komfovent

DOMEKT

KOMBI

VERSO

RHP

KLASIK

VENTILATION EQUIPMENT

CATALOGUE | 2025

komfovent

VENTILATION EQUIPMENT

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Why Komfovent?

11 companies
900+ employees

50+ R&D engineers
KomfoLAB

Own control systems
since **2002**

Team

The KOMFOVENT brand unites a group of 11 companies, operating in Lithuania and other European countries, employing over 900 people who research, develop, manufacture and distribute HVAC system products.

Product development

Air handling units and the major part of their components are developed by a team of over 50 highly qualified engineers. All designed prototypes are tested by KomfoLAB – an in-house laboratory using the latest testing equipment – to comply with actual or upcoming standards and norms. International requirements, as well as customer needs, are well known by KOMFOVENT R&D team.

In-house made control systems

KOMFOVENT develops electronics and software, which provide unique ventilation control capabilities for professional and domestic users. Fine-tuned algorithms ensure a wide range of functions and connectivity options.

28 000 units/year
100% green energy

7 international approvals

5 subsidiaries
90 distributors
40 countries

Manufacturing

A large assortment of efficient air handling units, rotary heat exchangers, coils, air dampers, filters, control electronics, heat pump assemblies, air distribution, and fire protection systems are produced in KOMFOVENT factories invoking the latest technology in production lines.

Product quality

KOMFOVENT product quality is verified by various certification agencies around the world: Eurovent, TÜV SÜD, RLT, Passive House, DIBt, CE and others.

Distribution

5 official KOMFOVENT branches operate in Europe and export products to more than 40 countries worldwide.

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Wide range

KOMFOVENT manufactures air handling units from the smallest ones for residential premises to large units for industrial facilities. Performance ranges from 50 to 100 000 m³/h.
Advanced control systems, high heat recovery efficiency, economical and quiet EC fans are only a few of their outstanding features.

DOMEKT

Airflow:
50–1000 m³/h

Residential ventilation units with heat recovery. Depending on the individual requirement, units can be equipped with a rotary or counterflow plate heat exchanger. Vertical, horizontal and flat units are available with a wide range of modifications.

KOMBI

Capacity:
5–9 kW

Airflow:
100–500 m³/h

Hybrid heating and ventilation unit for domestic hot water production, temperature control with underfloor heating systems and quality ventilation. KOMBI unit is composed of 3 parts: air handling unit, heat pump and hot water system. All systems can operate independently or in combination based on user's settings.

VERSO

Airflow:
250–40 000 m³/h

VERSO Standard
Standardized choice of compact air handling units for commercial applications. Available as vertical, horizontal, universal and flat versions, with rotary or counterflow plate exchangers and integrated smart control system.

VERSO Pro
Modular AHUs for commercial and industrial premises. This series offers a large number of configurations to meet the most demanding requirements, available with rotary or counterflow plate heat exchangers and an integrated control system.

VERSO Pro2
The latest generation of energy saving modular AHUs with integrated smart control system. This series offers 1,6 million possible combinations for commercial and industrial projects with high requirements.

RHP

Airflow:
250–33 500 m³/h

RHP Standard
All-in-one units with integrated heat pump provide fresh air, heating, conditioning and humidity recovery for residential and small commercial premises.

RHP Pro
Modular all-in-one units with integrated heat pump provide fresh air, heating, conditioning and humidity recovery for commercial and industrial premises.

RHP Pro2
The latest generation of energy saving modular all-in-one units with integrated heat pump for complete indoor climate control.

KLASIK

Airflow:
250–100 000 m³/h

Series of unique ventilation units for the most complex projects. Units are available with non-standard dimensions and the largest selection of heat exchangers, fans, heaters, coolers and humidifiers. KLASIK units can be built for medical and hygienic applications.

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Energy-saving technologies

Recently, as energy performance requirements for buildings continue to tighten, greater demands are being placed on ventilation systems due to their direct impact on several energy parameters of a building, including heating, cooling, humidity regulation, and electrical consumption.
With this in mind, it is essential to prioritise operating costs and payback time over initial investment when selecting technologies and solutions for ventilation systems. After all, it is widely acknowledged that the most advanced technologies tend to pay for themselves in the shortest time.

1 Efficient heat exchangers

Rotary heat exchangers

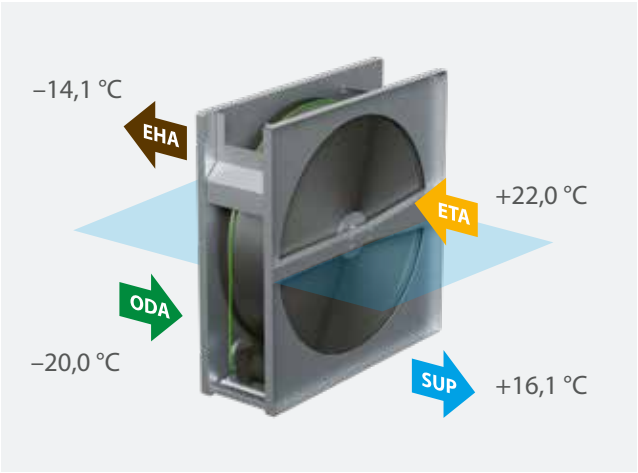
Operating principle
The rotary heat exchanger transfer effect is based on the accumulation principle – the rotating aluminium wheel with small channels is warmed up by extract indoor air and then the heat is transferred to the outdoor intake. At low temperatures, humidity from extract air condensates on the rotor surface and humidifies the outdoor intake air, where absolute humidity in winter is always too low to provide comfortable conditions. Therefore, such rotary heat exchangers are called condensing.

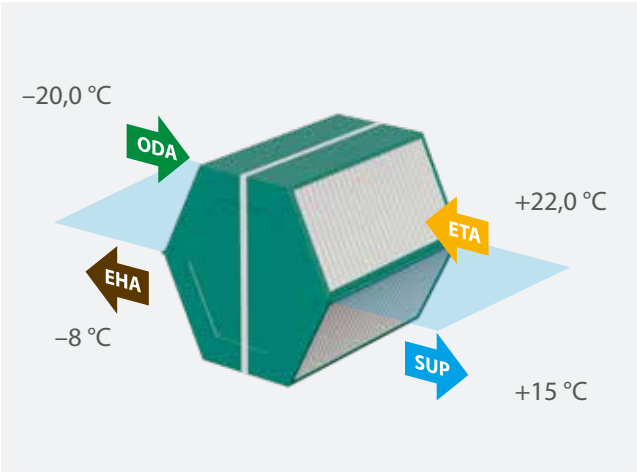
Advantages
- Efficiently recovers heat even outside temperature drops to -30 °C.
- Efficiently recovers cold during summer and reduces air conditioning costs.
- Recovers humidity in the room while maintaining the optimal comfort level.
- Advanced design ensures minimal mixing of air flows.
- No drainage is necessary – easy unit installation.
- No primary heater is necessary as the heat exchanger does not ice.

Counterflow plate heat exchangers

Operating principle
The plate heat exchangers are made of aluminium or plastic plates, which have gaps for air to flow. Fresh outdoor air and extract outdoor air flows in opposite directions through every second gap of the entire surface of the plates. Extract air transmits thermal energy to fresh outdoor air. Air flows do not mix. During winter, when the air is extracted from the room, the air cools in the heat exchanger and the humidity in it turns into ice. For this reason plate heat exchangers are more suitable for a medium and warm climate zone where there is no significant frost and no danger of icing. In cold weather, the automatic control system solves the problem of icing, but a lot of heat is lost, resulting in decreased seasonal efficiency and increased payback time.

Advantages
- High thermal efficiency.
- Very low air mixing between flows.
- Perfect solution for premises with high humidity, as it effectively eliminates humidity in the cold seasons.





ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Humidity transferring heat exchangers

Humidity transferring heat exchangers are one of the most efficient ways to control indoor humidity. Since water vapor in the air carries lots of hidden (latent) energy, controlling humidity not only helps to maintain comfortable indoor conditions but also reduces the needed power of humidifiers and air conditioning costs.

Sorption-enthalpy rotary heat exchanger

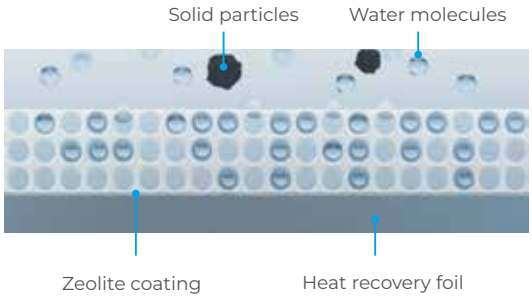
Operating principle
The internal surface of the sorption-enthalpy rotor has a special zeolite coating, which catches water molecules from the air and transfers it into another flow when the wheel rotates. In such a way humidity exchange up to 90% is achieved and rotor effectively humidifies the supply air in the winter and dries it in the summer.

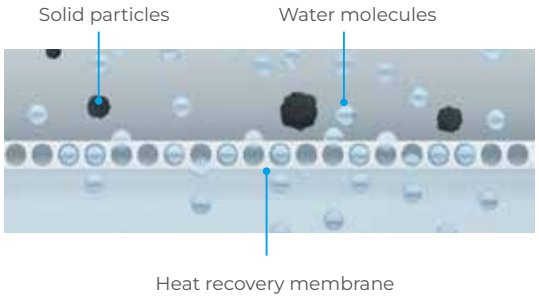
Advantages
- Reduced demand for air conditioning power.
- Reduced demand for air humidification and dehumidification power.
- More efficient use of passive cooling.
- Can operate without freezing up to -30 °C.

Diffusion-enthalpy counterflow heat exchanger

Operating principle
Outlet air humidity is recovered to the inlet air through a special patented membrane. Only water molecules can get through the membrane and solid particles or bacteria can not get back into the premises.

Advantages
- Reduced demand for air humidification and dehumidification power.
- Reduced demand for air cooling power in summer.
- More durable and hygienic when compared to enthalpy counterflow plate heat exchanger with cellulose.
- Can operate without freezing up to -10 °C.

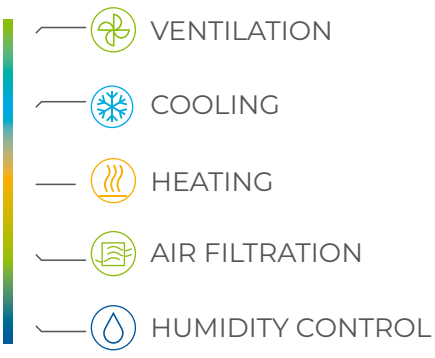




2 Integrated heat pump solutions

RHP double heat recovery – triple the benefits

RHP ventilation unit is a complex solution that integrates all indoor climate support systems into one unit: ventilation, air heating and conditioning, humidity recovery and dehumidification, air quality control and air filtering. The heat pump is completely integrated into the casing of the unit, making it simple to install and easy to operate.



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Advanced Technologies
The latest and most advanced engineering and technological solutions developed and refined in the fields of heating, ventilation, and air conditioning are included in RHP air handling units.

Operating principle
The heat pump and rotary heat exchanger work together as a perfect recuperation tandem. The main energy saving component – the rotary heat exchanger works efficiently for almost the whole year, except for the times when the outside and indoor temperatures are almost equal. When higher heating or cooling demand is needed, a second recovery step (heat pump) starts supplying warm or cold air to maintain the desired temperature. The "heart" of the heat pump, high-efficiency inverter compressor complements and extends the capabilities of the air handling unit – it effectively provides heat even when the outside air temperature is as low as -20 °C or operates as the central air conditioner during hot summer. Intelligent automation algorithms control all processes, maintaining optimal indoor climate with minimal energy use. Besides that, all ventilation and heating/cooling parameters are at the touch of a button on the control panel display.

Advantages of the RHP solution
- Double recovery – rotary heat exchanger + heat pump, return 100 % heat to the premises during winter.
- The heat pump works in the summer as an air conditioner.
- An integrated control system manages all indoor climate processes from the single user interface.
- Faster and easier installation and maintenance compared to individual heating, ventilation, and air conditioning systems.
- No external unit is needed to be mounted outside of the building.

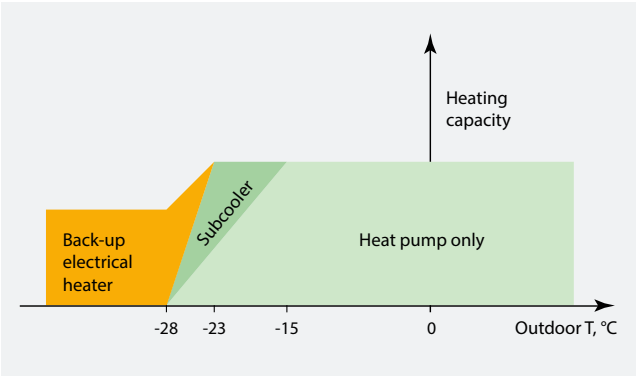
Air-to-water heat pump with integrated subcooling technology

One of the main components of the hybrid KOMBI unit is its integrated air-to-water heat pump. It is responsible for the provision of heating in winter, cooling in summer, and hot domestic water year-round. The system can warm the premises via underfloor heating which is compatible with radiators. Available air heating through the ventilation system also creates efficient and quick temperature boosts. These functions are enhanced with subcooling technology, which further increases heat pump efficiency and brings great advantages.

The Principle of Subcooling Technology
Subcooling increases the efficiency of air-to-water heat pumps by cooling the refrigerant below its condensation temperature before it returns to the compressor. This process boosts the heat pump's heating capacity and ensures more consistent performance, especially in colder climates. By maximizing energy extracted from the refrigerant, the system delivers higher heating output with reduced energy consumption.
With subcooling technology, the heat pump maintains a higher Coefficient of Performance (COP) and Energy Efficiency Ratio (EER) across a wide temperature range, ensuring stable power output in all weather conditions. This makes it an efficient choice for sustainable home heating.

Advantages of the KOMBI Air-to-Water Heat Pump
- The heat pump is integrated within the unit, resulting in quieter operation and easier installation.
- Capable of maintaining stable heating power across a full range of outdoor temperatures.
- Twin-rotor, premium-class inverter compressor ensures quiet, economical operation, with maximum reliability and durability.
- High energy and cost savings, delivering a high COP and EER.

Advantage of subcooler under low outdoor temperatures



- Pre-filled with refrigerant at the factory, eliminating the need for cooling specialists during installation and start-up.
- Backup electric heater ensures stable operation even at -30 °C or during evaporator defrosting.
- Heat pump fan operates quietly, even at maximum speeds.

3 Ultra premium fans

The highest energy efficiency Ultra and Super Premium class fan motors provide minimum power consumption. Due to the optimized design of internal winding and the use of powerful permanent magnets, energy losses of the motor are minimized, resulting in low heat emittance and stable efficiency under different loads or rotation speeds. Fans and their special design impellers are statically and dynamically balanced, thus the quiet and harmonious operation of the AHU is guaranteed.

Plug fan construction

EC fan
- Smaller overall size.
- Complete assembly from fan manufacturer.
- No need for parameter configuration, so easier integration into a third-party automation control system.

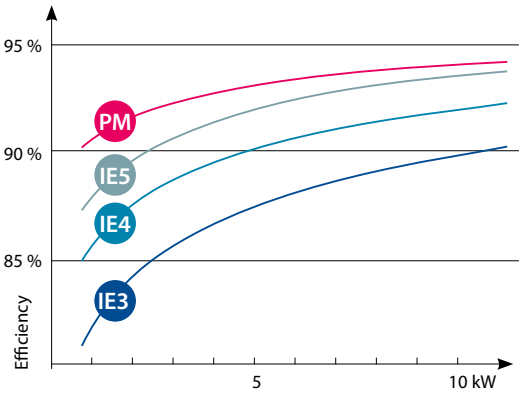
Fan with PM motor
- Better cooling of motor and control electronics.
- Lower price.
- The same motor can be used with impellers of different sizes and from different manufacturers.
- Cheaper repairs in case of breakdowns (no need to replace complete fan assembly).
- Frequency inverter can measure wide variety of the motor operational parameters and give real-time feedback to the AHU control system.

Ultra premium PM motors with DF frequency inverters

PM motor
- Energy efficiency higher than 93 %.
- Compact dimensions and light weight.
- Low heat emittance.
- Better performance at low rpm.
- Stable efficiency under different load and rotation speeds.

DF2 frequency inverter
- Molded aluminium casing with integrated heat sink for better passive cooling of electronic components.
- Motor auto calibration – automatically detects motor size, power and other parameters on first start-up.
- Easily configurable via Modbus protocol or optional control panel.
- Compatible with synchronous PM, PMS, BLDC motors or asynchronous AC motors.
- Energy efficiency up to 97 %.

Motor efficiency classes according to IEC *



IEC
- IE5 Ultra Premium efficiency
- IE4 Super Premium efficiency
- IE3 Premium efficiency

* International Electrotechnical Commission

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4 Casing technologies to improve energy efficiency

Several key parameters define the energy performance of AHU casings, the most critical being thermal transmittance, thermal bridging factor, and mechanical strength. Thermal transmittance (typically rated T1, T2, etc.) measures the heat transfer through the casing materials, directly impacting the unit's insulation efficiency and the HVAC system's heating and cooling loads. Similarly, the thermal bridging factor (denoted as TB1, TB2, etc.) evaluates potential heat leaks at joints, corners and locks, areas particularly prone to heat loss. Both parameters are essential for maintaining consistent internal temperatures and reducing unnecessary energy expenditure.
In addition to thermal performance, mechanical strength and air leakage class are crucial for withstanding operational pressures and physical stresses. The casing's mechanical integrity protects the unit's components and prevents air leaks, which otherwise could undermine the system's efficiency and durability.

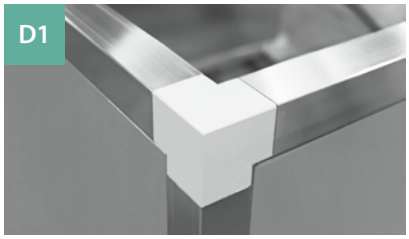
Thermal transmittance class	**T1**	**T2**	**T3**	**T4**
U value, W/m^{2}K	U ≤ 0,5	0,5 < U ≤ 1,0	1,0 < U ≤ 1,4	1,4 < U ≤ 2,0
Thermal bridging factor class	**TB1**	**TB2**	**TB3**	**TB4**
TB value, kb	0,75 < kb < 1,0	0,6 ≤ kb < 0,75	0,45 ≤ kb < 0,6	0,3 ≤ kb < 0,45
Casing air leakage	**L1**	**L2**	**L3**	**–**
L value, l/s*m^2 (overpressure +700 Pa)	0,22	0,63	1,9	–
L value, l/s*m^2 (negative pressure -400 Pa)	0,15	0,44	1,32	–
Casing mechanical strength class	**D1**	**D2**	**D3**	**–**
D value, mm/m	≤ 4	≤ 10	>10	–

Various measures are taken to meet the latest casing efficiency requirements on the Komfovent AHU's:

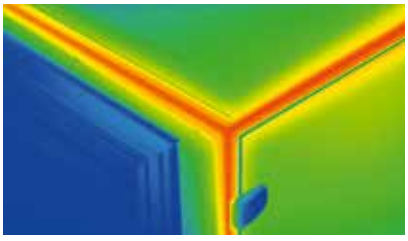
Patented plastic profile design used in the assembly of VERSO Pro2 range units, ensures the best thermal bridging factor class TB1 with minimal thermal losses and low risk of condensation.

Various types and materials of air gaskets do not compromise the airtightness between the casing panels and doors. Thus L1 tightness class is achieved during the overpressure and vacuum tests.

50–75 mm thick mineral wool used for insulation of panels ensures T1 or T2 thermal transmittance class on most AHU models.



High mechanical strength class D1 also significantly contributes to the unit's airtightness. The strengthened casing design withstands great negative and positive pressures (up to 1000 Pa) with minimal wall deflection.



On DOMEKT and VERSO Standard range units, thermal bridges are minimized using special perforation between interconnected metal parts of the AHU panels.

Using plastic parts such as handles, locks, hinges, duct connections or patented internal components further reduces thermal losses.

5 Advanced control systems

As the demand for smarter, more efficient HVAC systems continues to rise, the role of advanced control systems in air handling units has become increasingly significant. These control systems are the brain of the AHU, ensuring that ventilation, heating, cooling, and air quality are optimized while minimizing energy consumption and operational costs.
With the integration of cutting-edge technologies, AHU control systems have evolved to meet the challenges of modern building management and environmental sustainability.
Advanced control systems by Komfovent enable monitoring and regulation of key parameters such as airflow rates, temperature, humidity, and duct pressure, ensuring that the AHU operates efficiently under varying conditions.
The convenient and user-friendly interface of control panels or smartphone applications allows users to view or adjust main parameters, while implemented BACnet and Modbus protocols enable more precise control via Building Management systems.
By understanding the capabilities and advantages of these control systems, building operators and HVAC professionals can unlock new levels of efficiency and sustainability.

Log plotter software

Analysis tool for professionals – the free to use "Log plotter" software is for service and maintenance staff.
It helps analysing the operation history of the air handling unit from various perspectives.
Available on www.komfovent.com

5.1 Smart control systems C6M, C8 for DOMEKT units

For both: beginners and advanced users
A user-friendly interface enables intuitive navigation and control of the unit. The core philosophy behind the design of C6M, C8 – the ventilation unit would operate properly without constant adjustments from the user. Different ventilation modes are optimized for the user's daily needs. Automatic air quality control selects the most appropriate mode and ensures the comfort conditions in the room.
Advanced users can control the unit's operation according to their needs, many settings and control possibilities are provided as well:
- Air flow control: CAV / VAV / DCV *.
- Intensity control by air quality, CO_2, humidity level.

"Komfovent Control" app
The cloud-based application is designed to control residential ventilation units with C6M, C8 control system. A user-friendly interface ensures intuitive control. As the application fully replicates control panel functions, you will have access to all monitoring and control possibilities available in the control panel.
The application is available on Google Play, App Store and Huawei AppGallery.

Operating modes
- 8 preset modes.
- Intelligent energy saving algorithms.
- Automatic air quality control with optional AQ sensor.
- Extensive weekly schedule.

Energy counters *
- Real-time energy consumption indicator.
- Possibility of observing the running costs of the ventilation unit.
- Heat recovery counter.

* Except C8 control system.

Control options

App "Komfovent Control"

Control panel

Web Server

Connectivity & Protocols

SMART CONTROL FUNCTIONS	C6M	C8
Air temperature control The unit can control air temperature according to user-defined supply or extract temperature settings. If the user desire, room ambient temperature can also be maintained according to the temperature sensor located in the control panel	✓	✓
Temperature balance control The temperature support value of the supply air is automatically set on the basis of the current extract air temperature, i.e., the extract air temperature and the supply air temperature will be the same	✓	✓
Fan intensity control Fan speed can be adjusted smoothly between 20-100 %, thus ventilation intensity can be set easily by the user	✓	✓
Constant air volume control (CAV) The unit supplies and extracts a constant air volume as set by the user, regardless of changes in the ventilation system	✓	
Variable air volume control (VAV) The unit supplies and extracts 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 an 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 expansion (DX) unit control that can be activated by the user on the control panel	✓	✓*
Combi-coil control Heating or cooling with water by using just one circulation pump and one 3-way valve. Heating and cooling modes can be switched automatically according to water temperature, or by an external switch	✓	
Weekly operation schedule It is possible to choose one of the four pre-set weekly operation schedules. If necessary, the schedule can be modified. As well holiday schedule can be set, when the unit will not operate for most of the time, but ventilate premises occasionally	✓	✓
Air quality control (2 sensors) Upon connecting the additionally ordered external air quality or humidity sensors, the ventilation intensity is chosen automatically. Two air quality sensors can be used at the same time, thus comfort can be controlled according to two different parameters or in two separate rooms if needed	✓	
Air quality control (1 sensor) Upon connecting one air quality or humidity sensor, the ventilation intensity is chosen automatically according to its readings. In this way, optimum room comfort is ensured with the minimum energy cost		✓
Cool recovery During the summer season, in the conditioned premises cool from extract 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 are blocked automatically and free cooling is performed only by fans	✓	✓
Variable speed rotary heat exchanger By modulating the rotation speed of heat exchanger, it is possible to maintain supply air temperature more precisely, to reduce rotation noise and to prolong exchanger motor lifetime	✓	
Ventilation control by 3 external contacts Air flow can be controlled by three external contacts, each of which can be assigned to different ventilation intensity	✓	
Ventilation control by 1 external contact Airflow can be controlled by an external contact, which can be assigned to change ventilation intensity when needed, for example together with kitchen hood operation		✓
Control via internet browser or smartphone app 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	✓	✓
Air dehumidification If the relative humidity of the room exceeds the set limit, the air handling unit's operating intensity is increased until the humidity is reduced to the desired level. To make the function more efficient, the unit is recommended to be equipped with a refrigeration unit and an additional duct humidity sensor	✓	✓

* Only one external device can be connected at the same time.

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SMART CONTROL FUNCTIONS	C6M	C8
Energy counters Real-time energy consumption indicator. Possibility of observing the running costs of ventilation unit. Heat recovery counter. Day, month or overall time counters are available for ventilation unit operation analysis	✓	
Operation time counters Fan, heat exchanger and heater working times are monitored. Day, month or overall time counters are available for ventilation unit operation analysis		✓
Timed ventilation modes Three ventilation modes can be started for a duration of several minutes, without changing programmed schedules. User can simply set a timer from 1 to 300 minutes, for the desired mode to run ignoring the main weekly schedule	✓	✓
Operation on demand The ventilation unit will operate when the air quality in the premises exceeds the set levels. An additional air quality sensor is required or a humidity sensor integrated in the control panel can be used for the same purpose	✓	✓
Thermostat function The C6.1 control panel can be used as a room thermostat to turn on/off external heating or cooling devices (such as a boiler, heat pump or air conditioner) depending on the temperature of the room where the control panel is installed	✓	✓

SAFETY FUNCTIONS	C6M	C8
Filter clogging indication Clogging of the air filters is measured depending on the duration and intensity of the unit's operation. The user is informed by a message, when it is time to change air filters	✓	✓
Heat exchanger frost prevention Units with a counterflow plate heat exchanger have a primary electric heater that is controlled as needed, and is operated only at the capacity to ensure frost protection. In this way, the ventilation unit can operate in low outside temperatures	✓	✓
Heat exchanger failure indication In units with plate or rotary heat exchanger, a control system monitors the thermal efficiency, and if it does not reach the stated level, a fault is indicated	✓	✓
Water heater frost protection For the duct mounted water heater, it is ensured maximum protection from water freezing during the unit's operation. Even when the unit is switched off, warm water circulation is supported as additional help during the cold season	✓	✓
Electric heater overheat protection Electrical heater shuts down automatically in case of overheating to prevent damage to the heater components and electronics. Additionally, when the unit is stopped during the heater operation, fans will continue to operate for a set time period to cool down the heater	✓	✓
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	✓	✓
Fire damper control Possibility to monitor and perform periodical fire damper system tests directly from the control panel. External fire damper controller constantly checks fire dampers functionality and gives feedback to 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	✓	✓
Remote diagnostics possibility A remote connection with a service representative can be initiated on the units connected to the internet. As well firmware updates can be done directly from the control panel	✓	✓

5.2 Control system C5 for VERSO, RHP and KLASIK units

Extended control possibilities
- Controlling up to 30 units connected into a network from one panel.
- Ability to connect the controller to the building network and manage it via 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 control panel or computer, but also by different external devices (switch, timer, etc.) and systems (e.g. the smart house system).

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 maintain.
- Flow control modes: Constant Air Volume (CAV), Variable Air Volume (VAV), Directly Controlled Volume (DCV).
- Universal operating schedule with up to 20 events, for each of them the user can assign weekday(s) and one of five operating modes.
- Holiday scheduling allows the user to change operating mode or switch off the air handling unit on some dates of the year. Up to 10 events are possible.

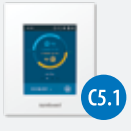
Detailed information for the user
- Air flow indication (m^3/h, m^3/s, l/s).
- Thermal efficiency of the heat exchanger (%).
- Heat exchanger energy recovery (kW).
- Thermal energy savings indicator (%).
- Air heater energy consumption (kWh).
- Heat exchanger recovered energy counter (kWh).
- Fan's energy consumption (kWh).
- SFP factor of PM fans.
- Clogging level of filters (%).

"Komfovent C5" app

Application is designed to control air handling units with the integrated C5 control system within local network of the building. User-friendly interface is intuitive for both experienced and less experienced users. As the application fully replicates control panel functions, you will have access to all monitoring and control possibilities available in the control panel. The application is available on Google Play and App Store.

Control options

"Komfovent C5" app



Control panel

Web Server

BACnet

Modbus

Connectivity & Protocols

KK-25-06

CONTROL FUNCTIONS

Air quality control
Two different air quality values may be set for two different unit operating modes (e.g., Comfort and Economy). 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: utilizing 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

Operation on demand
The air handling unit start-up function is designed to start the unit when it is off and one of the selected parameters (CO_2, air quality, humidity, or temperature) has exceeded the critical limit

Humidity control
An air handling unit can control external humidifiers and dehumidifiers, or, if needed, perform a dehumidification with internal heating and cooling devices. Humidification and dehumidification can be used on the same air handling unit, for more precise humidity regulation. The user can select relative or absolute humidity levels to maintain and choose the humidity control location: supply, extract, or room air

Circulation pumps control
By default hot and cold water pumps are controlled according to the current need for heating or cooling. If needed, water pump control according to outdoor temperature is also possible

Air flow density compensation
Air density depends on the temperature. The controller has a function which adjusts the air flows automatically to avoid any misbalance in rooms while being ventilated

Change-over function
Control of combined water heater cooler and DX cooler reversing to the heating mode

Additional zone control
Option for independent control of additional heaters and coolers in separately ventilated area. You can control up to two additional zones or a preheater (electric or water). Also applicable to STANDARD series

Recirculation control
The 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 outdoor temperature curve; 3) recirculation according to a weekly schedule; 4) recirculation controlled by an external device

SAFETY FUNCTIONS

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

Multi-level frost prevention
Units with counterflow heat exchangers can be selected with a multi-level frost prevention option. In such a case, the heat exchanger is fitted with a four-segment damper, segments of which close and open in turns, thus preventing the heat exchanger from freezing under low outdoor temperatures

Service time
A warning message appears when the continuous operation of the AHU has reached 12 months

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

Water coil frost protection
Return water temperature is maintained under low outdoor temperatures, avoiding the possibility of frost at any time, even if the unit is on standby. At the same time alarm signal from the water pump, or water flow sensor input is available for extra protection

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

5.3 Control system C9 for KOMBI units

Effortless control of all home HVAC functions

The C9 control system manages every KOMBI unit function needed for complete comfort. Like the all-in-one unit itself, the control system consolidates all processes – ventilation, air heating, cooling, and domestic hot water preparation – into a single intuitive display. Pre-set parameters are automatically maintained, yet users can easily adjust these settings to match their personal preferences.

C9 Control System Features

- Comprehensive control over ventilation, heating, cooling, and hot water settings.
- Available basic and customizable operation modes.
- Detailed ventilation and temperature settings.
- Option to select cooling mode via air, floor or fan coils.
- Automatic air quality control and power adjustments with real-time monitoring grant overall efficiency.

Operating Modes

- 8 preset customizable operating modes.
- Intelligent energy-saving algorithms.
- Temperature control modes.
- Automatic air quality control.
- Full scheduling capabilities for different days of the week and seasons of the year.

Automatic Safety Functions

Integrated temperature and humidity sensors help maintain ideal room conditions. Built-in safety functions are configured at the factory for straightforward operation, including automatic periodic disinfection of the domestic water system. The control system also indicates air filter impurity.

"Komfovent Control" App

All KOMBI functions can be managed effortlessly through the "Komfovent Control" app. With its user-friendly interface, the app enables detailed control of the KOMBI unit, whether you're at home or away. Real-time adjustments give you complete flexibility, allowing you to fine-tune the indoor climate to meet your comfort needs at any moment.

