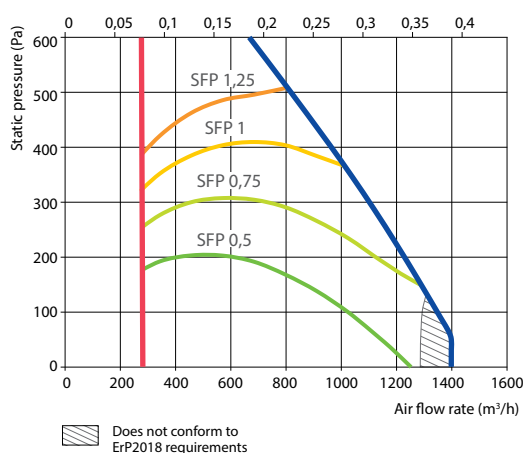
Changeover water heating/cooling exchanger (HCW)

	Winter				Summer
Water temperature in/out, °C	90/70	80/60	70/50	60/40	7/12
Capacity, kW	3,9	3,9	3,9	3,9	5
Flow rate, dm ³ /h	173	173	172	171	849
Pressure drop, kPa	1	1	1	1	11,1
Temperature in/out, °C	13/22				23,7/18
Maximal capacity, kW	27,7	22,1	16,7	11,4	8
Connection, "	1/2				

Performance

Unit with standard equipment and HE

Air flow rate (m³/s)



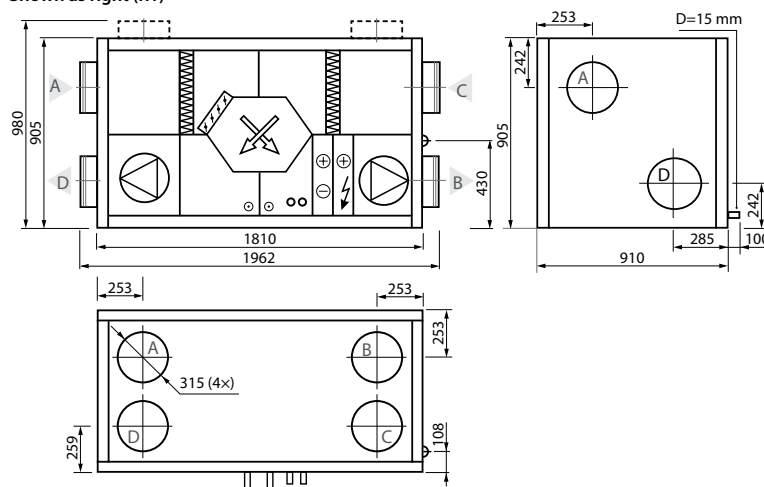
Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M
	B/C AGS-315-100-1200-M
PPU	PPU-HW-3R-15-2,5-W2
Air heater-cooler	DCW-1,4-9
2-way valve	VVP47.20-4,0+SSP61
DX cooler	DCF-1,4-10
Cooling unit	MOU-36HFN6-KA8243

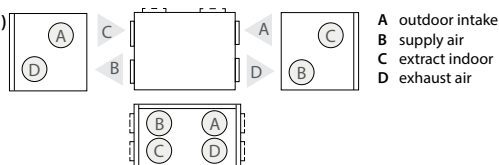
Available versions:

- 1) Electric air heater (HE);
- 2) Changeover water heating/cooling exchanger (HCW);
- 3) Changeover water heating/cooling exchanger (HCW) and electric air heater (HE).

Shown as right (R1)



Shown as left (L1)



- A outdoor intake
- B supply air
- C extract indoor
- D exhaust air

Verso CF 1300 F

Nominal air flow, m ³ /h	1300
Panel thickness, mm	50
Unit weight, kg	162
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	10,8
Maximal operating current HW, A	4,8
Filters dimensions BxHxL, mm	550x420x46-M5
Electric power input of the fan drive at maximum flow rate, W	273
Electric air heater capacity, kW / Δt, °C	4,5/9,6
Control panel	C5.1
Maintenance space, mm	400

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	64
Supply outlet	80
Exhaust inlet	64
Exhaust outlet	80
Casing	58

A-weighted sound pressure level L_{PA} , dB(A)

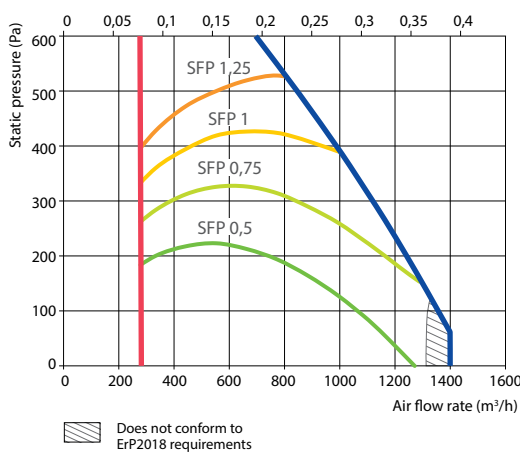
10 m² normally isolated room, distance from casing – 3 m.

Surroundings	47
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Performance

Unit with standard equipment and HE

Air flow rate (m³/s)



Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M B/C AGS-315-100-1200-M
PPU	PPU-HW-3R-15-2,5-W2
Air heater-cooler	DCW-1,4-9
2-way valve	VVP47.20-4,0+SSP61
DX cooler	DCF-1,4-10
Cooling unit	MOU-36HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter				Summer	
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	13	14,5	15,5	16,5	17,5	23,7

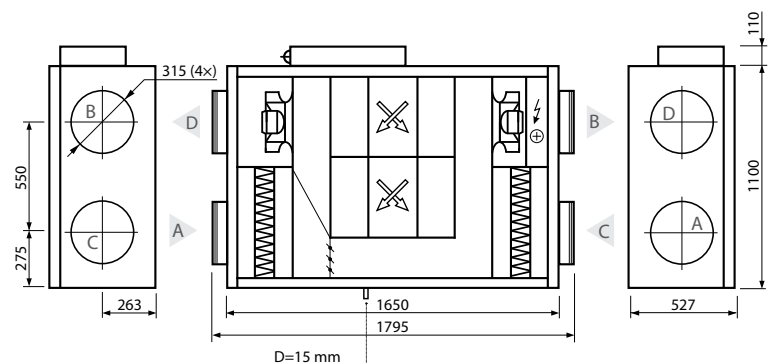
* indoor +22°C, 10% RH

Hot water duct air heater (DH)**

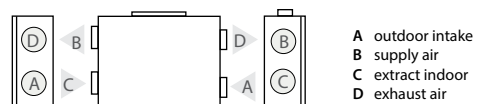
	Winter			
Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	3,9	3,9	3,9	3,9
Flow rate, dm ³ /h	174	173	172	172
Pressure drop, kPa	3,2	3,2	3,3	3,4
Temperature in/out, °C	13/22			
Maximal capacity, kW	13,1	10,7	8,3	6
Connection, "	1/2			
Dimensions, mm	510x470x270			
Hot water duct heater type	DH-315			

** option

Shown as right (R1)



Shown as left (L1)



A outdoor intake
B supply air
C extract indoor
D exhaust air

Verso CF 1500 F

Nominal air flow, m ³ /h	1500
Panel thickness, mm	50
Unit weight, kg	162
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	13,2
Maximal operating current HW, A	7,2
Filters dimensions BxHxL, mm	550x420x46-M5
Electric power input of the fan drive at maximum flow rate, W	470
Electric air heater capacity, kW / Δt, °C	4,5 / 8,3
Control panel	C5.1
Maintenance space, mm	400

Acoustic data

A-weighted sound power level L_{WA} dB(A) at nominal flow rate

Supply inlet	60
Supply outlet	74
Exhaust inlet	60
Exhaust outlet	75
Casing	56

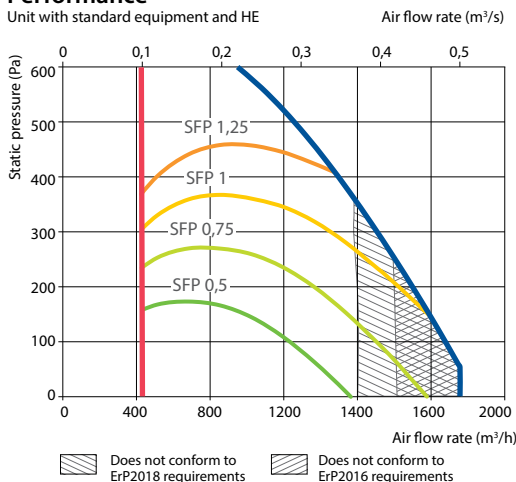
A-weighted sound pressure level L_{pA} dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	46
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Performance

Unit with standard equipment and HE



Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	A/D AGS-315-100-900-M
	B/C AGS-315-100-1200-M
PPU	PPU-HW-3R-20-4,0-W2
Air heater-cooler	DCW-1,6-11
2-way valve	VVP47.20-4,0+SSP61
DX cooler	DCF-1,6-11
Cooling unit	MOU-36HFN6-KA8243



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

	Winter				Summer	
Outside temperature, °C	-23	-15	-10	-5	0	30
After heat exchanger*, °C	12,7	14,3	15,3	16,3	17,3	23,8

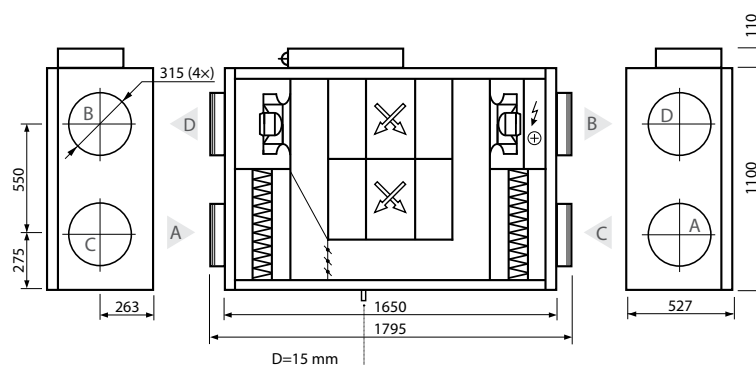
* indoor +22°C, 10% RH

Hot water duct air heater (DH)**

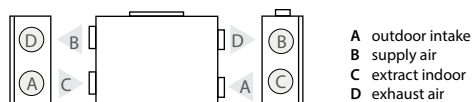
	Winter			
Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	4,7	4,7	4,7	4,7
Flow rate, dm ³ /h	208	207	206	205
Pressure drop, kPa	4,4	4,4	4,5	4,6
Temperature in/out, °C	12,7/22			
Maximal capacity, kW	14,8	12,1	9,5	6,9
Connection, "	½			
Dimensions, mm	510x470x270			
Hot water duct heater type	DH-315			

** option

Shown as right (R1)



Shown as left (L1)



Verso CF 3500 U

Nominal air flow, m ³ /h	3500
Panel thickness, mm	50
Unit weight, kg	510 (145/190/175)
Supply voltage, V	3~400
Maximal operating current, A	4,2
Filters dimensions B×H×L, mm	525×510×46-M5 (×2)
Electric power input of the fan drive at maximum flow rate, W	1000
Control panel	C5.1
Maintenance space, mm	1000



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	61
Supply outlet	84
Exhaust inlet	63
Exhaust outlet	84
Casing	59

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	49
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Temperature efficiency

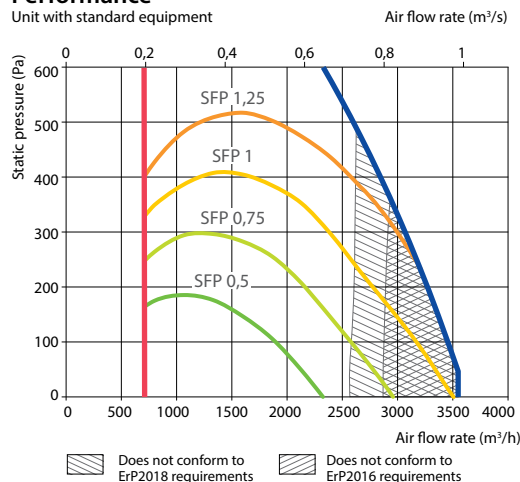
	Winter				Summer
Outside temperature, °C	-23	-15	-10	-5	0
After heat exchanger*, °C	14,3	15,4	16,2	16,9	17,8

* indoor +22°C, 10% RH

Hot water air heater

	Winter			
Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	9	9	9	9
Flow rate, dm ³ /h	397	395	393	392
Pressure drop, kPa	1,1	1,2	1,2	1,3
Temperature in/out, °C	14,3/22			
Maximal capacity, kW	31,1	25,1	19,2	13,5
Connection, "	1			

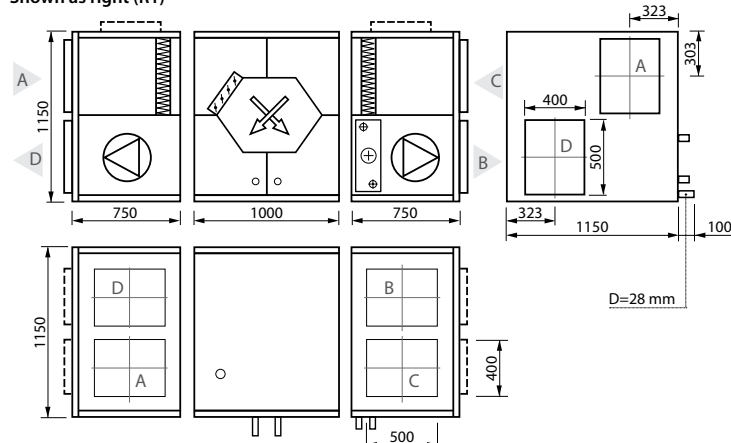
Performance



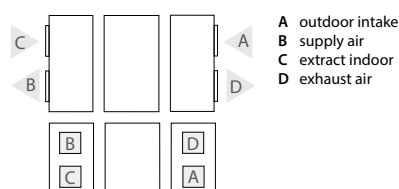
Accessories

Closing damper	H	SRU-M-400x500+LF24/LM24
	V	SRU-M-500x400+LF24/LM24
Silencer	A/D	STS-IVR3BA-800-500-700-S
	B/C	STS-IVR3BA-800-500-1250-S
PPU		PPU-HW-3R-25-6,3-W2
Air heater-cooler		DCW-4,0-27
2-way valve		VVP45.25-6,3+SSB61
DX cooler		DCF-4,0-27-2
Cooling unit		2xMOU-48HFN6-KA8243

Shown as right (R1)



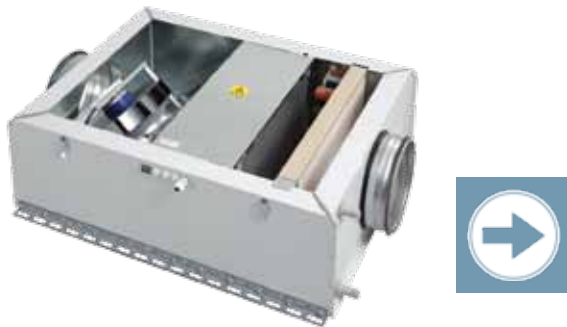
Shown as left (L1)



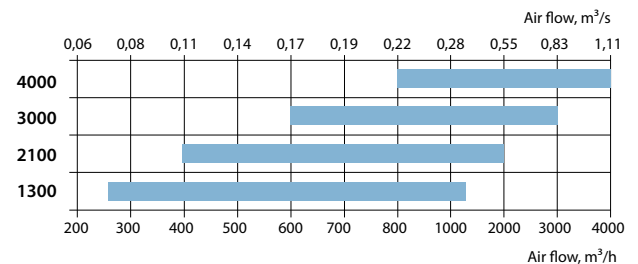
A outdoor intake
B supply air
C extract indoor
D exhaust air

Verso S

False ceiling supply air handling units.



Standard sizes of Verso S units



Advantages of Verso S units

- Height is only 297 mm / 350 mm / 545 mm – easy to choose the place for installation.
- Units are complemented with fastening profiles and vibration absorbing holders.
- Safe and handy design of removable cover ensures easy fixing of cover at different opening levels for performing maintenance and service inspection.
- Air handling units have integrated control system.
- Control panel may be installed in any user-convenient place.
- Control panel display enables to set the operation parameters of the unit and monitor them.
- There is a possibility to complement and control the duct mounted cooling section.

Verso S range

Unit size	Supply/exhaust air filter class		Heater			Cooler		Inspection side	Control system C5 panel C5.1
	M5	F7	HE	HW	HCW	CW	CDX		
Verso S 1300 F	●	○	○	○		△	△	○	●
Verso S 2100 F	●	○	○	○		△	△	○	●
Verso S 3000 F	●	○		●		△	△	○	●
Verso S 4000 F	●	○		●		△	△	○	●

● standard equipment
○ possible choice
△ ordered separately

■ Duct connection

F – false ceiling.

■ Heater

HE – electric heater.

HW – water air heater.

HCW – heater-cooler one for both – heating and cooling.

■ Cooler

CW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.

CDX – designed for air cooling using direct expansion cooling unit, provides a higher comfort level in rooms.

■ Inspection side

See p. 132

■ Control system

More information about C5 on p. 10.

Verso S 1300 F

Nominal air flow, m ³ /h	1200
Panel thickness, mm	50
Unit weight, kg	46
Filters dimensions BxHxL, mm	558x287x46-M5
Electric power input of the fan drive at reference flow rate, W	273
Control panel	C5.1
Maintenance space, mm	400



The photo is intended for informational purposes only, exact details may vary.