CONTROL FUNCTIONS

Air temperature control
Desired air temperature in the premises can be controlled according to the sensor in the control panel, according to extracted ventilated air temperature or temperature control can be fully handed to external thermostats

Water temperature control
The temperature of the technical water used for the heating/cooling system is maintained not only according to the desired room temperature but also according to the outdoor-related curve for extra energy saving

Customizable operation modes
Different parameters and setpoints for the heating/cooling, air temperature, ventilation and domestic hot water can be assigned to each operation mode according to the comfort needs

Full ventilation functionality
Integrated air handling unit has a full spectrum of the same functions that are also available for the whole DOMEKT range: air quality control, heat and cold recovery, constant air volume and others

Floor or radiator heating
Prepared hot water is supplied to the heating system through a mixing valve and circulation pump, which controls the flow speed and effectively regulates the temperature of the floor or radiators

Cooling by ventilation or floor
When cooling is needed, cold water from the heat pump can be directed into the air handling unit for faster cooling effect, or into the floor system for more stable and more efficient cooling regulation

Bath mode
Under high usage of domestic hot water (for example, filling up a hot tub), Bath mode enables faster preparation of the hot water inside of the boiler. This mode is also convenient when several members of the family take a shower after each other

Energy counters
Real-time energy consumption, COP and EER indication. Day, month or overall time counters for a more detailed analysis of the running costs

SAFETY FUNCTIONS

Separate system operation in case of emergency
Ventilation, heating, cooling or domestic hot water systems are independent, thus in case of the breakdown of one of them, the others still can function until technical support arrives

Back-up electrical heater control
The integrated electrical heater will switch on automatically in case of a heat pump malfunction, so even in the cold season, heating and hot water will be available

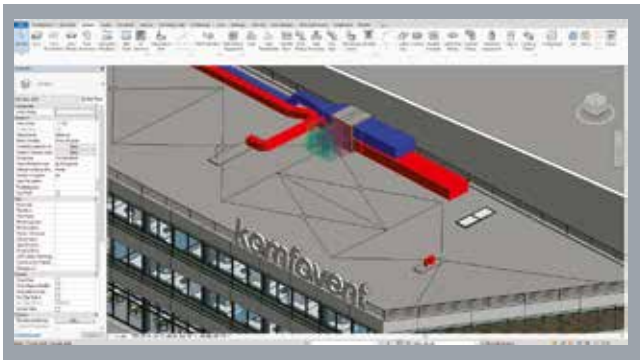
Condensate prevention
In cooling mode, absolute humidity in the building is measured to ensure that no condensation will appear on a cold floor

Automatic hot water disinfection
For legionella prevention, domestic hot water disinfection is available. It will start periodically at the user-programmed intervals and increase the water temperature to a higher temperature

Intelligent self-diagnostics
Constant monitoring of all the internal electronic or electro-mechanical components allows detection of it's abnormal operation or failures immediately. Various alarms or warning messages will be indicated on the control panel to provide more information about the issue to the user

Seamless integration of KOMFOVENT products into BIM projects

Building Information Modelling (BIM) is a digital representation of a building's physical and functional aspects. It aids architects, engineers and other specialists by enabling streamlined, collaborative work and project management. KOMFOVENT offers a range of BIM solutions.

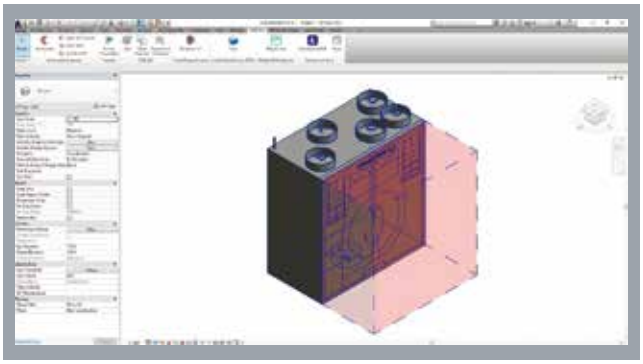


KOMFOVENT add-in for REVIT

KOMFOVENT has got a well-developed infrastructure for Autodesk REVIT with a multifunctional add-in. Accelerating and simplifying work, the KOMFOVENT add-in consists of the KOMFOVENT HUB, a continuously updated 3D library with a majority of KOMFOVENT products.
After selecting a desired model, it is automatically loaded into the REVIT environment, displaying described parameters, specific required settings, hardware inventory and history of previously used models.

AUTODESK REVIT

MagiCAD | Cloud



MagiCAD Cloud library

BIM models in the MagiCAD Cloud cater to various projects for smooth workflow. With different levels of development (LOD 200, 300 and 350), they give flexibility according to project requirements and convenient workflow. KOMFOVENT digital models are available in MagiCAD Cloud's KOMFOVENT library.
By installing the MagiCAD Connect add-in for MagiCAD and Revit, users can access KOMFOVENT's BIM objects directly from the MagiCAD Cloud library while working in Revit or other MEP software. It allows accessing and implementing BIM objects directly into worked on projects. This integration eliminates the need to leave your modelling environment.

KOMFOVENT SELECT

NEW

KOMFOVENT Select is a newly developed tool designed for seamless selection of the air handling unit. The software enables intuitive customization of modular units to meet specific project requirements. Once a unit is selected, the program generates a detailed BIM model, allowing it to be integrated into your project for seamless execution.

KOMFOVENT selection software

KOMFOVENT SELECT

- Cloud-based selection software.
- For VERSO Standard and Pro units with capacity from 250 to 40 000 m^3/h.
- For RHP units with capacity from 250 to 30 000 m^3/h.
- EUROVENT and RLT certificates guarantee the accuracy of the parameters.
- Detailed technical data report including fan curves.
- Generating VERSO Pro 3D models for the REVIT program.
- Convenient and friendly user interface.
- Ability to share.

DOMEKT selection software

- For DOMEKT units with a capacity from 50 to 1000 m^3/h.
- Parameters are calculated for specific climate and operating conditions.
- Selection of unit's accessories.
- Comparison of the units.
- DOMEKT 3D REVIT models are available in the selection software.

KLASIK selection software

- For units from 250 to 100 000 m^3/h.
- Solutions for the most complex projects.
- Wide range of modifications.
- EUROVENT and RLT certified.

KK-25-06

DOMEKT

Smart Home Comfort

komfovent

Residential ventilation units with simple and intuitive control are designed to maintain the best indoor climate at home and save energy

DOMEKT range review

Domekt R with rotary heat exchanger

A wide selection of residential ventilation units with non-freezing rotary heat exchanger, horizontal, vertical and flat installation.
Domekt R units efficiently save energy all year round by significantly reducing both heating and air conditioning costs. Ideal for cold weather countries.
Sorption-enthalpy rotary heat exchangers maintain more comfortable indoor climate in the premises.

Domekt CF with counterflow heat exchanger

A wide selection of residential ventilation units with counterflow plate heat exchanger, horizontal, vertical and flat installation.
Domekt CF units efficiently save energy by significantly reducing both heating and air conditioning costs especially with diffusion-enthalpy heat exchanger.
Ideal for moderate and warm climate countries.

Domekt S supply air handling unit

Low-height false ceiling supply air units are easily installed even in the smallest premises.

DOMEKT features

Wide range for different situations

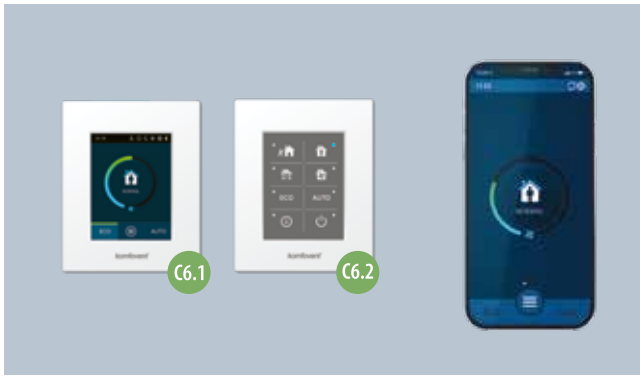
- 30 different models of DOMEKT units to fit any residential or small commercial premises.
- Airflows ranging from 50 m^3/h to 1000 m^3/h.
- Different heat exchangers available: rotary, counter flow and two types of enthalpy exchangers.
- Various modifications with vertical or horizontal duct connections, low-profile or supply-only units.

Insulated, reliable and durbable casing

- Plastic duct connections with special insulation rings simplify the connection of ducts, ensure better tightness and reduce thermal losses.
- The construction of the casing with cold barriers minimizes the risk of condensation.
- Airtight doors. Locks without thermal bridges.
- The mineral wool filling is non-flammable and provides good heat and noise insulation.

Cost reducing solutions

- Modern energy-efficient EC fans.
- Sorption-enthalpy rotary or Diffusion-enthalpy counterflow heat exchangers – efficiently recover humidity in winter and repel moisture in summer.
- Low resistance and high filtration filters.
- Over 20 built-in energy-saving functions to optimize the unit's operation.



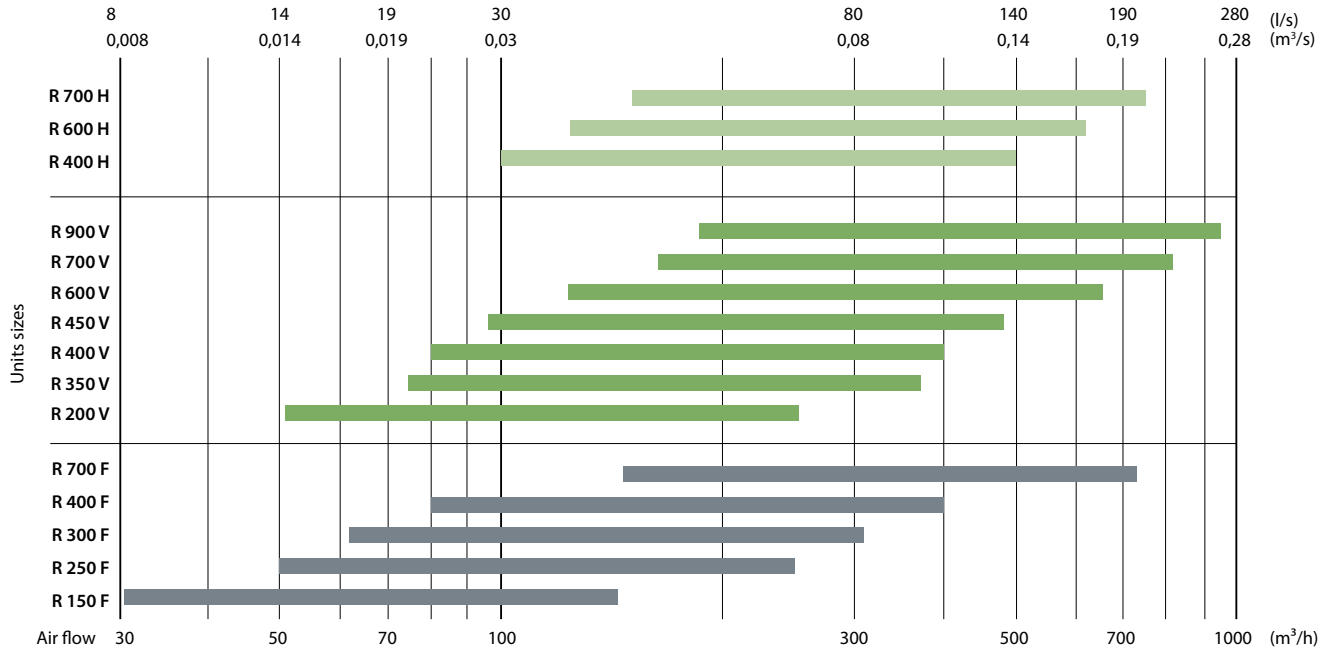
Intuitive user interface

- Two models of control panels available: C6.1 with colored touch-sensitive screen or C6.2 with simple touch buttons.
- Temperature and humidity sensors integrated into the control panel allow monitoring and control of air parameters.
- Simple and intuitive indoor climate adjustments from a smartphone, using "Komfovent control" app.
- Cloud-based web interface providing the ability to control ventilation from the internet.

Domekt R

Air handling units with rotary heat exchanger

Sizes and air volumes of Domekt R units



Modifications of Domekt R units

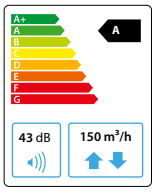
Unit	Heat exchanger		Supply/exhaust air filter class	Heater			Cooler		Inspection side			
	Condensing L/A	Enthalpy L/AZ	ePM1 60 % / ePM10 50 %	HE	DH	DHCW	DHCW	HCDX	R1	R2	L1	L2
Domekt R 150 F C8	●	○	●	●	△				○	○	○	○
Domekt R 200 VSO C8	●		●	●					○		○	
Domekt R 200 V C8	●		●	●	△				○		○	
Domekt R 250 F C8	●	○	●	●	△	△	△	△	○	○	○	○
Domekt R 300 F C8	●	○	●	●	△	△	△	△		○	○	
Domekt R 350 V C8	●	○	●	●	△	△	△	△	○		○	
Domekt R 400 V C6M	●	○	●	●	△	△	△	△	○		○	
Domekt R 400 H C6M	●	○	●	●	△	△	△	△	○		○	
Domekt R 400 F C6M	●	○	●	●	△	△	△	△	○	○	○	○
Domekt R 450 V C6M	●	○	●	●	△	△	△	△	○		○	
Domekt R 600 V C6M	●	○	●	●	△	△	△	△	○		○	
Domekt R 600 H C6M	●	○	●	●	△	△	△	△	○		○	
Domekt R 700 V C6M	●	○	●	●	△	△	△	△	○		○	
Domekt R 700 H C6M	●	○	●	●	△	△	△	△	○		○	
Domekt R 700 F C6M	●	○	●	●	△	△	△	△	○	○	○	○
Domekt R 900 V C6M	●	○	●	●	△	△	△	△	○		○	

● standard equipment
○ possible choice
△ ordered separately duct heater/cooler

The markings are explained on p. 151.

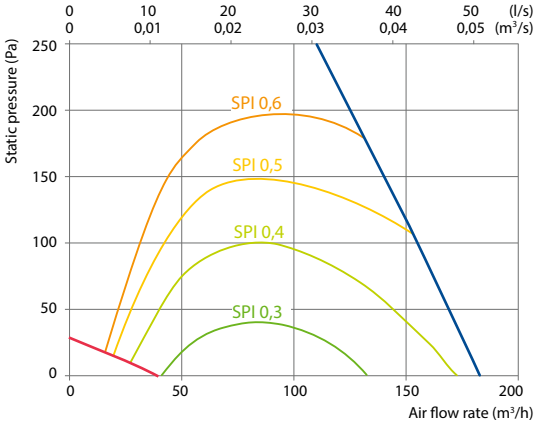
Domekt R 150 F C8

Maximal air flow, m^3/h	150
Maximal air flow, l/s	42
Reference flow rate, m^3/s	0,029
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,34
Thermal efficiency of heat recovery, %	82
Electric air heater capacity, kW / Δt, °C	0,5/13,9
Supply voltage, V	1~230
Maximal operating current HE, A	3,2
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	41
Electric power input of the fan drive at reference flow rate, W	17
Noise power level, L_{WA}, dB(A)	43
Noise pressure level, L_{PA}, dB(A), (3 m)	32
Filters dimensions B×H×L, mm	225×172×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	460×280×780
Maintenance space, mm	780
Unit weight, kg	29



Performance

Unit with standard equipment



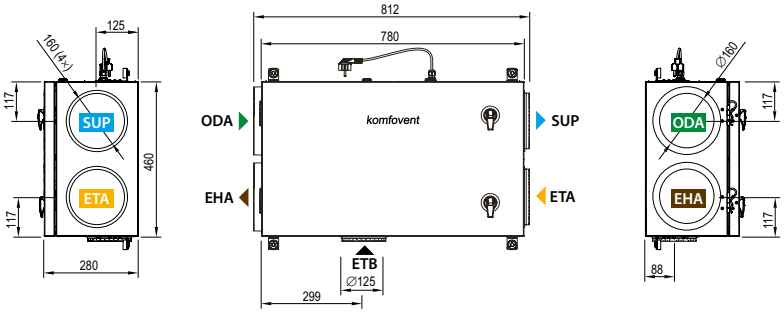
Temperature efficiency

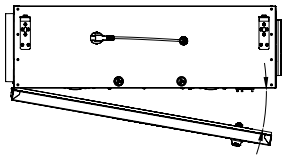
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,9	15,4	16,3	17,2	18,1	22,5	23,4	24,3

indoor +22 °C, 20 % RH

Shown as right (R1)

View from inspection side

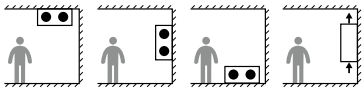




Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Outdoor grill		LD-160

Mounting positions



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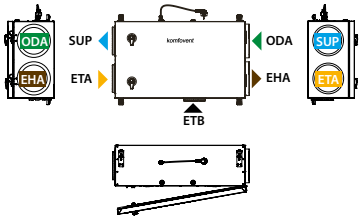


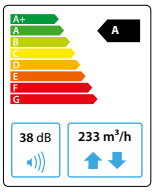
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

Domekt R 200 V C8

NEW

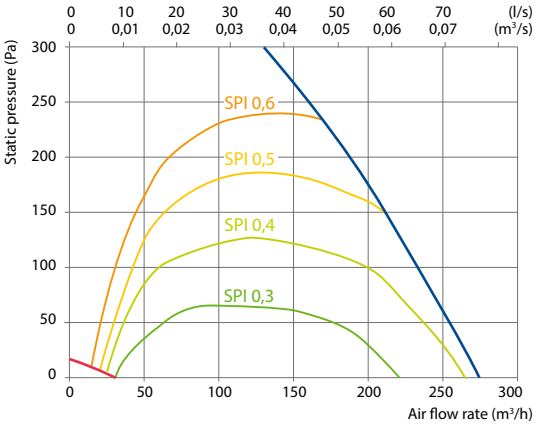
PATENTED DESIGN

Maximal air flow, m^3/h	233
Maximal air flow, l/s	65
Reference flow rate, m^3/s	0,05
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,29
Thermal efficiency of heat recovery, %	80
Electric air heater capacity, kW / Δt, °C	0,5/8,1
Supply voltage, V	1~230
Maximal operating current HE, A	3,9
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	63
Electric power input of the fan drive at reference flow rate, W	23
Noise power level, L_{WA}, dB(A)	38
Noise pressure level, L_{PA}, dB(A), (3 m)	28
Filters dimensions B×H×L, mm	285×125×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	325×607×600
Maintenance space, mm	300
Unit weight, kg	39



Performance

Unit with standard equipment



Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,9	14,5	15,5	16,5	17,5	22,6	23,6	24,6

indoor +22 °C, 20 % RH

Accessories

Closing damper		AGUJ-M-125+TF230/CM230
Silencer	ODA/EHA	ASTS-125-600-M
	SUP/ETA	ASTS-125-900-M
Water heater		DH-125
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Kitchen hood		392-12
Adapter		392-12
Kitchen hood		Monolit
Adapter		Monolit
Air distribution box		OSD-200VE/OSD2-200VE
Outdoor grill		LD-125

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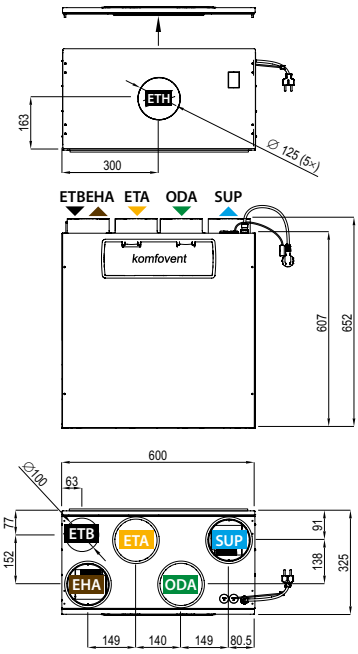

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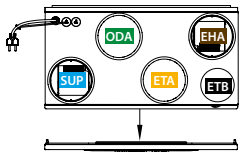


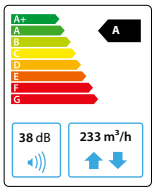
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery) **ETH** – kitchen hood connection (by-pass – extraction without heat recovery)

Domekt R 200 V C8 E1

NEW

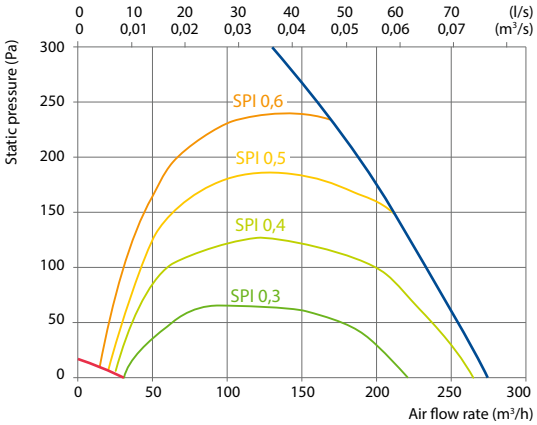
PATENTED DESIGN

Maximal air flow, m^3/h	233
Maximal air flow, l/s	65
Reference flow rate, m^3/s	0,05
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,29
Thermal efficiency of heat recovery, %	80
Electric air heater capacity, kW / Δt, °C	1/16,2
Supply voltage, V	1~230
Maximal operating current HE, A	6,1
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	63
Electric power input of the fan drive at reference flow rate, W	23
Noise power level, L_{WA}, dB(A)	38
Noise pressure level, L_{PA}, dB(A), (3 m)	28
Filters dimensions B×H×L, mm	285×125×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	325×607×600
Maintenance space, mm	300
Unit weight, kg	39



Performance

Unit with standard equipment

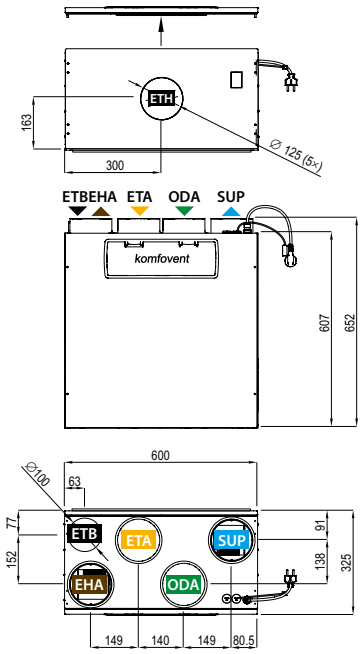


Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,9	14,5	15,5	16,5	17,5	22,6	23,6	24,6

indoor +22 °C, 20 % RH

Shown as right (R1)



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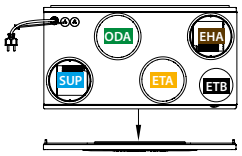


Accessories

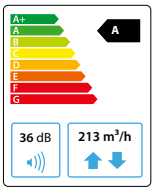
Closing damper		AGUJ-M-125+TF230/CM230
Silencer	ODA/EHA	ASTS-125-600-M
	SUP/ETA	ASTS-125-900-M
Water heater		DH-125
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Kitchen hood		392-12
Adapter		392-12
Kitchen hood		Monolit
Adapter		Monolit
Air distribution box		OSD-200VE/OSD2-200VE
Outdoor grill		LD-125

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery) **ETH** – kitchen hood connection (by-pass – extraction without heat recovery)

KK-25-06

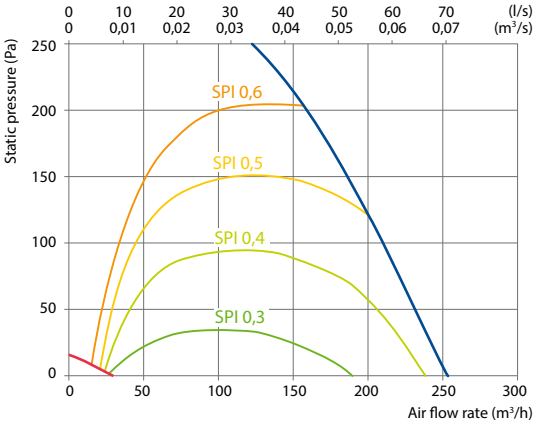
Domekt R 200 VSO C8

Maximal air flow, m^3/h	213
Maximal air flow, l/s	59
Reference flow rate, m^3/s	0,041
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,34
Thermal efficiency of heat recovery, %	81
Electric air heater capacity, kW / Δt, °C	0,5/9,3
Supply voltage, V	1~230
Maximal operating current HE, A	3,9
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	61
Electric power input of the fan drive at reference flow rate, W	26
Noise power level, L_{WA}, dB(A)	36
Noise pressure level, L_{PA}, dB(A), (3 m)	25
Filters dimensions B×H×L, mm	285×125×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1370×2160×750
Maintenance space, mm	750
Unit weight, kg	153



Performance

Unit with standard equipment

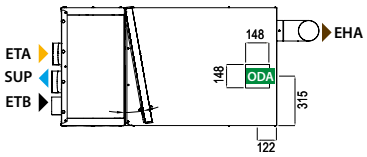


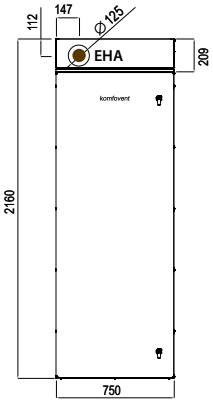
Temperature efficiency

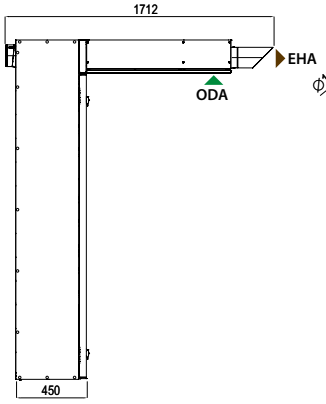
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,5	15,0	15,9	16,9	17,8	22,6	23,5	24,5

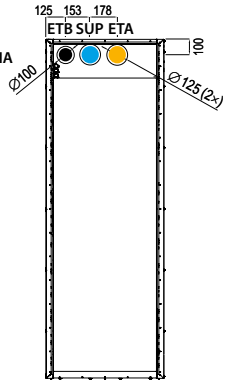
indoor +22 °C, 20 % RH

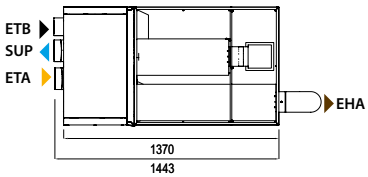
Shown as right (R1)











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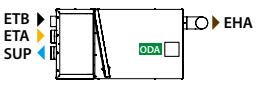
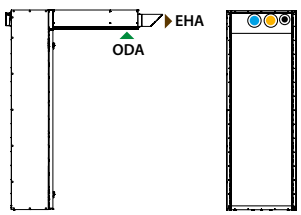
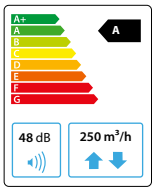




ODA – outdoor intake | **SUP** – supply air | **ETA** – extract indoor | **EHA** – exhaust air | **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

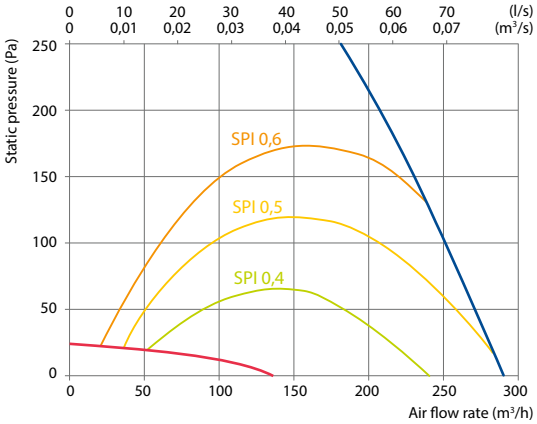
Domekt R 250 F C8

Maximal air flow, m^3/h	250
Maximal air flow, l/s	69
Reference flow rate, m^3/s	0,049
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,39
Thermal efficiency of heat recovery, %	80
Electric air heater capacity, kW / Δt, °C	1/15,9
Supply voltage, V	1~230
Maximal operating current HE, A	6
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	78
Electric power input of the fan drive at reference flow rate, W	34
Noise power level, L_{WA}, dB(A)	48
Noise pressure level, L_{PA}, dB(A), (3 m)	37
Filters dimensions B×H×L, mm	278×258×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	602×310×842
Maintenance space, mm	300
Unit weight, kg	42



Performance

Unit with standard equipment



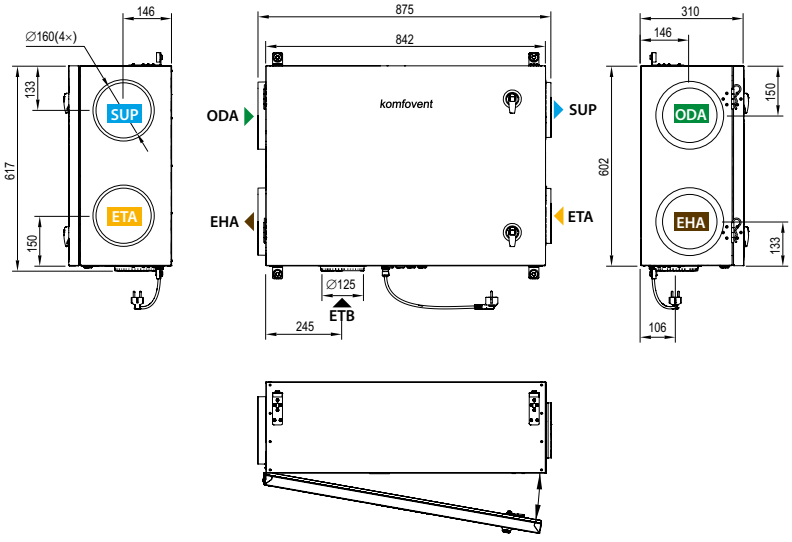
Temperature efficiency

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

indoor +22 °C, 20 % RH

Shown as right (R1)

View from inspection side



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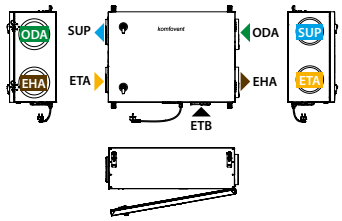
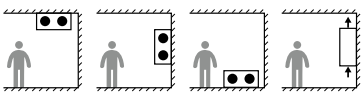


Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-160
Water heater-cooler		DHCW-160

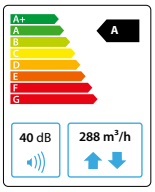
Mounting positions



ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

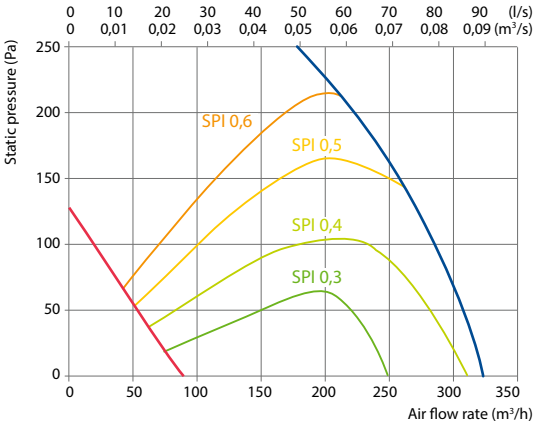
Domekt R 300 F C8

Maximal air flow, m^3/h	288
Maximal air flow, l/s	80
Reference flow rate, m^3/s	0,056
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,32
Thermal efficiency of heat recovery, %	83
Electric air heater capacity, kW / Δt, °C	1/14,5
Supply voltage, V	1~230
Maximal operating current HE, A	6,2
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	80
Electric power input of the fan drive at reference flow rate, W	32
Noise power level, L_{WA}, dB(A)	40
Noise pressure level, L_{PA}, dB(A), (3 m)	30
Filters dimensions B×H×L, mm	237×230×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	630×280×1090
Maintenance space, mm	300
Unit weight, kg	56



Performance

Unit with standard equipment



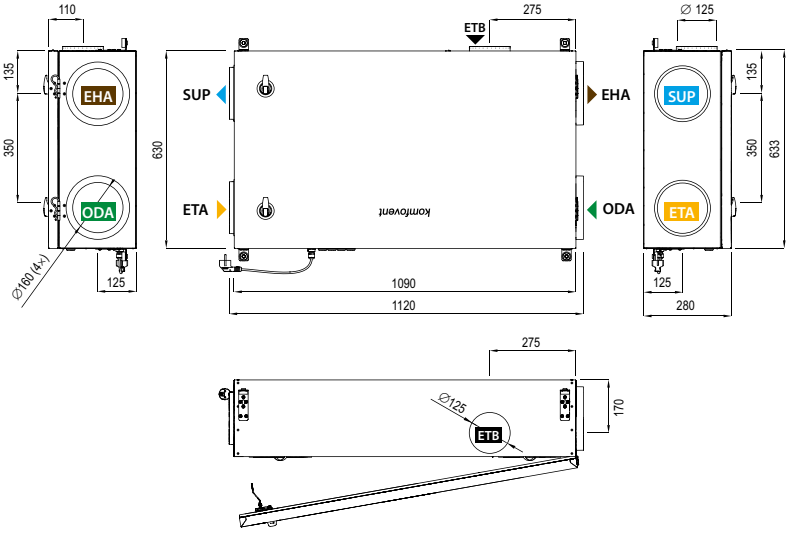
Temperature efficiency

	Winter					Summer		
Outdoor 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 left (L1)

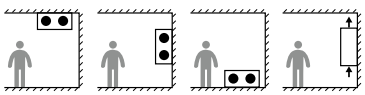
View from inspection side



Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Water cooler		DCW-0,4-3
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-160
Water heater-cooler		DHCW-160
DX cooler		DCF-0,4-3
Cooling unit		MOU-12HFN8a+ KA8142

Mounting positions

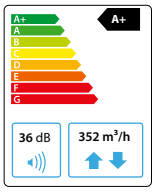


ODA – outdoor intake | **SUP** – supply air | **ETA** – extract indoor | **EHA** – exhaust air | **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

Domekt R 350 V C8

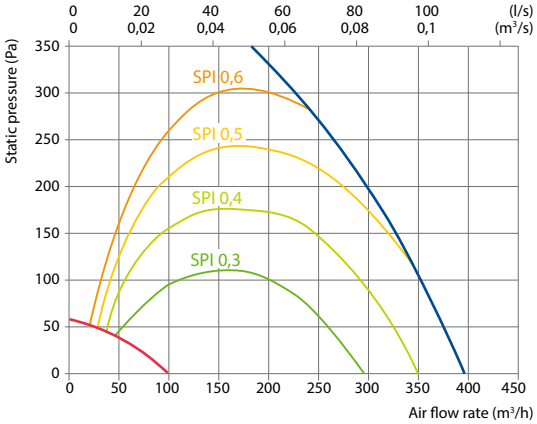
NEW

Maximal air flow, m^3/h	352
Maximal air flow, l/s	98
Reference flow rate, m^3/s	0,068
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,28
Thermal efficiency of heat recovery, %	86
Electric air heater capacity, kW / Δt, °C	0,5/5,9
Supply voltage, V	1~230
Maximal operating current HE, A	4,3
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	103
Electric power input of the fan drive at reference flow rate, W	37
Noise power level, L_{WA}, dB(A)	36
Noise pressure level, L_{PA}, dB(A), (3 m)	26
Filters dimensions B×H×L, mm	428×204×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	494×512×598
Maintenance space, mm	600
Unit weight, kg	45



Performance

Unit with standard equipment



Temperature efficiency

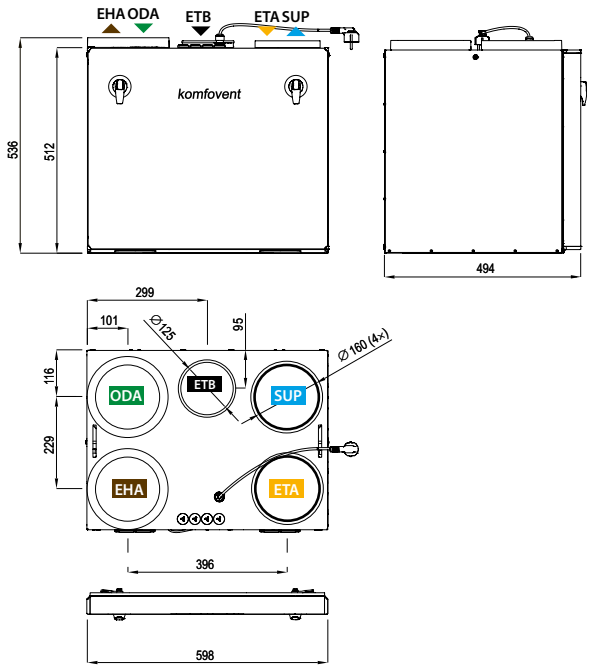
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	15,6	16,7	17,4	18,1	18,9	22,4	23,1	23,9

indoor +22 °C, 20 % RH

Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Water cooler		DCW-0,4-3
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-160
Water heater-cooler		DHCW-160
DX cooler		DCF-0,4-3
Cooling unit		MOU-12HFN8a+ KA8142

Shown as right (R1)



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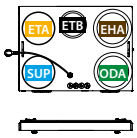
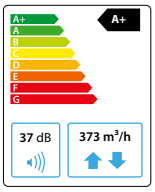


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

KK-25-06

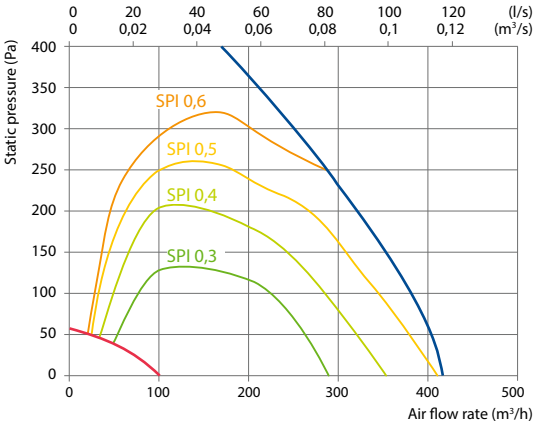
Domekt R 400 V C6M

Maximal air flow, m^3/h	373
Maximal air flow, l/s	104
Reference flow rate, m^3/s	0,073
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,3
Thermal efficiency of heat recovery, %	86
Electric air heater capacity, kW / Δt, °C	1/11,2
Supply voltage, V	1~230
Maximal operating current HE, A	6,5
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	118
Electric power input of the fan drive at reference flow rate, W	43
Noise power level, L_{WA}, dB(A)	37
Noise pressure level, L_{PA}, dB(A), (3 m)	27
Filters dimensions B×H×L, mm	428×231×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	495×561×598
Maintenance space, mm	600
Unit weight, kg	49



Performance

Unit with standard equipment

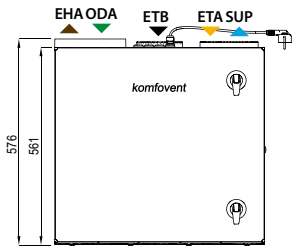


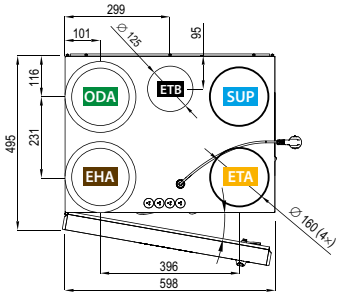
Temperature efficiency

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

indoor +22 °C, 20 % RH

Shown as right (R1)





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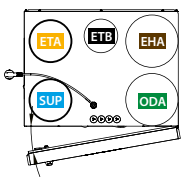


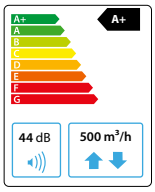
Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Water cooler		DCW-0,4-3
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-160
Water heater-cooler		DHCW-160
DX cooler		DCF-0,4-3
Cooling unit		MOU-12HFN8a+ KA8142

ODA – outdoor intake | **SUP** – supply air | **ETA** – extract indoor | **EHA** – exhaust air | **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

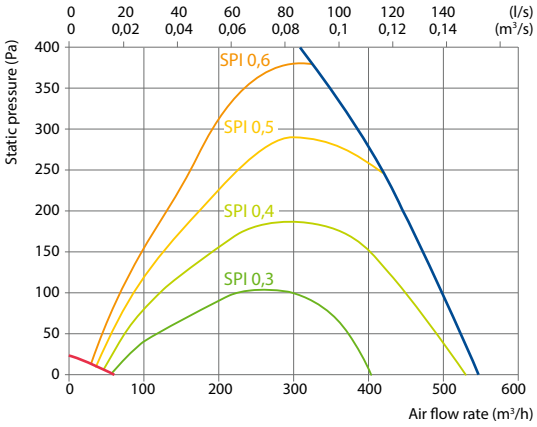
Domekt R 400 H C6M

Maximal air flow, m^3/h	500
Maximal air flow, l/s	139
Reference flow rate, m^3/s	0,097
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,28
Thermal efficiency of heat recovery, %	84
Electric air heater capacity, kW / Δt, °C	1/8,4
Supply voltage, V	1~230
Maximal operating current HE, A	7,3
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	125
Electric power input of the fan drive at reference flow rate, W	52
Noise power level, L_{WA}, dB(A)	44
Noise pressure level, L_{PA}, dB(A), (3 m)	32
Filters dimensions B×H×L, mm	417×210×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	515×567×660
Maintenance space, mm	650
Unit weight, kg	49



Performance

Unit with standard equipment

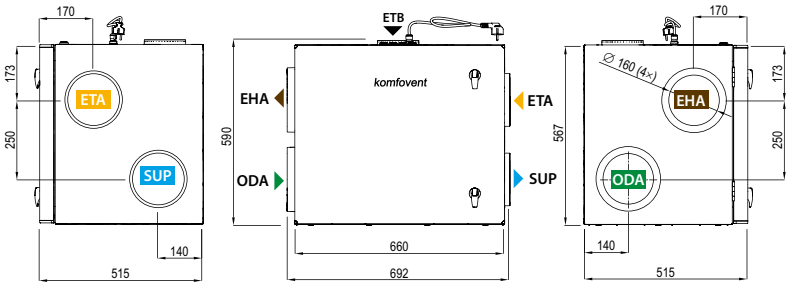


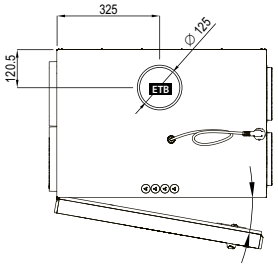
Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,9	16,2	17	17,7	18,5	22,5	23,3	24

indoor +22 °C, 20 % RH

Shown as right (R1)





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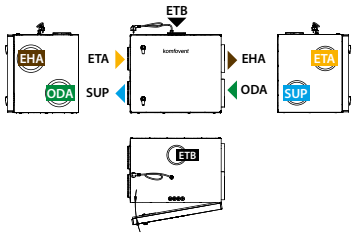


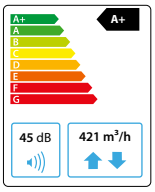
Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Water cooler		DCW-0,4-3
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-160
Water heater-cooler		DHCW-160
DX cooler		DCF-0,4-3
Cooling unit		MOU-12HFN8a+ KA8142

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

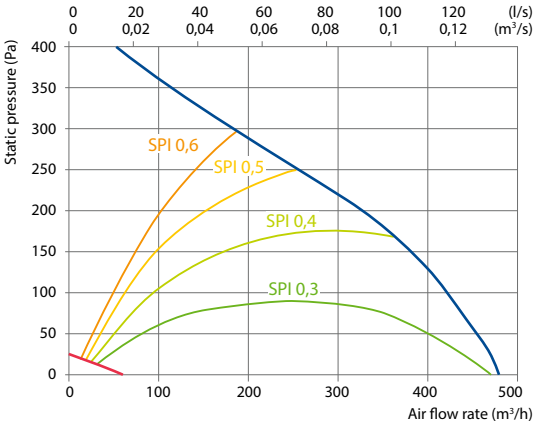
Domekt R 400 F C6M

Maximal air flow, m^3/h	421
Maximal air flow, l/s	117
Reference flow rate, m^3/s	0,082
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,26
Thermal efficiency of heat recovery, %	83
Electric air heater capacity, kW / Δt, °C	1/9,9
Supply voltage, V	1~230
Maximal operating current HE, A	7,3
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	84
Electric power input of the fan drive at reference flow rate, W	39
Noise power level, L_{WA}, dB(A)	45
Noise pressure level, L_{PA}, dB(A), (3 m)	33
Filters dimensions B×H×L, mm	346×258×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	700×310×1170
Maintenance space, mm	300
Unit weight, kg	65



Performance

Unit with standard equipment



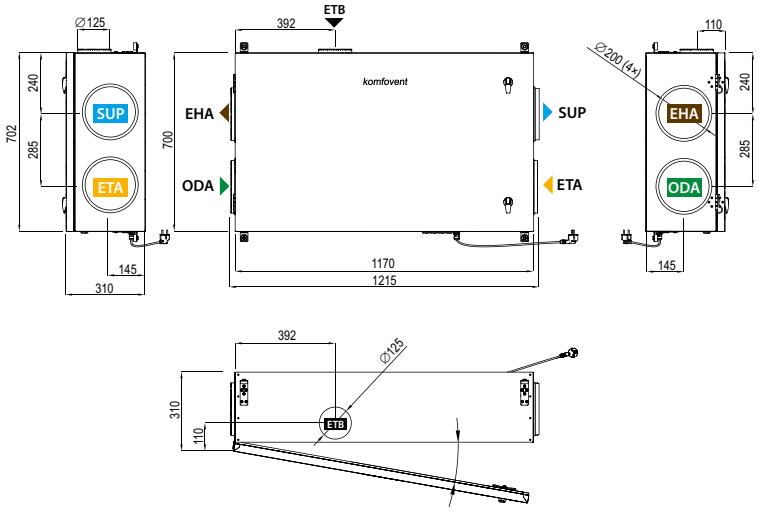
Temperature efficiency

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

indoor +22 °C, 20 % RH

Shown as right (R1)

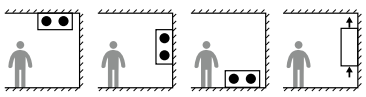
View from inspection side



Accessories

Closing damper		AGUJ-M-200+TF230/CM230
Silencer	ODA/EHA	ASTS-200-600-M
	SUP/ETA	ASTS-200-900-M
Water heater		DH-200
PPU		PPU-HW-3R-15-0,63-W2
2-way valve (heater)		VVP47.10-0,63+SSF161.05HF
Water cooler		DCW-0,4-3
2-way valve (cooler)		VVP47.15-2,5+SSF161.05HF
Outdoor grill		LD-200
Water heater-cooler		DHCW-200
DX cooler		DCF-0,4-3
Cooling unit		MOU-12HFN8a+ KA8142

Mounting positions



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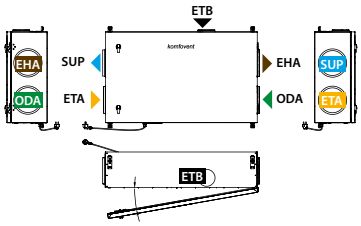
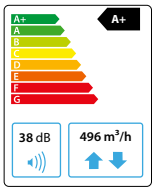


ODA – outdoor intake | **SUP** – supply air | **ETA** – extract indoor | **EHA** – exhaust air | **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

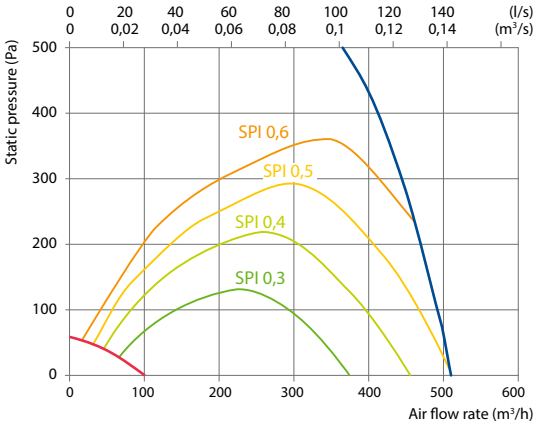
Domekt R 450 V C6M

Maximal air flow, m^3/h	496
Maximal air flow, l/s	138
Reference flow rate, m^3/s	0,096
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,3
Thermal efficiency of heat recovery, %	86
Electric air heater capacity, kW / Δt, °C	1/8,5
Supply voltage, V	1~230
Maximal operating current HE, A	7,5
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	147
Electric power input of the fan drive at reference flow rate, W	55
Noise power level, L_{WA}, dB(A)	38
Noise pressure level, L_{PA}, dB(A), (3 m)	28
Filters dimensions B×H×L, mm	517×278×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	585×655×680
Maintenance space, mm	700
Unit weight, kg	60



Performance

Unit with standard equipment



Temperature efficiency

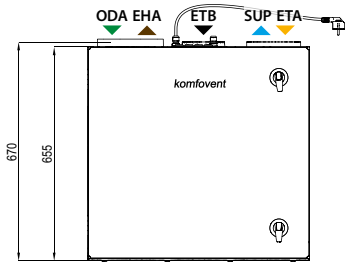
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	15,7	16,8	17,5	18,2	18,9	22,4	23,1	23,8

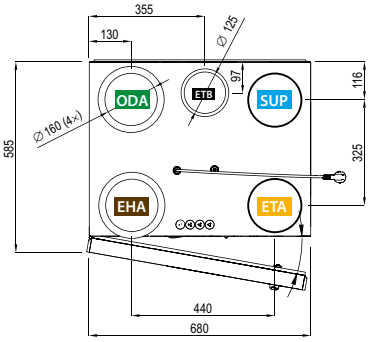
indoor +22 °C, 20 % RH

Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Water cooler		DCW-0,5-3
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-160
Water heater-cooler		DHCW-160
DX cooler		DCF-0,5-3
Cooling unit		MOU-12HFN8a+ KA8142

Shown as right (R1)





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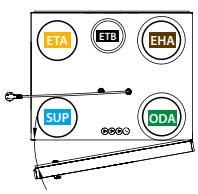
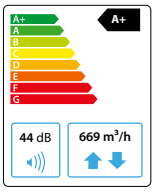


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

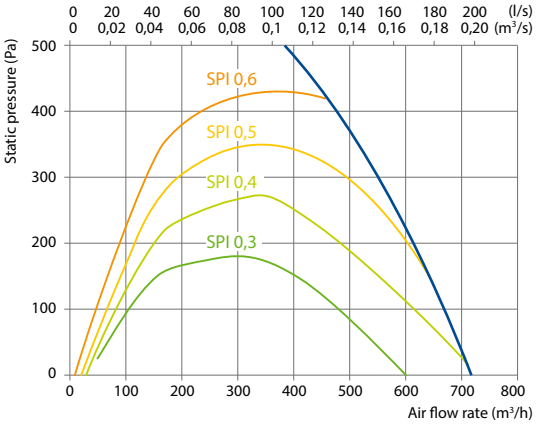
Domekt R 600 V C6M

Maximal air flow, m^3/h	669
Maximal air flow, l/s	186
Reference flow rate, m^3/s	0,130
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,25
Thermal efficiency of heat recovery, %	84
Electric air heater capacity, kW / Δt, °C	1,5/8,9
Supply voltage, V	1~230
Maximal operating current HE, A	9,5
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	167
Electric power input of the fan drive at reference flow rate, W	59
Noise power level, L_{WA}, dB(A)	44
Noise pressure level, L_{PA}, dB(A), (3 m)	32
Filters dimensions B×H×L, mm	515×240×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	610×750×905
Maintenance space, mm	900
Unit weight, kg	82



Performance

Unit with standard equipment



Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,8	16,1	16,9	17,7	18,5	22,5	23,2	24,1

indoor +22 °C, 20 % RH

Accessories

Closing damper		AGUJ-M-200+TF230/CM230
Silencer	ODA/EHA	ASTS-200-600-M
	SUP/ETA	ASTS-200-900-M
Water heater		DH-200
PPU		PPU-HW-3R-15-0,63-W2
2-way valve (heater)		VVP47.15-2,5+SSF161.05HF
Water cooler		DCW-0,5-3
2-way valve (cooler)		VVP47.15-2,5+SSF161.05HF
Outdoor grill		LD-200
Water heater-cooler		DHCW-250
DX cooler		DCF-0,5-3
Cooling unit		MOU-12HFN8a+ KA8142

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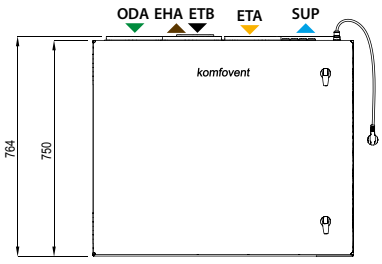

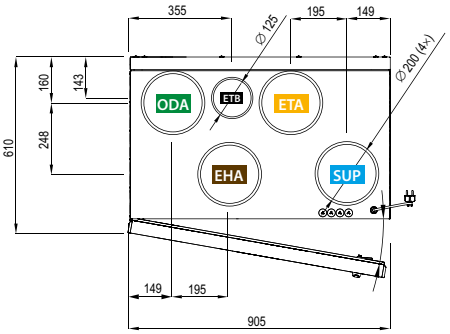

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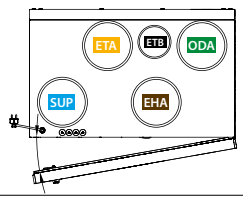
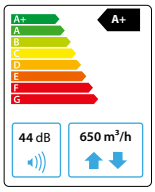


ODA – outdoor intake | **SUP** – supply air | **ETA** – extract indoor | **EHA** – exhaust air | **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

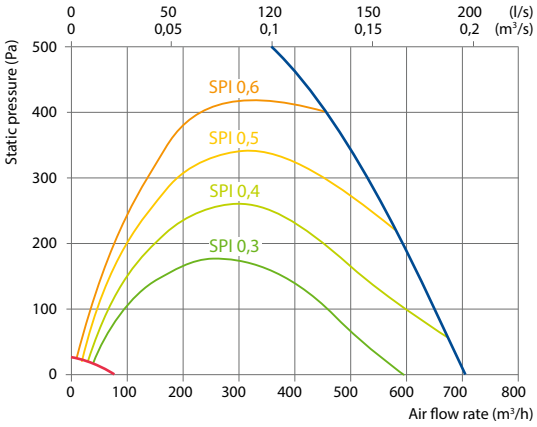
Domekt R 600 H C6M

Maximal air flow, m^3/h	650
Maximal air flow, l/s	181
Reference flow rate, m^3/s	0,126
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,26
Thermal efficiency of heat recovery, %	83
Electric air heater capacity, kW / Δt, °C	1/6,4
Supply voltage, V	1~230
Maximal operating current HE, A	7,3
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	158
Electric power input of the fan drive at reference flow rate, W	62
Noise power level, L_{WA}, dB(A)	44
Noise pressure level, L_{PA}, dB(A), (3 m)	33
Filters dimensions B×H×L, mm	475×235×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	570×600×1060
Maintenance space, mm	1100
Unit weight, kg	80



Performance

Unit with standard equipment

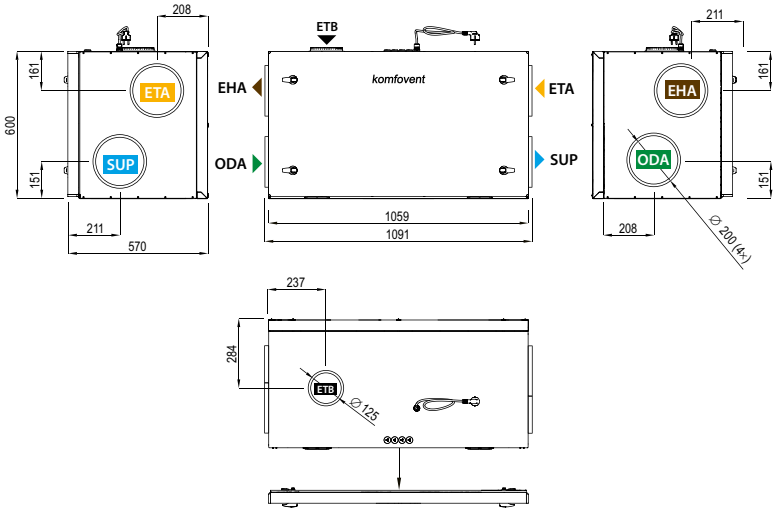


Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,4	15,7	16,6	17,4	18,3	22,5	23,4	24,2

indoor +22 °C, 20 % RH

Shown as right (R1)



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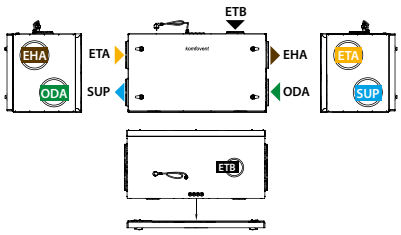


Accessories

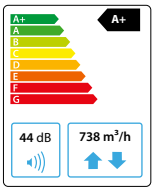
Closing damper		AGUJ-M-200+TF230/CM230
Silencer	ODA/EHA	ASTS-200-600-M
	SUP/ETA	ASTS-200-900-M
Water heater		DH-200
PPU		PPU-HW-3R-15-0,63-W2
2-way valve (heater)		VVP47.10-0,63+SSF161.05HF
Water cooler		DCW-0,7-5
2-way valve (cooler)		VVP47.10-0,63+SSF161.05HF
Outdoor grill		LD-200
Water heater-cooler		DHCW-200
DX cooler		DCF-0,7-5
Cooling unit		MOU-18HFN8a+ KA8142

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

KK-25-06

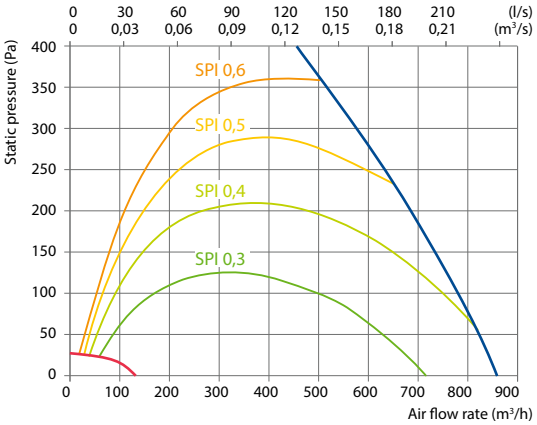
Domekt R 700 V C6M

Maximal air flow, m^3/h	738
Maximal air flow, l/s	205
Reference flow rate, m^3/s	0,140
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,26
Thermal efficiency of heat recovery, %	84
Electric air heater capacity, kW / Δt, °C	2/11,6
Supply voltage, V	1~230
Maximal operating current HE, A	11,6
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	178
Electric power input of the fan drive at reference flow rate, W	76
Noise power level, L_{WA}, dB(A)	44
Noise pressure level, L_{PA}, dB(A), (3 m)	33
Filters dimensions B×H×L, mm	540×260×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	637×950×1070
Maintenance space, mm	1070
Unit weight, kg	110



Performance

Unit with standard equipment

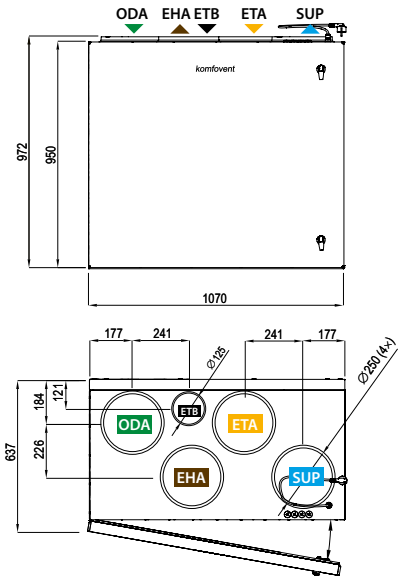


Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,7	16,0	16,8	17,6	18,4	22,5	23,3	24,1

indoor +22 °C, 20 % RH

Shown as right (R1)



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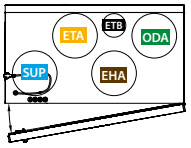


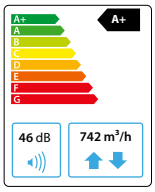
Accessories

Closing damper		AGUJ-M-250+TF230/CM230
Silencer	ODA/EHA	ASTS-250-600-M
	SUP/ETA	ASTS-250-900-M
Water heater		DH-250
PPU		PPU-HW-3R-15-0,63-W2
2-way valve (heater)		VVP47.10-0,63+SSF161.05HF
Water cooler		DCW-0,7-5
2-way valve (cooler)		VVP47.15-2,5+SSF161.05HF
Outdoor grill		LD-250
Water heater-cooler		DHCW-250
DX cooler		DCF-0,7-5
Cooling unit		MOU-18HFN8a+ KA8142

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

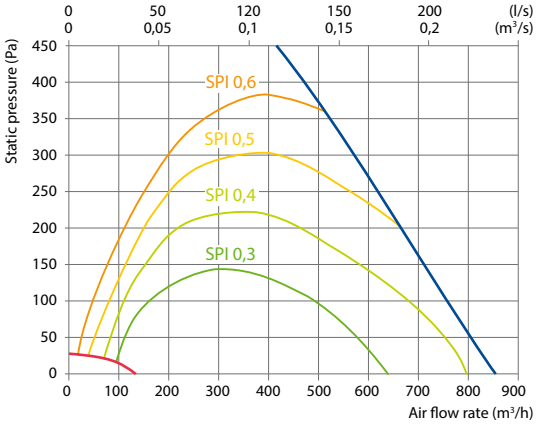
Domekt R 700 H C6M

Maximal air flow, m^3/h	742
Maximal air flow, l/s	206
Reference flow rate, m^3/s	0,144
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,26
Thermal efficiency of heat recovery, %	84
Electric air heater capacity, kW / Δt, °C	2/11,3
Supply voltage, V	1~230
Maximal operating current HE, A	11,7
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	179
Electric power input of the fan drive at reference flow rate, W	73
Noise power level, L_{WA}, dB(A)	46
Noise pressure level, L_{PA}, dB(A), (3 m)	35
Filters dimensions B×H×L, mm	540×260×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	634×700×930
Maintenance space, mm	950
Unit weight, kg	83



Performance

Unit with standard equipment

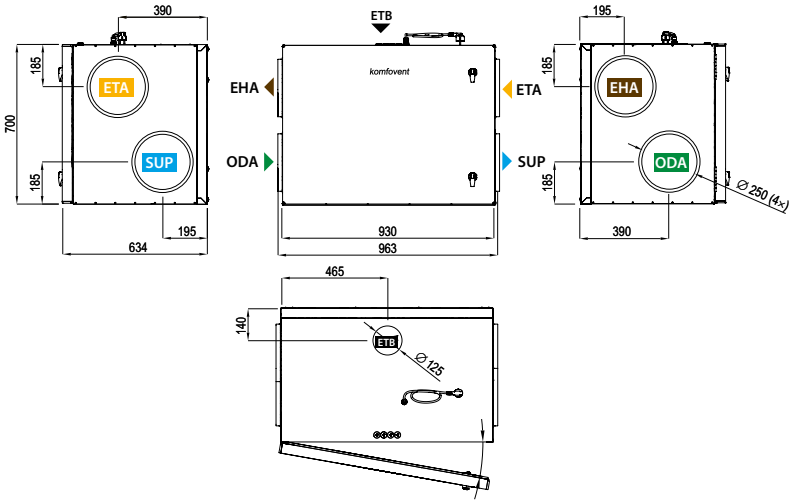


Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,8	16,1	16,9	17,7	18,5	22,5	23,3	24,1

indoor +22 °C, 20 % RH

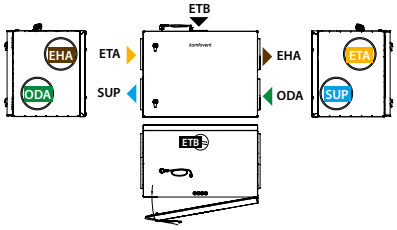
Shown as right (R1)



Accessories

Closing damper		AGUJ-M-250+TF230/CM230
Silencer	ODA/EHA	ASTS-250-600-M
	SUP/ETA	ASTS-250-900-M
Water heater		DH-250
PPU		PPU-HW-3R-15-0,63-W2
2-way valve (heater)		VVP47.10-0,63+SSF161.05HF
Water cooler		DCW-0,7-5
2-way valve (cooler)		VVP47.15-2,5+SSF161.05HF
Outdoor grill		LD-250
Water heater-cooler		DHCW-250
DX cooler		DCF-0,7-5
Cooling unit		MOU-18HFN8a+ KA8142

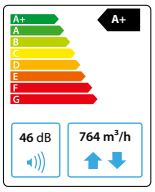
Shown as left (L1)



ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

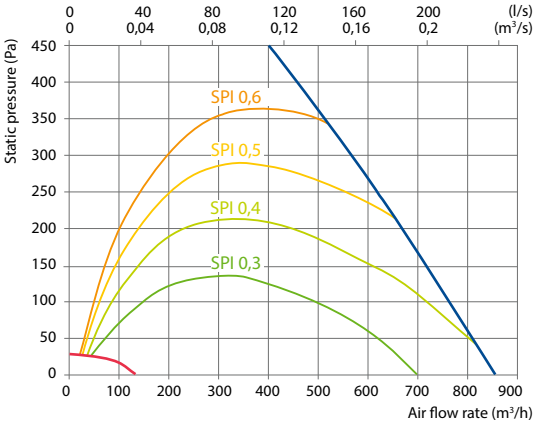
Domekt R 700 F C6M

Maximal air flow, m^3/h	764
Maximal air flow, l/s	212
Reference flow rate, m^3/s	0,149
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,26
Thermal efficiency of heat recovery, %	83
Electric air heater capacity, kW / Δt, °C	2/10,9
Supply voltage, V	1~230
Maximal operating current HE, A	11,7
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	181
Electric power input of the fan drive at reference flow rate, W	74
Noise power level, L_{WA}, dB(A)	46
Noise pressure level, L_{PA}, dB(A), (3 m)	35
Filters dimensions B×H×L, mm	368×375×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	850×420×1240
Maintenance space, mm	500
Unit weight, kg	93