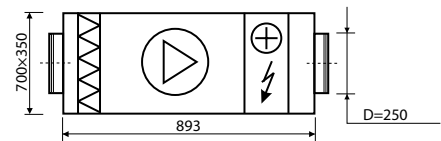
Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	72
Supply outlet	78
Casing	54

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

Surroundings	44
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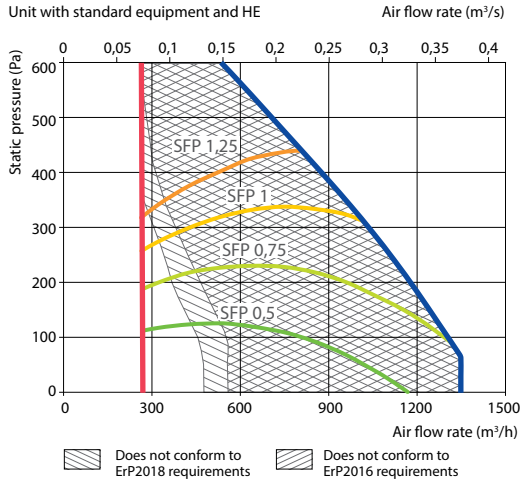


Technical data

Supply air handling unit	Supply voltage, V	Air heater capacity, kW	Maximal operating current, A	ΔT , °C
Verso S 1300 F-HE/9	3~400	9,0	15,4	21
Verso S 1300 F-HE/15	3~400	15,0	24,1	35
Verso S 1300 F-HW	1~230	–	2,9	–

Performance

Unit with standard equipment and HE



Hot water air heater

Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	17,3	16,6	14,1	8,6
Flow rate, dm ³ /h	764	731	617	374
Pressure drop, kPa	2	1,9	1,5	1
Temperature in/out, °C	-23/20	-23/18,4	-23/12,1	-10/11,3
Maximal capacity, kW	18,9	16,6	14,1	8,6
Connection, "	½			

Accessories

Closing damper	AGUJ-M-250+LF24/LM24
Silencer	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M
PPU	PPU-HW-3R-25-6,3-W2
Air heater-cooler	DCW-1,4-9
2-way valve	VVP47.20-4,0+SSP61
DX cooler	DCF-1,4-10
Cooling unit	MOU-36HFN6-KA8243

Verso S 2100 F

Nominal air flow, m ³ /h	2000
Panel thickness, mm	50
Unit weight, kg	73
Filters dimensions BxHxL, mm	858x287x46-M5
Electric power input of the fan drive at reference flow rate, W	2x170
Control panel	C5.1
Maintenance space, mm	400



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

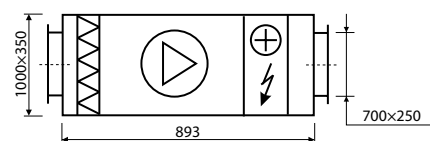
A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	70
Supply outlet	75
Casing	52

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	42
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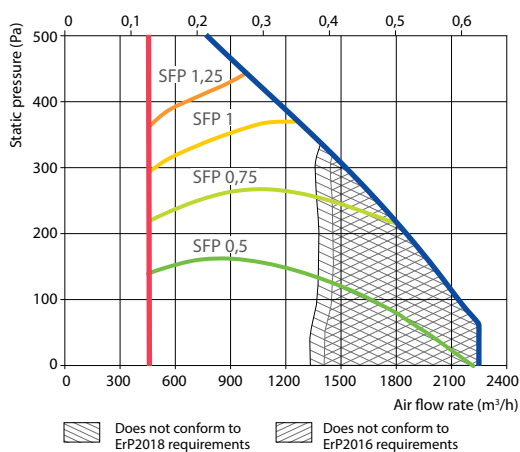
Technical data

Supply air handling unit	Supply voltage, V	Air heater capacity, kW	Maximal operating current, A	ΔT , °C
Verso S 2100 F-HE/15	3~400	15,0	25,0	21
Verso S 2100 F-HE/22,5	3~400	22,5	35,9	31
Verso S 2100 F-HW	1~230	–	3,8	–

Performance

Unit with standard equipment and HE

Air flow rate (m³/s)



Hot water air heater

Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	28,8	28,8	25,5	16,5
Flow rate, dm ³ /h	1273	1257	1115	718
Pressure drop, kPa	7,6	7,8	6,4	3
Temperature in/out, °C	-23/20	-23/20	-23/15	-10/14,5
Maximal capacity, kW	33,3	29,5	25,5	16,5
Connection, "	1/2			

Accessories

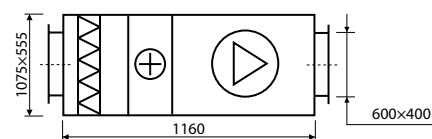
Closing damper	SRU-M-700x250+LF24/LM24
Silencer	A/D STS-IVR3BA-800-250-700-S
	B/C STS-IVR3BA-800-250-1250-S
PPU	PPU-HW-3R-25-10-W3
Air heater-cooler	DCW-2,0-13
2-way valve	VVP47.20-4,0+SSP61
DX cooler	DCF-2,0-14
Cooling unit	MOU-48HFN6-KA8243

Verso S 3000 F

Nominal air flow, m ³ /h	3000
Panel thickness, mm	50
Unit weight, kg	125
Filters dimensions BxHxL, mm	450x480x96-M5 (x2)
Electric power input of the fan drive at reference flow rate, W	1000
Control panel	C5.1
Maintenance space, mm	500



The photo is intended for informational purposes only, exact details may vary.



Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	71
Supply outlet	80
Casing	52

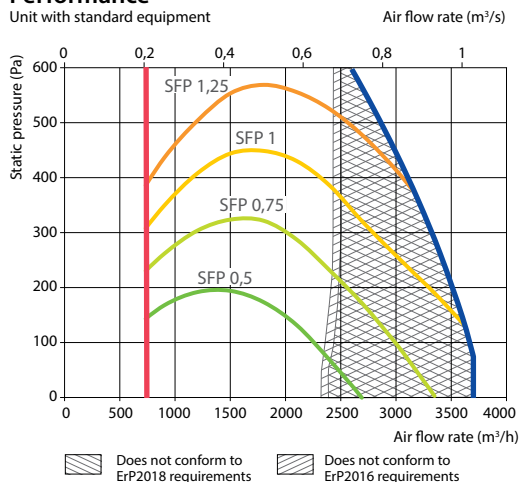
A-weighted sound pressure level L_{PA} , dB(A)
10 m² normally isolated room, distance from casing – 3 m.

Surroundings	41
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Technical data

Supply air handling unit	Supply voltage, V	Air heater capacity, kW	Maximal operating current, A	ΔT , °C
Verso S 3000 F-HW	3~400	–	2,7	–

Performance



Hot water air heater

Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	43,3	43,3	43,3	43,3
Flow rate, dm ³ /h	1909	1900	1892	1884
Pressure drop, kPa	2	2	2,1	2,2
Temperature in/out, °C	-23/20			
Maximal capacity, kW	82	72,6	63,2	53,8
Connection, "	1			

Accessories

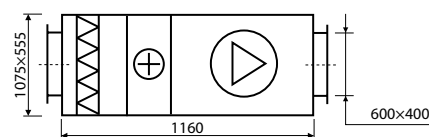
Closing damper	SRU-M-600x400+LF24/LM24
Silencer	A/D STS-IVR3BA-600-400-700-S
	B/C STS-IVR3BA-600-400-1250-S
PPU	PPU-HW-3R-25-10-W3
Air heater-cooler	DCW-3,0-20
2-way valve	VVP45.25-6,3+SSB61
DX cooler	DCF-3,0-20-2
Cooling unit	2xMOU-36HFN6-KA8243

Verso S 4000 F

Nominal air flow, m ³ /h	3700
Panel thickness, mm	50
Unit weight, kg	125
Filters dimensions BxHxL, mm	450x480x96-M5 (x2)
Electric power input of the fan drive at reference flow rate, W	1000
Control panel	C5.1
Maintenance space, mm	500



The photo is intended for informational purposes only, exact details may vary.



Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at nominal flow rate

Supply inlet	74
Supply outlet	83
Casing	58

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

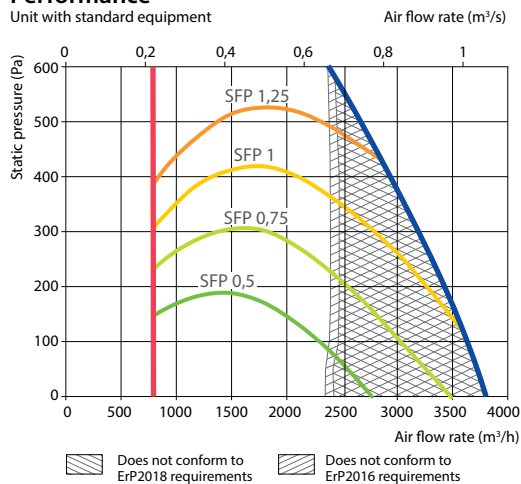
Surroundings	47
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Technical data

Supply air handling unit	Supply voltage, V	Air heater capacity, kW	Maximal operating current, A	ΔT , °C
Verso S 4000 F-HW	3~400	–	2,7	–

Performance

Unit with standard equipment



Hot water air heater

Water temperature in/out, °C	90/70	80/60	70/50	60/40
Capacity, kW	55,8	55,8	55,8	55,8
Flow rate, dm ³ /h	2464	2453	2442	2432
Pressure drop, kPa	3,1	3,2	3,3	3,4
Temperature in/out, °C	-23/22			
Maximal capacity, kW	97,4	86,3	75,2	64,1
Connection, "	1			

Accessories

Closing damper	SRU-M-600x400+LF24/LM24
Silencer	A/D STS-IVR3BA-800-400-700-S
	B/C STS-IVR3BA-800-400-1250-S
PPU	PPU-HW-3R-25-16-W3
Air heater-cooler	DCW-4,0-27
2-way valve	VVP45.25-10+SSC61
DX cooler	DCF-4,0-27-2
Cooling unit	2xMOU-48HFN6-KA8243

VERSO PRO

Heat recovery units' casing is comprised of three main sections. Two side sections are similar fan and filter sections. The middle section is for a heat exchanger. Supply air unit casing is composed of symmetrical filter and fan sections. For customer convenience air heaters, cooler sections are mounted outside the unit.



Convenient

Unit design assures effective transportation and easy installation. Separate parts are compact, without projection parts; therefore it is easy to transport them to a designated area of the building, where later they are assembled. Finished air handling units are delivered to the customer in packages that are ready to be transported.

Durable

Unit doors are mounted with firm and aesthetic-looking hinges and are locked with convenient and elegant locks. Door seals are made of firm and elastic foam type gaskets, which are automatically fastened to the door by the newest machinery and are long lasting and hermetic.

Universal

Unit walls are made of galvanized steel sheets with 50 mm thickness insulation. This assures not only effective heat and noise insulation, but also a high level of fire resistance. Air handling unit accessories – external grilles for supply/exhaust vents, hood and roof – allow installing units outside. On request units may be painted customer desired color.

User friendly

Filters, fans, heat exchangers, coolers and other components are easily accessible during use; if necessary, they can be easily replaced. A new filter clamping mechanism, not only assures tightness, but also essentially simplifies filter change procedure.

Verso R
units with a rotary
heat exchanger

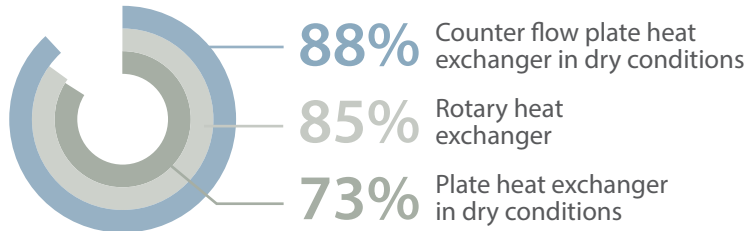
Verso P
units with a plate
heat exchanger

Verso CF
units with a counterflow
plate heat exchanger

Verso S
supply air
units

Design

Increased efficiency for higher energy savings



Rotary heat exchanger

Used in Verso R series units. Temperature efficiency factor – up to 85 %. Possible wave height: 1,4 mm; 1,5 mm, 1,7 mm.

Types of rotary heat exchangers:

- Condensation (aluminium);
- Hygroscopic (aluminium and zeolith);
- Sorption (aluminium with zeolith coating);
- Deep epoxy coating "Blygold" technology.

Aluminium foil is made of an aluminium alloy resistant to sea water. Rotary heat exchanger rotation speed is controlled by a frequency converter, according to the air temperature. The heat exchanger can be ordered with an installed purge section.

Counter flow plate heat exchanger

Used in Verso CF series units.

Temperature efficiency factor – up to 92 % in wet conditions and up to 88 % in dry conditions.

The plate heat exchanger is equipped with automatic by-pass. Aluminium plates are made of an aluminium alloy resistant to sea water.



Plate heat exchanger

Used in Verso P series units.

Temperature efficiency factor – up to 75 % in wet conditions and up to 73 % in dry conditions.

Aluminium plate-type heat exchangers are used in the units. Aluminium plates are made of an aluminium alloy resistant to sea water.



Heat exchangers

VERSO air handling units may generate different energy efficiency levels with four main types of heat exchangers. The most advanced one is a rotary heat exchanger with the thermal efficiency of 85 % and the minimum risk of freezing. A counter cross-flow plate heat exchanger and a double plate heat exchanger are also highly effective and may have efficiency coefficients up to 92 % or 82 % correspondingly, however, they are very sensitive to low outdoor temperatures. A standard plate heat exchanger complete the range of the heat exchangers with the maximum efficiency of 73 %. Aluminium is used as a material for the exchangers.

Anti-frost precautions

Under conditions when the outdoor air temperature is low and humidity is high, the risk of heat exchanger frosting may appear. To avoid frosting of the heat exchanger bypass damper is opened. For an extremely low outdoor air temperature the duct mounted electric preheater is recommended. The counter cross-flow heat exchanger is even more sensitive for low outside air temperatures, as the risk of frosting appears in the temperature range from -3°C to -5°C and below. A 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 does not freeze even at the temperatures of -30°C if the humidity level of the air is appropriate.



Fans

In VERSO series units plug type fans are used, therefore, units are silent and use electricity effectively. The fans are balanced statically and dynamically, based on the ISO 1940 standard; therefore, unit vibration is minimal and meets all requirements.

When running, fans exhibit the following qualities:

- Very high efficiency coefficient
- Frequency converters ensure an optimal capacity
- Good acoustic performance
- Longevity: a fan is directly connected to the electric motor, therefore, there is no a belt gear that simplifies maintenance.
- There is a possibility to install an air flow measuring device

Two types of fan motors are available – three-phase permanent magnet synchronous motors (PM) (400 V, 50 Hz), controlled by frequency converters, or electronically commutated (EC) with an integrated electronic controller with 100% speed regulation. Safety category – IP55 according to IEC 34-5.

Windings insulation category – F.

Maximum operating temperature is 40°C.

An aluminium or high performance composite impeller has less weight and vibration force on motor bearings. A new design of the impeller can reach up to 73 % of static efficiency.

PM and EC fans

Highly efficient in all operating areas, PM and EC motors are available in all types of VERSO PRO units. High efficiency is determined by low energy consumption, high efficiency and the best values of SFP factor.

PM type motors correspond to the Super Premium Efficiency Class IE4 and ensure high efficiency in a wide operation range with reliable performance, durability, relatively low cost and electrical stability. Their operation is extremely smooth and silent, ensuring the highest efficiency, energy saving and accuracy in operation.

EC type motors correspond to the Premium Efficiency Class IE4, have integrated motor controller, and ensure high operation efficiency, smooth and energy saving operation in all working points.

Both types of motors have long-life operation feature and guarantee the highest level of operation.



Air heaters

Water air heaters

Normally used with aluminium fins and copper pipes. Can be made with a thread joint to connect a freezing sensor. Insulated with a mineral wool heater section mounted on the outside of the unit – room space is saved this way; it is also more convenient to mount it.

- Maximum operating pressure – 21 bars
- Maximum water temperature – +100°C (on special order – up to +130°C)
- Heated air temperature – up to +40°C

Electric air heaters

Stainless steel heating elements are used in production. A three level protection ensure protection from overheating. Protection class IP54 in accordance with IEC 34-5. Heated air temperature – up to +40°C.

Note: exact electric air heater measurements and other information can be found in VERSO air handling units selection software. The electric heater has its own supply voltage.

Blygold anti-corrosion treatment

The Blygold PoluAI XT anti-corrosion treatment is a revolutionary treatment for coils, which will stop corrosion and capacity loss of your equipment.

Blygold PoluAI XT carries a guarantee of 5 years, provided that the recommended cleaning protocol is maintained. This gives you the guarantee that your coil is in optimal condition resulting in lower running costs and a longer coil life.

Blygold PoluAI XT is an anti-corrosion treatment consisting of a conversion layer followed by a polyurethane top coat. The operating temperature range is -20°C to 150°C. There is no loss of heat transfer performance and only a minimal change in air pressure drop. The Blygold® treatment can be applied to cooling and DX coils, run around coils, heating coils and heat pipes. Areas of application may include: industrial, commercial, medical, process, marine etc. To counteract the possibility of corrosion it is current practice to specify either thicker fin material or higher specification material such as copper. With Blygold® there is significant potential for reducing the overall weight of the coil in addition to corrosion protection.



Air coolers

Water air coolers

Normally used with aluminium fins (spacing 2,5 or 3 mm) and copper pipes. Insulated with a mineral wool heater section mounted on the outside of the unit – room space is saved this way and it is more convenient to mount it.

Maximum operating pressure – 21 bars.

The air cooler section is assembled with a stainless steel sloping drain tray and a water trap.

Direct evaporation air coolers

Normally used with aluminium fins (spacing 2,5 or 3 mm) and copper pipes. Insulated with a mineral wool heater section mounted on the outside of the unit – room space is saved this way; it is also more convenient to mount it.