Performance

Unit with standard equipment



Temperature efficiency

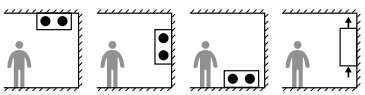
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,4	15,7	16,6	17,4	18,3	22,5	23,4	24,2

indoor +22 °C, 20 % RH

Accessories

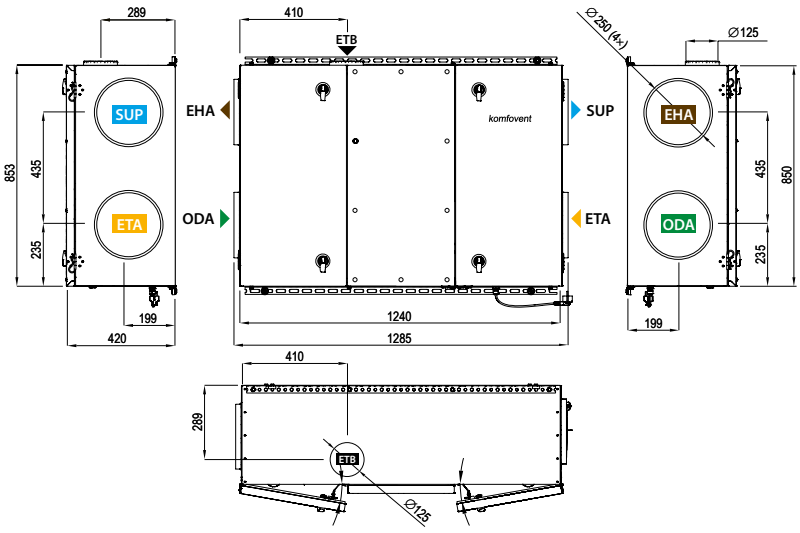
Closing damper		AGUJ-M-250+TF230/CM230
Silencer	ODA/EHA	ASTS-250-600-M
	SUP/ETA	ASTS-250-900-M
Water heater		DH-250
PPU		PPU-HW-3R-15-0,63-W2
2-way valve (heater)		VVP47.10-0,63+SSF161.05HF
Water cooler		DCW-0,7-5
2-way valve (cooler)		VVP47.15-2,5+SSF161.05HF
Outdoor grill		LD-250
Water heater-cooler		DHCW-250
DX cooler		DCF-0,7-5
Cooling unit		MOU-18HFN8a+ KA8142

Mounting positions



Shown as right (R1)

View from inspection side



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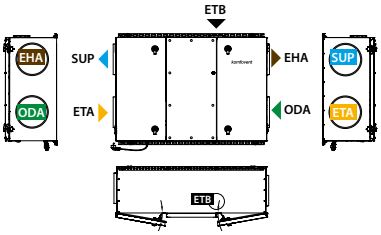
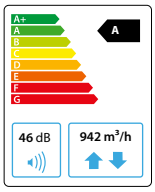


ODA – outdoor intake | **SUP** – supply air | **ETA** – extract indoor | **EHA** – exhaust air | **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

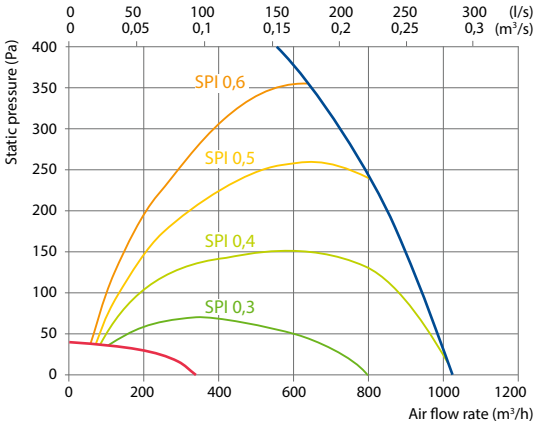
Domekt R 900 V C6M

Maximal air flow, m^3/h	942
Maximal air flow, l/s	262
Reference flow rate, m^3/s	0,183
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,31
Thermal efficiency of heat recovery, %	83
Electric air heater capacity, kW / Δt, °C	2/8,9
Supply voltage, V	1~230
Maximal operating current HE, A	13,2
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	235
Electric power input of the fan drive at reference flow rate, W	118
Noise power level, L_{WA}, dB(A)	46
Noise pressure level, L_{PA}, dB(A), (3 m)	36
Filters dimensions B×H×L, mm	540×260×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	637×950×1070
Maintenance space, mm	1070
Unit weight, kg	110



Performance

Unit with standard equipment



Temperature efficiency

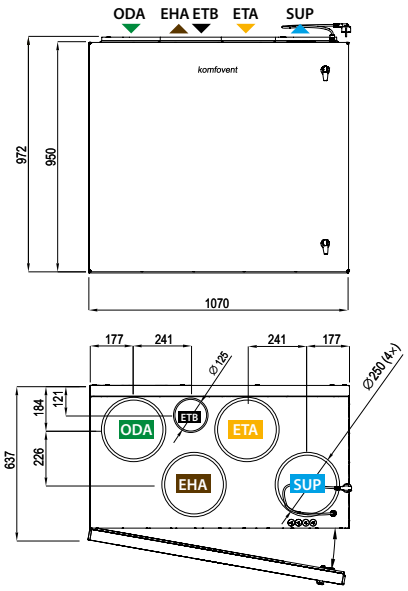
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,2	15,6	16,5	17,3	18,2	22,5	23,4	24,2

indoor +22 °C, 20 % RH

Accessories

Closing damper		AGUJ-M-250+TF230/CM230
Silencer	ODA/EHA	ASTS-250-900-M
	SUP/ETA	ASTS-250-1200-M
Water heater		DH-250
PPU		PPU-HW-3R-15-0,63-W2
2-way valve (heater)		VVP47.10-0,63+SSF161.05HF
Water cooler		DCW-0,9-6
2-way valve (cooler)		VVP47.15-2,5+SSF161.05HF
Outdoor grill		LD-250
Water heater-cooler		DHCW-315
DX cooler		DCF-0,9-6
Cooling unit		MOU-18HFN8a+ KA8142

Shown as right (R1)



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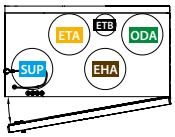
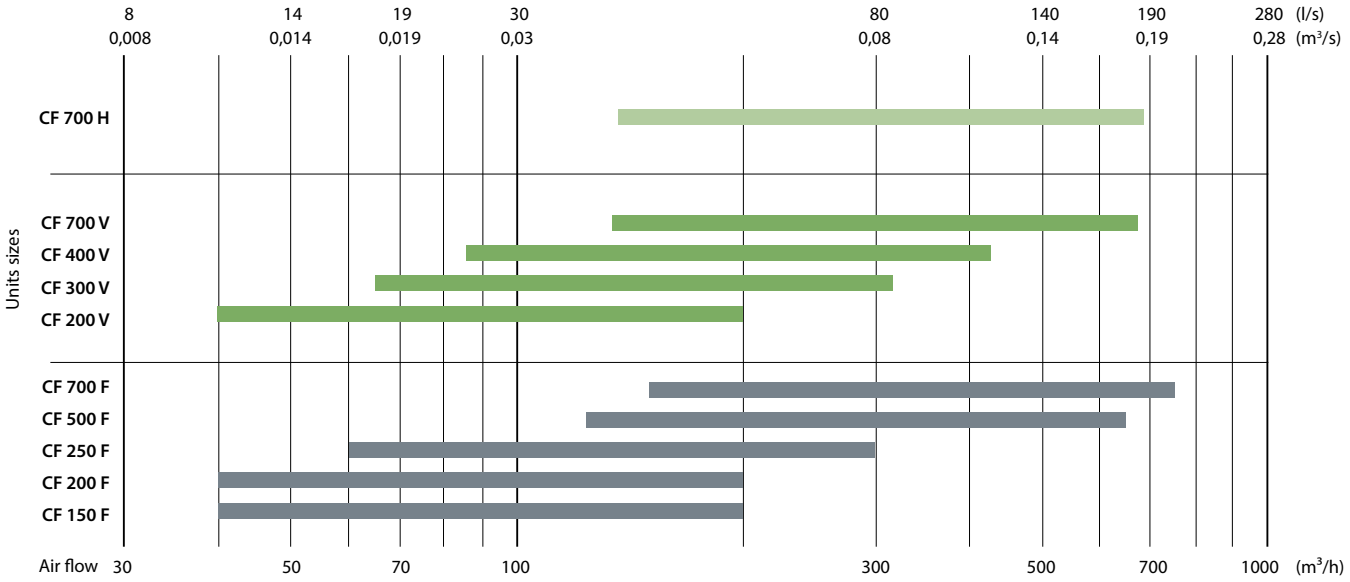


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air **ETB** – additional extraction connection (by-pass – extraction without heat recovery)

Domekt CF

Air handling units with counterflow plate heat exchangers

Sizes and air volumes of Domekt CF units



Modifications of Domekt CF units

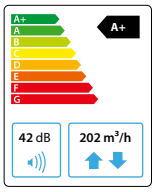
Unit	Heat exchanger		Supply/exhaust air filter class	Preheater	Heater			Cooler		Inspection side				Bypass
	Condensing	Enthalpy	ePM1 60 % / ePM10 50 %	HE	HE	DH	DHCW	DHCW	HCDX	R1	R2	L1	L2	Inner
Domekt CF 150 F C6M	●	○	●	●	●	△					○	○		●
Domekt CF 200 V C6M	●	○	●	●	●	△				○		○		●
Domekt CF 200 F C8	●	○	●	△	●	△					○	○		●
Domekt CF 250 F C6	●	○	●	●	●	△	△	△		○	○	○	○	●
Domekt CF 300 V C6M	●	○	●	●	●	△	△	△	△	○		○		●
Domekt CF 400 V C6M	●	○	●	●	●	△	△	△	△	○		○		●
Domekt CF 500 F C6M	●	○	●	●	●	△	△	△	△	○	○	○	○	●
Domekt CF 700 V C6M	●	○	●	●	●	△	△	△	△	○		○		●
Domekt CF 700 H C6M	●	○	●	●	●	△	△	△	△	○		○		●
Domekt CF 700 F C6M	●		●	●	●	△	△	△	△	○	○	○	○	●

● standard equipment
○ possible choice
△ ordered separately duct heater/cooler

The markings are explained on p. 151.

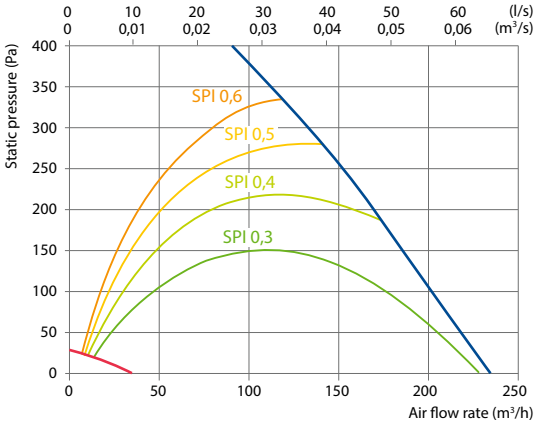
Domekt CF 150 F C6M

Maximal air flow, m^3/h	202
Maximal air flow, l/s	56
Reference flow rate, m^3/s	0,039
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,19
Thermal efficiency of heat recovery, %	90
Electric air heater capacity, kW / Δt, °C	0,5/10,3
Electric preheater capacity, kW / Δt, °C	0,75/15,5
Supply voltage, V	1~230
Maximal operating current HE, A	6,4
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	41
Electric power input of the fan drive at reference flow rate, W	14
Noise power level, L_{WA}, dB(A)	42
Noise pressure level, L_{PA}, dB(A), (3 m)	31
Filters dimensions B×H×L, mm	250×232×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	560×294×1100
Maintenance space, mm	300
Unit weight, kg	29



Performance

Unit with standard equipment

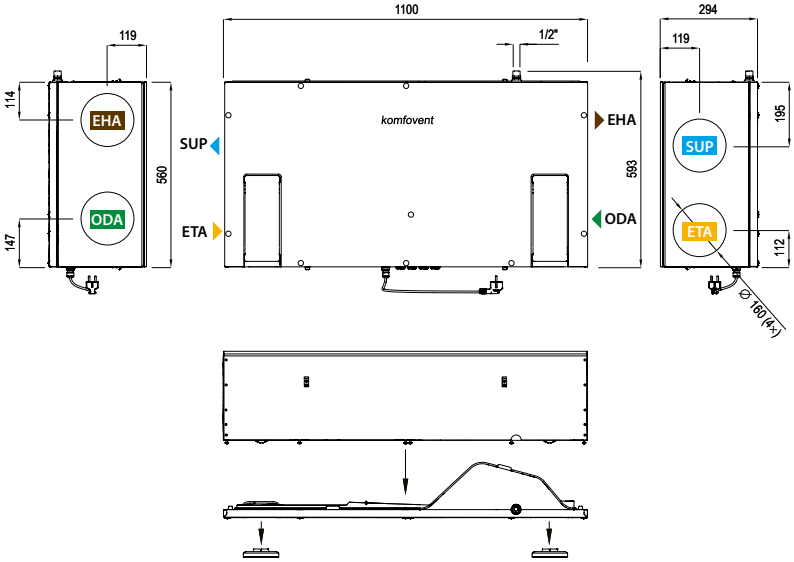


Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	19,2	19,7	19,7	19,7	19,7	22,3	22,9	23,5

indoor +22 °C, 20 % RH
* calculations made after evaluation of the preheater.

Shown as left (L1)
View from inspection side



Accessories

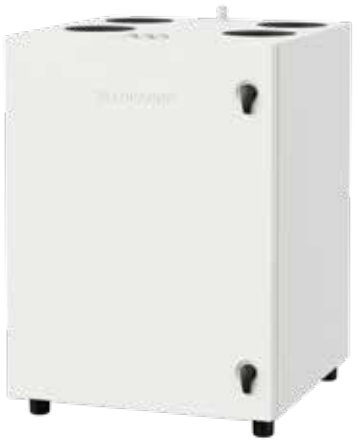
Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,25+SSF161.05HF
Outdoor grill		LD-160

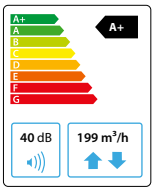
Mounting positions

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Domekt CF 200 V C6M

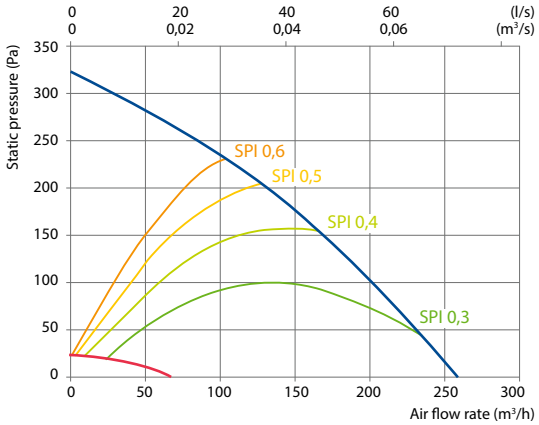
Maximal air flow, m^3/h	199
Maximal air flow, l/s	55
Reference flow rate, m^3/s	0,039
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,21
Thermal efficiency of heat recovery, %	92
Electric air heater capacity, kW / Δt, °C	0,5/10,5
Electric preheater capacity, kW / Δt, °C	1/21
Supply voltage, V	1~230
Maximal operating current HE, A	8,3
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	37
Electric power input of the fan drive at reference flow rate, W	16
Noise power level, L_{WA}, dB(A)	40
Noise pressure level, L_{PA}, dB(A), (3 m)	29
Filters dimensions B×H×L, mm	365×132×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	630×790×595
Maintenance space, mm	600
Unit weight, kg	42





Performance

Unit with standard equipment



Temperature efficiency

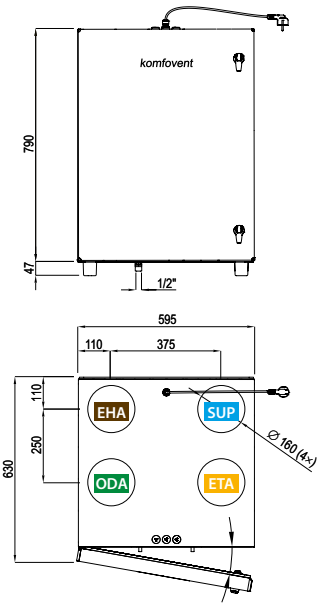
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	18,9*	19,0*	19,0*	19,0*	19,6	22,3	22,9	23,4

indoor +22 °C, 20 % RH
* calculations made after evaluation of the preheater.

Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,25+SSF161.05HF
Outdoor grill		LD-160

Shown as right (R1)



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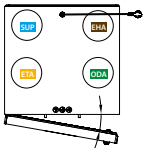
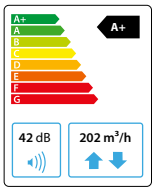


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

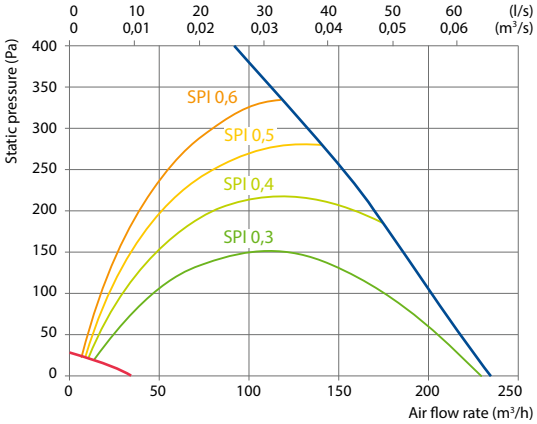
Domekt CF 200 F C8

Maximal air flow, m^3/h	202
Maximal air flow, l/s	56
Reference flow rate, m^3/s	0,039
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,19
Thermal efficiency of heat recovery, %	90
Electric air heater capacity, kW / Δt, °C	0,5/10,3
Supply voltage, V	1~230
Maximal operating current HE, A	3,2
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	41
Electric power input of the fan drive at reference flow rate, W	14
Noise power level, L_{WA}, dB(A)	42
Noise pressure level, L_{PA}, dB(A), (3 m)	31
Filters dimensions B×H×L, mm	250×232×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	560×294×1100
Maintenance space, mm	300
Unit weight, kg	28



Performance

Unit with standard equipment



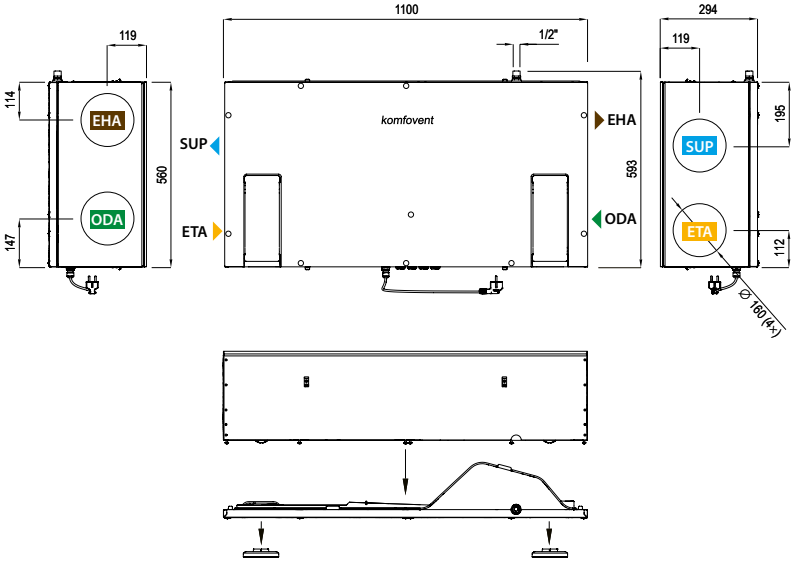
Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	17,5	18,3	18,8	19,3	19,8	22,3	22,8	23,4

indoor +22 °C, 20 % RH

Shown as left (L1)

View from inspection side



Accessories

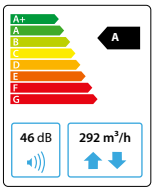
Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,25+SSF161.05HF
Outdoor grill		LD-160

Mounting positions

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

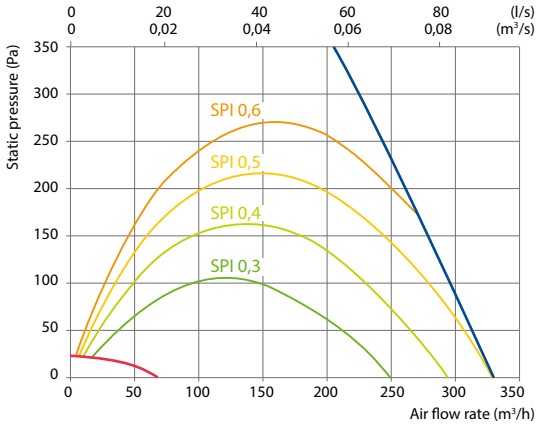
Domekt CF 250 F C6

Maximal air flow, m^3/h	292
Maximal air flow, l/s	81
Reference flow rate, m^3/s	0,057
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,29
Thermal efficiency of heat recovery, %	86
Electric air heater capacity, kW / Δt, °C	0,5/7,1
Electric preheater capacity, kW / Δt, °C	1/14,3
Supply voltage, V	1~230
Maximal operating current HE, A	8,2
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	91
Electric power input of the fan drive at reference flow rate, W	33
Noise power level, L_{WA}, dB(A)	46
Noise pressure level, L_{PA}, dB(A), (3 m)	35
Filters dimensions B×H×L, mm	265×250×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	604×294×1250
Maintenance space, mm	300
Unit weight, kg	52



Performance

Unit with standard equipment

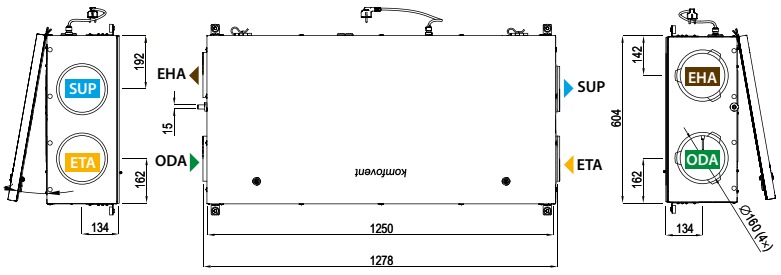


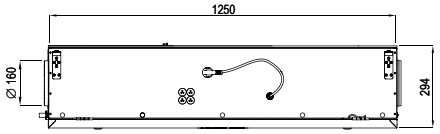
Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	18*	18,9*	18,9*	18,9*	18,9	22,4	23,1	23,8

indoor +22 °C, 20 % RH
* calculations made after evaluation of the preheater.

Shown as right (R1)
View from inspection side

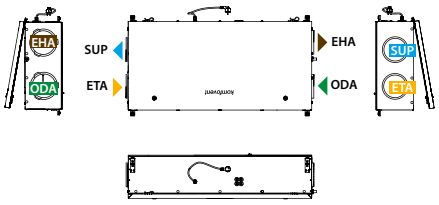




Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-160
Water heater-cooler		DHCW-160

Shown as left (L1)

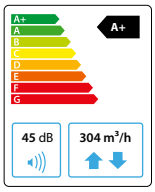


Mounting positions

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

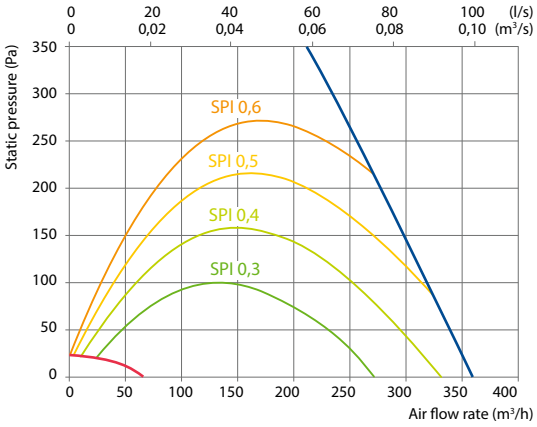
Domekt CF 300 V C6M

Maximal air flow, m^3/h	304
Maximal air flow, l/s	84
Reference flow rate, m^3/s	0,059
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,28
Thermal efficiency of heat recovery, %	88
Electric air heater capacity, kW / Δt, °C	0,5/6,9
Electric preheater capacity, kW / Δt, °C	1/13,7
Supply voltage, V	1~230
Maximal operating current HE, A	8,3
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	91
Electric power input of the fan drive at reference flow rate, W	35
Noise power level, L_{WA}, dB(A)	45
Noise pressure level, L_{PA}, dB(A), (3 m)	33
Filters dimensions B×H×L, mm	365×132×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	630×790×595
Maintenance space, mm	600
Unit weight, kg	42



Performance

Unit with standard equipment

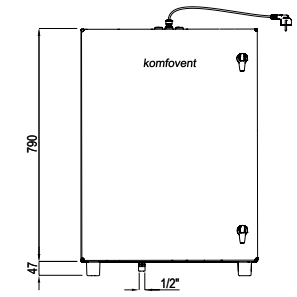


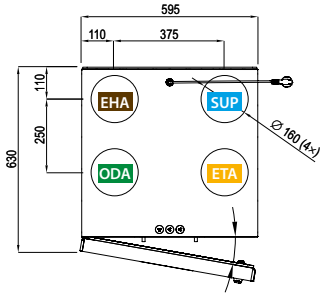
Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	18,7*	19,3*	19,4*	19,4*	19,4	22,3	22,9	23,5

indoor +22 °C, 20 % RH
* calculations made after evaluation of the preheater.

Shown as right (R1)





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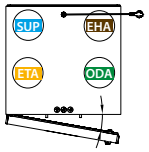


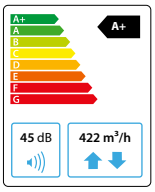
Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-160
Water heater-cooler		DHCW-160
DX cooler		DCF-0,4-3
Cooling unit		MOU-12HFN8a+ KA8142

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

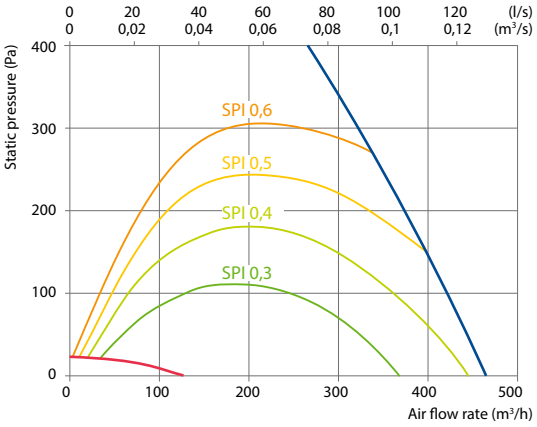
Domekt CF 400 V C6M

Maximal air flow, m^3/h	422
Maximal air flow, l/s	117
Reference flow rate, m^3/s	0,082
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,28
Thermal efficiency of heat recovery, %	89
Electric air heater capacity, kW / Δt, °C	0,5/4,9
Electric preheater capacity, kW / Δt, °C	1/9,9
Supply voltage, V	1~230
Maximal operating current HE, A	8,1
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	123
Electric power input of the fan drive at reference flow rate, W	48
Noise power level, L_{WA}, dB(A)	45
Noise pressure level, L_{PA}, dB(A), (3 m)	34
Filters dimensions B×H×L, mm	350×220×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	585×750×598
Maintenance space, mm	750
Unit weight, kg	55



Performance

Unit with standard equipment

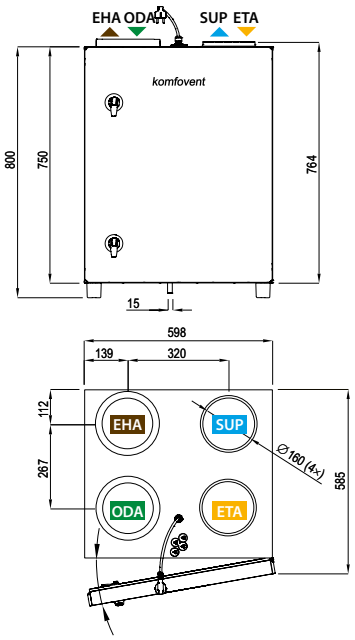


Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	18,3*	18,9*	19,5*	19,5*	19,5	22,3	22,9	23,5

indoor +22 °C, 20 % RH
* calculations made after evaluation of the preheater.

Shown as right (R1)



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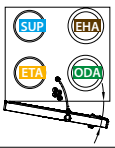


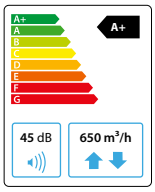
Accessories

Closing damper		AGUJ-M-160+TF230/CM230
Silencer	ODA/EHA	ASTS-160-600-M
	SUP/ETA	ASTS-160-900-M
Water heater		DH-160
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Water cooler		DCW-0,4-3
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-160
Water heater-cooler		DHCW-160
DX cooler		DCF-0,4-3
Cooling unit		MOU-12HFN8a+ KA8142

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

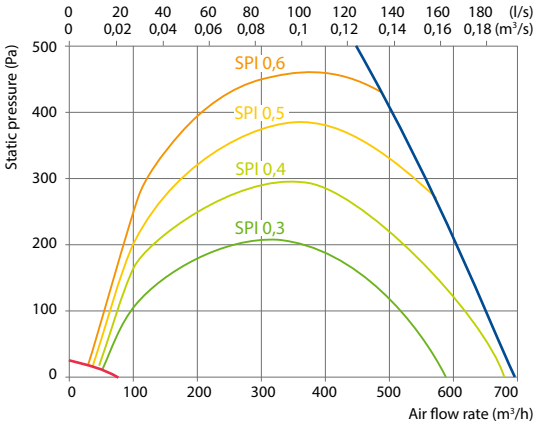
Domekt CF 500 F C6M

Maximal air flow, m^3/h	650
Maximal air flow, l/s	181
Reference flow rate, m^3/s	0,13
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,22
Thermal efficiency of heat recovery, %	89
Electric air heater capacity, kW / Δt, °C	0,5/3,1
Electric preheater capacity, kW / Δt, °C	1/6,2
Supply voltage, V	1~230
Maximal operating current HE, A	10
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	167
Electric power input of the fan drive at reference flow rate, W	56
Noise power level, L_{WA}, dB(A)	45
Noise pressure level, L_{PA}, dB(A), (3 m)	33
Filters dimensions B×H×L, mm	473×242×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1045×292×1400
Maintenance space, mm	560
Unit weight, kg	93



Performance

Unit with standard equipment



Temperature efficiency

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

indoor +22 °C, 20 % RH
* calculations made after evaluation of the preheater.

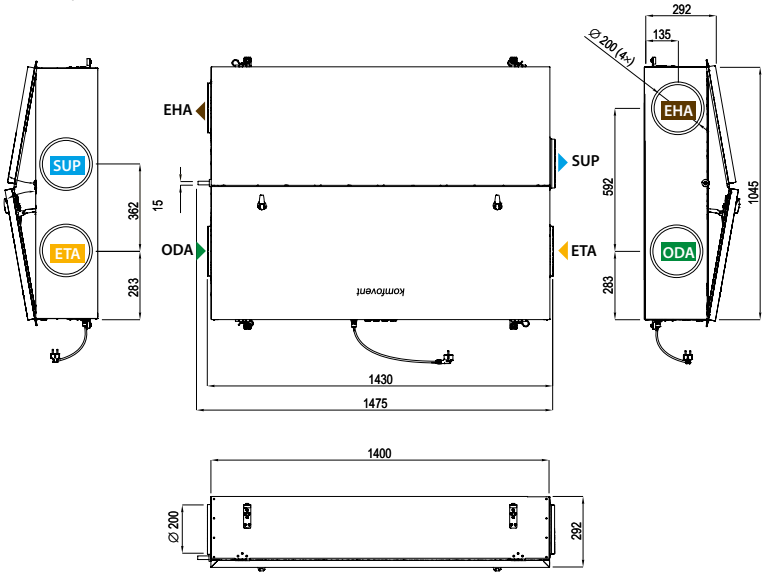
Accessories

Closing damper		AGUJ-M-200+TF230/CM230
Silencer	ODA/EHA	ASTS-200-600-M
	SUP/ETA	ASTS-200-900-M
Water heater		DH-200
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Water cooler		DCW-0,5-3
2-way valve (cooler)		VVP47.10-1,6+SSF161.05HF
Outdoor grill		LD-200
Water heater-cooler		DHCW-200
DX cooler		DCF-0,5-3
Cooling unit		MOU-12HFN8a+ KA8142

Mounting positions

Shown as right (R1)

View from inspection side



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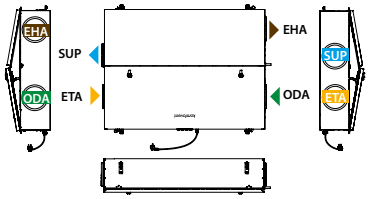
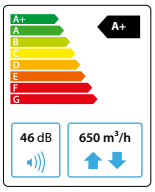


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

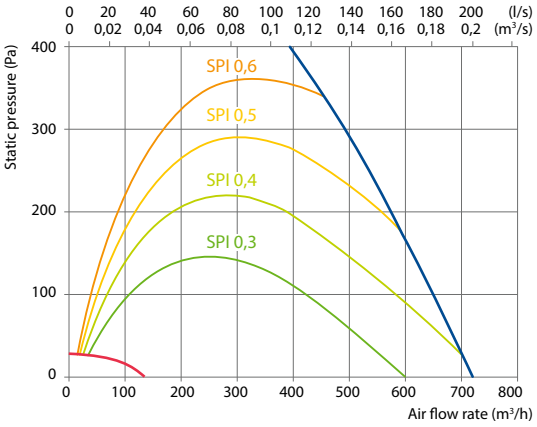
Domekt CF 700 V C6M

Maximal air flow, m^3/h	650
Maximal air flow, l/s	181
Reference flow rate, m^3/s	0,130
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,26
Thermal efficiency of heat recovery, %	89
Electric air heater capacity, kW / Δt, °C	1/6,2
Electric preheater capacity, kW / Δt, °C	1/6,2
Supply voltage, V	1~230
Maximal operating current HE, A	11,6
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	178
Electric power input of the fan drive at reference flow rate, W	73
Noise power level, L_{WA}, dB(A)	46
Noise pressure level, L_{PA}, dB(A), (3 m)	35
Filters dimensions B×H×L, mm	390×300×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	491×1220×1020
Maintenance space, mm	1020
Unit weight, kg	100



Performance

Unit with standard equipment

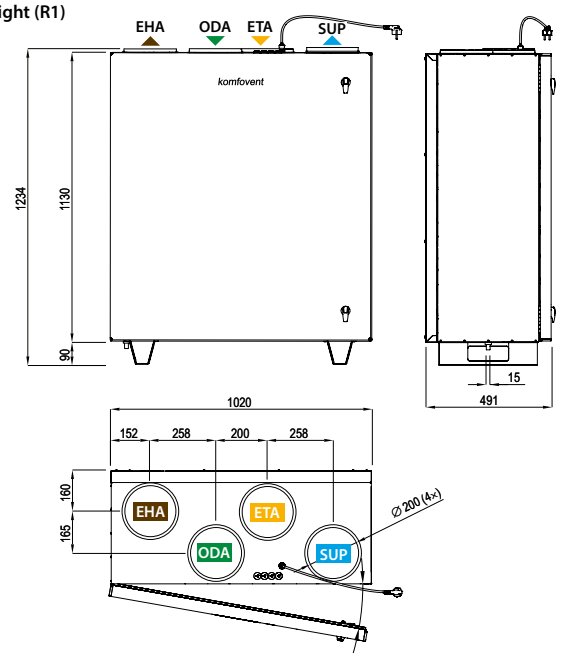


Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	17,3*	17,9*	18,5*	19*	19	22,4	23,1	23,7

indoor +22 °C, 20 % RH
* calculations made after evaluation of the preheater.

Shown as right (R1)



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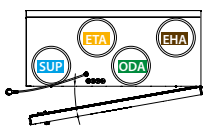


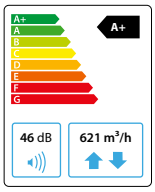
Accessories

Closing damper		AGUJ-M-200+TF230/CM230
Silencer	ODA/EHA	ASTS-200-600-M
	SUP/ETA	ASTS-200-900-M
Water heater		DH-200
PPU		PPU-HW-3R-15-0,4-W2
2-way valve (heater)		VVP47.10-0,4+SSF161.05HF
Water cooler		DCW-0,7-5
2-way valve (cooler)		VVP47.15-2,5+SSF161.05HF
Outdoor grill		LD-200
Water heater-cooler		DHCW-200
DX cooler		DCF-0,7-5
Cooling unit		MOU-18HFN8a+ KA8142

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

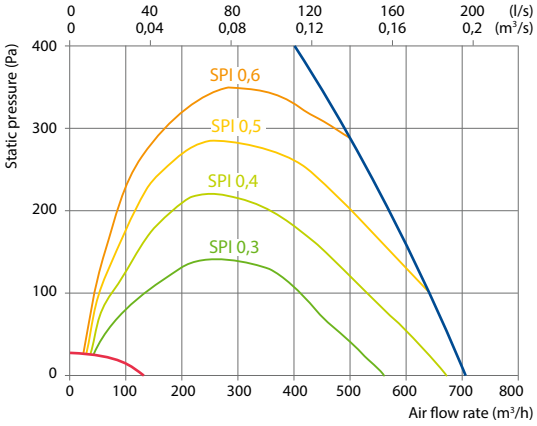
Domekt CF 700 H C6M

Maximal air flow, m^3/h	621
Maximal air flow, l/s	173
Reference flow rate, m^3/s	0,121
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,25
Thermal efficiency of heat recovery, %	89
Electric air heater capacity, kW / Δt, °C	0,5/3,4
Electric preheater capacity, kW / Δt, °C	1,5/10,1
Supply voltage, V	1~230
Maximal operating current HE, A	11,6
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	180
Electric power input of the fan drive at reference flow rate, W	71
Noise power level, L_{WA}, dB(A)	46
Noise pressure level, L_{PA}, dB(A), (3 m)	34
Filters dimensions B×H×L, mm	390×300×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	487×700×1500
Maintenance space, mm	500
Unit weight, kg	95



Performance

Unit with standard equipment

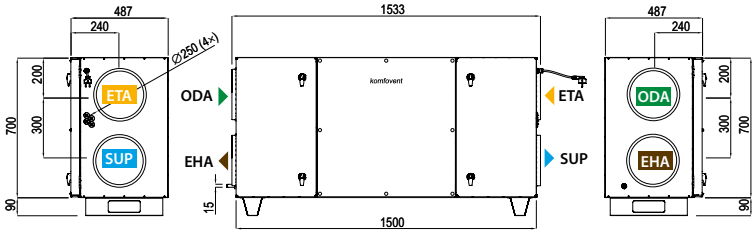


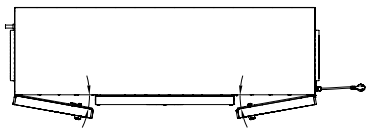
Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	17,7*	18,3*	19*	19*	19	22,4	23,1	23,8

indoor +22 °C, 20 % RH
* calculations made after evaluation of the preheater.

Shown as right (R1)

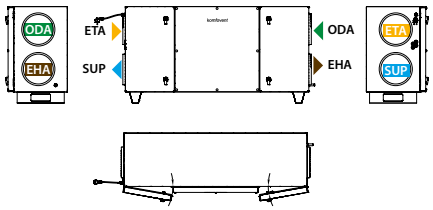




Accessories

Closing damper		AGUJ-M-250+TF230/CM230
Silencer	ODA/EHA	ASTS-250-600-M
	SUP/ETA	ASTS-250-900-M
Water heater		DH-250
PPU		PPU-HW-3R-15-0,63-W2
2-way valve (heater)		VVP47.10-0,63+SSF161.05HF
Water cooler		DCW-0,7-5
2-way valve (cooler)		VVP47.15-2,5+SSF161.05HF
Outdoor grill		LD-250
Water heater-cooler		DHCW-250
DX cooler		DCF-0,7-5
Cooling unit		MOU-18HFN8a+ KA8142

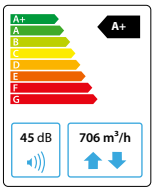
Shown as left (L1)



ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

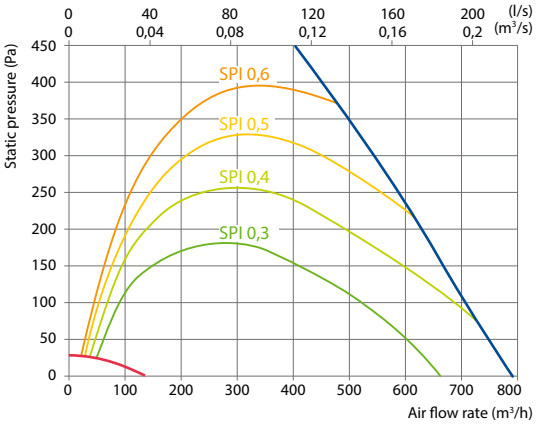
Domekt CF 700 F C6M

Maximal air flow, m^3/h	706
Maximal air flow, l/s	196
Reference flow rate, m^3/s	0,14
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,23
Thermal efficiency of heat recovery, %	88
Electric air heater capacity, kW / Δt, °C	1/5,8
Electric preheater capacity, kW / Δt, °C	1/5,8
Supply voltage, V	1~230
Maximal operating current HE, A	11,6
Power supply cable, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	176
Electric power input of the fan drive at reference flow rate, W	67
Noise power level, L_{WA}, dB(A)	45
Noise pressure level, L_{PA}, dB(A), (3 m)	34
Filters dimensions B×H×L, mm	390×287×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	875×344×1365
Maintenance space, mm	300
Unit weight, kg	84



Performance

Unit with standard equipment

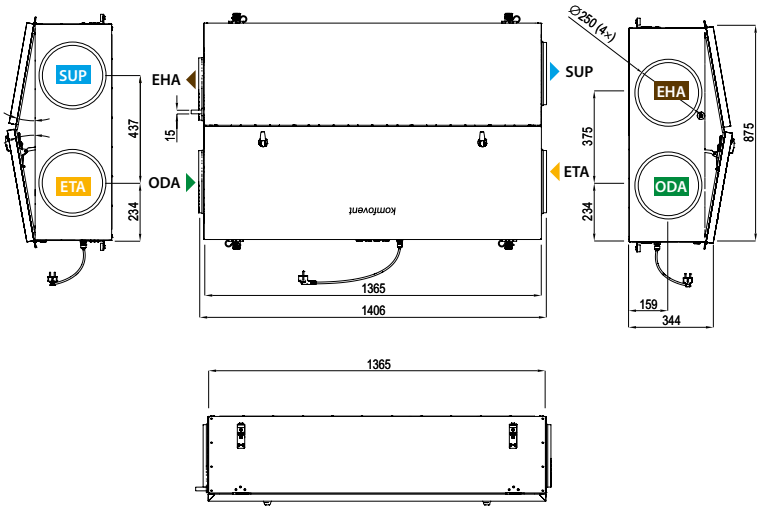


Temperature efficiency

	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	17*	17,7*	18,5*	18,6*	18,6	22,5	23,2	23,9

indoor +22 °C, 20 % RH
* calculations made after evaluation of the preheater.

Shown as right (R1)
View from inspection side

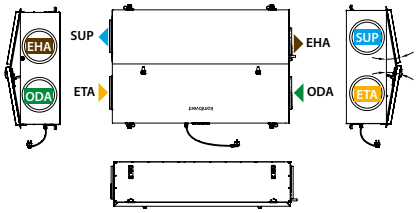


Accessories

Closing damper		AGUJ-M-250+TF230/CM230
Silencer	ODA/EHA	ASTS-250-600-M
	SUP/ETA	ASTS-250-900-M
Water heater		DH-250
PPU		PPU-HW-3R-15-0,63-W2
2-way valve (heater)		VVP47.10-0,63+SSF161.05HF
Water cooler		DCW-0,7-5
2-way valve (cooler)		VVP47.15-2,5+SSF161.05HF
Outdoor grill		LD-250
Water heater-cooler		DHCW-250
DX cooler		DCF-0,7-5
Cooling unit		MOU-18HFN8a+ KA8142

Mounting positions

Shown as left (L1)

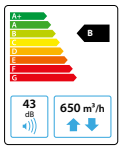


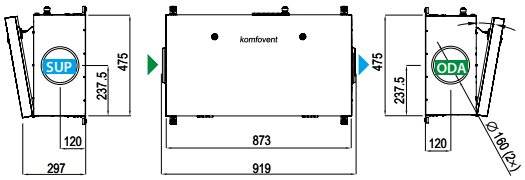
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Domekt S

False ceiling supply air handling units

Domekt S 650 F C5





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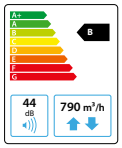
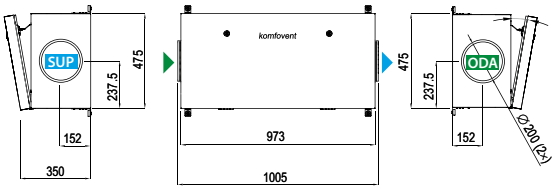
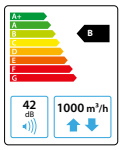
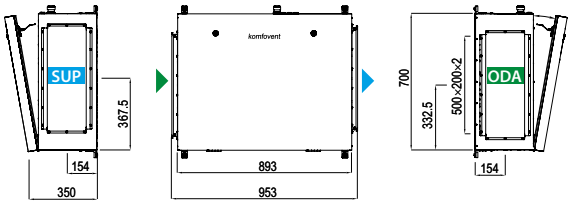




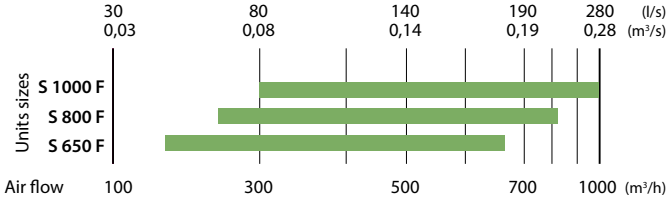
Domekt S 1000 F C5





ODA – outdoor intake **SUP** – supply air

Sizes and air volumes of Domekt S units

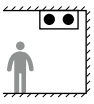


Technical data

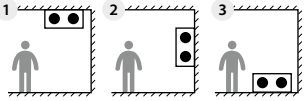
Domekt S unit	Domekt S 650 F	Domekt S 800 F	Domekt S 1000 F
Maximum air flow, m³/h	650	790	1000
Electric power input of the fan drive at reference flow rate, W	56	75	47
Sound pressure level L_{PA}, dB(A), distance from casing – 3 m	43	44	42
Filters dimensions B×H×L, mm	371×235×46	371×287×46	558×287×46
Unit weight, kg	35	37	46

Mounting positions

Domekt S 650 F



Domekt S 800 F, Domekt S 1000 F



Modifications of Domekt S units

Unit	Supply air filter class		Heater		Cooler		Control system	Control panel
	ePM1 60 %	ePM10 50 %	HE	HW	HCW	HCDX	C5	C5.1
Domekt S 650 F	O	●	●		△	△	●	
Domekt S 800 F	O	●	●	O	△	△	●	
Domekt S 1000 F	O	●	●	O	△	△	●	

● standard equipment O possible choice △ ordered separately duct heater/cooler

The markings are explained on p. 151.

KOMBI

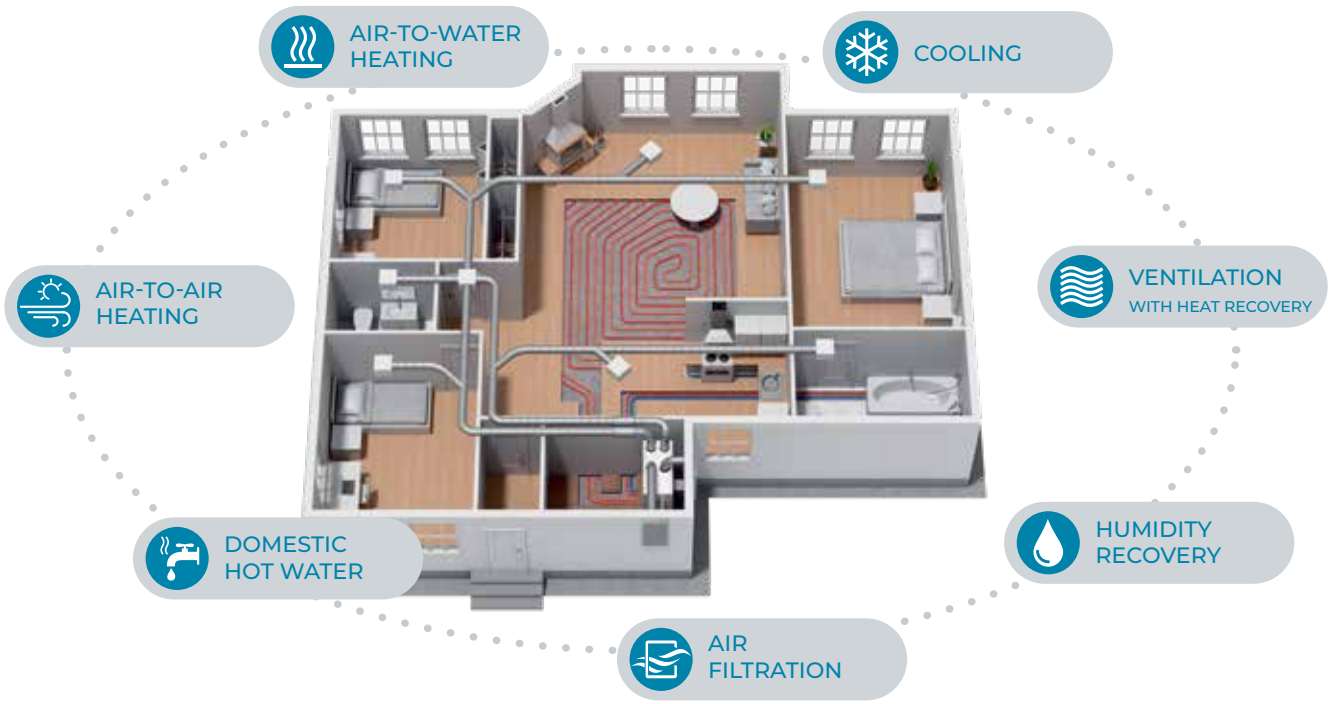
All HVAC systems in one unit

komfovent

KOMBI – your comfort and perfect well-being, all in one unit

KOMBI – hybrid heating and ventilation unit

Comfort at home is not only about its interior, but also about the whole atmosphere. Fresh air, pleasant warmth or coolness, and hot water play a significant role in the comfort at home concept.
KOMBI addresses every one of these facets to attain complete indoor climate control.
It is a stand-alone hybrid unit that combines all HVAC systems: air-to-water heat pump, ventilation and domestic hot water. Such solution not only saves time, needed for planning, but also installation space and investment costs when compared to multiple systems.



Why KOMBI is worth it:

- Comfortable temperature at home, even when it is -25 °C outside.
- Ventilation unit with high efficiency sorption-enthalpy rotary heat exchanger.
- Effective air humidity recovery in winter.
- Living space cooling through the underfloor or ventilation system.
- Optimal air humidity level in summer.
- Fresh and filtered air every day.
- 100 % plug & play – easy installation without a need for a refrigerant technicians.
- Integrated main heating system components: circulation pumps, valves, and expansion vessels.
- Large hot water tank for family needs.
- User-friendly and intuitive access to all functions via a single control panel.
- Aesthetic design.

Year-round comfort | Space-saving solution | Simple installation | Intuitive control | 5 year warranty

Unified control system

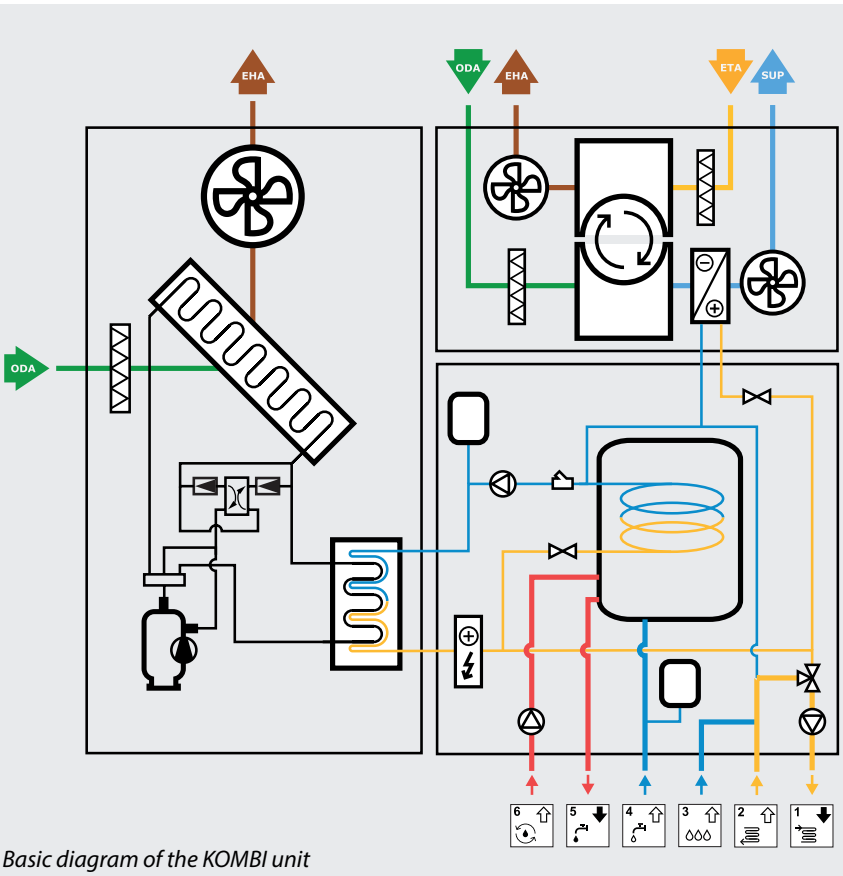
- Easy to navigate control panel with intuitive and user-friendly interface.
- Temperature and humidity sensors integrated in the control panel can be used to maintain specific room conditions.
- 8 pre-programmed operation modes that automatically maintain all three comfort parameters (ventilation intensity, indoor temperature, and DHW temperature).
- Integrated energy-saving functions like air quality control, heating/cooling power adjustment according to outdoor temperature curve, and others.
- Detailed weekly schedules for heating and cooling seasons.
- Full manual control of individual comfort parameters for additional energy saving.
- Efficiency and consumption monitoring in real-time.
- Air filter impurity indication.
- Automatic periodical domestic water system disinfection function.
- Integrated and factory configured safety functions for troubleless operation.

A single control system is responsible for all the algorithms and processes needed for optimal comfort. Forget about a bunch of remote controllers and thermostats. Now every function is accessible at your fingertips with a single colour screen control panel.
Water, air, and temperature parameters of the KOMBI unit are already pre-programmed and maintained automatically, but users can also easily adjust them with the control panel.
All KOMBI functions can be managed with the "Komfovent Control" app, enabling remote setting adjustments from anywhere. The app offers intuitive, detailed, and mobile control options.

KOMBI features and components

1. The heat pump module:

- Air-to-water heat pump, capable of maintaining 9 kW of heating power throughout the whole range of outdoor temperatures.
- Twin rotor, premium class inverter compressor, ensures quiet and economical operation, as well as maximum reliability and durability.
- Pre-filled with R410A refrigerant in the factory, thus cooling specialists are not needed for installation or start-up.
- High energy and cost savings lead to high COP and EER coefficients.
- 6 kW backup electric heater grants stable operation even at -30 °C outdoor temperature or during evaporator defrosting.
- Quiet heat pump fan does not generate lots of noise even at maximum speeds.



Basic diagram of the KOMBI unit

2. The ventilation unit:

- High airflow of 517 m^3/h.
- Zeolite-coated sorption-enthalpy rotary heat exchanger – high thermal efficiency (up to 86 %) and humidity recovery throughout the year.
- Dust, allergens, and fungal spores are removed from ventilated premises by ePM1 60 % class filter that come as standard equipment.
- Energy-efficient fans and control system components grant a low SPI of 0.31 $W/(m^3/h)$.
- Additional air-to-air heating/cooling power of 3.4/2.2 kW ensures that user-desired supply air temperature will be maintained under extreme outdoor conditions.
- Ventilation on demand, possibility to connect various air quality sensors and other useful functions to further increase comfort and reduce power consumption.

3. The domestic hot water (DHW) module:

- Built-in insulated 186-litre water tank keeps hot water temperature stable for longer, reducing energy losses.
- Fast heat up of hot water in case of high usage demand.
- Automatic periodic disinfection for Legionella prevention ensures hygienic and clean domestic hot water.
- Complete hot water supply system with factory-fitted valves, expansion vessel, mechanical filter and prepared connections.
- Available option with integrated DHW circulation pump.

Kombi A9

NEW

General data

Voltage, V	3~400
Nominal current, A	27,7
Power cable, mm²	5x4
IP protection class	IP 40
Heat pump section weight, kg	180
Boiler and AHU section weight, kg	238
Unit weight, kg	418
Heat pump section dimensions BxHxL, mm	550×2005×684
Boiler and AHU section dimensions BxHxL, mm	850×2005×684
Maintenance space, mm	900

Connections

Water supplied to the heating system	1''
Water returning from the heating system	1''
Heating system refill	½''
Domestic cold water inlet	½''
Domestic hot water supplied to the system	½''
Domestic hot water recirculation	½''
Ducts, heat pump section, mm	2 (3) × 400 × 400
Ducts, air handling unit, mm	4 × 200

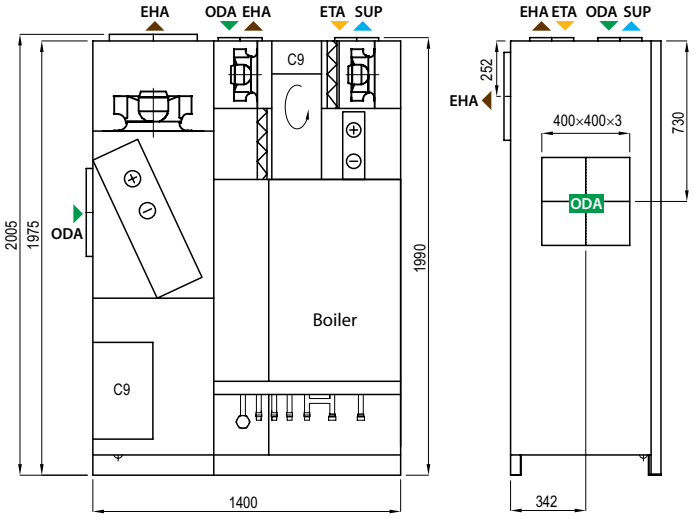
Noise power level, L_{WA}

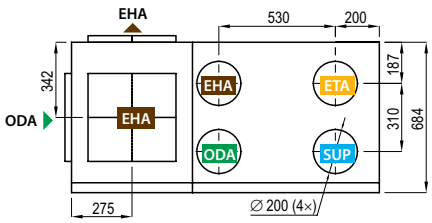
Casing in heating mode (A7/W35), dB(A)	48
Casing in heating mode (A7/W45), dB(A)	49,5
Casing in heating mode (A7/W55), dB(A)	49
Casing max., dB(A)	53,6
Outdoor in heating mode (A7/W35), dB(A)	50,4
Outdoor in heating mode (A7/W45), dB(A)	50,5
Outdoor in heating mode (A7/W55), dB(A)	51,1
Outdoor max, dB(A)	58,1

Accessories

Closing damper		AGUJ-M-200 + TF230/CM230
Silencer	ODA/EHA	AGS-200-50-600-M
	SUP/ETA	AGS-200-50-900-M
Noise damping / connection boxes		KSD-800×800
Flexible duct connection, mm		JLSF-400×400

Shown as right





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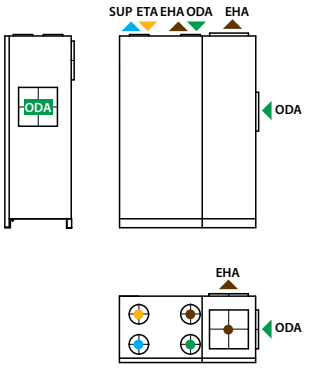
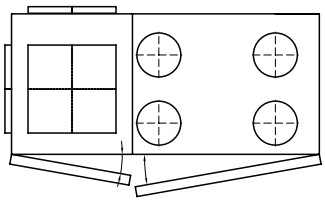




ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Air handling unit data

Maximal air flow, m^3/h	517
Maximal air flow, l/s	144
Reference flow rate, m^3/s	0,101
Reference pressure difference, Pa	50
SPI, $W/(m^3/h)$	0,31
Thermal efficiency of heat recovery, %	86
Air heater capacity at nominal airflow, W45, kW	3,4
Air cooler capacity at nominal airflow, W7, kW	2,2
Electric power input of the fan drive at maximum flow rate, W	137
Electric power input of the fan drive at reference flow rate, W	59
Noise power level, Supply intlet, L_{WA}, dB(A)	55
Noise power level, Supply outlet, L_{WA}, dB(A)	67
Noise power level, Exhaust inlet, L_{WA}, dB(A)	57
Noise power level, Exhaust outlet, L_{WA}, dB(A)	68
Air filters dimensions B×H×L, mm	585×258×46
Air filters class according to ISO 16890, Supply/Extract	ePM1 60 % / ePM10 50 %

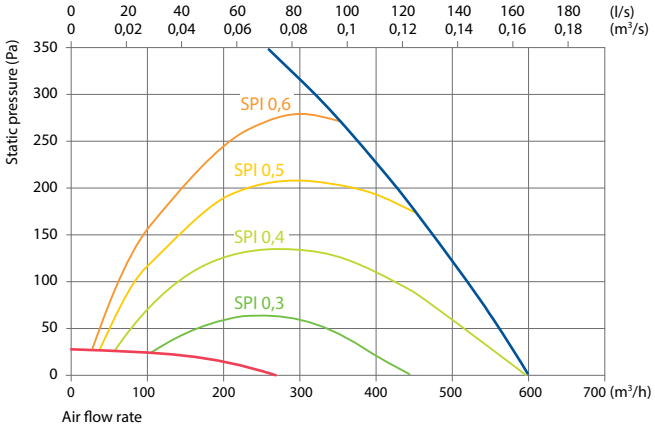
Heat pump data

Compressor type	Twin rotor
Refrigerant type	R410A
Refrigerant charge, kg	4,5
Nominal heating capacity, kW	9
Nominal cooling capacity (floor+AHU), kW	7
Back-up electrical heater, kW	6
Number of integrated water pumps	2
Max. water pump power consumption, W	75
Integrated expansion vessel for heating system, l	12
Internal water valume for heating system, l	13,6
Heating circuit water flow min., m^3/h	0,34
Heating circuit water flow at nominal capacity, m^3/h	1,54
Operating water pressure min., bar	0,5
Operating water pressure max., bar	3
Operating outdoor temperature min. (heat pump only), °C	-25
Operating outdoor temperature max. (heating), °C	17
Operating outdoor temperature min. (cooling), °C	15
Operating outdoor temperature max. (cooling), °C	30
Air filter dimensions B×H, mm	585×505
Filter class according to ISO 16890	*coarse* 65%
Heat pump seasonal energy efficiency to EN 14825	
Heating average climate (+2 °C), SCOP W 35 °C	4,86
Heating warm climate (+7 °C), SCOP W 35 °C	6,53
Heating cold climate (-7 °C), SCOP W 35 °C	4,03
Cooling (35 °C), SEER W 18 °C	5,11

Domestic hot water (DHW) data

Hot water tank volume, l	186
Hot water tank material	Steel, enamel
Hot water tank corrosion protection	Magnesium anode
Integrated expansion vessel for DHW, l	8
Operating water pressure max., bar	10
Water heating time from 10 °C to 45 °C, min.	25
Tap profile according to DIN EN 16147	XL
Number of water circulation pumps (optional)	1
Max. water pump power consumption, W	5
Tank disinfection water temperature max., °C	70

AHU perfomance



Air heat recovery

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

indoor +22 °C, 20 % RH

Heating/cooling performance data according to EN 14511

	Capacity, kW	Power consumption, kW	COP	EER
A2/W35	9	2,14	4,21	–
A7/W35	9	2,01	4,47	–
A2/W45	9	2,80	3,21	–
A7/W45	9	2,47	3,65	–
A2/W55	9	3,17	2,84	–
A7/W55	9	2,90	3,1	–
A35/W18	7	1,38	–	5,07
A35/W7*	3,3	1,24	–	2,67

* AHU only

VERSO

Efficient and Advanced Commercial Ventilation

The widest product range, designed for ventilation of various commercial premises and offering standardized or individual project solutions

VERSO Unit Range Overview

The VERSO range of ventilation units offers advanced solutions tailored to a variety of installation needs, ensuring high performance, flexibility, and energy efficiency.
The range includes the following series:

VERSO Standard

Designed for streamlined simplicity, the VERSO Standard series features fully standardized monoblock or modular units equipped with rotary or counterflow plate heat exchangers. Adaptable to various installation orientations, these units are available in vertical, horizontal, flat, and universal configurations. They can be equipped with integrated electric, water, or DX heaters, as well as water or DX coolers, ensuring versatile climate control. VERSO Standard units are compactly designed to fit through standard door openings, simplifying installation. The galvanized and powder-coated casings meet T2/TB2 Eurovent-approved classes, ensuring robust thermal performance and durability.

Performance capacities range from **1000** m^3/h to **7000** m^3/h

VERSO Pro

A proven solution for demanding applications, the VERSO Pro series features unified modular ventilation units available with or without integrated controls. These units, built with corrosion-resistant powder-coated casings, offer a choice of rotary, counterflow plate, or no heat exchanger configurations. The Verso Pro series accommodates a wide range of ventilation requirements while allowing extensive customization for specific project needs.

Performance capacities range from **1000** m^3/h to **40 000** m^3/h

VERSO Pro2

The VERSO Pro2 series represents the next generation of modular ventilation units, setting new benchmarks in energy efficiency and versatility. Featuring a patented thermally efficient casing, the series supports a broad selection of heat exchangers, including rotary, plate, and run-around types. Equipped with some of the quietest and most efficient fans on the market, these units deliver exceptional performance while minimizing energy consumption. The fully integrated and factory-tested automation simplifies installation, while the availability of a wide range of sections and components offers a staggering 1.6 million configuration options, making Verso Pro2 suitable for even the most demanding applications.