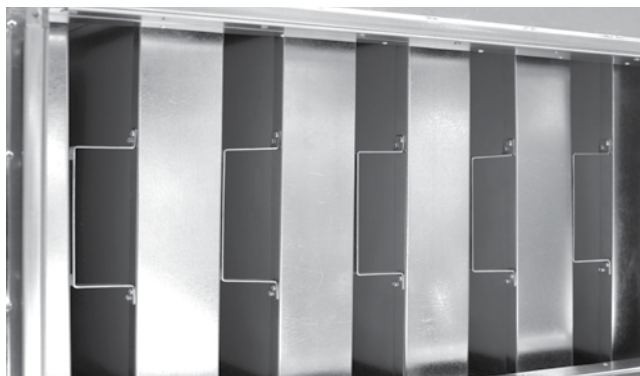
Maximum operating pressure – 42 bars.

The cooler section is assembled with a stainless steel sloping drain tray and a water trap. The power of the direct evaporation air cooler can be divided into 2 or 3 steps. It is necessary to indicate this upon order. DX coil also can operate in heating mode.



Blygold PoluAI XT impact on coil lifetime:

- Aluminum pigmentation for heat conducting
- 100% penetration due to high air volumes
- UV resistance: excellent
- Flexible
- Excellent adhesion
- Thin layer to prevent pressure drop
- Filling and sealing fin-tube spacing
- High mechanical resistance



Noise reduction sections

To avoid excessive pressure losses inside the air handling unit, duct mounted sound attenuation sections are offered for VERSO units.

The sound attenuation section of 900 mm length will reduce the noise to air ducts by 15 to 20 dB, a longer section of 1200 mm in length – by 20 to 25 dB. The width and height of these sections correspond to air handling unit dimensions. The baffle-type sound absorber is installed inside this section. Baffles are filled with special acoustic mineral stone wool and are covered by non-woven glass fibre felt certified to be inside the air duct. Mineral wool can be replaced with polyester wool in the case of a special request.

Splitters of the absorber can be easily removed from the section for dry or semi-wet washing for ventilation hygiene purposes.

The efficiency of the channel noise reduction section, in dB

No.	Length, mm	Efficiency dB when frequency Hz							
		63	125	250	500	1000	2000	4000	8000
10	900	10	19	27	31	33	32	27	17
	1200	13	26	35	42	44	43	36	22
20	900	6	13	17	21	22	21	18	11
	1200	8	17	23	27	29	28	24	15
30	900	7	13	18	22	23	22	19	12
	1200	9	18	24	29	30	30	25	15
40	900	6	13	18	21	22	21	18	11
	1200	8	17	23	27	29	28	24	15
50	900	6	12	17	20	21	21	18	11
	1200	8	16	22	27	28	27	23	14
60	900	8	15	21	25	26	25	21	13
	1200	10	20	28	33	34	34	28	18
70	900	7	14	20	23	25	24	20	13
	1200	10	19	26	31	33	32	27	17
80	900	7	14	19	23	24	23	20	12
	1200	9	18	25	30	32	31	26	16
90	900	7	14	20	23	25	24	20	13
	1200	10	19	26	31	33	32	27	17



Air dampers

Closing air dampers installed in the air handling units are produced from aluminium with rubber sealing. Connectors – L20.

For unit sizes 60, 70, 80 – L30, 90 – L40.

Dampers are located outside the unit; they can be made with an insulated damper casing.

Standard tightness Class 2, it possible to order higher tightness Class 4 or higher thermal insulation Class 2 TBB.



Air filters

From G4 to F9 class synthetic or fiberglass pocket type filters are used.

- Standard length of G4 class filters – 360 mm.
- Standard length of M5–F9 class filters – 500, 635 mm.

The filter clamping mechanism ensures tightness and simplifies a filter replacement procedure.

Also G4 or M5 prefilter can be selected on supply air flow.



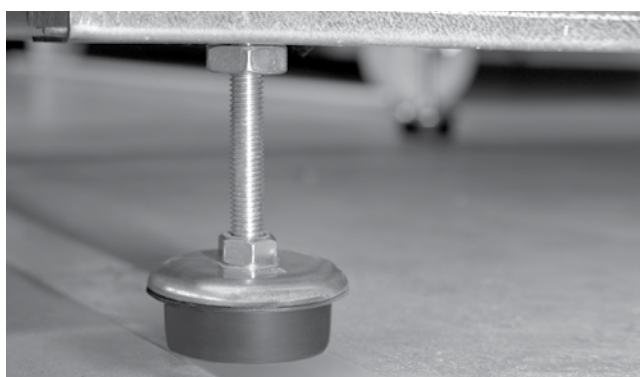
Casing and outside grilles

Casing and outside grilles can be additionally mounted on the supply and exhaust vents of outdoor air handling units.



Roof

A roof with water drainage must be additionally installed on outdoor air handling units.



Height adjustable feet

The construction frame of the air handling unit with height adjustable feet makes it much easier to level the unit on the site.



Door locks and handles

Easy to use door locks and handles ensure safe unit maintenance.



Inspection window and lighting

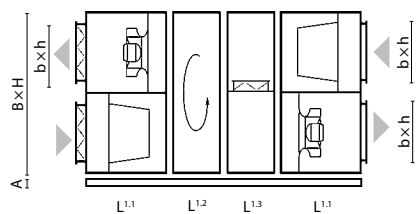
Internal lighting enables to observe unit's internal operation through inspection window. Economy light is used with switch outside the unit.

Inspection window enables to observe unit's internal operation. The diameter of plastic window is 200 mm.

Dimensions

Modern air handling unit proportions allow reaching better technical parameters: a lower air flow velocity inside the unit, better acoustic data.

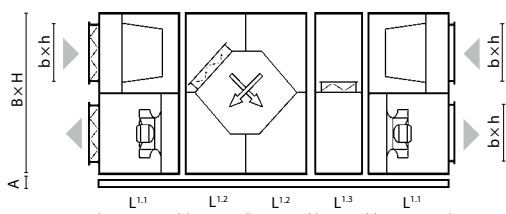
Verso R



Size	B	H	L ^{1.1}	L ^{1.2}	L ^{1.3}	b	h	A
10	1000	1000	618	370	435	700	300	125
20	1150	1150	751	370	435	900	400	125
30	1300	1300	751	370	435	1000	500	125
40	1500	1520	751	390	435	1200	600	125
50	1700	1715	885	390	435	1400	700	125
60	1900	1920	885	390	570	1600	800	125
70	2100	2100	885	390	705	1800	900	125
80	2300	2420	1250	510	841	2000	1000	125
90	2610	2650	1400	550	1040	2200	1100	125

Note: the electric air heaters, water heaters and coolers section length and configuration are noted in the selection program of VERSO air handling units.

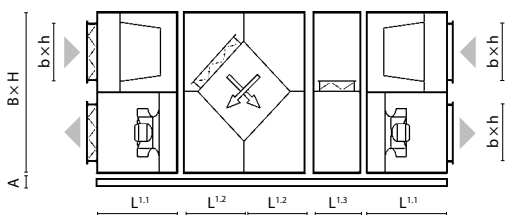
Verso CF



Size	B	H	L ^{1.1}	L ^{1.2}	L ^{1.3}	L3	b	h	A
10	1000	1000	618	570	435	710	700	300	125
20	1150	1150	751	645	435	710	900	400	125
30	1300	1300	751	720	435	710	1000	500	125
40	1500	1520	751	720	435	710	1200	600	125
50	1700	1715	885	720	435	710	1400	700	125
60	1900	1920	885	920	570	710	1600	800	125
70	2100	2100	885	1060	705	710	1800	900	125
80	2300	2420	1250	1250	841	710	2000	1000	125
90	2610	2650	1400	1250	1040	710	2200	1100	125

Notes: size 20÷70 plate heat exchanger section is made of two parts. Size 10, 80 and 90 – of one part. The electric air heater section length is noted in the selection program of VERSO air handling units.

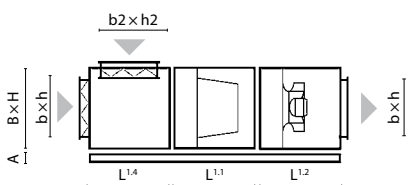
Verso P



Size	B	H	L ^{1.1}	L ^{1.2}	L ^{1.3}	b	h	A
10	1000	1000	618	422	435	700	300	125
20	1150	1150	751	570	435	900	400	125
30	1300	1300	751	570	435	1000	500	125
40	1500	1520	751	570	435	1200	600	125
50	1700	1715	885	707	435	1400	700	125
60	1900	1920	885	845	570	1600	800	125
70	2100	2100	885	845	705	1800	900	125
80	2300	2420	1250	1150	841	2000	1000	125
90	2610	2650	1400	1150	1040	2200	1100	125

Notes: size 20÷70 plate heat exchanger section is made of two parts. Size 10, 80 and 90 – of one part. The electric air heaters, water heaters and coolers section length and configuration are noted in the selection program of VERSO air handling units.

Verso S



Size	B	H	L ^{1.1}	L ^{1.2}	L ^{1.4}	b	h	b1	h1	b2	h2	A
10	1000	490	750	705	430	900	400	700	300	700	300	125
20	1150	585	750	705	430	1100	500	900	400	1000	300	125
30	1300	660	750	705	470	1200	600	1000	500	1100	400	125
40	1500	740	750	842	470	1400	700	1200	600	1200	400	125
50	1700	890	750	842	470	1600	800	1400	700	1400	400	125
60	1900	960	750	979	570	1800	900	1600	800	1600	500	125
70	2100	1085	750	979	705	2000	1000	1800	900	1800	600	125
80	2300	1235	750	1250	705	2200	1100	2000	1000	2000	600	125
90	2610	1350	750	1400	705	2500	1200	2200	1100	2200	600	125

Note: the electric air heaters, water heaters and coolers section length and configuration are noted in the selection program of VERSO air handling units.



RHP

Ventilation units with heat pump

RHP – an innovative and effective solution for the indoor climate



All HVAC systems in one unit

Complete control of the indoor climate: *5in1*



Comfort heating

RHP units can efficiently heat the premises especially during a transitional period.



Fresh air

RHP units provide the premises with fresh air consuming minimal power.



Comfort cooling

RHP units provide the most efficient cooling during the summer.



Clean Air

Fresh air supplying into room is cleaned from dust.



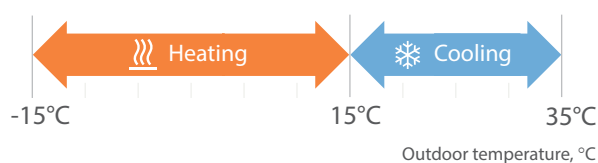
Humidity control

RHP units in summer perform dehumidification (function) and in winter – regeneration of humidity.

New possibilities with RHP:

- PLUG & PLAY – all components are installed, aligned and tested at the factory.
- Device monitoring and management through the Internet and BMS.
- Simple designing, installing, operation and maintenance.
- Extremely high energy efficiency.
- Shortest payback time.
- Unified smart control, simplified management.
- No outdoor unit, no refrigeration specialists required.

Operation range:

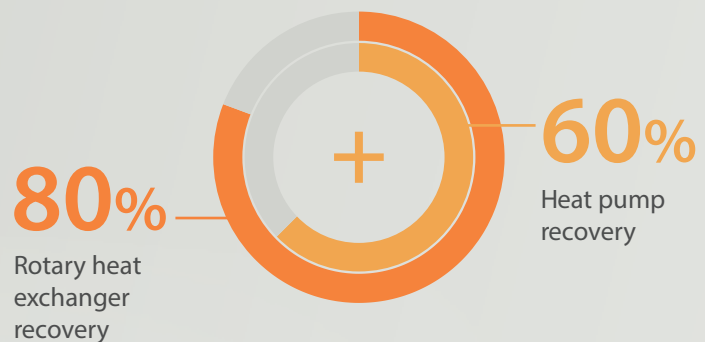


Two stage heat / cool recovery

Thermal efficiency over 140 %

To reach the maximum efficiency Komfovent RHP units are designed to recover the energy in two steps:

- 1st step recovery
by enthalpy rotary heat exchanger
- 2nd step recovery
by reversible heat pump



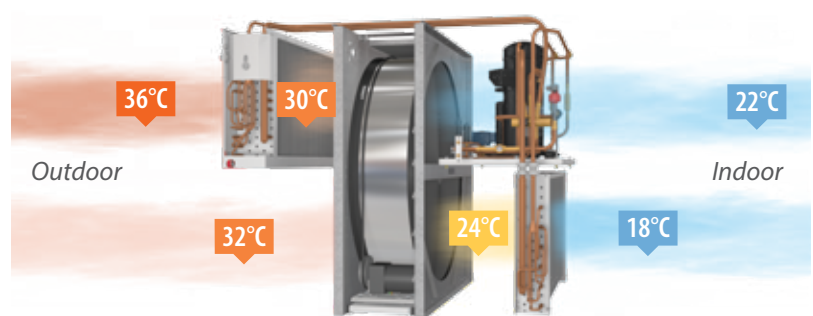
Outdoor: -10°C / 80 % RH
Indoor: +20°C / 40 % RH

Optimised and efficient operation principles



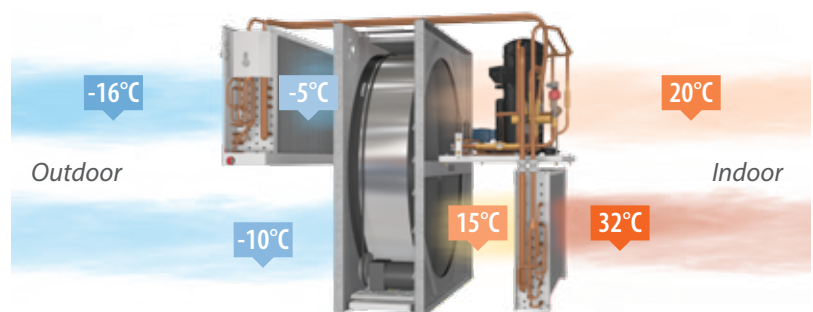
Cooling mode

Due to cooling recovery by rotary heat exchanger, air temperature after rotor is lower than outside air temperature. Condensation temperature in this case is lower, what results in reduced compressor electricity consumption comparing with outdoor condensing unit.



Heating mode

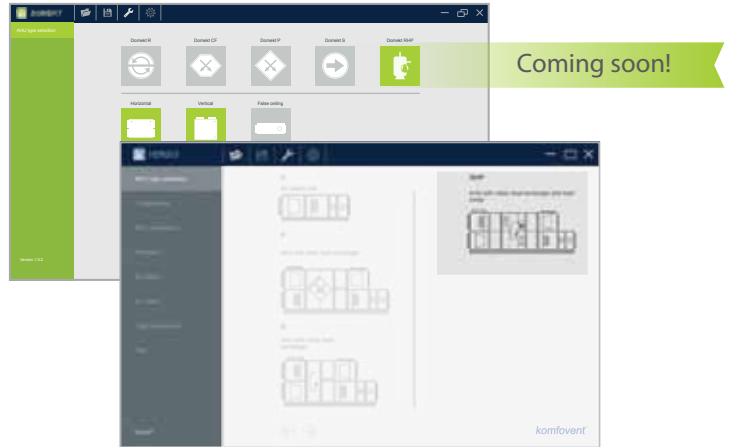
Highly efficient rotary heat exchanger is used for first stage heat recovery, recovering the biggest part of the heat of extracted air. For second stage heat recovery and supply air temperature control, heat pump is used.



Easy selection

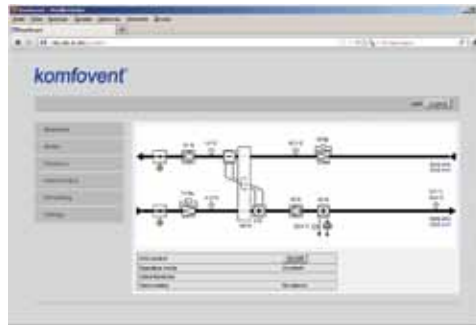
Equipment is selected using an informative and useful software, available to be downloaded to your PC from our website: www.komfovent.com/software.

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



Integrated web server

RHP air handling unit operation may be monitored and controlled via web browser. Implemented Modbus and BACnet protocols allow easy integration of air handling units to any desired Building Management Systems.



Unit's operation analysis

The computer program "Komfovent LogPlotter" has been designed to analyze the unit's operation history of the last 7 days. Unit's operation with C5 can be monitored not only in real-time from now on. The program can be downloaded from www.komfovent.com/software.

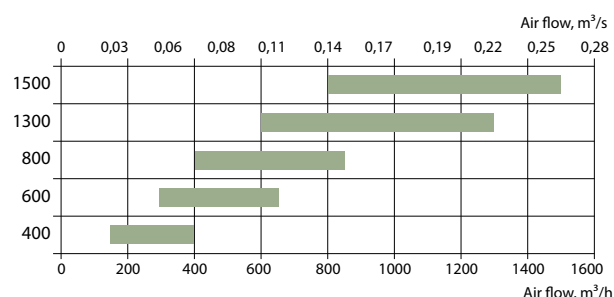


RHP Standard









Units with a rotary heat exchanger and an integrated heat pump for smaller area.



Sizes of RHP STANDARD units



Why to choose RHP STANDARD units

- | | |
|---|--|
|  <p>Total comfort all year long:
reversible heating and cooling operation of heat pump ensures comfort indoor climate.</p> |  <p>Convenience and safety:
factory charged by refrigerant, no refrigeration knowledge is needed.</p> |
|  <p>Extremely energy efficient and resource saving: two step efficiency is provided by rotary heat exchanger recovery and post heating / cooling operated by heat pump.</p> |  <p>Eco-friendly and protected:
R410A and R134A refrigerant and one circuit charge limits <10 kg.</p> |
|  <p>Added value to indoor climate:
heating and humidity recovery in winter, cooling and dehumidifying in summer.</p> |  <p>Factory tested:
reliable and convenient PLUG & PLAY installation, commissioning and exploitation.</p> |
|  <p>"All inclusive" solution:
no need for condensing unit, chiller, piping or additional work providing.</p> |  <p>Intelligent control:
clever automatics control algorithms and reliable components ensure safe and efficient equipment operation.</p> |

Advantages of RHP STANDARD units

Extremely compact design

It saves building spaces, easier transportation.

Exclusive connectivity – 14 ways

(except model RHP 400)

Allows for optimal and rational connection of the ducts.

Two stages of cooling/heating power

The customer can choose the most suitable option.

High efficiency (SCOP up to 17)

The end user can enjoy the inexpensive warmth and air conditioning.

RHP 400 V

Maximal air flow, m ³ /h	395
Panel thickness, mm	30/50
Unit weight, kg	120
Supply voltage, V	1~230
Maximal operating current, A	6,6 (RHP 2.2/1.4)
Maximal operating current, A	7,7 (RHP 2.8/2.4)
Thermal efficiency of heat recovery, %	80
Reference flow rate, m ³ /s	0,077
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,21
Filters dimensions BxHxL, mm	462x200x46-M5
Electric power input of the fan drive at reference flow rate, W	60
Electric power input of the fan drive at maximum flow rate, W	96
Electric air heater capacity, kW / Δt, °C	1 / 7,5
Control panel	C5.1
Maintenance space, mm	720

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	53
Supply outlet	66
Exhaust inlet	51
Exhaust outlet	66
Casing	40

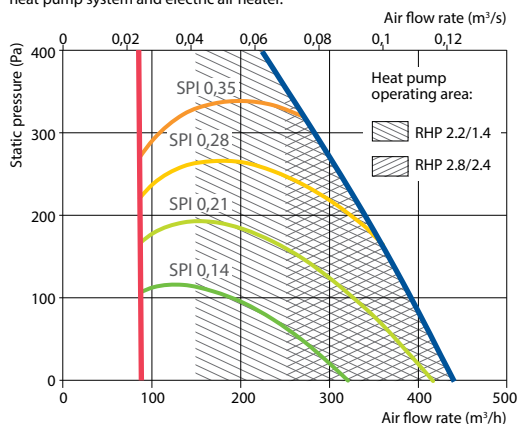
A-weighted sound pressure level L_{PA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	30
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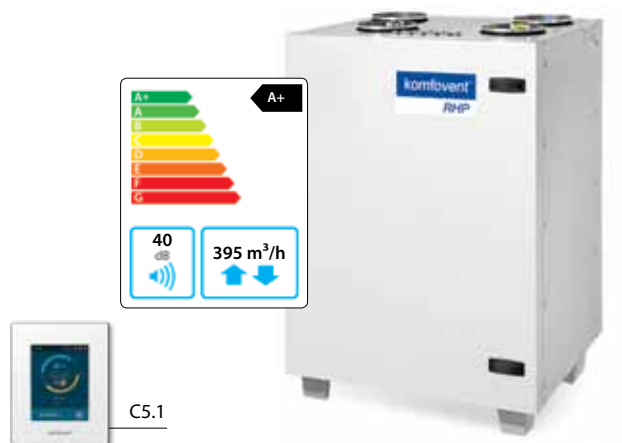
Performance

Filter M5, rotary heat exchanger XL, heat pump system and electric air heater.



Accessories

Closing damper	AGUJ-M-160+LM24
Silencer	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M



Temperature efficiency

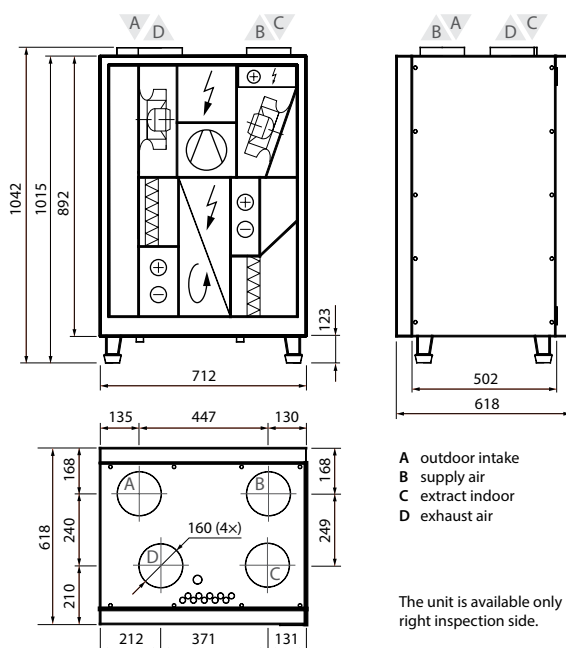
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	10,8	12,8	14	15,3	16,5	22,7	24	25,2

* indoor +22°C, 20 % RH

Compressor and AHU data

Refrigerant	R134A	
Compressor heating capacity, kW	RHP 2.2/1.4	0,9
	RHP 2.8/2.4	1,8

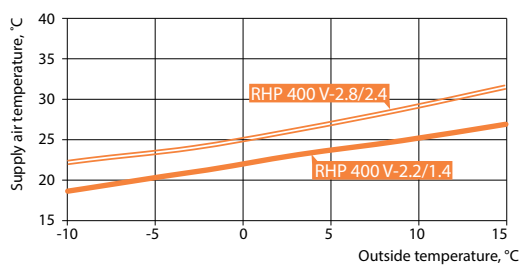
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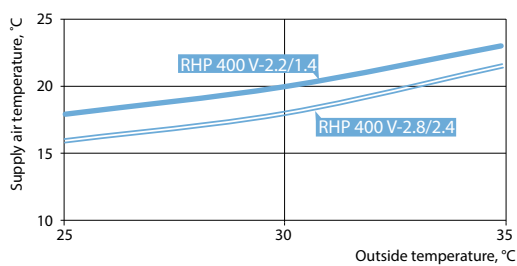
The unit is available only right inspection side.

The photo is intended for informational purposes only, exact details may vary.

Heating mode



Cooling mode



Heat pump parameters

	RHP 400 V-2.2/1.4					RHP 400 V-2.8/2.4				
	Heating			Cooling		Heating			Cooling	
Outdoor temperature, °C	7	2	-7	35	27	7	2	-7	35	27
Outdoor air related humidity, %	86	84	74	40	45	86	84	74	40	45
Indoor air temperature, °C	20	20	20	27	21	20	20	20	27	21
Indoor air related humidity, %	50	50	45	40	50	50	50	45	40	50
Supply air temperature, °C	23,4	22	19	23	20	28	26	22	22	19
Heat pump heating/cooling power, kW	0,81	0,73	0,56	0,81	0,77	1,5	1,3	1	1,41	1,35
Heat pump heating/cooling power consumption, kW	0,19	0,17	0,15	0,2	0,22	0,42	0,39	0,34	0,44	0,4
Power, recovered by rotary heat exchanger, kW	1,45	1,92	3,31	1,16	0,3	1,45	1,92	3,31	1,16	0,3
COP/EER	4,3	4,3	3,7	4,1	3,5	3,6	3,3	2,9	3,2	3,4

RHP 600 U

Maximal air flow, m ³ /h	650
Panel thickness, mm	50
Unit weight, kg	194
Supply voltage, V	1~230
Maximal operating current, A	9,6 (RHP 3.7/3)
Maximal operating current, A	10,5 (RHP 4.4/3.8)
Thermal efficiency of heat recovery, %	83
Reference flow rate, m ³ /s	0,13
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,32
Filters dimensions BxHxL, mm	500x280x46-M5
Electric power input of the fan drive at reference flow rate, W	70
Electric power input of the fan drive at maximum flow rate, W	170
Electric air heater capacity, kW / Δt, °C	1 / 6
Control panel	C5.1
Maintenance space, mm	600

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

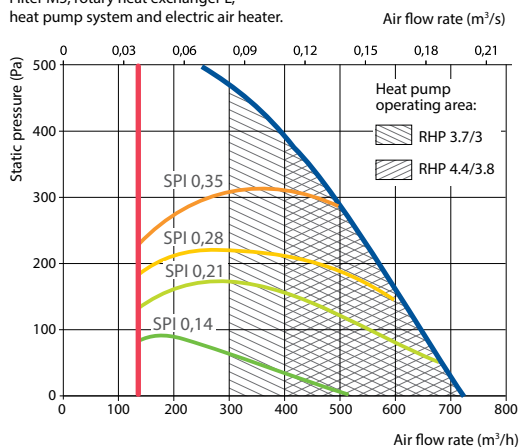
Supply inlet	53
Supply outlet	65
Exhaust inlet	52
Exhaust outlet	62
Casing	40

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

Surroundings	29
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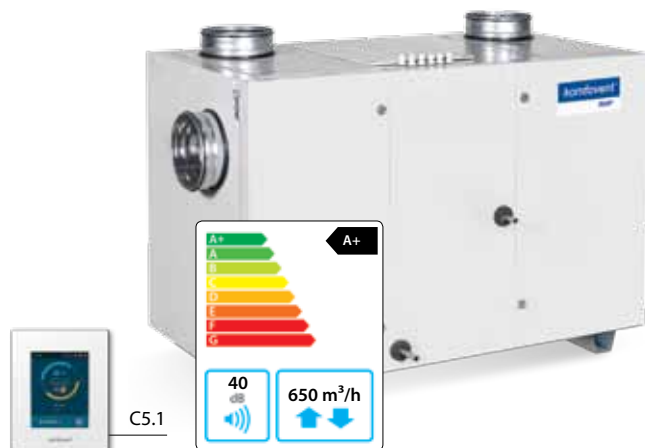
Performance

Filter M5, rotary heat exchanger L,
heat pump system and electric air heater.



Accessories

Closing damper	AGUJ-M-200+LM24
Silencer	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

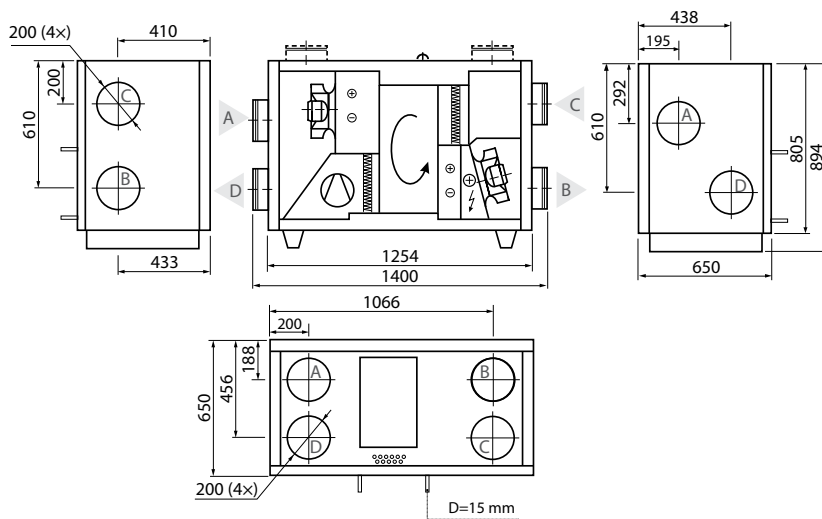
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	14,1	15,5	16,4	17,3	18,2	22,5	23,4	24,3

* indoor +22°C, 20 % RH

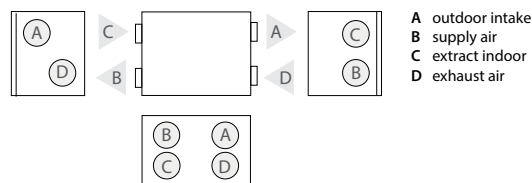
Compressor and AHU data

Refrigerant	R134A	
Compressor heating capacity, kW	RHP 3.7/3	1,8
	RHP 4.4/3.8	2,8

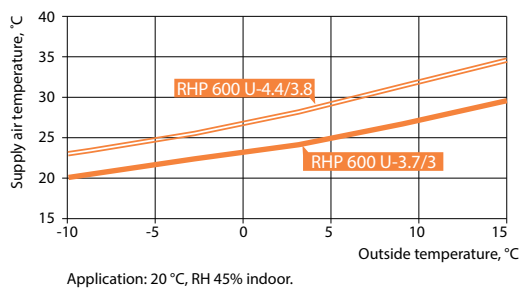
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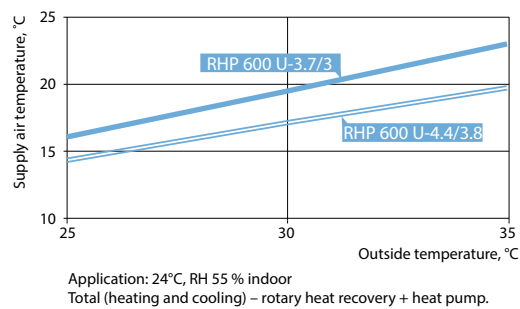
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Heating mode



Cooling mode



Heat pump parameters

	RHP 600 U-3.7/3					RHP 600 U-4.4/3.8				
	Heating			Cooling		Heating			Cooling	
Outdoor temperature, °C	7	2	-7	35	27	7	2	-7	35	27
Outdoor air related humidity, %	86	84	74	40	45	86	84	74	40	45
Indoor air temperature, °C	20	20	20	27	21	20	20	20	27	21
Indoor air related humidity, %	50	50	45	40	50	50	50	45	40	50
Supply air temperature, °C	25,7	23,9	20,7	21,6	15,7	28,9	26,6	22,9	20,6	14,6
Heat pump heating/cooling power, kW	1,59	1,39	1,06	1,76	1,62	2,23	1,95	1,5	2,39	2,17
Heat pump heating/cooling power consumption, kW	0,3	0,3	0,3	0,4	0,4	0,5	0,5	0,5	0,7	0,6
Power, recovered by rotary heat exchanger, kW	2,2	3,4	5,6	1,3	1	2,2	3,4	5,6	1,3	1
COP/EER	4,8	4,4	3,8	4,2	4,4	4,4	4	3,3	3,6	3,8

RHP 800 U

Maximal air flow, m ³ /h	850
Panel thickness, mm	50
Unit weight, kg	255
Supply voltage, V	3~400
Maximal operating current, A	14,8 (RHP 5.3/4.7)
Maximal operating current, A	16,1 (RHP 6.1/5.8)
Thermal efficiency of heat recovery, %	87
Reference flow rate, m ³ /s	0,17
Reference pressure difference, Pa	50
SPI, W/(m ³ /h)	0,24
Filters dimensions BxHxL, mm	750x400x46-M5
Electric power input of the fan drive at reference flow rate, W	70
Electric power input of the fan drive at maximum flow rate, W	170
Electric air heater capacity, kW / Δt, °C	2/7
Control panel	C5.1
Maintenance space, mm	800

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

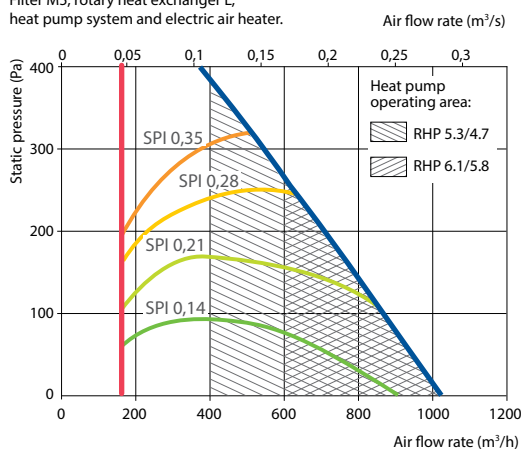
Supply inlet	53
Supply outlet	64
Exhaust inlet	51
Exhaust outlet	61
Casing	41

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

Surroundings	31
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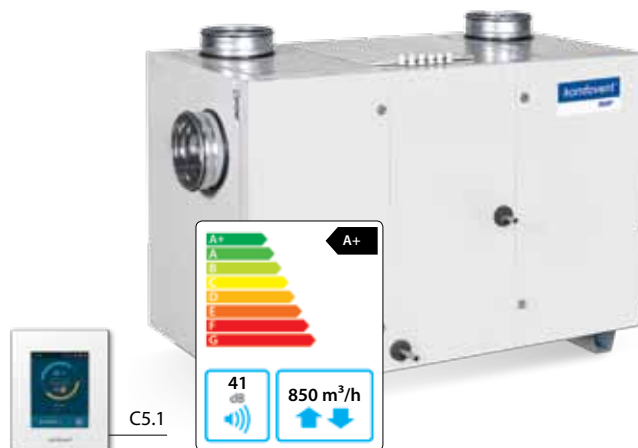
Performance

Filter M5, rotary heat exchanger L,
heat pump system and electric air heater.



Accessories

Closing damper	AGUJ-M-250+LM24
Silencer	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M



The photo is intended for informational purposes only, exact details may vary.