Performance capacities range from **1000** m^3/h to **40 000** m^3/h

This comprehensive range ensures there is a VERSO solution for every project, combining reliability, energy efficiency, and ease of use. All units can be easily selected and configured to meet any project needs, using KOMFOVENT SELECT.

VERSO Standard range review

Verso R Standard with rotary heat exchanger

A wide selection of compact units with non-freezing rotary heat exchanger, horizontal, vertical, universal and flat installation.
Verso R Standard units efficiently save energy all year round by significantly reducing both heating and air conditioning costs. Ideal for cold weather countries.
Sorption-enthalpy rotary heat exchangers maintain comfortable indoor climate in the premises.

Verso CF Standard with counterflow heat exchanger

A wide selection of compact units with counterflow plate heat exchanger, horizontal, vertical, universal and flat installation.
Verso CF Standard units efficiently save energy all year round by significantly reducing both heating and air conditioning costs. Ideal for mild and warm climate countries.

Verso S Standard supply air handling unit

Low-height false ceiling supply air handling units are easily installed even in the smallest premises. All Verso S Standard units have integrated control system, which simplifies units' installation.

KK-25-06

VERSO Standard features

Compact units for convenient transportation

- Most of the units can be moved through a standard, 900 mm wide door opening.
- Larger units can be split into separate sections.
- Mounting frames and legs (except for flat units) ensure easier transportation.

Simplified access with VERSO Standard FS units

A sliding door mechanism solves the issue of flat AHU access when there is not enough space for a hinged door due to a false ceiling. The VERSO Standard FS allows easy entry, quick maintenance, and is space-efficient with its sliding door construction. The option is available for all flat VERSO Standard air handling units with rotary and counterflow plate heat exchangers*.

* Except Verso CF 2500 F C5.

Sorption-enthalpy rotary heat exchanger

- Sorption-enthalpy rotary heat exchanger controls the humidity in the premises more efficiently than a condensing rotor. Now sorption-enthalpy is an available option for all Verso R Standard units (except Verso R 1000/1500/2000/3000 F C5 models).
- The humidity from the exhaust air is used to humidify the supply air in winter.
- Wet supplied air in the summertime is dried.
- High comfort is ensured all year long.

Wide range of flat units

15 different models of low-profile F units for saving space when mounted on the ceiling. Some of the units have optional sliding doors, for easier access when installed above false ceiling constructions. Flat units with rotary heat exchangers as well as supply units can also be mounted on the wall or on the floor if needed*.

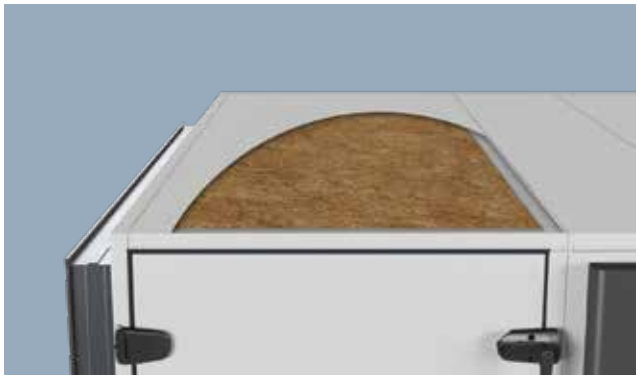
* AHUs with water heater only.

Integrated DX coil

- All VERSO Standard units of the universal type can be ordered with an integrated DX coil.
- Extremely economical air heating even at very low outdoor temperatures.
- Cooling/heating power control.
- Wide range of inverter outdoor units.

Multi-level frost prevention option

- Reduces the energy consumption used for counterflow heat exchanger defrost.
- Less power of the post-heater is needed to reach desired temperatures in winter conditions.
- Smaller size PPU can be used for water heaters.
- Better seasonal heat recovery efficiency is achieved.



EUROVENT certified casing T2 / TB2 / D1 / L1

- The casing is filled with 45/50 mm long-lasting, fire-resistant mineral wool.
- Reduced thermal bridges ensure minimal heat loss through the case and the possibility of condensation both inside and outside the unit.
- The casing filled with mineral wool perfectly reduces noise in the environment.

EUROVENT certified

VERSO units are tested on a regular basis at the Eurovent climatic laboratory in Germany. Parameters such as performance, efficiency, noise level, tolerances and other are tested.

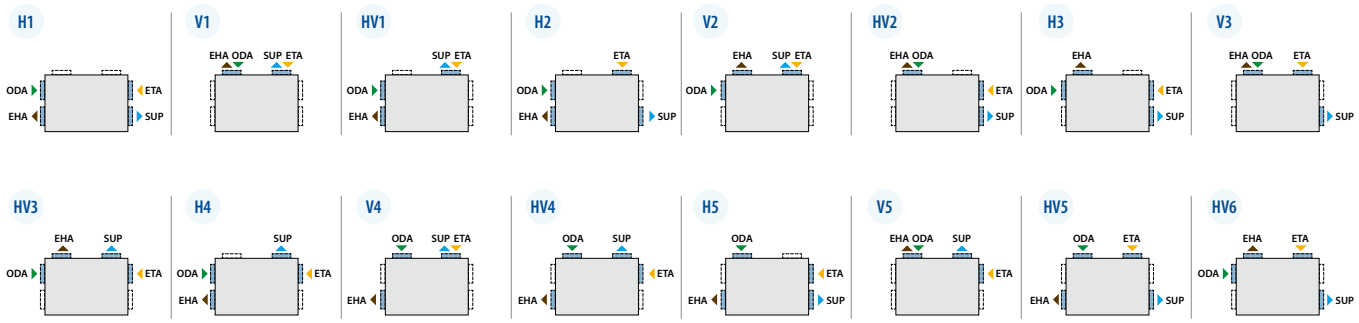
VERSO U units

Duct connections can be relocated from the sides of the unit to the top and vice versa. Each universal unit has 16 different duct layout options that are easy to change during installation, depending on the intended installation location.

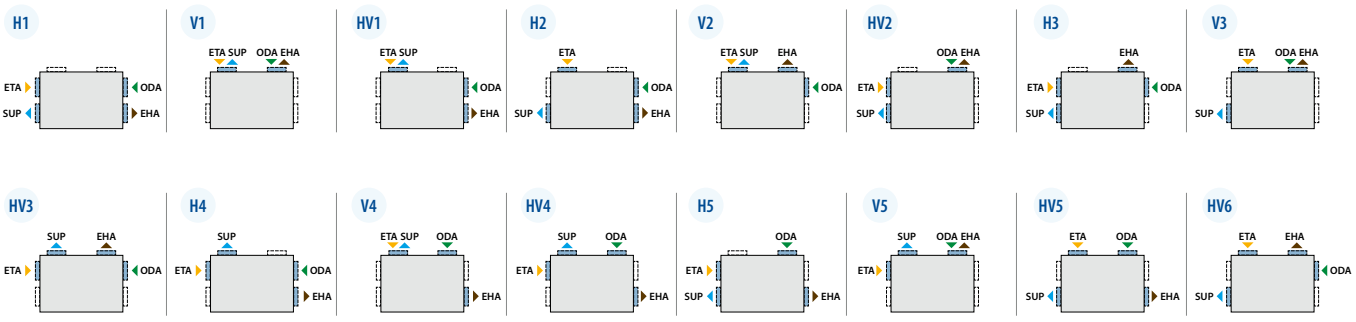
Duct connection options of universal units

Apply to these models: Verso R 1000-4000 U C5, Verso CF 1000-3500 U C5.

Right inspection side



Left inspection side

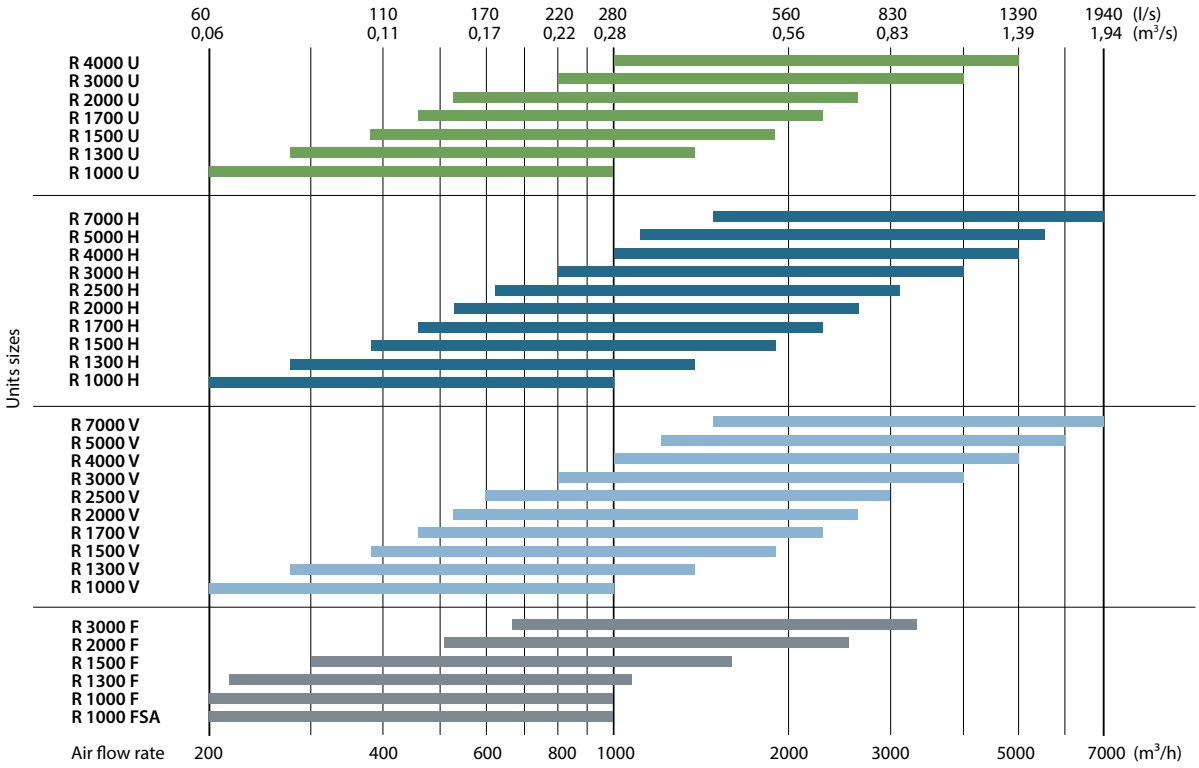


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R Standard

Air handling units with rotary heat exchanger

Sizes and capacities of Verso R Standard units



Modifications of Verso R Standard units

Unit	Heat exchanger			Supply/exhaust air filter class	Heater			Cooler		Inspection side			
	Condensing ML/A	Condensing SL/A	Enthalpy ML/AZ	ePM1 60% / ePM10 50%	HE	HW	HCW	DCW	HCDX	R1	L1	R2	L2
Verso R 1000 U	●	○	○	●	○		○	△	○	○	○		
Verso R 1000 H/V	●	○	○	●	○	○		△	△	○	○		
Verso R 1000 F	●	○	○	●	●	△	△	△	△	○	○		
Verso R 1000 FSA	●	○		●	●					○	○		
Verso R 1300 U	●	○	○	●	○		○	△	○	○	○		
Verso R 1300 H/V	●	○	○	●	○	○		△	△	○	○		
Verso R 1300 F	●	○	○	●	●	△	△	△	△	○	○		
Verso R 1500 U	●	○	○	●	○		○	△	○	○	○		
Verso R 1500 H/V	●	○	○	●	○	○		△	△	○	○		
Verso R 1500 F	●	○		●	●	△	△	△	△	○	○		
Verso R 1700 U	●	○	○	●	○		○	△	○	○	○		
Verso R 1700 H/V	●	○	○	●	○	○		△	△	○	○		
Verso R 2000 U	●	○	○	●	○		○	△	○	○	○		
Verso R 2000 H/V	●	○	○	●	○	○		△	△	○	○		
Verso R 2000 F	●	○		●	●	△	△	△	△	○	○		
Verso R 2500 V	●	○	○	●	○	○	○		○	○	○		
Verso R 2500 H	●	○	○	●	○	○		△	△	○	○	○	○
Verso R 3000 U	●	○	○	●	○		○	△	○	○	○		
Verso R 3000 H/V	●	○	○	●	○	○		△	△	○	○		
Verso R 3000 F	●	○		●	●	△		△	△	○	○		
Verso R 4000 U	●	○	○	●	○		○	△	○	○	○		
Verso R 4000 H/V	●	○	○	●	○	○		△	△	○	○		
Verso R 5000 V	●	○	○	●	○	○	○		○	○	○		
Verso R 5000 H	●	○	○	●	○	○		△	△	○	○	○	○
Verso R 7000 V	●	○	○	●	○	○	○		○	○	○		
Verso R 7000 H	●	○	○	●	○	○		△	△	○	○		

● standard equipment ○ possible choice △ ordered separately duct heater/cooler

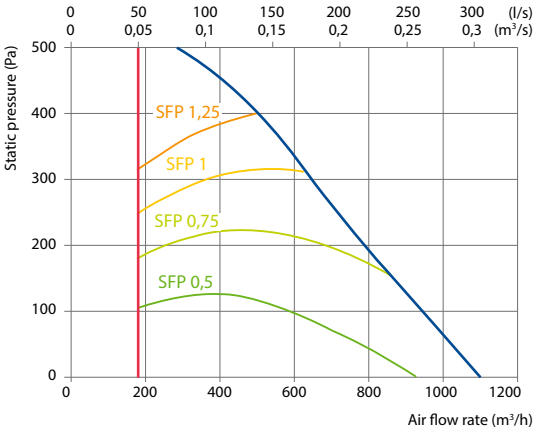
The markings are explained on p. 151.

Verso R 1000 U C5

Nominal air flow according to ErP 2018, m^3/h	945
Nominal air flow according to ErP 2018, l/s	263
Electric air heater capacity, kW / Δt, °C	3/9,3
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	7,3
Maximal operating current HW, A	3,3
Power supply cable E, mm^2	5×1,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	179
Noise power level, L_{WA}, dB(A)	52
Noise pressure level, L_{PA}, dB(A), (3 m)	41
Filters dimensions B×H×L, mm	800×400×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	906×905×1355
Panel thickness, mm	50
Maintenance space, mm	800
Unit weight, kg	196

Performance

Verso R 1000 UH with standard equipment



Temperature efficiency

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

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	2,2	5,3	2,2	6,6
Maximal capacity, kW	5,5	7,1	5,7	9,7
Pressure drop, kPa	1	3,3	–	–
Air temperature in/out, °C	15 / 22	30 / 18	15 / 22	30 / 18
Connection, " / mm	¾		½ / 22	

Summer: +30 °C/ 50 %; HCW – 899 m^3/h

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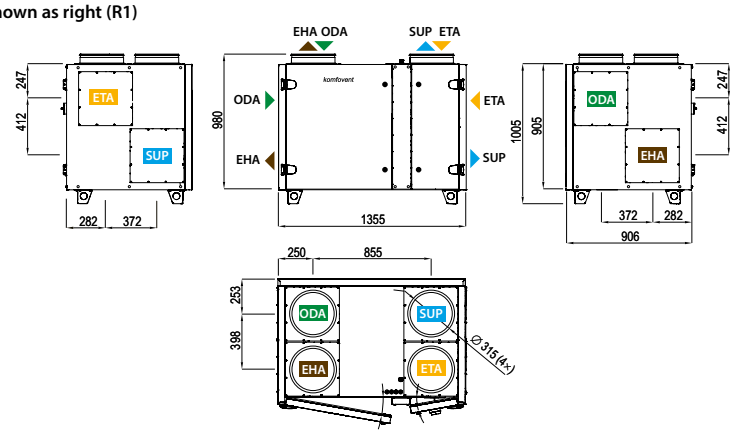

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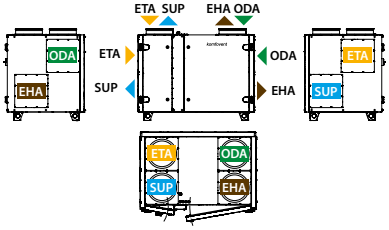


Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
PPU		PPU-HW-3R-15-0,63-W2
Water cooler		DCW-0,9-6
2-way valve		VVP47.15-2,5+SSF161.05HF
DX cooler		DCF-0,9-6
Cooling unit for ducted cooler		MOU-18HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-24HFN8a+KA8142

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

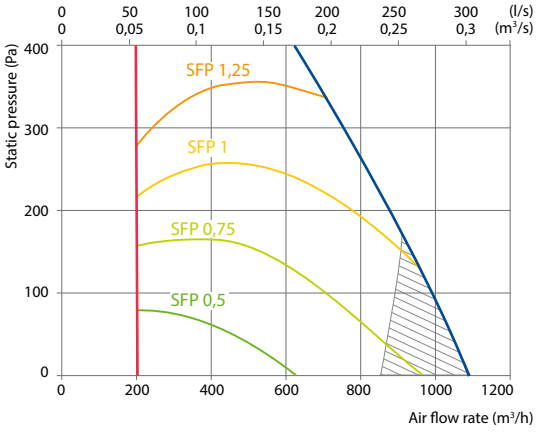
Verso R 1000 F C5

NEW

Nominal air flow according to ErP 2018, m^3/h	890
Nominal air flow according to ErP 2018, l/s	247
Electric air heater capacity, kW / Δt, °C	3/8,9
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	8,5
Maximal operating current HW, A	4,5
Power supply cable E, mm^2	5×1,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	267
Noise power level, L_{WA}, dB(A)	55
Noise pressure level, L_{PA}, dB(A), (3 m)	44
Filters dimensions B×H×L, mm	410×420×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	940×480×1360
Panel thickness, mm	50
Maintenance space, mm	400
Unit weight, kg	140

Performance

Verso R 1000 F with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

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

Indoor +22 °C, 20 % RH

Hot water duct air heater *

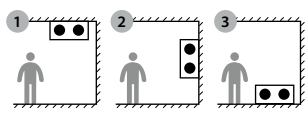
	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	2,4	2,4	2,4
Flow rate, dm^3/h	106	106	106
Pressure drop, kPa	2,4	2,4	2,4
Temperature in/out, °C		14 / 22,0	
Maximal capacity, kW	9,9	8,0	6,1
Connection, ”		½	

* Option

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
Water heater		DH-315
PPU		PPU-HW-3R-15-1,0-W2
Water cooler		DCW-1,2-8
Water heater-cooler		DHCW-315
2-way valve		VVP47.15-2,5+SSF161.05HF
DX cooler		DCF-1,2-8
Cooling unit for ducted cooler		MOU-24HFN8a+KA8142

Mounting positions



2 3 with water heater only

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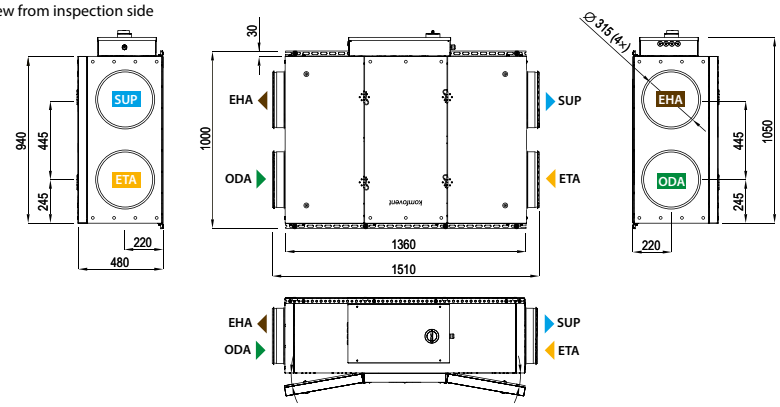
View from inspection side



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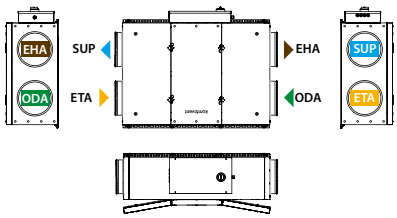


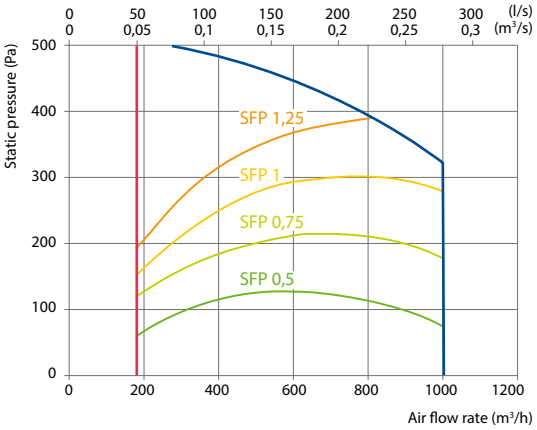
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 1000 FSA C5

Nominal air flow according to ErP 2018, m^3/h	1000
Nominal air flow according to ErP 2018, l/s	278
Electric air heater capacity, kW / Δt, °C	3/8,8
Supply voltage HE, V	3~400
Maximal operating current HE, A	7,8
Power supply cable E, mm^2	5×1,5
Electric power input of the fan drive at maximum flow rate, W	115
Noise power level, L_{WA}, dB(A)	43
Noise pressure level, L_{PA}, dB(A), (3 m)	31
Filters dimensions B×H×L, mm	472×402×96
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1050×485×3000
Panel thickness, mm	50
Maintenance space, mm	660
Unit weight, kg	238

Performance

Verso R 1000 FSA with standard equipment



Temperature efficiency

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

Indoor +22 °C, 20 % RH

Accessories

Closing damper	AGUJ-M-315+LM24
Outdoor grill	LD-315

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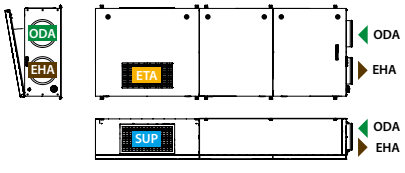
Shown as left (L1)



Mounting positions

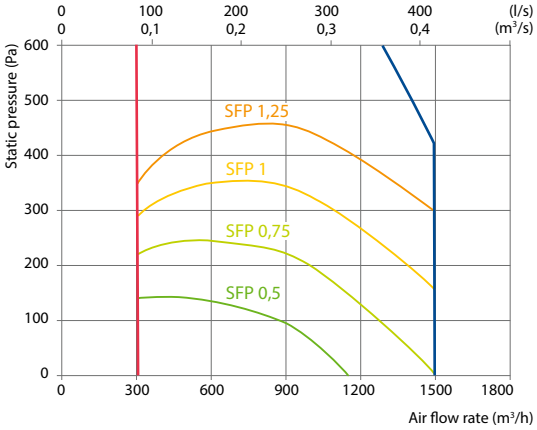
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 1300 U C5

Nominal air flow according to ErP 2018, m^3/h	1500
Nominal air flow according to ErP 2018, l/s	417
Electric air heater capacity, kW / Δt, °C	4,5/8,8
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	11,1
Maximal operating current HW, A	4,9
Power supply cable E, mm^2	5×1,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	352
Noise power level, L_{WA}, dB(A)	61
Noise pressure level, L_{PA}, dB(A), (3 m)	50
Filters dimensions B×H×L, mm	800×400×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	906×905×1355
Panel thickness, mm	50
Maintenance space, mm	800
Unit weight, kg	203

Performance

Verso R 1300 UH with standard equipment



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	17,2	18,1	22,5	23,4	24,3

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	4,0	8,8	4,0	10,4
Maximal capacity, kW	10,3	9,7	7,9	12,9
Pressure drop, kPa	1	8,5	–	–
Air temperature in/out, °C	14,1 / 22	30 / 18	14,1 / 22	30 / 18
Connection, ″ / mm	¾		½ / 22	

Summer: +30 °C/ 50 %; HCW – 1350 m^3/h

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
PPU		PPU-HW-3R-15-1-W2
Water cooler		DCW-1,2-8
2-way valve		VVP47.20-4.0+SSF161.05HF
DX cooler		DCF-1,2-8
Cooling unit for ducted cooler		MOU-36HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-36HFN8a+KA8142

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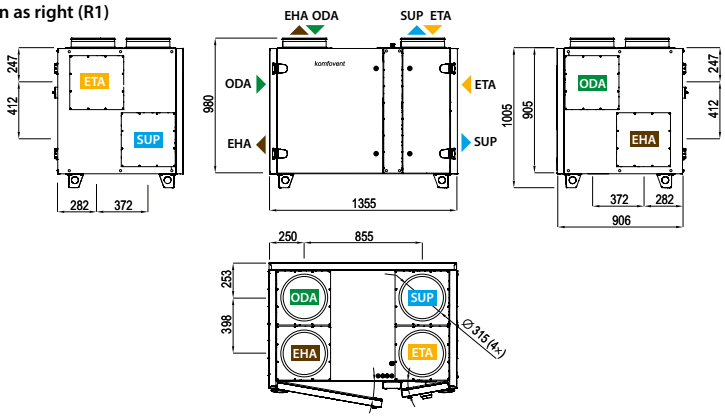

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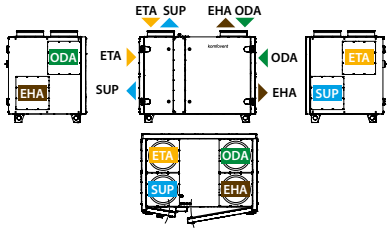


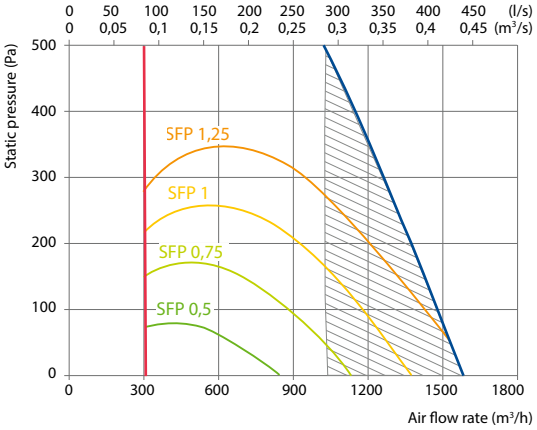
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 1300 F C5

Nominal air flow according to ErP 2018, m^3/h	1025
Nominal air flow according to ErP 2018, l/s	285
Electric air heater capacity, kW / Δt, °C	3/5,9
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	8,9
Maximal operating current HW, A	4,9
Power supply cable E, mm^2	5×1,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	533
Noise power level, L_{WA}, dB(A)	54
Noise pressure level, L_{PA}, dB(A), (3 m)	42
Filters dimensions B×H×L, mm	410×420×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	940×480×1360
Panel thickness, mm	50
Maintenance space, mm	400
Unit weight, kg	144

Performance

Verso R 1300 F with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,4	14,9	15,9	16,9	17,8	22,6	23,5	24,5

Indoor +22 °C, 20 % RH

Hot water duct air heater *

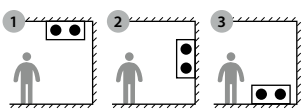
	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	3	3	3
Flow rate, dm^3/h	132	131	131
Pressure drop, kPa	3,5	3,5	3,6
Temperature in/out, °C		13,4 / 22,0	
Maximal capacity, kW	10,9	8,9	6,8
Connection, ″		½	

* Option

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
Water heater		DH-315
PPU		PPU-HW-3R-15-1,0-W2
Water cooler		DCW-1,2-8
Water heater-cooler		DHCW-315
2-way valve		VVP47.15-2,5+SSF161.05HF
DX cooler		DCF-1,2-8
Cooling unit for ducted cooler		MOU-24HFN8a+KA8142

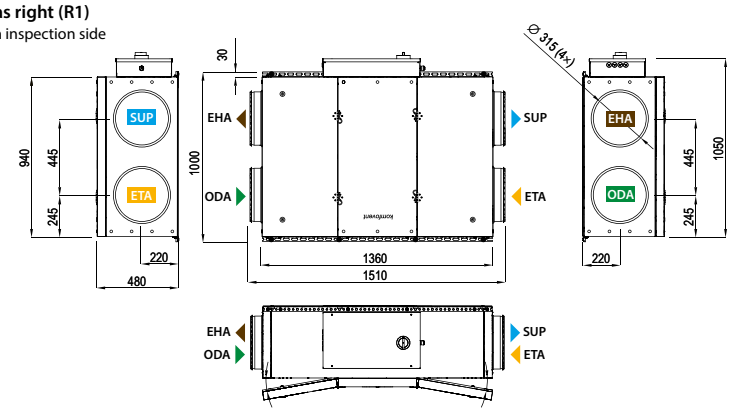
Mounting positions



2 3 with water heater only

Shown as right (R1)

View from inspection side



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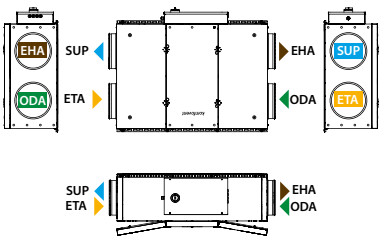


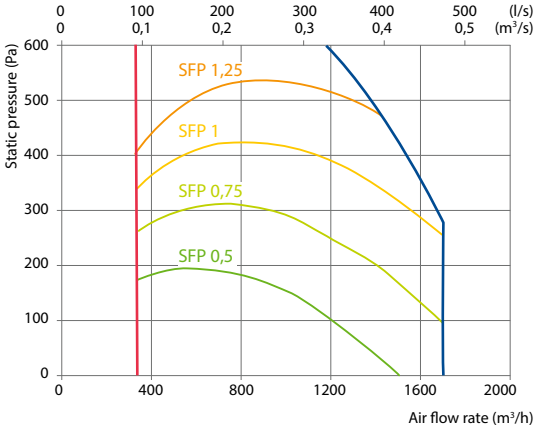
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 1500 U C5

Nominal air flow according to ErP 2018, m^3/h	1700
Nominal air flow according to ErP 2018, l/s	472
Electric air heater capacity, kW / Δt, °C	4,5/7,7
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	11,1
Maximal operating current HW, A	4,9
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	366
Noise power level, L_{WA}, dB(A)	57
Noise pressure level, L_{PA}, dB(A), (3 m)	45
Filters dimensions B×H×L, mm	800×400×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	906×905×1355
Panel thickness, mm	50
Maintenance space, mm	800
Unit weight, kg	206

Performance

Verso R 1500 UH with standard equipment



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	16,9	17,9	22,6	23,5	24,4

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	4,8	10,1	4,8	11,7
Maximal capacity, kW	11,5	10,5	8,7	13,8
Pressure drop, kPa	1	10,9	–	–
Air temperature in/out, °C	13,6 / 22	30 / 18	13,6 / 22	30 / 18
Connection, ″ / mm	¾		½ / 22	

Summer: +30 °C/ 50 %; HCW – 1500 m^3/h

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
PPU		PPU-HW-3R-15-1,6-W2
Water cooler		DCW-1,4-9
2-way valve		VVP47.20-4,0+SSF161.05HF
DX cooler		DCF-1,4-10
Cooling unit for ducted cooler		MOU-36HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-36HFN8a+KA8142

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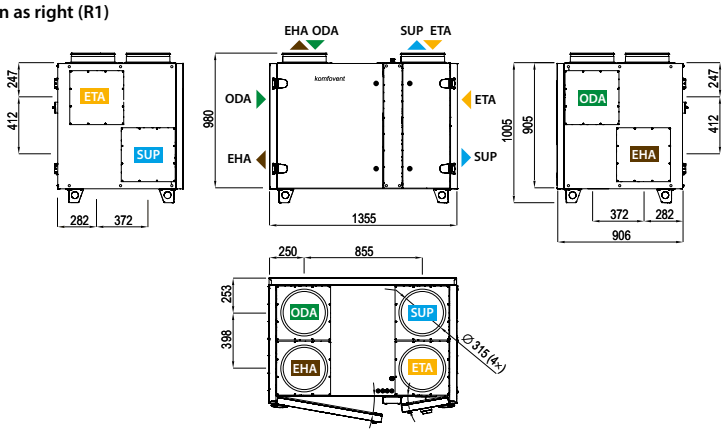

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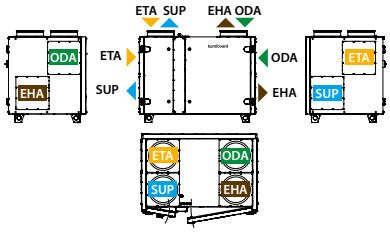


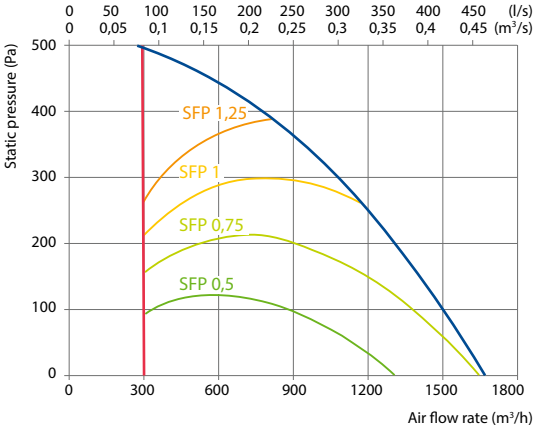
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 1500 F C5