Temperature efficiency

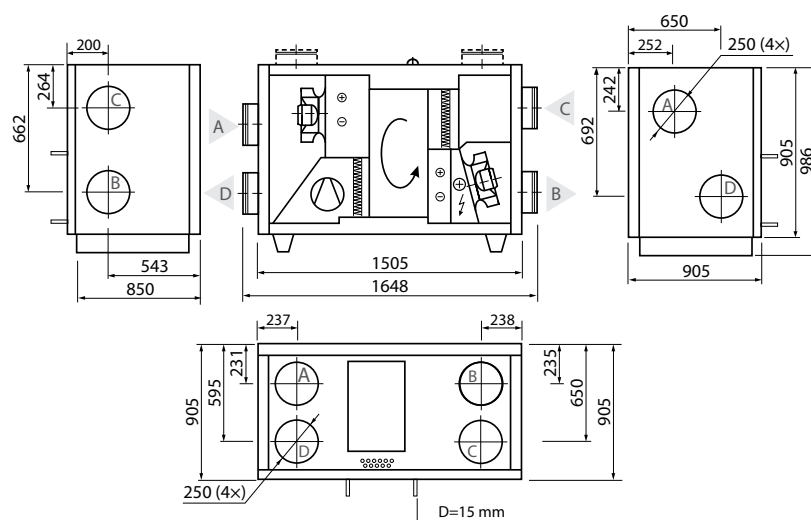
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	14,1	15,2	15,9	16,6	17,3	22,4	23,1	23,8

* indoor +22°C, 20 % RH

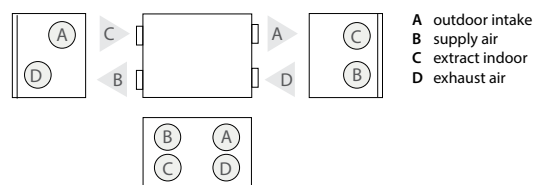
Compressor and AHU data

Refrigerant	R134A	
Compressor heating capacity, kW	RHP 5.3/4.7	2,8
	RHP 6.1/5.8	3,9

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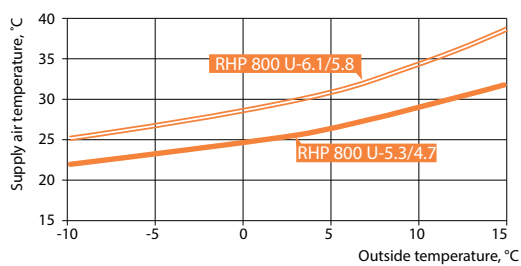


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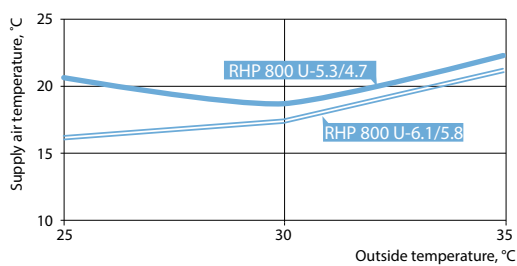


A outdoor intake
B supply air
C extract indoor
D exhaust air

Heating mode



Cooling mode



Heat pump parameters

	RHP 800 U-5.3/4.7					RHP 800 U-6.1/5.8				
	Heating			Cooling		Heating			Cooling	
Outdoor temperature, °C	7	2	-7	35	27	7	2	-7	35	27
Outdoor air related humidity, %	86	84	74	40	45	86	84	74	40	45
Indoor air temperature, °C	20	20	20	27	21	20	20	20	27	21
Indoor air related humidity, %	50	50	45	40	50	50	50	45	40	50
Supply air temperature, °C	26,9	25,1	22,2	21,18	15,26	33,9	31,3	27	20,5	13,8
Heat pump heating/cooling power, kW	2,31	2,02	1,55	2,57	2,33	3,13	2,72	2,06	3,19	2,9
Heat pump heating/cooling power consumption, kW	0,48	0,47	0,45	0,63	0,54	0,79	0,74	0,67	1,02	0,87
Power, recovered by rotary heat exchanger, kW	3,20	5,05	8,08	1,86	1,39	2,49	3,94	6,27	1,42	1,06
COP/EER	4,8	4,3	3,5	4,1	4,3	4	3,7	3,1	3,1	3,3

RHP 1300 U

Nominal air flow, m ³ /h	1300
Panel thickness, mm	50
Unit weight, kg	260
Supply voltage, V	3~400
Maximal operating current, A	18,2 (RHP 8.1/6.6)
Maximal operating current, A	20,5 (RHP 9.2/7.6)
Filters dimensions B×H×L, mm	750×400×46-M5
Electric power input of the fan drive at maximum flow rate, W	273
Electric air heater capacity, kW / Δt, °C	2/4,3
Control panel	C5.1
Maintenance space, mm	800



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	62
Supply outlet	65
Exhaust inlet	57
Exhaust outlet	64
Casing	42

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	31
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Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	12,9	14,2	15	15,9	16,7	22,5	23,3	24,2

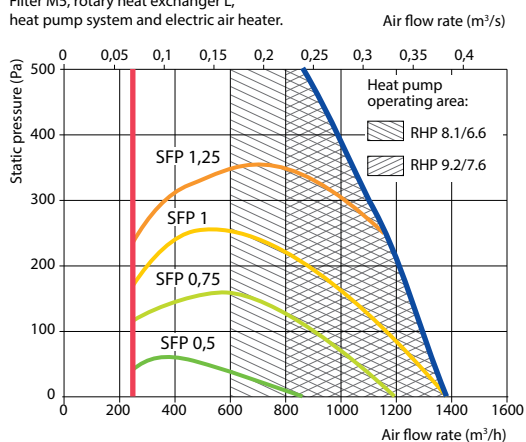
* indoor +22°C, 20 % RH

Compressor and AHU data

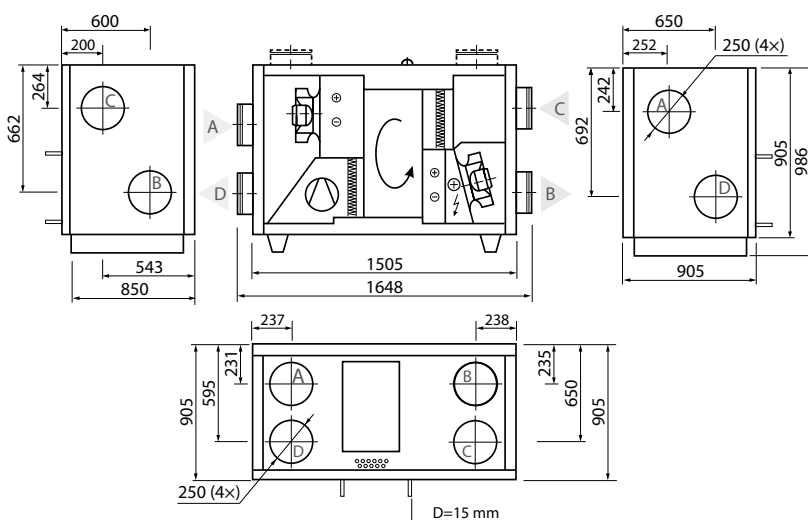
Refrigerant	R134A
Compressor heating capacity, kW	RHP 8.1/6.6 3,9 RHP 9.2/7.6 5,1

Performance

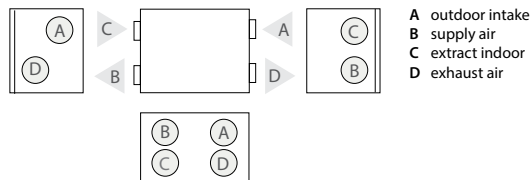
Filter M5, rotary heat exchanger L,
heat pump system and electric air heater.



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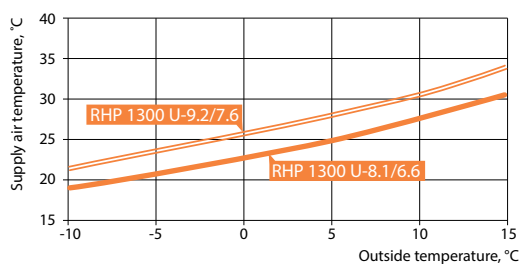
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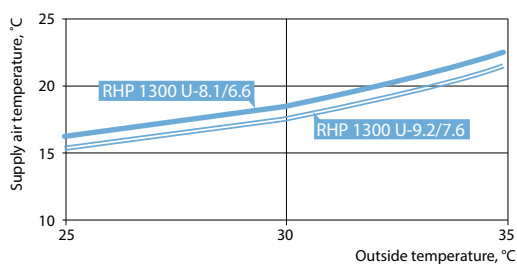
Accessories

Closing damper	AGUJ-M-250+LM24
Silencer	A/D AGS-250-50-600-M B/C AGS-250-50-900-M

Heating mode



Cooling mode



Heat pump parameters

	RHP 1300 U-8.1/6.6					RHP 1300 U-9.2/7.6				
	Heating			Cooling		Heating			Cooling	
Outdoor temperature, °C	7	2	-7	35	27	7	2	-7	35	27
Outdoor air related humidity, %	86	84	74	40	45	86	84	74	40	45
Indoor air temperature, °C	20	20	20	27	21	20	20	20	27	21
Indoor air related humidity, %	50	50	45	40	50	50	50	45	40	50
Supply air temperature, °C	25,4	23,9	20,9	22,5	16,5	27,8	25,9	22,7	21,77	15,5
Heat pump heating/cooling power, kW	3,29	3	2,36	3,68	3,35	4,37	3,89	3,14	4,65	4,16
Heat pump heating/cooling power consumption, kW	0,69	0,66	0,62	0,88	0,75	1,04	0,98	0,89	1,28	1,12
Power, recovered by rotary heat exchanger, kW	4,83	7,5	12,1	2,9	2,16	4,83	7,49	12,11	2,91	2,17
COP/EER	4,7	4,5	3,8	4,2	4,5	4,2	4	3,5	3,6	3,7

RHP 1500 U

Nominal air flow, m ³ /h	1500
Panel thickness, mm	50
Unit weight, kg	260
Supply voltage, V	3~400
Maximal operating current, A	21,9
Filters dimensions B×H×L, mm	750×400×46-M5
Electric power input of the fan drive at maximum flow rate, W	470
Electric air heater capacity, kW / Δt, °C	2/4
Control panel	C5.1
Maintenance space, mm	800



The photo is intended for informational purposes only, exact details may vary.

Acoustic data

A-weighted sound power level L_{WA} , dB(A)
at reference flow rate

Supply inlet	65
Supply outlet	71
Exhaust inlet	64
Exhaust outlet	71
Casing	45

A-weighted sound pressure level L_{pA} , dB(A)

10 m² normally isolated room, distance from casing – 3 m.

Surroundings	35
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Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	12,3	13,7	14,6	15,5	16,4	22,5	23,4	24,3

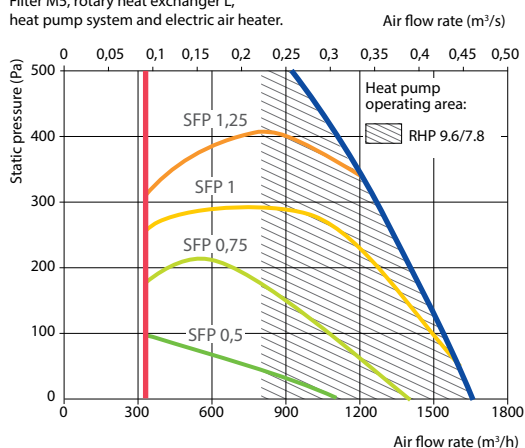
* indoor +22°C, 20 % RH

Compressor and AHU data

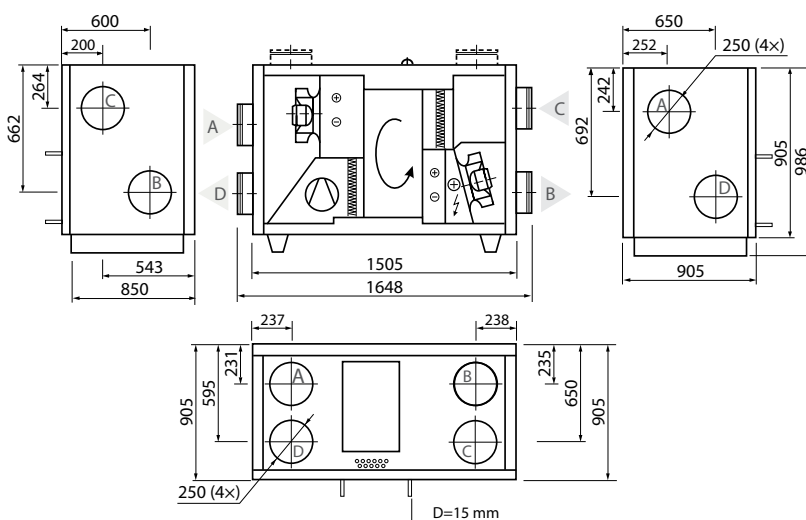
Refrigerant	R134A	
Compressor heating capacity, kW	RHP 9.6/7.8	5,1

Performance

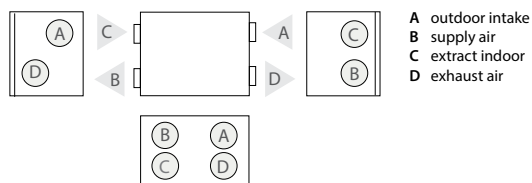
Filter M5, rotary heat exchanger L,
heat pump system and electric air heater.



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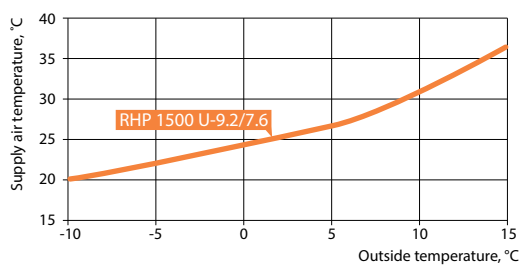
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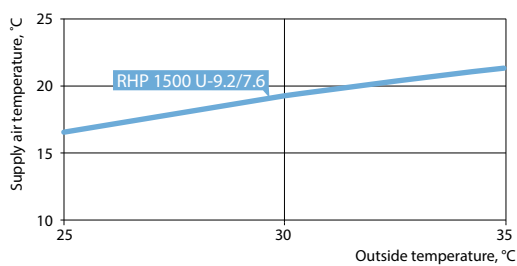
Accessories

Closing damper	AGUJ-M-250+LM24
Silencer	A/D AGS-250-100-600-M
	B/C AGS-250-100-900-M

Heating mode



Cooling mode

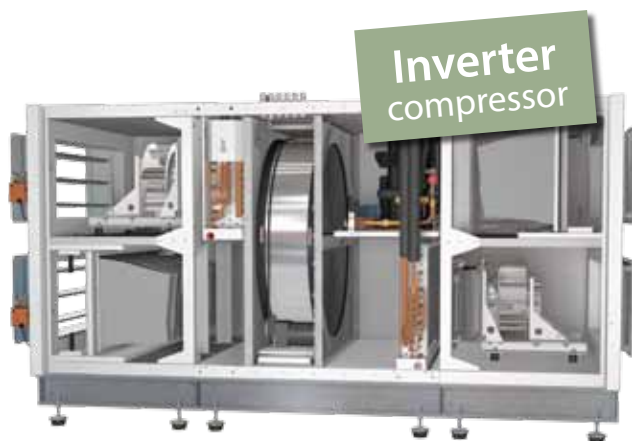


Heat pump parameters

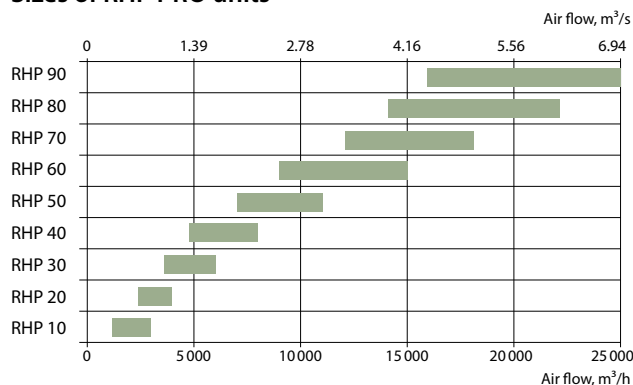
	RHP 1500 U 9.6/7.8					
	Heating			Cooling		
Outdoor temperature, °C	7	2	-7	35	27	
Outdoor air related humidity, %	86	84	74	40	45	
Indoor air temperature, °C	20	20	20	27	21	
Indoor air related humidity, %	50	50	45	40	50	
Supply air temperature, °C	27,2	25,2	22,1	21,9	15,7	
Heat pump heating/cooling power, kW	4,4	3,9	3,2	4,7	4,2	
Heat pump heating/cooling power consumption, kW	1,0	1,0	0,9	1,3	1,1	
Power, recovered by rotary heat exchanger, kW	5,2	7,9	12,8	3,1	2,3	
COP/EER	4,3	4	3,6	3,7	3,8	

RHP PRO

Units with a rotary heat exchanger and an integrated heat pump for larger area.



Sizes of RHP PRO units



Advantages of RHP PRO units

PLUG & PLAY control system C5

Benefits: real air flow indication; thermal efficiency of the rotary heat exchanger indication; heat exchanger recovery in kW; thermal energy saving factor, SFP factor of the fans and many other important information about functioning of the unit.

Sorption rotary heat exchanger

In RHP units are used sorption rotary regenerators with special 4Å zeolite coating, which because of its hygroscopic selective properties ensures good heat and humidity exchange, so the RHP units maintain an optimum indoor climate with minimal energy consumption.

Inverter compressors

Inverter compressors are used for accurately regulating and maintaining supply air temperature, they are energy-efficient and silent.

PM / EC fan motors

In RHP PRO units are used the most efficient in the market PM (permanent magnet) and EC (electronically commutated) fan motors conforming Super Premium efficiency class IE4.

Air filters

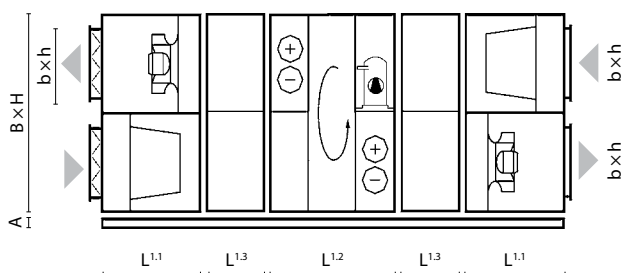
All units are equipped with a large surface area air filters with low pressure loss, it saves energy, replacement can be less often.

Electronic expansion valve

For power adjustment of the integrated heat pump are using an electronic EEV (electronic expansion valve), which ensures a stable supply air temperature and allows a wide range of regulation of device performance and heating / cooling capacity.

Advantages of the inverter compressors

- More accurate temperature control
- Set temperature is reached faster
- Low starting current
- Longevity
- Lower dimensions and weight
- Lower energy consumption (higher COP and EER)
- Wide working range
- More silent



Size	B	H	L ^{1.1}	L ^{1.2}	L ^{1.3}	b	h	A
10	1000	1000	618	900	250	700	300	125
20	1150	1150	751	900	250	900	400	125
30	1300	1300	751	900	250	1000	500	125
40	1500	1520	751	900	250	1200	600	125
50	1700	1715	885	900	250	1400	700	125
60	1900	1920	885	900	250	1600	800	125
70	2100	2100	885	900	250	1800	900	125
80	2300	2420	1250	1500	–	2000	1000	125
90	2610	2650	1400	1500	–	2200	1100	125

Note: the electric air heaters, water heaters and coolers section length and configuration are noted in the selection program of VERSO air handling units.