Nominal air flow according to ErP 2018, m^3/h	1500
Nominal air flow according to ErP 2018, l/s	417
Electric air heater capacity, kW / Δt, °C	6/11,7
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	12,1
Maximal operating current HW, A	3,8
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	350
Noise power level, L_{WA}, dB(A)	53
Noise pressure level, L_{PA}, dB(A), (3 m)	41
Filters dimensions B×H×L, mm	472×402×96
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1050×485×1807
Panel thickness, mm	50
Maintenance space, mm	660
Unit weight, kg	195

Performance

Verso R 1500 F with standard equipment



Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,2	14,8	15,7	16,7	17,7	22,6	23,6	24,6

Indoor +22 °C, 20 % RH

Hot water duct air heater *

	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	4,9	4,9	4,9
Flow rate, dm^3/h	213	212	211
Pressure drop, kPa	10,9	8,9	9
Temperature in/out, °C		12,3 / 22,0	
Maximal capacity, kW	13,8	11,3	8,7
Connection, ″		½	

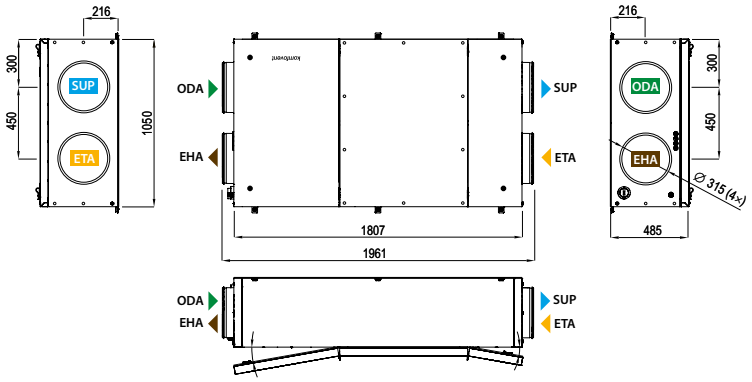
* Option

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
Water heater		DH-315
PPU		PPU-HW-3R-15-1,6-W2
Water cooler		DCW-1,4-9
2-way valve		VVP47.20-4,0+SSF161.05HF
DX cooler		DCF-1,4-10
Cooling unit for ducted cooler		MOU-36HFN8a+KA8142

Shown as right (R1)

View from inspection side



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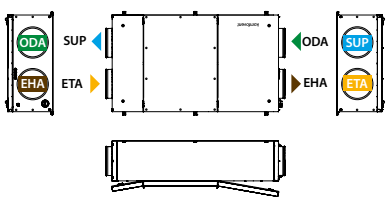
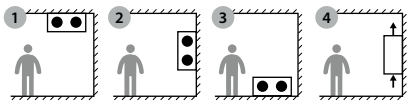


Mounting positions



2 3 4 with water heater only

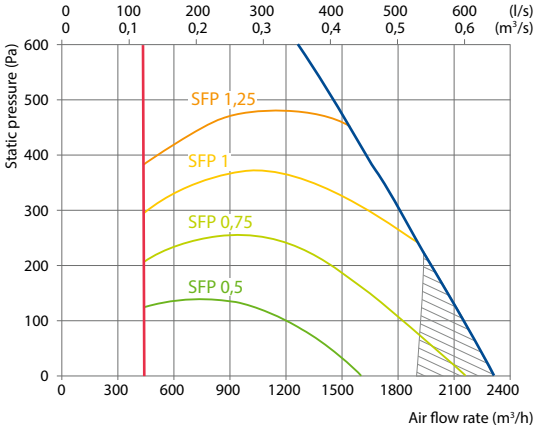
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 1700 U C5

Nominal air flow according to ErP 2018, m^3/h	1930
Nominal air flow according to ErP 2018, l/s	594
Electric air heater capacity, kW / Δt, °C	4,5/6,1
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	11,1
Maximal operating current HW, A	4,9
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	528
Noise power level, L_{WA}, dB(A)	56
Noise pressure level, L_{PA}, dB(A), (3 m)	44
Filters dimensions B×H×L, mm	800×450×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	910×1000×1485
Panel thickness, mm	50
Maintenance space, mm	800
Unit weight, kg	220

Performance

Verso R 1700 UH with standard equipment



Does not conform to ErP2018 requirements

Accessories

Closing damper	H	SRU-M-300×400+LF24/LM24
	V	SRU-M-400×300+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-600-300-700-S
	SUP/ETA	STS-IVR3BA-600-300-1250-S
PPU		PPU-HW-3R-15-1,6-W2
Water cooler		DCW-1,6-11
2-way valve		VVP47.20-4,0+SSF161.05HF
DX cooler		DCF-1,6-11
Cooling unit for ducted cooler		MOU-36HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-48HFN8a+KA8142

Temperature efficiency

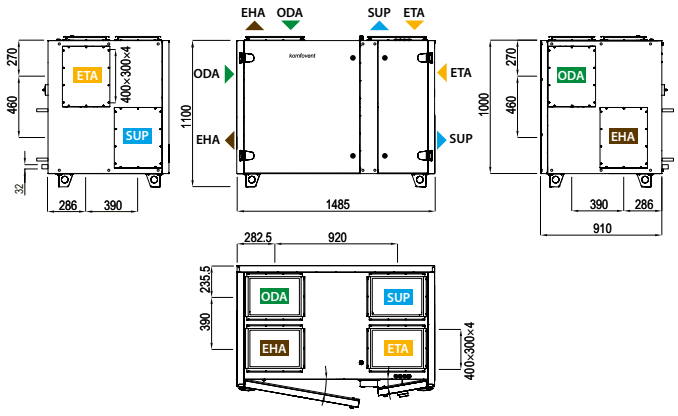
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13	14,6	15,6	16,6	17,6	22,6	23,6	24,6

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	5,9	11,3	5,9	13,3
Maximal capacity, kW	13,5	12,2	9,6	15,8
Pressure drop, kPa	1	6,5	–	–
Air temperature in/out, °C	13 / 22	30 / 18	13 / 22	30 / 18
Connection, ″ / mm	1		⅝ / 22	

Shown as right (R1)



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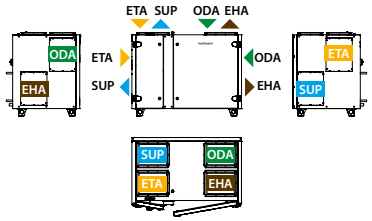


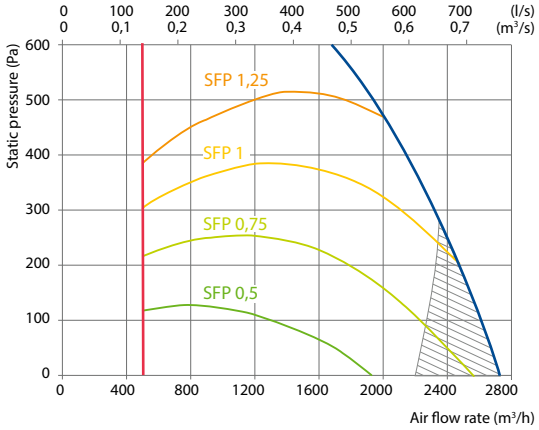
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 2000 U C5

Nominal air flow according to ErP 2018, m^3/h	2280
Nominal air flow according to ErP 2018, l/s	633
Electric air heater capacity, kW / Δt, °C	7,5/8,4
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	16,9
Maximal operating current HW, A	6,3
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	649
Noise power level, L_{WA}, dB(A)	54
Noise pressure level, L_{PA}, dB(A), (3 m)	47
Filters dimensions B×H×L, mm	800×450×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	910×1000×1485
Panel thickness, mm	50
Maintenance space, mm	800
Unit weight, kg	210

Performance

Verso R 2000 UH with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

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

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	7,7	13,5	7,7	15,7
Maximal capacity, kW	15,9	13,5	10	15,7
Pressure drop, kPa	1	9,1	–	–
Air temperature in/out, °C	12 / 22	30 / 18,0	12 / 22	30 / 18
Connection, ″ / mm	1		⅝ / 22	

Accessories

Closing damper	H	SRU-M-300×400+LF24/LM24
	V	SRU-M-400×300+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-600-400-700-S
	SUP/ETA	STS-IVR3BA-600-400-1250-S
PPU		PPU-HW-3R-15-2,5-W2
Water cooler		DCW-2,5-17
2-way valve		VVP45.25-6,3+SSB161.05HF
DX cooler		DCF-2,5-17
Cooling unit for ducted cooler		MOU-55HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-55HFN8a+KA8142

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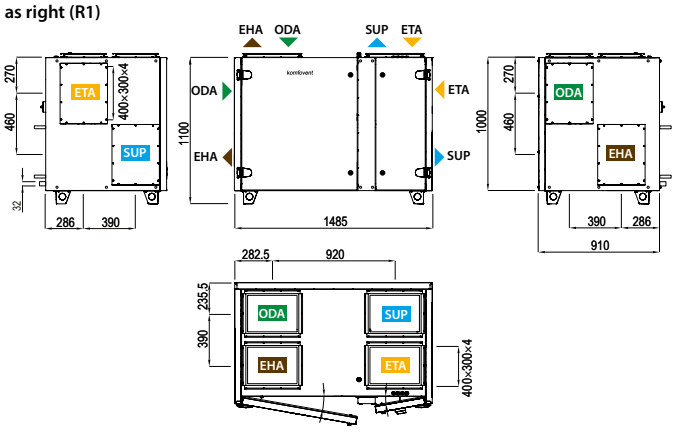

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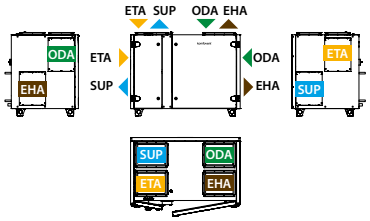


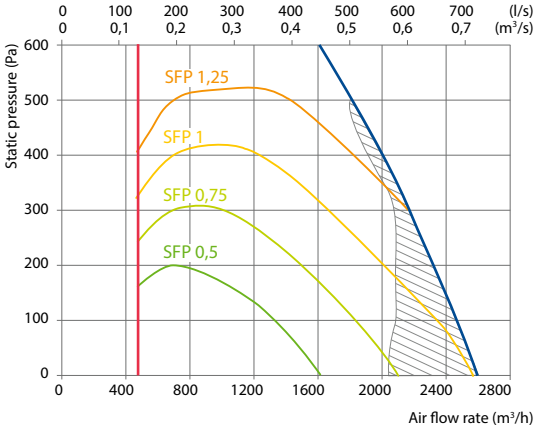
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 2000 F C5

Nominal air flow according to ErP 2018, m^3/h	2070
Nominal air flow according to ErP 2018, l/s	575
Electric air heater capacity, kW / Δt, °C	7,5/9,3
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	16,8
Maximal operating current HW, A	6,3
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	670
Noise power level, L_{WA}, dB(A)	59
Noise pressure level, L_{PA}, dB(A), (3 m)	48
Filters dimensions B×H×L, mm	560×420×96
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1210×527×2060
Panel thickness, mm	50
Maintenance space, mm	400
Unit weight, kg	230

Performance

Verso R 2000 F with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,9	16,2	17,0	17,8	18,5	22,5	23,3	24,0

Indoor +22 °C, 20 % RH

Hot water duct air heater *

	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	5,0	5,0	5,0
Flow rate, dm^3/h	221	220	219
Pressure drop, kPa	12,2	12,3	12,4
Temperature in/out, °C		14,9/22	
Maximal capacity, kW	17,2	13,9	10,5
Connection, ”		½	

* Option

Accessories

Closing damper		AGUJ-M-355+LF24/LM24
Silencer	ODA/EHA	AGS-355-100-900-M
	SUP/ETA	AGS-355-100-1200-M
Water heater		DH-355
PPU		PPU-HW-3R-15-1,6-W2
Water cooler		DCW-2,0-13
Water heater-cooler		DHCW-355
2-way valve		VVP47.20-4,0+SSF161.05HF
DX cooler		DCF-2,0-14
Cooling unit for ducted cooler		MOU-48HFN8a+KA8142

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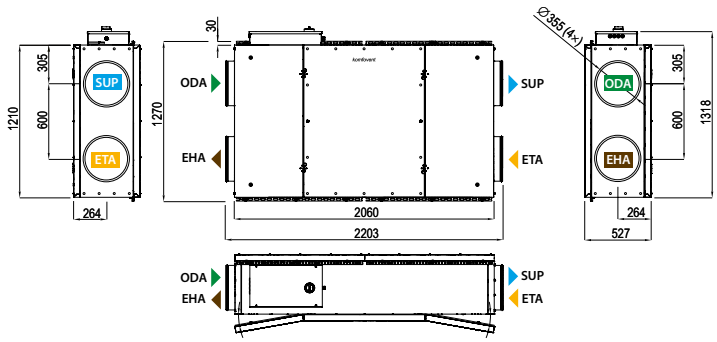
View from inspection side



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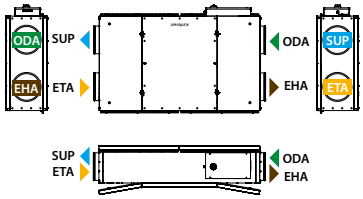
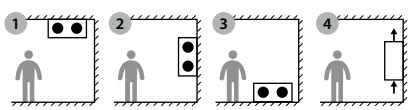


Mounting positions



2 3 4 with water heater only

ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

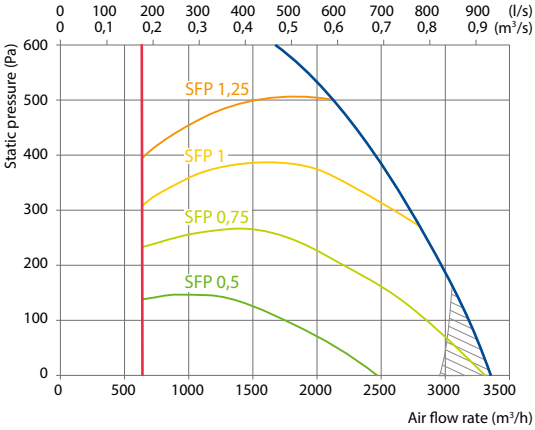
Verso R 2500 V C5

NEW

Nominal air flow according to ErP 2018, m^3/h	3040
Nominal air flow according to ErP 2018, l/s	844
Electric air heater capacity, kW / Δt, °C	7,5/6,9
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	14,5
Maximal operating current HW, A	7,5
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	744
Noise power level, L_{WA}, dB(A)	59
Noise pressure level, L_{PA}, dB(A), (3 m)	48
Filters dimensions B×H×L, mm	840×420×92
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	950×1400×1500
Panel thickness, mm	50
Maintenance space, mm	840
Unit weight, kg	270

Performance

Verso R 2500 V with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,8	15,3	16,2	17,1	18	22,5	23,5	24,4

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

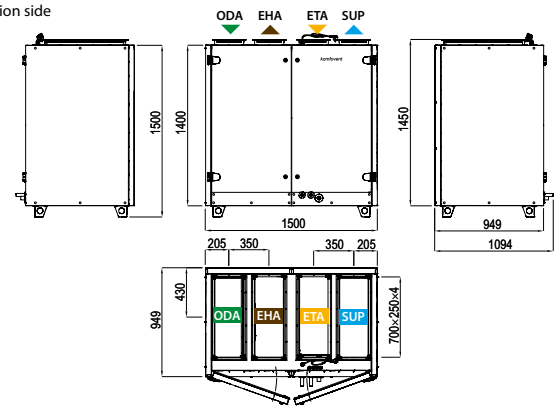
	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	8,3	18,6	8,3	20,6
Maximal capacity, kW	23,2	20,8	17,3	26,8
Pressure drop, kPa	1	52,7	–	–
Air temperature in/out, °C	13,8 / 22	30 / 18,0	13,8 / 22	30 / 18
Connection, " / mm	¾		⅝ / 22	

Accessories

Closing damper		SRU-M-700×250+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-800-300-700-S
	SUP/ETA	STS-IVR3BA-800-300-1250-S
PPU		PPU-HW-3R-15-2,5-W2
Water cooler		DCW-2,5-17
2-way valve		VVP45.25-6,3+SSB161.05HF
DX cooler		DCF-2,5-17
Cooling unit for ducted cooler		MOU-55HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-55HFN8a+KA8142

Shown as right (R1)

View from inspection side



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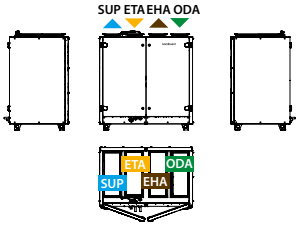


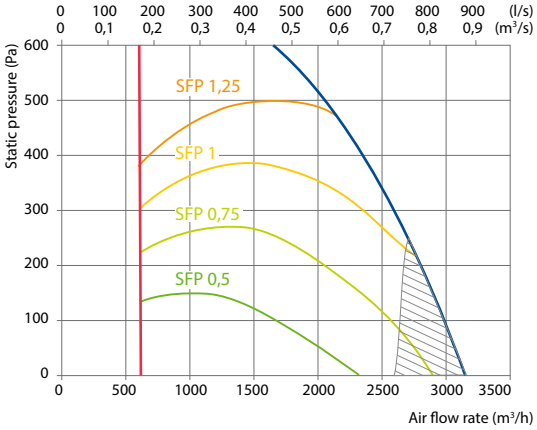
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 2500 H C5

Nominal air flow according to ErP 2018, m^3/h	2650
Nominal air flow according to ErP 2018, l/s	736
Electric air heater capacity, kW / Δt, °C	7,5/7,3
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	18,8
Maximal operating current HW, A	8,3
Power supply cable E, mm^2	5×4
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	762
Noise power level, L_{WA}, dB(A)	55
Noise pressure level, L_{PA}, dB(A), (3 m)	44
Filters dimensions B×H×L, mm	792×392-10×500
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 60 (M5)
Unit dimensions B×H×L, mm	1000×1000×1606
Panel thickness, mm	50
Maintenance space, mm	900
Unit weight, kg	289

Performance

Verso R 2500 H with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,7	14,3	15,4	16,4	17,4	22,6	23,7	24,7

Indoor +22 °C, 20 % RH

Hot water duct air heater

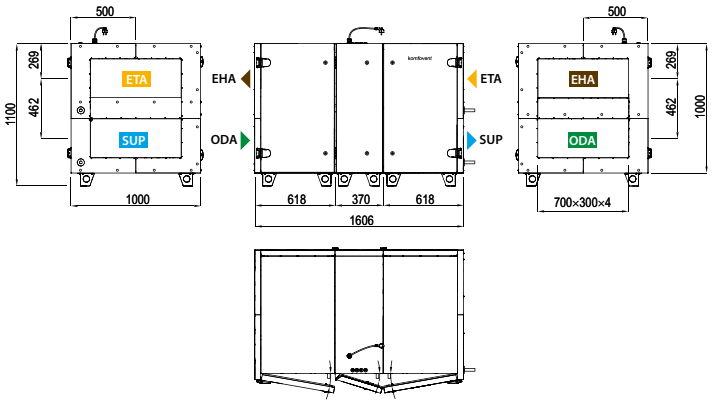
	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	8,3	8,3	8,3
Flow rate, dm^3/h	366	365	363
Pressure drop, kPa	1	1	1
Temperature in/out, °C		12,7 / 22,0	
Maximal capacity, kW	21,1	16,7	12,2
Connection, ”		½	

Accessories

Closing damper		SRU-M-700×300+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-800-300-700-S
	SUP/ETA	STS-IVR3BA-800-300-1250-S
PPU		PPU-HW-3R-15-2,5-W2
Water cooler		DCW-2,5-17
2-way valve		VVP45.25-6,3+SSB161.05HF
DX cooler		DCF-2,5-17
Cooling unit for ducted cooler		MOU-55HFN8a+KA8142

Shown as right (R1)

View from inspection side



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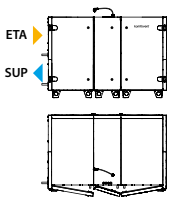

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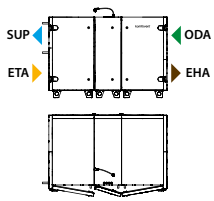
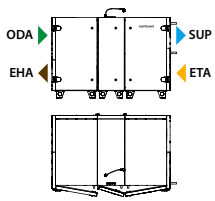


Shown as right (R2)



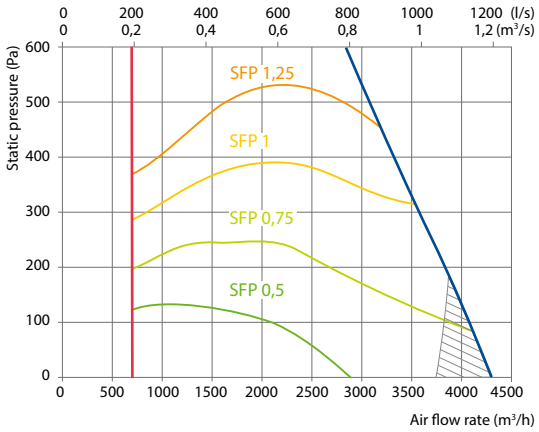
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 3000 U C5

Nominal air flow according to ErP 2018, m^3/h	3840
Nominal air flow according to ErP 2018, l/s	1067
Electric air heater capacity, kW / Δt, °C	9/6,5
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	19
Maximal operating current HW, A	6,3
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	5×1,5
Electric power input of the fan drive at maximum flow rate, W	862
Noise power level, L_{WA}, dB(A)	56
Noise pressure level, L_{PA}, dB(A), (3 m)	45
Filters dimensions B×H×L, mm	525×510×92 (×2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1150×1150×2100
Panel thickness, mm	50
Maintenance space, mm	1000
Unit weight, kg	456

Performance

Verso R 3000 UH with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,3	14,0	15,1	16,2	17,3	22,6	23,7	24,8

Indoor +22 °C, 20 % RH

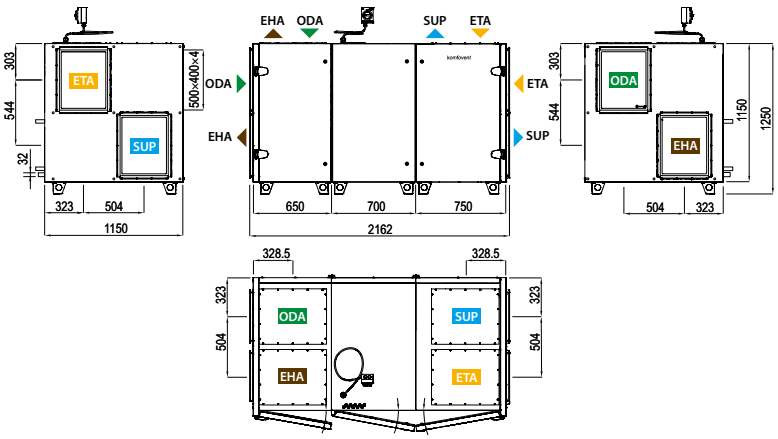
Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	12,6	23,7	12,6	25,4
Maximal capacity, kW	27,6	23,7	23,5	26,1
Pressure drop, kPa	1,0	25,2	–	–
Air temperature in/out, °C	12,3 / 22	30 / 18,0	12,3 / 22	30 / 18
Connection, ″ / mm	1		⅝ / 22	

Accessories

Closing damper	H	SRU-M-400x500+LF24/LM24
	V	SRU-M-500x400+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-600-500-700-S
	SUP/ETA	STS-IVR3BA-600-500-1250-S
PPU		PPU-HW-3R-15-2,5-W2
Water cooler		DCW-3,0-20
2-way valve		VVP45.25-6,3+SSB161.05HF
DX cooler		DCF-3,0-20-2
Cooling unit for ducted cooler		2×MOU-36HFN8a+KA8142
Cooling unit for integrated DX cooler		2×MOU-36HFN8a+KA8142

Shown as right (R1)



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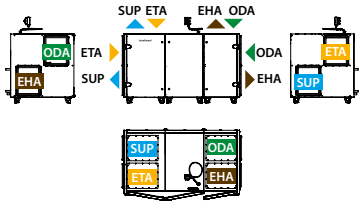


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

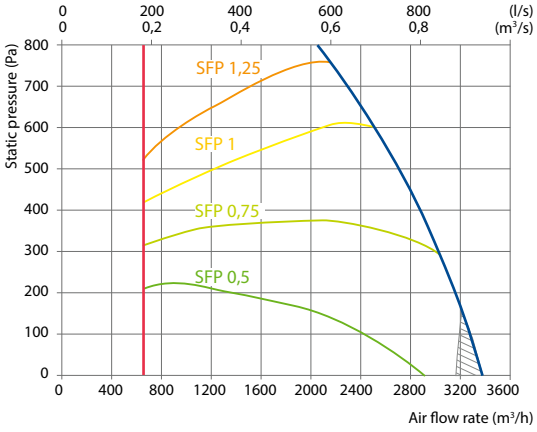
KK-25-06

Verso R 3000 F C5

Nominal air flow according to ErP 2018, m^3/h	3200
Nominal air flow according to ErP 2018, l/s	889
Electric air heater capacity, kW / Δt, °C	9/8
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	19,8
Maximal operating current HW, A	7,1
Power supply cable E, mm^2	5×4
Power supply cable W, mm^2	5×1,5
Electric power input of the fan drive at maximum flow rate, W	726
Noise power level, L_{WA}, dB(A)	63
Noise pressure level, L_{PA}, dB(A), (3 m)	51
Filters dimensions B×H×L, mm	560×540×96
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1210×648×2160
Panel thickness, mm	50
Maintenance space, mm	600
Unit weight, kg	289

Performance

Verso R 3000 F with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	11	12,9	14,2	15,4	16,6	22,7	24	25,2

Indoor +22 °C, 20 % RH

Hot water duct air heater *

	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	10,2	10,2	10,2
Flow rate, dm^3/h	450	448	446
Pressure drop, kPa	8,1	8,2	8,3
Temperature in/out, °C		12,8 / 22,0	
Maximal capacity, kW	26,0	21,1	16,1
Connection, ”		½	

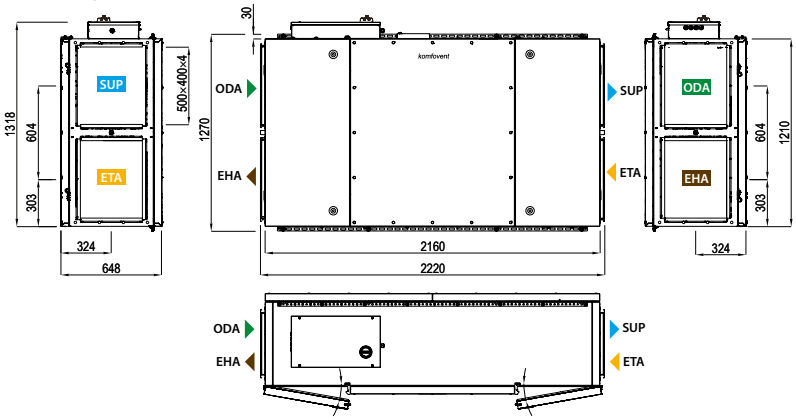
* Option

Accessories

Closing damper		SRU-M-500x400+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-600-400-700-S
	SUP/ETA	STS-IVR3BA-600-400-1250-S
Water heater		SVK-700x400-2R
PPU		PPU-HW-3R-15-1.6-W2
Water cooler		DCW-3,0-20
2-way valve		VVP45.25-6.3+SSB161.05HF
DX cooler		DCF-3,0-20-2
Cooling unit for ducted cooler		2×MOU-36HFN8a+KA8142

Shown as right (R1)

View from inspection side



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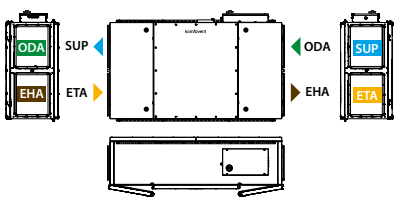
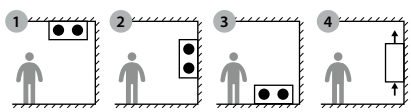


Mounting positions



2 3 4 with water heater only

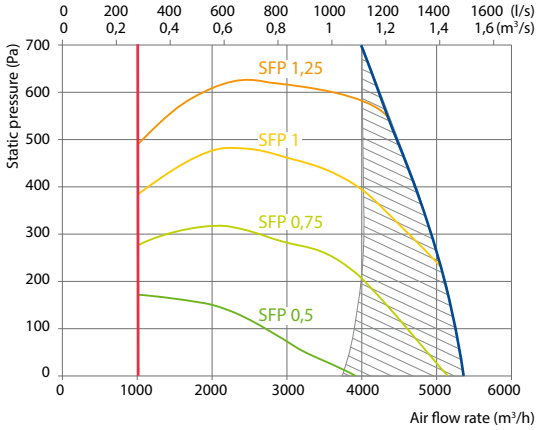
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 4000 U C5

Nominal air flow according to ErP 2018, m^3/h	3985
Nominal air flow according to ErP 2018, l/s	1107
Electric air heater capacity, kW / Δt, °C	15/8,3
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	31,1
Maximal operating current HW, A	9,7
Power supply cable E, mm^2	5×6
Power supply cable W, mm^2	5×1,5
Electric power input of the fan drive at maximum flow rate, W	1436
Noise power level, L_{WA}, dB(A)	55
Noise pressure level, L_{PA}, dB(A), (3 m)	43
Filters dimensions B×H×L, mm	525×510×92 (×2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1150×1150×2100
Panel thickness, mm	50
Maintenance space, mm	1000
Unit weight, kg	470

Performance

Verso R 4000 UH with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,1	13,8	14,9	16	17,2	22,7	23,8	24,9

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	13,3	24	13,3	27,4
Maximal capacity, kW	28,5	24	19,3	29,4
Pressure drop, kPa	1	25,7	–	–
Air temperature in/out, °C	12,1 / 22	30 / 18,2	12,1 / 22	30 / 18,0
Connection, ″ / mm	1		2×⅝ / 2×22	

Accessories

Closing damper	H	SRU-M-400×500+LF24/LM24
	V	SRU-M-500×400+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-800-500-700-S
	SUP/ETA	STS-IVR3BA-800-500-1250-S
PPU		PPU-HW-3R-20-4.0-W2
Water cooler		DCW-4,5-30
2-way valve		VVP45.25-10+SSC161.05HF
DX cooler		DCF-4,5-31-2
Cooling unit for ducted cooler		2×MOU-55HFN8a+KA8142
Cooling unit for integrated DX cooler		2×MOU-55HFN8a+KA8142

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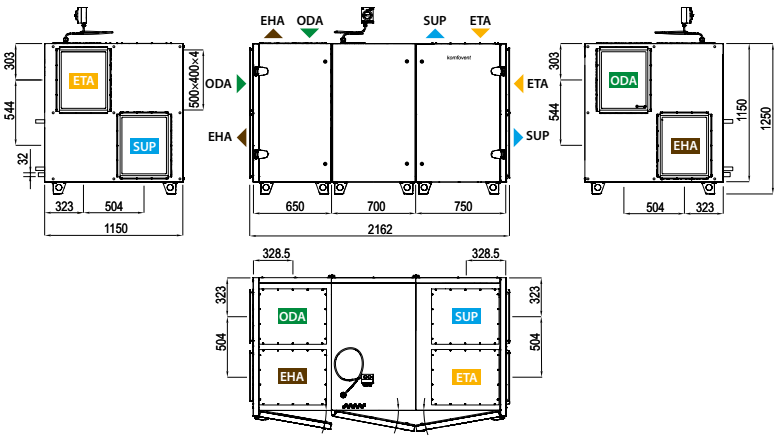

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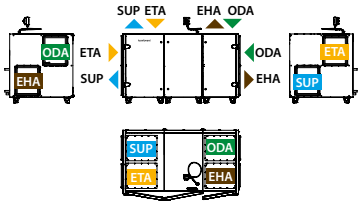


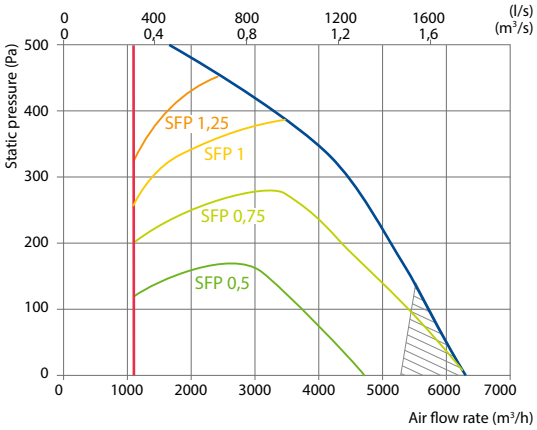
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 5000 V C5