KLASIK

Non residential ventilation units

Komfovent KLASIK

Customer oriented and unique energy efficient solutions.



The photo is intended for informational purposes only, exact details may vary.

Development of air handling units KLASIK allows to offer the customer reliable and qualitative equipment which technical parameters allow to create not only comfortable conditions of a microclimate in various premise, but also to correspond to modern ecological and energy efficient requirements. Carrying out the monitoring system of quality in conformance to standard ISO 9001, company AMALVA guarantees quality of the manufactured equipment performing and developing production according to all requirements of environment protection standard ISO 14001.

Air handling units KLASIK consist of system of modules which quantity and their functional purpose depends on requirements of the customer and features of the

project. Ventilation equipment KLASIK may be offered with heat recovery or just as air supply or exhaust equipment. From the constructional point of view and depending on customer needs units may be monoblock (consisting of one common section in one level) and modular (consisting of several sections or modules). Air handling units are available in 14 sizes with airflows ranging from 1 000 m³/h to 90 000 m³/h (0,3 m³/s to 25 m³/s). Unit of bigger capacity (90 000 m³/h and more) are also available and can be selected according to individual inquiries. All units are designed and made according LST, EN (EN 13053, EN 13779, EN 1886), VDI (VDI 6022, VDI 3803/1), RLT (RLT 01) standards.

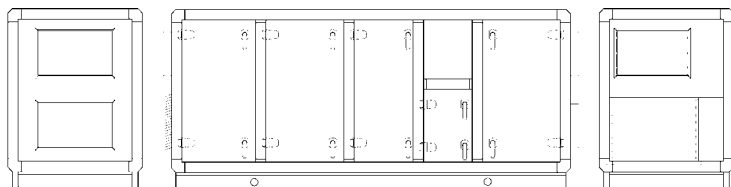
KLASIK selection software is approved by EUROVENT.



Unit types

Type Klasik R

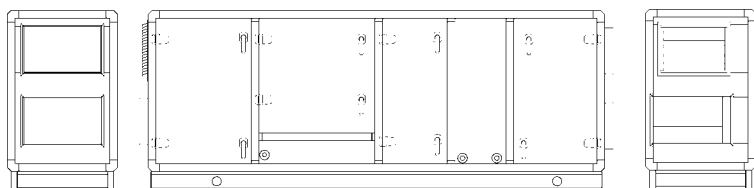
Air handling units with a rotary heat exchanger.
Temperature efficiency and economy of energy up to 85 %.



The photo is intended for informational purposes only, exact details may vary.

Type Klasik P

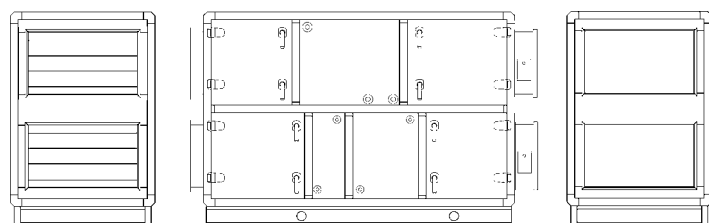
Air handling units with a cross-flow plate heat exchanger.
Temperature efficiency and economy of energy up to 70 % wet.



The photo is intended for informational purposes only, exact details may vary.

Type Klasik RA

Air handling units with twin-coil.
Temperature efficiency and economy of energy up to 70 %.



The photo is intended for informational purposes only, exact details may vary.

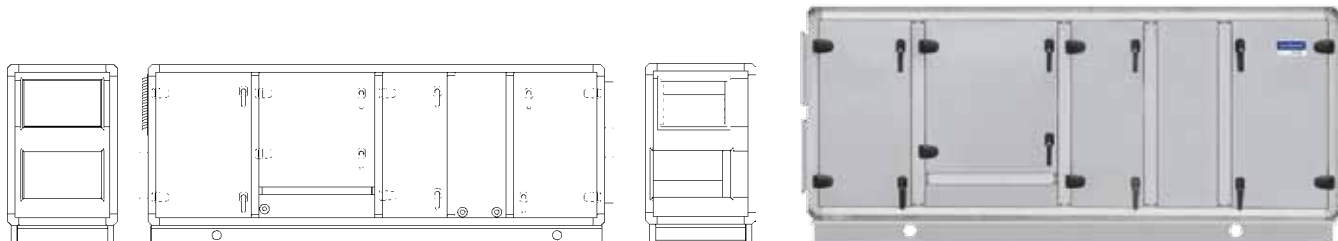
RA – supply/exhaust air handling units with separate air flows.

Advantages:

- Due to totally separate supply and exhaust air flows there is possibility to use the heat of polluted air.
- Supply air and exhaust air units can be mounted separately in different premises what is very important when mounting space is very limited.

Type Klasik CF

Air handling units with a counter flow plate heat exchanger. Temperature efficiency and economy of energy up to 92 % in wet conditions and up to 88 % in dry conditions.



The photo is intended for informational purposes only, exact details may vary.

Type Klasik S Hg, RA Hg

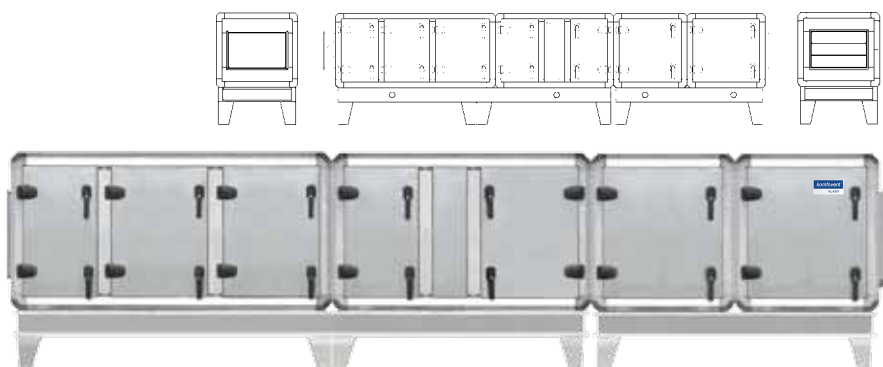
Ventilation equipment of hygienic purpose and clean premises ventilation.

Due to exploitation purposes very high hygienic requirements are applied to air handling units of S Hg, RA Hg type.

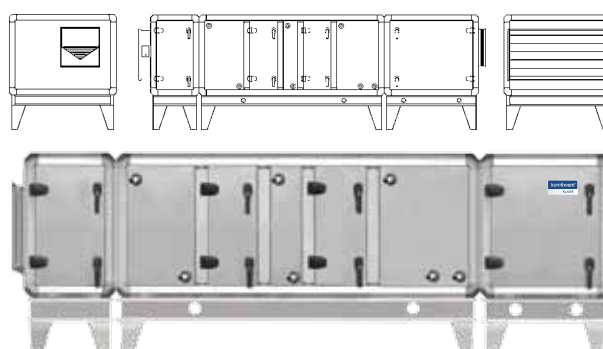
Internal surfaces of units S Hg, RA Hg are smooth, without protrusive elements and roughness to avoid and protect from accumulation of impurities and activators of illnesses.

All connections are additionally sealed by dustproof sealant. The bottom of equipment (and in case of need – all internal walls) is produced from stainless steel that allows washing and cleaning of internal surfaces with disinfectants.

Units can be made according VDI and non extended RLT requirements.

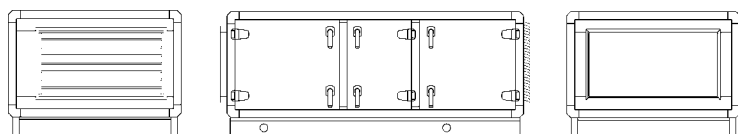


The photo is intended for informational purposes only, exact details may vary.



Type Klasik S

Supply or exhaust air handling unit without heat recovery.



The photo is intended for informational purposes only, exact details may vary.

Design



Casing

Standart

Air handling units of KLASIK series characterize in reliable and stable design. Casing frameworks are made of aluminium profiles and solid cast aluminium corner pieces.

Covering panels are 50 mm thickness, made from double-skin galvanized or stainless sheet steel with 45 mm mineral wool sandwiched between sheet steel.

Casing classification in conformance to standard EN 1886: leakage L2; thermal transmittance T3; thermal bridging factor TB4.

Standart TB

Casing frameworks are made of aluminium profiles and solid cast aluminium corner with thermal break system.

Covering panels are made from double-skin galvanized or stainless sheet. The panels are 60 mm thickness: 50 mm mineral wool are used for thermal and sound insulation and 10 mm of polyurethane foam.

Casing classification in conformance to standard EN 1886: leakage L2; thermal transmittance T2; thermal bridging factor TB3.

On request, casing can be painted. KLASIK gaskets and sealing are used to ensure perfect casing tightness and sound insulation. All doors are hinged and equipped with handles which can be locked.

Variable accessories such as adjustable feet, inspection windows, sections lighting, etc. are available on customers' request.



Filters

KLASIK units pocket synthetic or fiberglass filters with a class of a filtration from G4 up to F9 are used.

Filters have big filtration surface what results in longer terms of exploitation.

Filters are fastened by clamping mechanism which secures tightness and simplifies filter replacement procedure.

Air dampers

Closing air dampers installed in the air handling units are produced from aluminium, or galvanized steel blades with rubber sealing.



Heat Exchanger

KLASIK air handling units can be supplied with:

Rotary heat exchanger

Temperature efficiency – up to 85 %. Depending on required temperature efficiency η (%), the height of a wave of a rotor can be made from 1,35 mm up to 1,7 mm.

Rotors may be offered of four types:

- aluminium;
- aluminium with a hygroscopic covering;
- aluminium with an epoxy paint covering on embossed rotor edges;
- aluminium with deep epoxy coating "Blygold" technology.

The drive of a rotor is supplied with the frequency converter, allowing supporting an optimum heat exchanger operating mode, smoothly changing speed of rotation of a rotor.

Rotary heat exchanger can be equipped with purge sector on customers' request.

Counter flow plate heat exchanger

Used in Klasik CF series units.

Temperature efficiency factor – up to 92 % in wet conditions and up to 88 % in dry conditions.

The plate heat exchanger is equipped with automatic by-pass. Aluminium plates are made of an aluminium alloy resistant to sea water.

Plate heat exchanger

Temperature efficiency – up to 70% wet.

Heat exchanger is tight, both air flows are separate, use of heat of polluted air is possible. Plate heat exchangers with aluminium lamellas are used in KLASIK units.

There is a built – in bypass with damper for heat recovery regulation and exchanger frost protection.

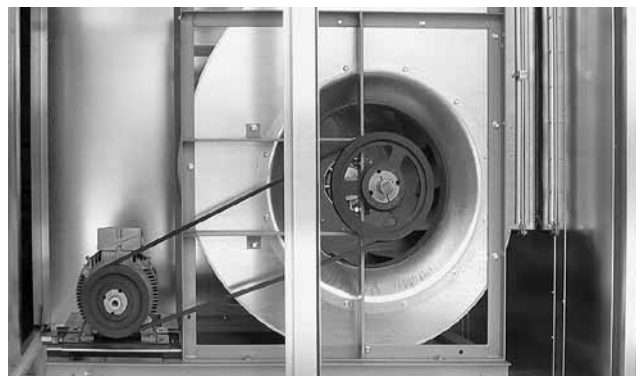
Each unit with plate heat exchanger is equipped with stainless steel sloping drain tray and water trap.

Run around heat exchanger

Temperature efficiency – up to 70%.

In such system warming up the air exchanger is placed in the supply air and the cooling one – in the exhaust air. Exchangers are connected with pipes and in this contour water and glycol solution is circulating.

Air handling units with such heat recovery are used in cases when air streams must be absolutely separated or when on design features or other requirements unit must be installed on different floors. Heat exchangers are made of copper pipes with aluminium fins.



Fans

Fans statically and dynamically are balanced according to standard ISO 1940, correspond to class G2,5/6,3 (at the maximal rotations).

Thus, even at the maximum rotation of the fan, vibration is minimal and meets modern requirements to ventilating equipment.

Depending on air volume and required static pressure, several types of fans are used in equipment.

Plug fans with EC/PM motor

Highly efficient in all operating areas, EC motors are available in all types of KLASIK units and correspond to the IE4 premium efficiency level. High efficiency is determined by low energy consumption, high efficiency factor and the best values of the SFP factor. By using EC fans in Klasik units the following advantages are achieved:

- extremely high efficiency up to 94 %;
- valuable energy saving up to 30 % comparing with AC in some applications;
- integrated motor controller, no need for a frequency converter;
- very smooth and silent operation;
- long-life;
- compact construction.

PM type motors correspond to the Super Premium Efficiency Class IE4 and ensure high efficiency in a wide operation range with reliable performance, durability, relatively low cost and electrical stability. Their operation is extremely smooth and silent, ensuring the highest efficiency, energy saving and accuracy in operation.

Plug fans with AC motor

Main advantages:

- high efficiency,
- smoothly adjustable productivity,
- good acoustic characteristics,
- durability.

The laminar stream after the fan wheel allows to lower losses of pressure in a network; there is an opportunity to connect the device for measurement of a stream of air. The fan is connected to the casing by frame with vibroizolators. AC three-phase fan's motor (400 V, 50 Hz) are controlled by frequency converters.

Class of safety IP55 on IEC 34-5, windings of motors has isolation of a category "F".

Working temperature up to 40°C.

Belt driven radial double suction fans

Fans with backward – curved fans' blades insure KLASIK stability of work, provide a high pressure, and their efficiency reaches 85 %.

Fans with forward-curved blades operate on low speed, are quiet, the efficiency reaches 70 %.

Fans are delivered with the one-speed motors controlled by frequency converters.



Air Heaters

Hot water air heaters

In standard version normally used air heaters with aluminium lamellae (spacing 3 or 4 mm) and copper pipes. Heater can be equipped with thread joint to connect freezing sensor.

Maximum operating pressure – 21 bar.

Maximum water temperature +130°C.

Heated air temperature up to +40°C.

Electric air heaters

Three-phase (400V/50 Hz) stainless steel heating elements are used in production.

Two level protection ensures protection from overheating.

Protection class IP54 in accordance with IEC 34-5.

Heated air temperature up to +40°C.



Coolers and Humidifiers

Water Air Coolers

Normally used with aluminium lamellae (spacing 2,5 or 3 mm) and copper pipes.

Maximum operating pressure – 21 bar.

Air cooler section assembled with stainless steel sloping drain tray and water trap manifold pipes are covered with a condensation-proof material.

Direct Evaporation Air Coolers

Normally used with aluminium lamellae (spacing 2,5 or 3 mm) and copper pipes.

Maximum operating pressure – 42 bar.

Air cooler section assembled with stainless steel sloping drain tray and water trap manifold pipes are covered with a condensation-proof material. Power of direct evaporation air cooler can be divided into stages. It is necessary to indicate this upon order.

Humidifiers

Low pressure steam humidifiers or atomizing humidifiers can be offer with equipment.



Atomizing humidifier



Sound attenuator section

Integrated sound attenuators or separated sound attenuators may be offered with air handling units. High performance sound attenuators as well as ventilation unit ensures high sound attenuating level and are completely insulated casing. Inside the section, a wall sound attenuator is mounted. Its elements can be removed easily through the door without using tools. The elements should be removed one by one, not as a whole block, thus providing easy dry or semi-moist cleaning for the purpose of sanitation of the ventilation system. The elements of the sound attenuator are filled with acoustic silicate cotton used for an air channel. The silicate cotton is covered with a fibreglass mat preventing cotton particles from getting into an air channel when the airflow is running at high speed. The fibreglass mat is maximally resistant to the appearance of dust inside the air channel. Sound attenuators are available with two types of cotton: silicate cotton and polyester cotton (Dacron) with a fibre mat and polypropylene fibre covering.



Additional accessories

KLASIK air handling units can be outdoor type. For such outdoor performance there is complete set enclosed consisting of:

- a protective roof,
- intake and exhaust air hoods,
- external grilles.

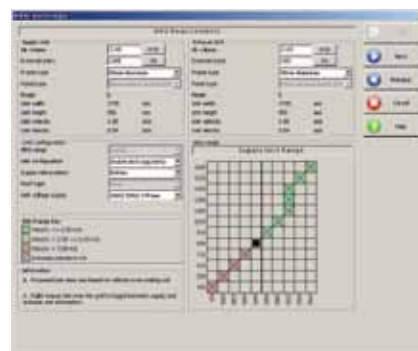
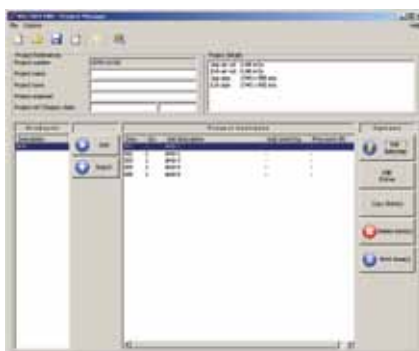
Also such additional elements are available:

- inspection window,
- sections lighting.

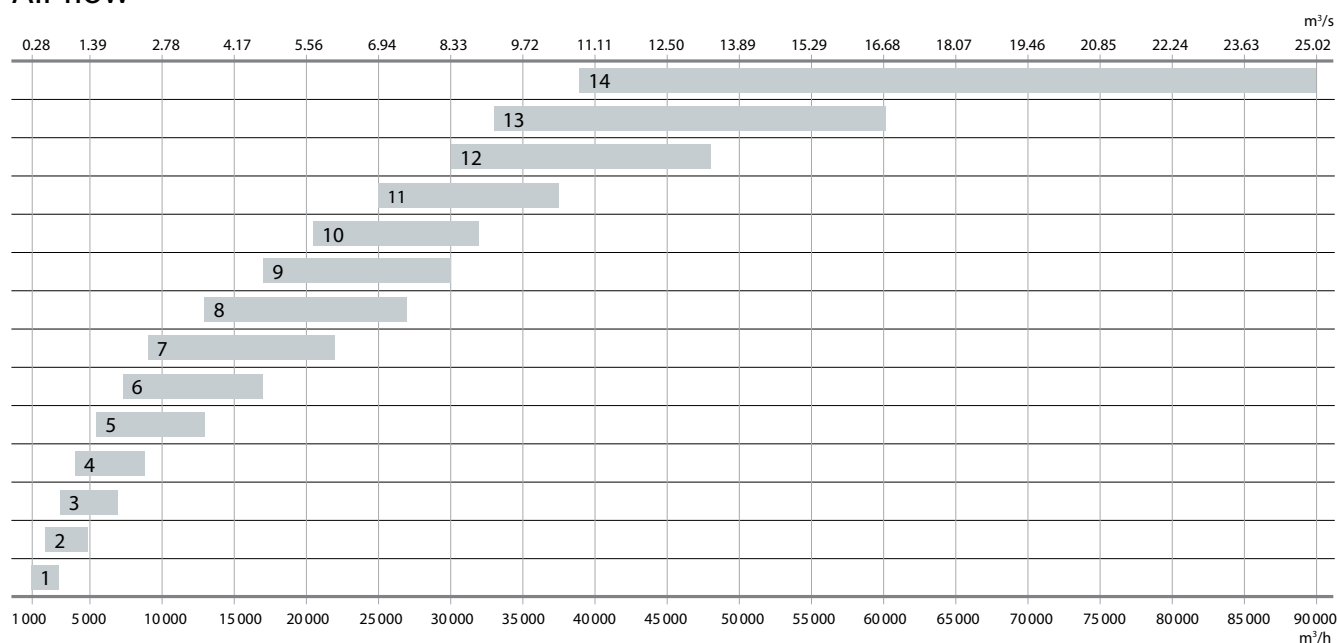


For each air handling unit the individual automation control system can be offered. Automatics of air handling units can be mounted in separate control boxes or integrated inside unit. Depending on a degree of complexity of ventilating system and required control functions producer equips control system with controllers KOMFOVENT C5.

For the most perfect control and management of equipment KOMFOVENT engineers have developed a computer control system for one as well as the whole complex of units controlling. More specific information about a specific unit can be obtained using KLASIK air handling unit operating program.



Air flow



Accessories for DOMEKT, VERSO STANDARD, RHP units

Supply and exhaust filters

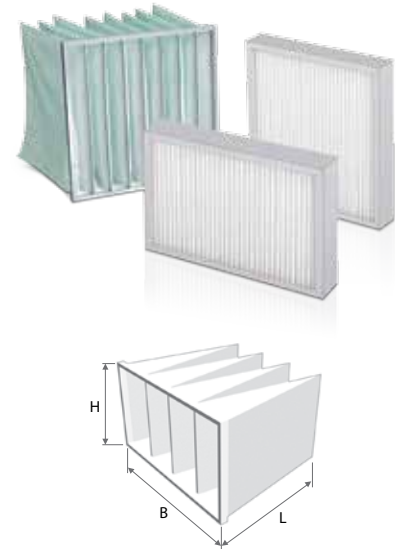
99,9 % (in amount) of particulates in the outdoor air are smaller than 1 µm. By mass the mentioned particulates account for only 30 % of all airborne dust. Thus, if the outdoor air is supplied to the public and dwelling houses, to ensure air purity required by hygienic standards, filters of M5-F7 class are enough. M5 class filters are used for filtering the exhaust air in air handling units. Air filtering protects air handling equipment against pollution, extends its service life. Therefore dirty filters should be replaced on a timely basis to assure comfortable conditions in the premises and protection of air handling units against breakage. A light on the control panel indicates the filter clogging. Usually air filters should be replaced not less than twice per year: after the end of the heating season and in autumn.

Filter classification and standards

Filters applied in the air handling units are classified according to EUROVENT 4/9 (EN 779 and EN 1882) system.

Types of filters

M5 (standard filter) or F7 (optional) class filters for supply air filter. Very compact, but are distinguished by extra large filtering surface. Large filtering surface provides long-life performance and low pressure losses (low pressure losses reduce power consumption). Ecologically clean materials allow just burning clogged air filters. Bag filters are used in bigger size units: M5 (or F7) classes for supply and for exhaust air.



Motorized closing dampers

To protect air handling units from freezing or other external factors motorized closing dampers must be used. They are mounted on supply and exhaust vents. There is dampers control possibility in automatic control system.



Unit size	Damper
R 200 V	AGUJ-M-125
R 250 F	
R 300 V	AGUJ-M-160
R 400 H / V	
R 450 V	
R 400 F	
R 500 H / V	AGUJ-M-200
R 600 H / U	
R 500 V	AGUJ-M-250
R 700 H / V / F	
R 900 U / H / V	AGUJ-M-315
R 1200 U / H / V / F	
R 1400 U / H / V	
R 2000 F	AGUJ-M-355
R 1600 UH / H	
R 2000 UH / H	SRU-M-300×400
R 2500 UH / H	
R 1600 UV / V	
R 2000 UV / V	SRU-M-400×300
R 2500 UV / V	
R 3000 UH / H	
R 4000 UH / H	SRU-M-400×500
R 4500 UH / H	
R 3000 UV / V	
R 4000 UV / V	SRU-M-500×400
R 4500 UV / V	

Unit size	Damper
R 7000 H	SRU-M-1200×600
RHP 400 V	AGUJ-M-160
RHP 600 U	AGUJ-M-200
RHP 800 U	
RHP 1300 U	AGUJ-M-250
RHP 1500 U	
PP 300 V	
PP 450 V	AGUJ-M-125
P 400 V	AGUJ-M-160
P 400 H	AGUJ-M-200
P 700 V	
P 900 V	AGUJ-M-200
P 700 H	
P 900 H	AGUJ-M-250
P 1600 F	AGUJ-M-315
CF 250 V	AGUJ-M-125
CF 250 F	
CF 400 V	AGUJ-M-160
CF 500 F	
CF 700 V	AGUJ-M-200
CF 700 H	AGUJ-M-250
CF 900 U / H / V / F	
CF 1300 U / H / V / F	AGUJ-M-315
CF 1500 F	
CF 1700 U / H / V	

Unit size	Damper
CF 2300 UH / H	SRU-M-300×400
CF 2300 UV / V	SRU-M-400×300
CF 3500 UH	SRU-M-400×500
CF 3500 UV	SRU-M-500×400
S 650 F	AGUJ-M-160
S 800 F	AGUJ-M-200
S 1000 F	AGUJ-M-250
S 1300 F	AGUJ-M-250
S 2100 F	SRU-M-750×250
S 3000 F	
S 4000 F	SRU-M-600×400

Control system	Actuator ON/OFF	
Komfovent C4, C6	LF230	LM230
Komfovent C3, C5	LF24	LM24

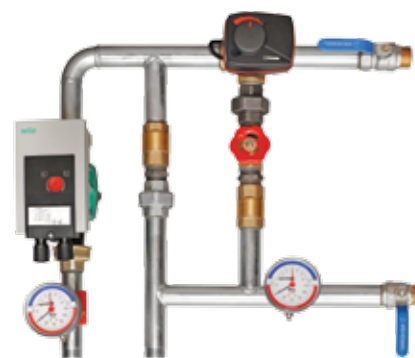
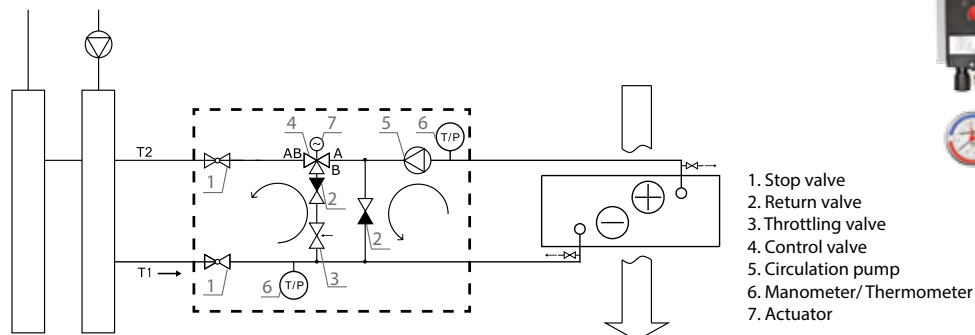
Note:

LF damper actuator is with spring-return

LM damper actuator is without spring-return

Pipework package

Pipework Package Units (PPU) are used for water heater power regulation, i.e. for temperature control of supplied air by mixing hot water from boiler with recycled water in heat exchanger. Fully assembled pipework package is available to each size of the air handling unit where hot water heater is used.



Unit size	Pipework Package
R 200 V	PPU-HW-3R-15-0,4-W1
R 250 F	
R 300 V	
R 400 V	
R 450 H/V	
R 600 U	
R 400 F	PPU-HW-3R-15-0,63-W1
R 500 H/V/U	
R 600 H	
R 700 H/V/F	
R 900 U	
R 1200	PPU-HW-3R-15-1,0-W2
R 1400	
R 1600	
R 2000	PPU-HW-3R-15-1,6-W2
R 2500	

* For outdoor temperature -4°C

Unit size	Pipework Package
R 3000	PPU-HW-3R-15-2,5-W2
R 4000	
R 4500	
R 7000	PPU-HW-3R-20-4,0-W2
PP 300 V	PPU-HW-3R-15-0,4-W1
PP 450 V	
P 400 H/V	
P 700 V	
P 700 H	
P 900 H/V	PPU-HW-3R-15-0,63-W1
P 1600 F	PPU-HW-3R-20-4,0-W2
CF 250 V/F	PPU-HW-3R-15-0,4-W1*
CF 400 V	
CF 500 F	
CF 700 V	

Unit size	Pipework Package
CF 700 H	PPU-HW-3R-15-0,63-W1*
CF 900	PPU-HW-3R-15-1,0-W2*
CF 1300	PPU-HW-3R-15-2,5-W2
CF 1500	PPU-HW-3R-20-4,0-W2
CF 1700	
CF 2300	
CF 3500	PPU-HW-3R-25-6,3-W2
S 800 F	PPU-HW-3R-15-2,5-W2
S 1000 F	PPU-HW-3R-20-4,0-W2
S 1300	PPU-HW-3R-25-6,3-W2
S 2100	PPU-HW-3R-25-10-W3
S 3000	
S 4000	PPU-HW-3R-25-16-W3

Silencers

To ensure the normal noise level in the system and premises, silencers are used. There are circular and rectangular silencers of standard dimensions. Appropriate silencer can be selected using the online selection program, which can be found on www.komfovent.com.



Unit size	Silencer type
R 200 V	A/D AGS-125-50-600-M
	B/C AGS-125-50-900-M
R 250 F R 300 V R 400 H/V R 450 V RHP 400 V	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
	A/D AGS-315-100-900-M
R 900 U/H/V	B/C AGS-315-100-1200-M
	A/D AGS-125-50-600-M
PP 300 V	A/D AGS-125-50-600-M
PP 450 V	B/C AGS-125-50-900-M
CF 250 V/F	A/D AGS-160-50-600-M
P 400 V	B/C AGS-160-50-900-M
CF 400 V	

Unit size	Silencer type
P 400 H P 700 V P 900 V CF 500 F CF 700 V	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M
P 700 H P 900 H CF 700 H S 1300 F	A/D AGS-315-100-900-M
	B/C AGS-315-100-1200-M
	A/D AGS-160-50-600-M
	B/C AGS-160-50-900-M
S 650 F	A/D AGS-200-50-600-M
	B/C AGS-200-50-900-M
	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M
S 700 F S 800 F	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M
S 1000 F	A/D AGS-250-50-600-M
	B/C AGS-250-50-900-M

Unit size	Silencer type
R 2000 F	A/D AGS-355-100-900-M
	B/C AGS-355-100-1200-M
R 1600 U/H/V R 2000 U/H/V	A/D STS-IVR3BA-600-300-700-S
	B/C STS-IVR3BA-600-300-1250-S
R 2500 U/H/V CF 2300 U/H/V S 3000 F	A/D STS-IVR3BA-600-400-700-S
	B/C STS-IVR3BA-600-400-1250-S
R 3000 U / H / V	A/D STS-IVR3BA-600-500-700-S
	B/C STS-IVR3BA-600-500-1250-S
S 2100 F	A/D STS-IVR3BA-800-250-700-S
	B/C STS-IVR3BA-800-250-1250-S
S 4000 F	A/D STS-IVR3BA-800-400-700-S
	B/C STS-IVR3BA-800-400-1250-S
R 4000 U/H/V R 4500 U/H/V CF 3500 U/H/V	A/D STS-IVR3BA-800-500-700-S
	B/C STS-IVR3BA-800-500-1250-S
R 7000 H	A/D STS-IVR3BA-1200-600-700-S
	B/C STS-IVR3BA-1200-600-1250-S

AGS-d-h-L
d – connecting diameter
h – insulation's thickness
L – silencer's length

A outdoor intake
B supply air
C extract indoor
D exhaust air

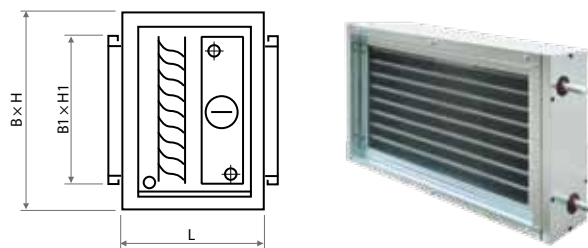
Water and direct evaporation air coolers

Air cooler is mounted on the outside of the unit.

Casing of the cooler section corresponds to the unit's casing: galvanized steel sheets with internal mineral wool insulation of 45 mm thickness. Cooler section is assembled with a drop separator and a drain tray. Cooler control function is provided in the automatic control system of the unit.

Internal fluid – R410A, water 7/12.

Air temperature in/out – 30 / 18 °C.



Unit size	Supply air volume, m ³ /h	Cooler's type	Capacity, kW	Air pressure drop*, Pa	Fluid pressure loss, kPa	BxHxL, mm	B1xH1, mm	Tubes connections, " / mm	Weight, kg
R 400 P 400 CF 400 PP 450	400	DCF-0,4-3	2,7	16	0,3	600x550x390	300x400	½ / 22	40
		DCW-0,4-3	2,7	34	15,8	505x550x390	300x400	½	33
R 450 R 500 CF 500	500	DCF-0,5-3	3,4	19	0,4	600x550x390	400x300	½ / 22	40
		DCW-0,5-3	3,4	30	29,5	600x550x390	400x300	½	35
R 600 S 650	650	DCF-0,7-5	5,3	53	3,9	705x610x390	500x400	½ / 22	46
		DCW-0,7-5	4,4	27	9,9	705x610x390	500x400	½	42
R 700 P 700 CF 700	700	DCF-0,7-5	4,7	22	0,4	705x610x390	500x400	½ / 22	49
		DCW-0,7-5	4,7	29	11,2	705x610x390	500x400	½	42
S 800 S 1000	800	DCF-0,9-6	6,1	29	0,7	705x610x390	500x400	½ / 22	49
		DCW-0,9-6	6,0	36	3,7	705x610x390	500x400	¾	45
R 900 P 900 CF 900	900	DCF-0,9-6	6,1	29	0,7	705x610x390	500x400	½ / 22	49
		DCW-0,9-6	6,0	36	3,7	705x610x390	500x400	¾	45
R 1200	1200	DCF-1,2-8	8,2	41	1,2	705x610x390	500x400	½ / 22	49
		DCW-1,2-8	8,1	60	6,3	705x610x390	500x400	¾	45
CF 1300 S 1300 R 1400	1400	DCF-1,4-10	9,5	69	8,5	705x610x390	500x400	½ / 22	51
		DCW-1,4-9	9,4	78	8,3	705x610x390	500x400	¾	45
CF 1500 R 1600 P 1600 CF 1700	1600	DCF-1,6-11	10,8	73	11,8	755x610x420	500x400	½ / 22	56
		DCW-1,6-11	10,7	83	11,2	755x610x420	500x400	¾	46
R 2000 S 2100	2000	DCF-2,0-14	13,7	67	22,6	920x610x420	700x400	¾ / 22	65
		DCW-2,0-13	13,4	78	20,6	920x610x420	700x400	¾	57
R 2500 CF 2300	2500	DCF-2,5-17	17,1	65	11,7	1080x670x420	800x400	¾ / 22	79
		DCW-2,5-17	16,9	55	28,3	1080x670x420	800x400	1	65
R 3000 S 3000	3000	DCF-3,0-20	20,4	90	16,5	1080x670x420	800x400	¾ / 22	79
		DCW-3,0-20	20,2	102	11	1080x670x420	800x400	1	69
CF 3500 R 4000 S 4000	4000	DCF-4,0-27	27,2	92	35,8	1220x730x420	900x500	¾ / 22	97
		DCW-4,0-27	27	106	17,1	1220x730x420	900x500	1	82
R 4500	4500	DCF-4,5-31	30,6	93	28,4	1220x790x420	900x600	¾ / 22	103
		DCW-4,5-30	30,3	108	31,8	1220x790x420	900x600	1	87
R 7000	7000	DCF-7,0-48	2x23,8	99	8,2	1500x790x480	1200x600	2x¾ / 2x22	125
		DCW-7,0-47	46,5	138	23,4	1500x790x420	1200x600	1 ½	105

* with drop eliminator.

Ducted heater DH and cooler DHCW

For use with DOMEKT and VERSO STANDARD units on supply air duct. Also must be used mixing unit PPU or 2-way valve with modulating actuator. DOMEKT units are prepared for 0...10 V actuator control.

Construction:

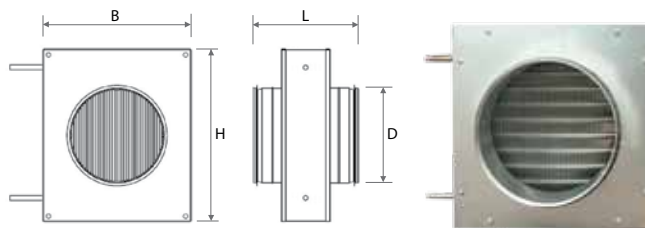
- Galvanised steel casing.
- Cu/Al heat exchanger.
- Anti-condensation casing covering and condensate drain (only for DHCW).

Maximal pressure – 10 bar.

Maximal fluid temperature – 100°C.

Maximal air speed – 3 m/s.

Connection – 1/2".



Supply air volume, m³/h	Heater's type	Air temper. in/out °C	Internal fluid, water	Capacity, kW	Air pressure drop*, Pa	Fluid pressure loss, kPa	B×H×L, mm	ØD, mm	Weight, kg
450	DH-125	10/22	60/40	1,8	44	0,4	333×293×152	125	6,15
450	DHCW-125	26/18	7/12	1,4	69	5,6	333×333×164	125	11,13
450	DH-160	10/22	60/40	1,8	44	0,4	333×293×152	160	6,15
450	DHCW-160	26/18	7/12	1,4	69	5,6	333×333×164	160	11,13
900	DH-200	10/22	60/40	3,6	101	1,7	358×318×152	200	7,04
900	DHCW-200	26/18	7/12	3,0	153	26,5	363×363×164	200	12,40
900	DH-250	10/22	60/40	3,6	49	2,3	418×378×152	250	9,30
900	DHCW-250	26/18	7/12	3,1	77	37,6	423×423×164	250	15,37
900	DH-315	10/22	60/40	3,6	20	3,4	468×508×152	315	11,75
900	DHCW-315	26/18	7/12	2,8	33	2,2	557×515×164	315	21,60
1600	DH-315	10/22	60/40	6,5	58	9,8	468×508×152	315	11,75
1600	DHCW-315	26/18	7/12	5,2	90	6,8	557×515×164	315	21,60
2000	DH-315M	10/22	60/40	8,1	98	1,3	481×518×132	315	11,75
2000	DHCW-315	26/18	7/12	6,5	133	10,5	557×515×164	315	21,60
2000	DH-355	10/22	60/40	8,1	61	16,7	600×510×152	355	13,34
2000	DHCW-355	26/18	7/12	6,6	55	11,9	605×605×164	355	25,43

Electric ducted air heater (preheater)

The electric round duct heaters are intended to be used for heating of clean air in the ventilation systems. Also heaters can be used for heating or preheating function with air handling units.

The heaters can be supplied with or without installed electronic controller, with pressure and flow monitoring system. The heater case is made of aluzinc coated metal sheet, with sealing rubber for a tight connection with ventilation ducts system. The stainless steel heating elements are used in the heaters. All heaters are equipped with 2 overheat thermostats. Automatic reset thermostat 60°C is for controlling output air temperature, manual reset thermostat 100°C is for cutoff function in case of overheat. To reset manual reset, a thermostat push button is installed on a heater's cover. Minimum air speed for heaters must be not less than 1,5 m/s. Standard operating range is from -30°C up to 0°C.

Type with integrated controller and flow monitoring	Heating capacity, kW	Voltage, V
EHC-125-1,0-1f SI/FC	1,0	1 ~ 230
EHC-160-1,0-1f SI/FC	1,0	1 ~ 230
EHC-160-1,5-1f SI/FC	1,5	1 ~ 230
EHC-160-2,0-1f SI/FC	2,0	1 ~ 230
EHC-200-1,0-1f SI/FC	1,0	1 ~ 230
EHC-200-1,5-1f SI/FC	1,5	1 ~ 230
EHC-200-2,0-1f SI/FC	2,0	1 ~ 230
EHC-250-1,0-1f SI/FC	1,0	1 ~ 230
EHC-250-1,5-1f SI/FC	1,5	1 ~ 230
EHC-250-2,0-1f SI/FC	2,0	1 ~ 230
EHC-250-3,0-1f SI/FC	3,0	1 ~ 230
EHC-315-2,0-1f SI/FC	2,0	1 ~ 230
EHC-315-3,0-1f SI/FC	3,0	1 ~ 230

Accessories for unit outside installation

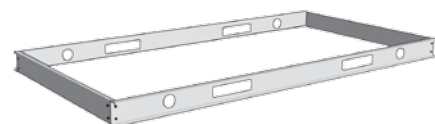
Air handling units can be installed outside due to thick casing insulation and easy mounting. Protective optional accessories should be used if unit is for outside installation: roof, base frame, legs, grills, supply and exhaust hoods.

Unit size	Dimensions of the roof BxL, mm	Type of hood for supply air	Type of hood for exhaust air
R 1200 UH/H R 1400 UH/H	1210×1555	G-600×430	AHIA-315
R 1600 UH/H R 2000 UH/H R 2500 UH/H	1165×1700	G_755_448_00	G_755_448_10
R 3000 UH/H R 4000 UH/H R 4500 UH/H	1345×2400	G_540_1115_00	G_540_1115_10
R 7000 H	1790×2050	V-40-34-00.000.2	V-40-34-00.000
CF 1300 UH/H CF 1700 UH/H	1193×2020	G-600×430	AHIA-315
CF 2300 UH/H	1193×2210	G_355_870_00	G_355_870_10
CF 3500 UH	1350×2800	G_540_1115_00	G_540_1115_10



Standard base frame for air handling units

Unit size	Frame type	Dimensions BxHxL, mm
R 1200 U/H/V R 1400 U/H/V	SSK_00_1355_850_100_N_000_D	850×100×1355
R 1600 U/H/V R 2000 U/H/V R 2500 U/H/V	SSK_00_1485_850_100_N_000_D	850×100×1485
R 3000 U/H/V R 4000 U/H/V R 4500 U/H/V	SSK_00_2100_1100_100_N_000_D	1100×100×2100
R 7000 H	sold with a unit, not separately	
CF 1300 U/H/V CF 1700 U/H/V	SSK_00_1810_850_100_N_000_D	850×100×1810
CF 2300 U/H/V	SSK_00_2000_850_100_N_000_D	850×100×2000
CF 3500 UH	SSK_00_2500_1100_100_N_000_D	1100×100×2500



Note: standard frame is 100 mm height, without feet, painted RAL 7035.

KOMFOVENT kitchen hood

(only for unit Domekt R 200)



- White color painted
- The height is only 2,6 cm



- White color painted
- Stainless steel

Decorative panel

(only for unit Domekt R 200)



- White color painted
- Stainless steel

Air distribution box OSD

(only for unit Domekt R 200 for horizontal connection of ducts)



Type:
OSD-200 VE (100 mm)
OSD2-200 VE (125 mm)

Outdoor grill LD

For supply and exhaust air flows' separation.



Type:
• LD-125
• LD-160
• LD-200
(black or white)

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. This function has the highest priority and may operate in every mode, even when the unit is switched off. This function is possible for all units with EC fans just by connecting one of the sensors listed below.

Type	Parameters
Differential pressure switch DTV500	Pressure range 50 – 500Pa One change-over contact (NO+NC) 250V AC, 1A Protection class IP54
Motion detector PIR180	Detection angle 180° Max. distance 12 m Protection class IP44
Wall mounted temperature sensor RTT	Supply voltage: 24V AC/DC Temperature measuring range 0 – 50°C One change-over contact (NO+NC) 250V AC, 2A Protection class IP30
Wall mounted humidity sensor RTH	Supply voltage: 24V AC/DC Relative humidity measuring range 0 – 100% One change-over contact (NO+NC) 250V AC, 2A Protection class IP30
Duct mounted humidity sensor DTH	Supply voltage: 24V AC/DC Relative humidity measuring range 0 – 100% One change-over contact (NO+NC) 250V AC, 2A Protection class IP54
Wall mounted CO₂ sensor RTC	Supply voltage: 24V AC/DC CO ₂ measuring range 0 – 2000 ppm One change-over contact (NO+NC) 250V AC, 2A Protection class IP30
Duct mounted CO₂ sensor DTC	Supply voltage: 24V AC/DC CO ₂ measuring range 0 – 2000 ppm One change-over contact (NO+NC) 250V AC, 2A Protection class IP54
Wall mounted air quality sensor RTQ	Supply voltage: 24V AC/DC Air quality measuring range 0 – 2000 ppm One change-over contact (NO+NC) 250V AC, 2A Protection class IP30
Duct mounted air quality sensor DTQ	Supply voltage: 24V AC/DC Air quality measuring range 0 – 2000 ppm One change-over contact (NO+NC) 250V AC, 2A Protection class IP54

Unit PC control (PING2) for C3/C4 controller



An option to manage and control units by computer, when connected to the PC network or Internet.

Network module PING2 is intended for connection of KOMFOVENT air handling units to the computer network (Ethernet) or another network (RS-485).

Air quality control (AQ)

AQ ventilation intensity control option according to the external sensor signal. Provides ventilation intensity correction, according to the increased CO₂, humidity level, etc. A different AQ function may be set depending on the sensor type, therefore, the intensity of the unit will be regulated accordingly. User can activate this function anytime according to the demand and can also observe the premise's air quality on the panel. This function is possible for all units with EC fans just by connecting one of the sensors listed below.

Type	Parameters
Wall mounted temperature sensor RST	Supply voltage: 24V AC/DC Temperature measuring range 0 – 50°C Output signal 0...10V DC Protection class IP30
Wall mounted humidity sensor RSH	Supply voltage: 24V AC/DC Relative humidity measuring range 0 – 100% Output signal 0...10V DC Protection class IP30
Duct mounted humidity sensor DSH	Supply voltage: 24V AC/DC Relative humidity measuring range 0 – 100% Output signal 0...10V DC Protection class IP54
Wall mounted CO₂ sensor RSC	Supply voltage: 24V AC/DC CO ₂ measuring range 0 – 2000 ppm Output signal 0...10V DC Protection class IP30
Duct mounted CO₂ sensor DSC	Supply voltage: 24V AC/DC CO ₂ measuring range 0 – 2000 ppm Output signal 0...10V DC Protection class IP54
Wall mounted air quality sensor RSQ	Supply voltage: 24V AC/DC Air quality measuring range 0 – 2000 ppm Output signal 0...10V DC Protection class IP30
Duct mounted air quality sensor DSQ	Supply voltage: 24V AC/DC Air quality measuring range 0 – 2000 ppm Output signal 0...10V DC Protection class IP54

Variable air volume control (VAV) (C3/C5/C6)



Unit supplies and exhausts the air volume correspondingly to the ventilation requirements in different premise. Because of frequently changing ventilation demands such air volume's maintenance mode signally reduces unit's exploitation costs.

VAV function is possible for all units with EC fans.

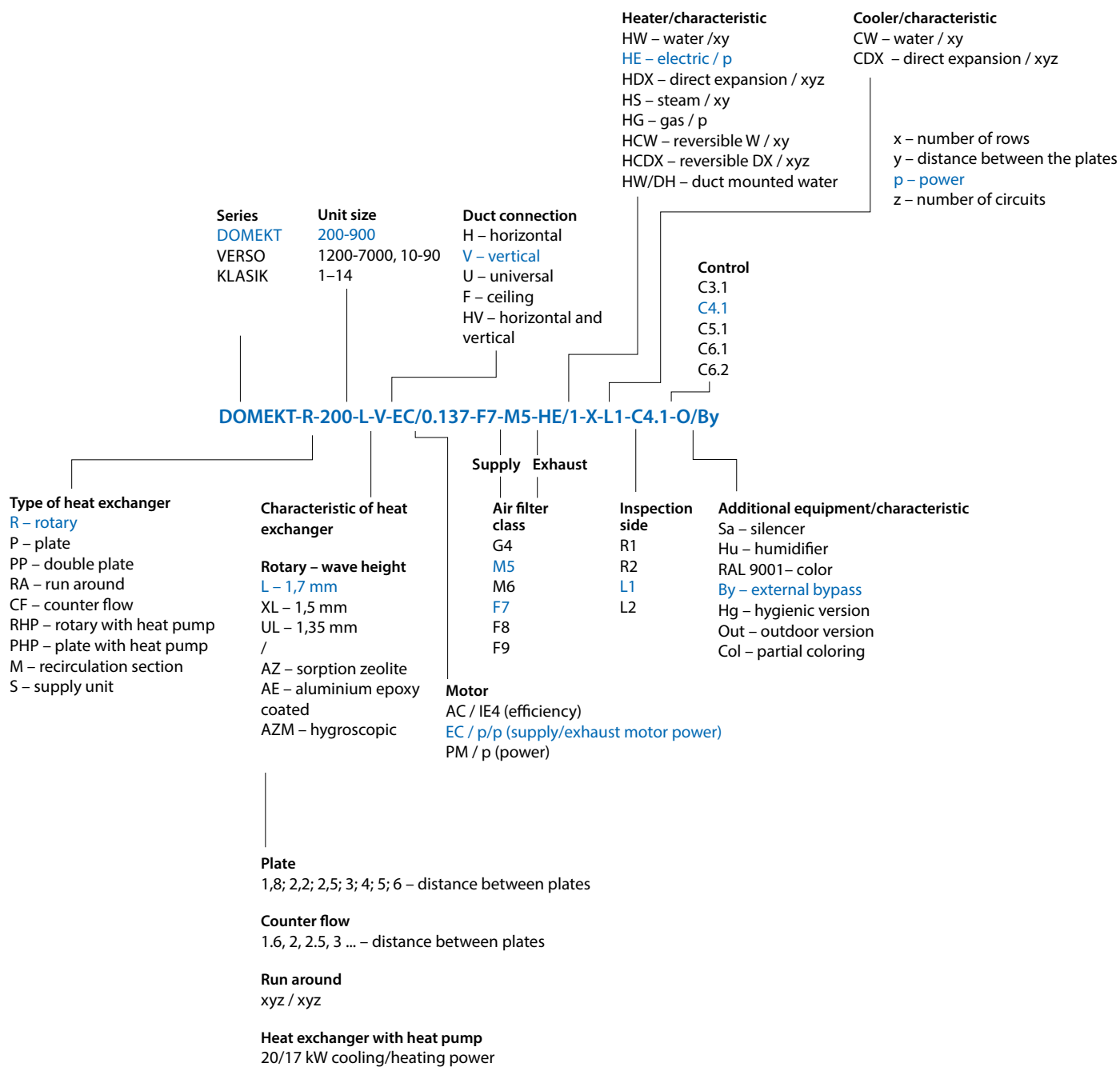
Electric wiring of air handling units

When the air handling unit is installed, the user should just connect it to the mains power supply and install one temperature sensor in the supply air duct, and in case of need extend the connecting cable of the control panel. The units with a hot water air heater are provided with extra connecting cables for a heating damper drive, a pump, and an air damper drive. If the air handling unit voltage is ~230 V; 50 Hz it is necessary to install the socket with grounding of corresponding capacity. If the voltage is ~400 V; 50 Hz, the cable of electrical power supply is connected to the main switch, which is located on the unit's outside wall.

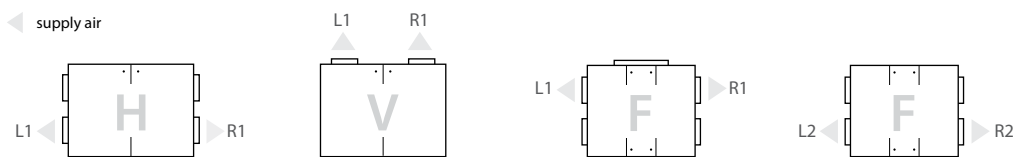
The air handling units power supply cable types are specified in the table.

Unit size	Power supply cable	Unit size	Power supply cable	Unit size	Power supply cable
R 200	3×1,5 mm ²	RHP 800	5×1,5 mm ²	S 650 E/3	3×2,5 mm ²
R 250		RHP 1300		S 800 E/3	
R 300		RHP 1500		S 650 E/6	5×1,5 mm ²
R 400		PP 300	3×1,5 mm ²	S 700 E/6	
R 450		P 400		S 800 E/6	
R 500		PP 450		S 1000 E/6	
R 600		P 700		S 1300 E/6	
R 700		P 900 W		S 700 E/9	5×2,5 mm ²
R 900 W		P 1600 W		S 800 E/9	
R 900 E	5×1,5 mm ²	P 2000 W		S 1000 E/9	
R 1200 E		P 1600 E	5×2,5 mm ²	S 1300 E/9	
R 1400 E		P 2000 E		S 1000 E/15	5×4 mm ²
R 1600 E		P 900 E	5×1,5 mm ²	S 1300 E/15	
R 2000 E	5×2,5 mm ²	CF 250	3×1,5 mm ²	S 2100 E/15	
R 2500 E		CF 400		S 2100 E/22,5	5×10 mm ²
R 3000 E		CF 500		S 800 W	3×1,5 mm ²
R 4000 E	5×6 mm ²	CF 700		S 1000 W	
R 4500 E		CF 900 W		S 1300 W	
R 1200 W	3×1,5 mm ²	CF 900 E	5×1,5 mm ²	S 2100 W	
R 1400 W		CF 1300 E		S 3000 W	5×1,5 mm ²
R 1600 W		CF 1500 E		S 4000 W	
R 2000 W		CF 1700 E			
R 2500 W		CF 2300 E	5×2,5 mm ²		
R 3000 W	5×1,5 mm ²	CF 1300 W	3×1,5 mm ²		
R 4000 W		CF 1500 W		Control panel	Connection cable for control panel (10 m)
R 4500 W		CF 1700 W		C6.1, C6.2,	4×0,22 mm ²
R 7000 W		CF 2300 W		C5.1, C4.1, C3.1	
RHP 400	3×1,5 mm ²	CF 3500 W	5×1,5 mm ²		
RHP 600					

Unit marking and ordering sample



Inspection side:



Inspection side is determined by the supply air direction, looking at the unit from the user's side.