Nominal air flow according to ErP 2018, m^3/h	5470
Nominal air flow according to ErP 2018, l/s	1519
Electric air heater capacity, kW / Δt, °C	15/7,6
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	29,5
Maximal operating current HW, A	8,1
Power supply cable E, mm^2	5×6
Power supply cable W, mm^2	5×1,5
Electric power input of the fan drive at maximum flow rate, W	1279
Noise power level, L_{WA}, dB(A)	56
Noise pressure level, L_{PA}, dB(A), (3 m)	45
Filters dimensions B×H×L, mm	650×630×92 (×2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1405×1400×1900
Panel thickness, mm	50
Maintenance space, mm	1300
Unit weight, kg	600

Performance

Verso R 5000 V with standard equipment



Does not conform to ErP2018 requirements

Accessories

Closing damper		SRU-M-1100×300+LF24/LM24
Silencer	ODA/EHA	STS-IXY5BU-1250-300-700-S
	SUP/ETA	STS-11XAMR-1250-300-1250-S
PPU		PPU-HW-3R-20-4-W2
Water cooler		DCW-4,5-30
2-way valve		VVP45.25-10.0+SSC161.05HF
DX cooler		DCF-4,5-31-2
Cooling unit for ducted cooler		2×MOU-55HFN8a+KA8142
Cooling unit for integrated DX cooler		2×MOU-55HFN8a+KA8142

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,8	15,3	16,2	17,1	18	22,5	23,5	24,4

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12		
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	15,1	33,9	15,2	37,5
Maximal capacity, kW	45,6	42,2	29	43,4
Pressure drop, kPa	1,0	23,9	–	–
Air temperature in/out, °C	13,8/22	30/18	13,8/22	30/18
Connection, ″ / mm	¼		2×⅝ / 2×22	

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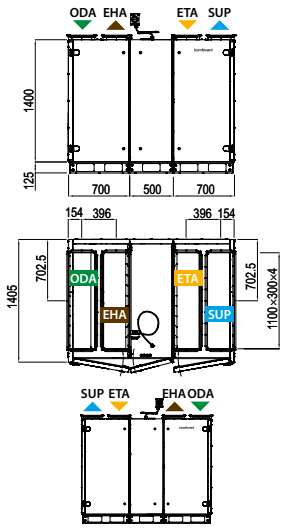

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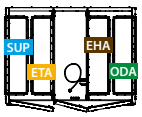


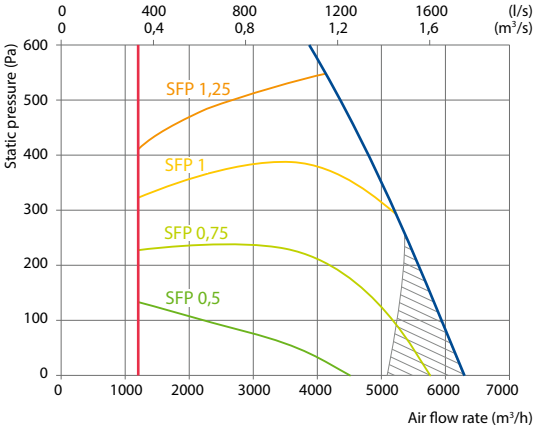
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 5000 H C5

Nominal air flow according to ErP 2018, m^3/h	5270
Nominal air flow according to ErP 2018, l/s	1464
Electric air heater capacity, kW / Δt, °C	15/7,5
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	34,1
Maximal operating current HW, A	12,7
Power supply cable E, mm^2	5×10
Power supply cable W, mm^2	5×2,5
Electric power input of the fan drive at maximum flow rate, W	1449
Noise power level, L_{WA}, dB(A)	58
Noise pressure level, L_{PA}, dB(A), (3 m)	47
Filters dimensions B×H×L, mm	592×592-8×500 (×2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 60 (M5)
Unit dimensions B×H×L, mm	1300×1300×1872
Panel thickness, mm	50
Maintenance space, mm	1200
Unit weight, kg	510

Performance

Verso R 5000 H with standard equipment



Does not conform to ErP2018 requirements

Accessories

Closing damper		SRU-M-1000×500+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-1000-500-700-S
	SUP/ETA	STS-IVR3BA-1000-500-1250-S
PPU		PPU-HW-3R-20-4,0-W2
Water cooler		DCW-4,5-30
2-way valve		VVP45.25-10.0+SSC161.05HF
DX cooler		DCF-4,5-31-2
Cooling unit for ducted cooler		2×MOU-55HFN8a+KA8142

Temperature efficiency

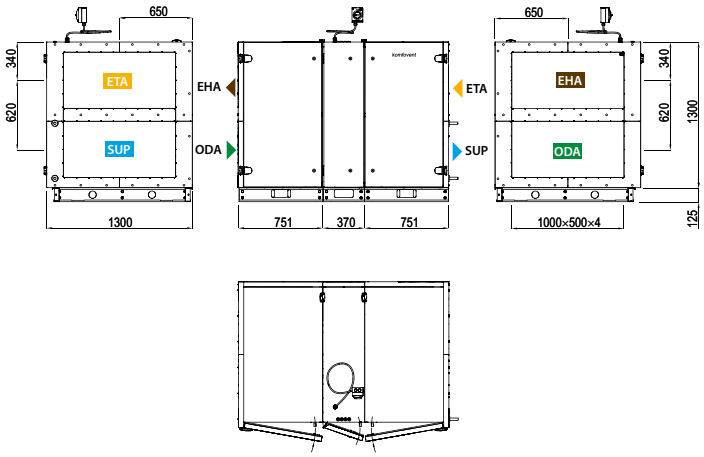
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,5	14,1	15,2	16,3	17,3	22,6	23,7	24,8

Indoor +22 °C, 20 % RH

Hot water duct air heater

	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	16,9	16,9	16,9
Flow rate, dm^3/h	742	739	736
Pressure drop, kPa	2,7	2,7	2,7
Temperature in/out, °C	12,5 / 22,0	12,5 / 22,0	12,5 / 22,0
Maximal capacity, kW	36,7	28,3	19,1
Connection, ″		½	

Shown as right (R1)
View from inspection side



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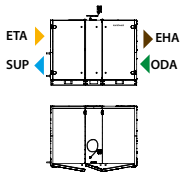

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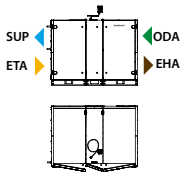

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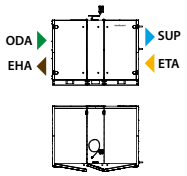


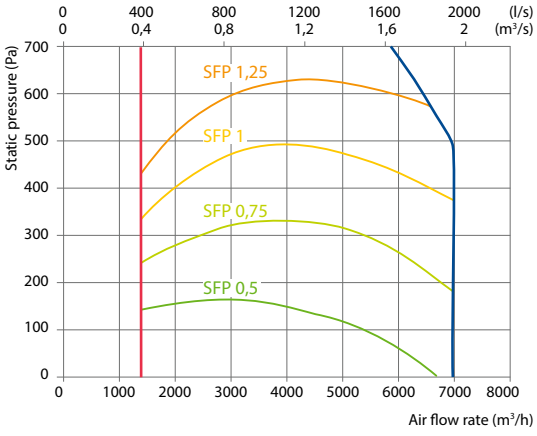
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 7000 V C5

Nominal air flow according to ErP 2018, m^3/h	7000
Nominal air flow according to ErP 2018, l/s	1944
Electric air heater capacity, kW / Δt, °C	15/6,3
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	34,9
Maximal operating current HW, A	13,5
Power supply cable E, mm^2	5×10
Power supply cable W, mm^2	5×2,5
Electric power input of the fan drive at maximum flow rate, W	1287
Noise power level, L_{WA}, dB(A)	61
Noise pressure level, L_{PA}, dB(A), (3 m)	50
Filters dimensions B×H×L, mm	467×701-8×500 (×3) 700×547-8×320 (×2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 60 (M5)
Unit dimensions B×H×L, mm	1505×1533×2204
Panel thickness, mm	50
Maintenance space, mm	1400
Unit weight, kg	700

Performance

Verso R 7000 V with standard equipment



Accessories

Closing damper		SRU-M-1200×300+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-1200-600-700-S
	SUP/ETA	STS-IVR3BA-1200-600-1250-S
PPU		PPU-HW-3R-20-4,0-W2
Water cooler		DCW-7,0-47
2-way valve		VVP45.32-16.0+SSC161.05HF
DX cooler		DCF-7,0-48-3
Cooling unit for ducted cooler		3×MOU-55HFN8a+KA8142
Cooling unit for integrated DX cooler		3×MOU-55HFN8a+KA8142

Temperature efficiency

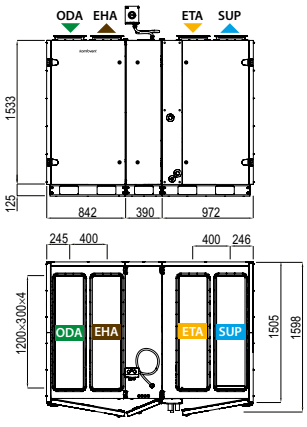
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,7	14,3	15,4	16,4	17,4	22,6	23,7	24,7

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	22	43,5	22	48
Maximal capacity, kW	53,6	47,8	41,8	60,7
Pressure drop, kPa	1	30,3	–	–
Air temperature in/out, °C	12,7/22	30/18	12,7/22	30/18
Connection, ″ / mm	1¼		3×⅝ / 2×22	

Shown as right (R1)



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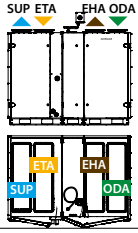


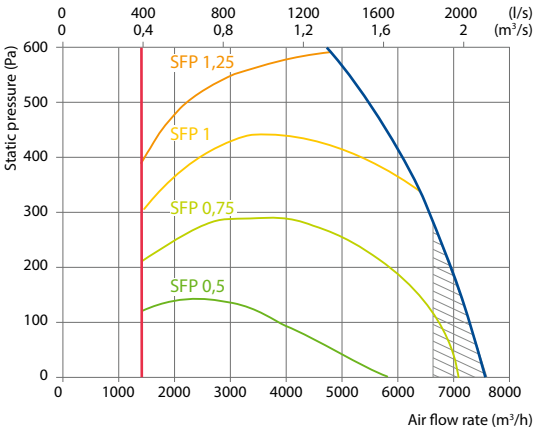
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso R 7000 H C5

Nominal air flow according to ErP 2018, m^3/h	6850
Nominal air flow according to ErP 2018, l/s	1903
Electric air heater capacity, kW / Δt, °C	24/9
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	48
Maximal operating current HW, A	13,5
Power supply cable E, mm^2	5×10
Power supply cable W, mm^2	5×2,5
Electric power input of the fan drive at maximum flow rate, W	1742
Noise power level, L_{WA}, dB(A)	61
Noise pressure level, L_{PA}, dB(A), (3 m)	50
Filters dimensions B×H×L, mm	592×592-8×500 (×2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 60 (M5)
Unit dimensions B×H×L, mm	1525×1675×1980
Panel thickness, mm	45
Maintenance space, mm	1500
Unit weight, kg	765

Performance

Verso R 7000 H with standard equipment



Does not conform to ErP2018 requirements

Accessories

Closing damper		SRU-M-1200×600+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-1200-600-700-S
	SUP/ETA	STS-IVR3BA-1200-600-1250-S
PPU		PPU-HW-3R-20-4,0-W2
Water cooler		DCW-7,0-47
2-way valve		VVP45.32-16.0+SSC161.05HF
DX cooler		DCF-7,0-48-3
Cooling unit for ducted cooler		3×MOU-55HFN8a+KA8142

Temperature efficiency

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

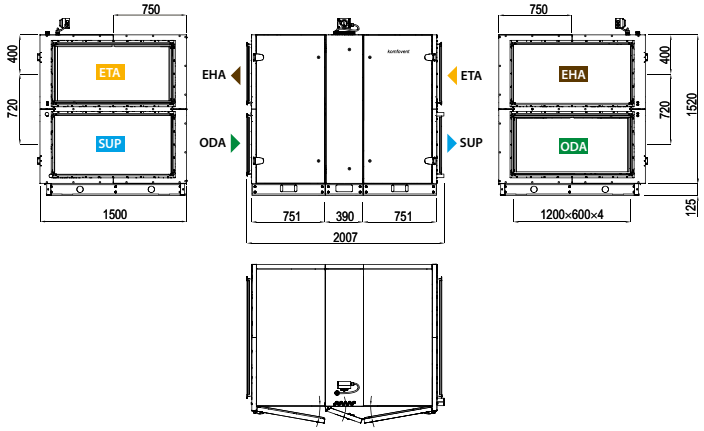
Indoor +22 °C, 20 % RH

Hot water duct air heater

	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	21,3	21,3	21,3
Flow rate, dm^3/h	935	931	927
Pressure drop, kPa	5,1	5,2	5,3
Temperature in/out, °C		12,8/22,0	
Maximal capacity, kW	55,9	45,3	34,6
Connection, ″	1	1	1

Shown as right (R1)

View from inspection side



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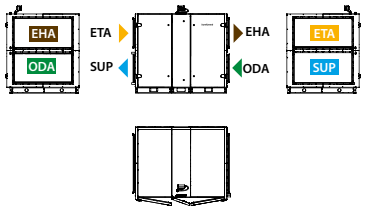
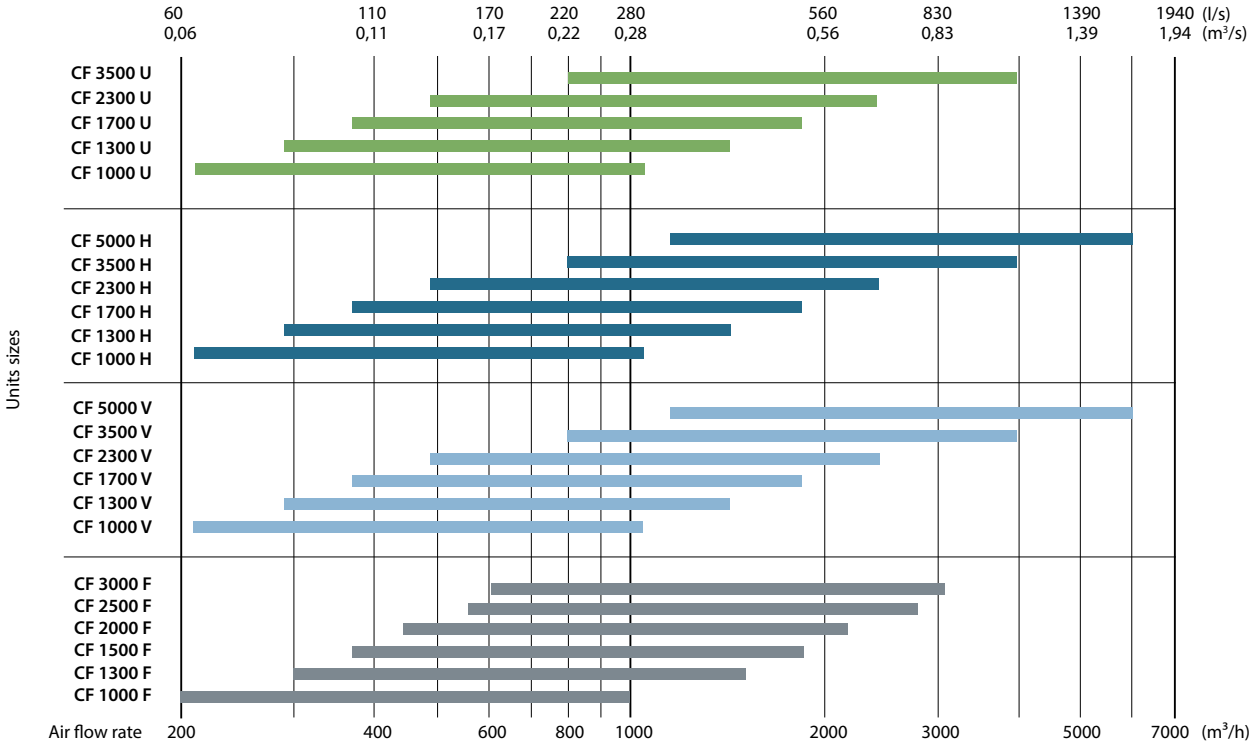


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF Standard

Air handling units with counterflow plate heat exchangers

Sizes and capacities of Verso CF Standard units



Modifications of Verso CF Standard units

Unit	Heat exchanger	Multi-level frost prevention	Supply / exhaust air filter class	Heater			Cooler		Inspection side	
	Condensing		ePM1 60 % / ePM10 50 %	HE	HW	HCW	DCW	HCDX	R1	L1
Verso CF 1000 U	●	○	●	○		○	△	○	○	○
Verso CF 1000 H / V	●		●	○	○		△	△	○	○
Verso CF 1000 F	●		●	●	△	△	△	△	○	○
Verso CF 1300 U	●	○	●	○		○	△	○	○	○
Verso CF 1300 H / V	●		●	○	○		△	△	○	○
Verso CF 1300 F	●		●	●	△	△	△	△	○	○
Verso CF 1500 F	●		●	●	△	△	△	△	○	○
Verso CF 1700 U	●	○	●	○		○	△	○	○	○
Verso CF 1700 H / V	●		●	○	○		△	△	○	○
Verso CF 2000 F	●		●	●	△	△	△	△	○	○
Verso CF 2300 U	●	○	●	○		○	△	○	○	○
Verso CF 2300 H / V	●	○	●	○	○		△	△	○	○
Verso CF 2500 F	●		●	●	△		△	△	○	○
Verso CF 3000 F	●		●	●	△		△	△	○	○
Verso CF 3500 U	●	○	●	○		○	△	○	○	○
Verso CF 3500 H / V	●	○	●	○	○		△	△	○	○
Verso CF 5000 V	●	○	●	○	○	○		○	○	○
Verso CF 5000 H	●	○	●	○	○	○		○	○	○

● standard equipment ○ possible choice △ ordered separately duct heater/cooler

The markings are explained on p. 151.

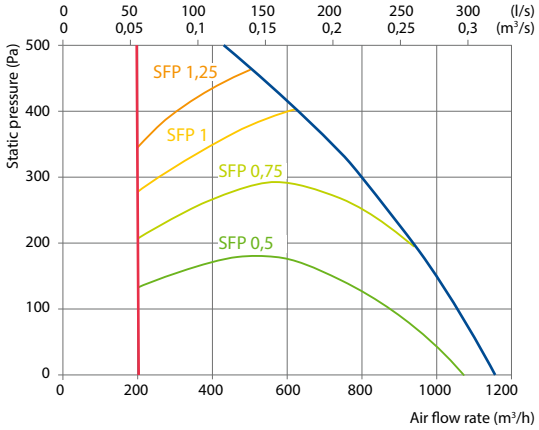
KK-25-06

Verso CF 1000 U C5

Nominal air flow according to ErP 2018, m^3/h	1055
Nominal air flow according to ErP 2018, l/s	293
Electric air heater capacity, kW / Δt, °C	4,5/12,5
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	9,5
Maximal operating current HW, A	3,3
Power supply cable E, mm^2	5×1,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	178
Noise power level, L_{WA}, dB(A)	54
Noise pressure level, L_{PA}, dB(A), (3 m)	43
Filters dimensions B×H×L, mm	800×400×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	910×905×1810
Panel thickness, mm	50
Maintenance space, mm	800
Unit weight, kg	269

Performance

Verso CF 1000 UH with standard equipment



Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	15,2	16	16,8	17,1	18	22,6	23,5	24,7

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	2,4	6,8	2,4	7,3
Maximal capacity, kW	9,0	9,1	5,7	10
Pressure drop, kPa	1	31,6	–	–
Air temperature in/out, °C	15,2 / 22	30 /18	15,2 / 22	30 /18
Connection, ″ / mm	½		½ / 22	

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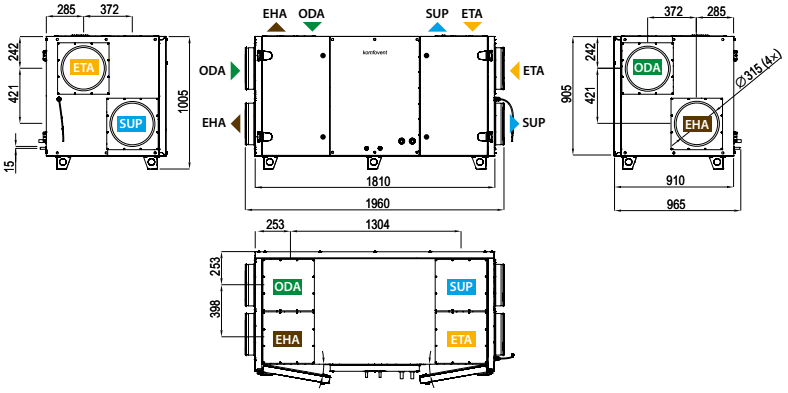

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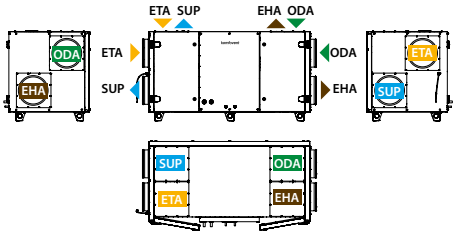


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Accessories

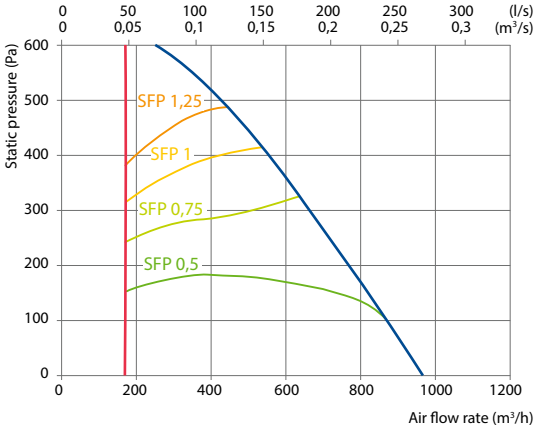
Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
PPU		PPU-HW-3R-15-0,63-W2
Water cooler		DCW-0,9-6
2-way valve		VVP47.15-2,5+SSF161.05HF
DX cooler		DCF-0,9-6
Cooling unit for ducted cooler		MOU-18HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-24HFN8a+KA8142

Verso CF 1000 F C5

Nominal air flow according to ErP 2018, m^3/h	868
Nominal air flow according to ErP 2018, l/s	241
Electric air heater capacity, kW / Δt, °C	3/10,1
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	7,3
Maximal operating current HW, A	3,3
Power supply cable E, mm^2	5×1,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	168
Noise power level, L_{WA}, dB(A)	54
Noise pressure level, L_{PA}, dB(A), (3 m)	42
Filters dimensions B×H×L, mm	550×420×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1100×527×1650
Panel thickness, mm	50
Maintenance space, mm	400
Unit weight, kg	173

Performance

Verso CF 1000 F with standard equipment



Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	17,2	17,4	17,8	18,1	18,7	22,6	23,6	24,7

Indoor +22 °C, 20 % RH

Hot water duct air heater *

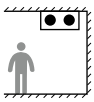
	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	1,4	1,4	1,4
Flow rate, dm^3/h	60	60	60
Pressure drop, kPa	2,3	2,3	2,4
Temperature in/out, °C		17,2/22	
Maximal capacity, kW	8,8	7,0	5,2
Connection, ”		½	

* Option

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
Water heater		DH-315
PPU		PPU-HW-3R-15-1,0-W2
Water cooler		DCW-0,9-6
Water heater-cooler		DHCW-315
2-way valve		VVP47.15-2,5+SSF161.05HF
DX cooler		DCF-0,9-6
Cooling unit for ducted cooler		MOU-18HFN8a+KA8142

Mounting positions



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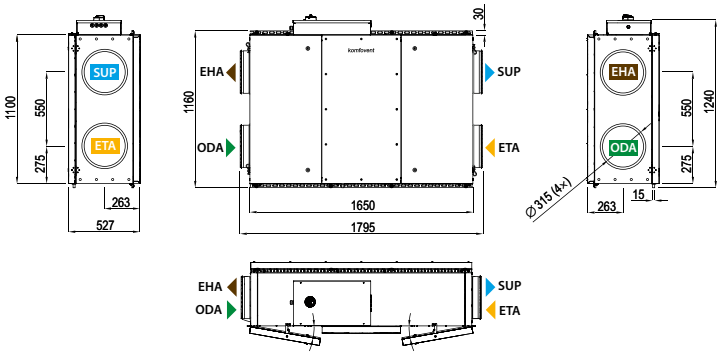

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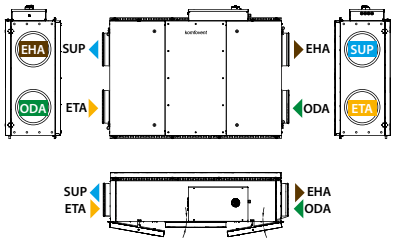


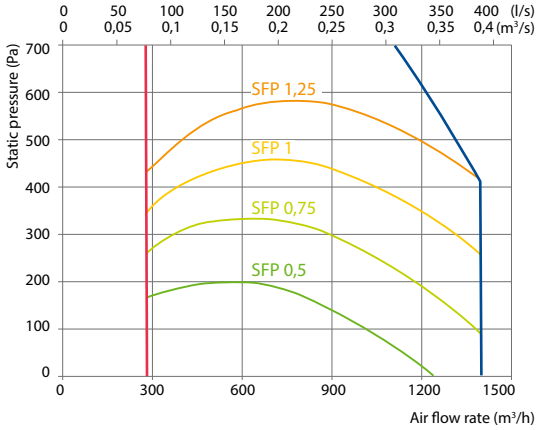
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF 1300 U C5

Nominal air flow according to ErP 2018, m^3/h	1400
Nominal air flow according to ErP 2018, l/s	389
Electric air heater capacity, kW / Δt, °C	4,5/9,4
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	11,1
Maximal operating current HW, A	4,9
Power supply cable E, mm^2	5×1,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	340
Noise power level, L_{WA}, dB(A)	58
Noise pressure level, L_{PA}, dB(A), (3 m)	48
Filters dimensions B×H×L, mm	800×400×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	910×905×1810
Panel thickness, mm	50
Maintenance space, mm	800
Unit weight, kg	225

Performance

Verso CF 1300 UH with standard equipment



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	17,5	18,3	22,5	23,3	24,1

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	3	9	3	9,7
Maximal capacity, kW	9,7	9,9	5,9	10,7
Pressure drop, kPa	1	51	–	–
Air temperature in/out, °C	15,6 / 22	30 / 18	15,6 / 22	30 / 18
Connection, " / mm	½		½ / 22	

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
PPU		PPU-HW-3R-15-1-W2
Water cooler		DCW-1,4-9
2-way valve		VVP47.20-4,0+SSF161.05HF
DX cooler		DCF-1,4-10
Cooling unit for ducted cooler		MOU-36HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-36HFN8a+KA8142

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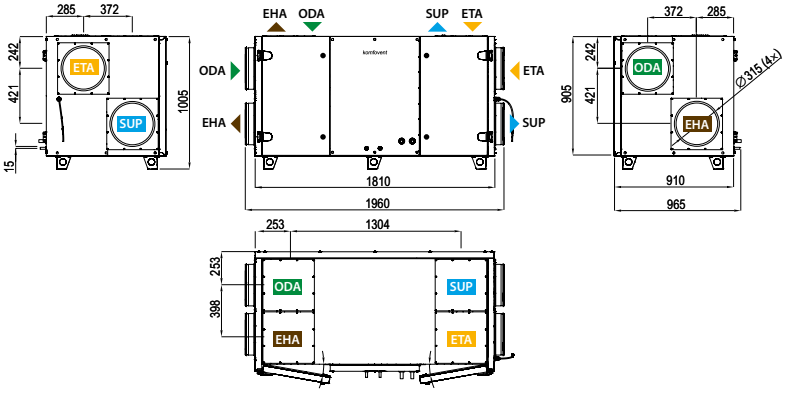

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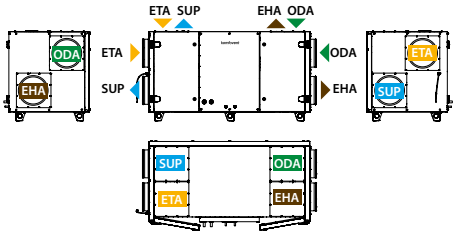


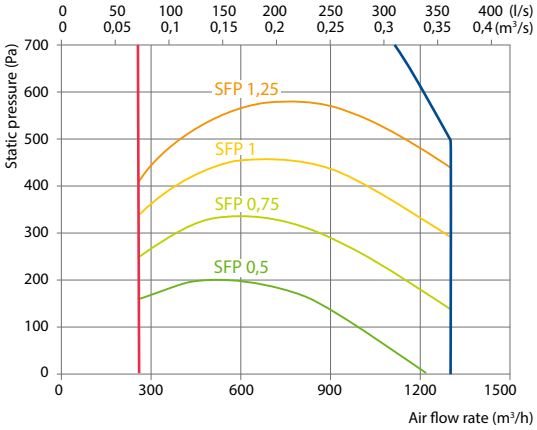
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF 1300 F C5

Nominal air flow according to ErP 2018, m^3/h	1300
Nominal air flow according to ErP 2018, l/s	361
Electric air heater capacity, kW / Δt, °C	4,5/10,1
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	11,1
Maximal operating current HW, A	4,9
Power supply cable E, mm^2	5×1,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	291
Noise power level, L_{WA}, dB(A)	60
Noise pressure level, L_{PA}, dB(A), (3 m)	49
Filters dimensions B×H×L, mm	550×420×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1100×527×1650
Panel thickness, mm	50
Maintenance space, mm	400
Unit weight, kg	175

Performance

Verso CF 1300 F with standard equipment



Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,5	15,4	15,9	16,8	17,7	22,6	23,5	24,5

Indoor +22 °C, 20 % RH

Hot water duct air heater *

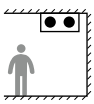
	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	3,3	3,3	3,3
Flow rate, dm^3/h	145	145	145
Pressure drop, kPa	3,9	3,9	3,9
Temperature in/out, °C		14,5 / 22,0	
Maximal capacity, kW	12,4	10	7,6
Connection, ”		½	

* Option

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
Water heater		DH-315
PPU		PPU-HW-3R-15-1,0-W2
Water cooler		DCW-1,4-9
Water heater-cooler		DHCW-315
2-way valve		VVP47.20-4,0+SSF161.05HF
DX cooler		DCF-1,4-10
Cooling unit for ducted cooler		MOU-36HFN8a+KA8142

Mounting positions



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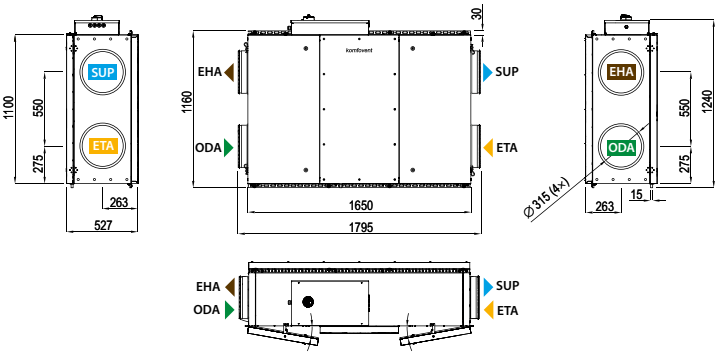

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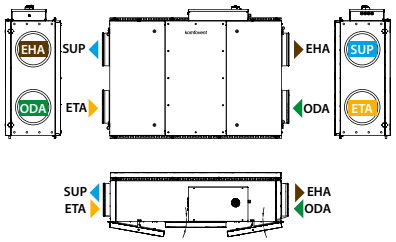


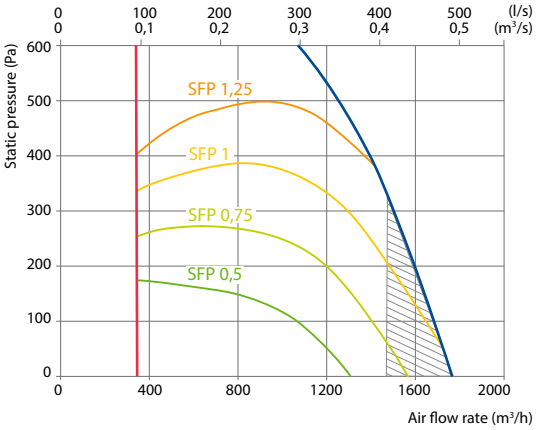
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF 1500 F C5

Nominal air flow according to ErP 2018, m^3/h	1470
Nominal air flow according to ErP 2018, l/s	408
Electric air heater capacity, kW / Δt, °C	4,5/7,6
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	11,1
Maximal operating current HW, A	4,9
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	525
Noise power level, L_{WA}, dB(A)	55
Noise pressure level, L_{PA}, dB(A), (3 m)	43
Filters dimensions B×H×L, mm	550×420×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1100×527×1650
Panel thickness, mm	50
Maintenance space, mm	400
Unit weight, kg	190

Performance

Verso CF 1500 F with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,2	15,1	15,7	16,6	17,6	22,6	23,6	24,6

Indoor +22 °C, 20 % RH

Hot water duct air heater *

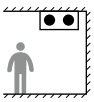
	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	3,9	3,9	3,9
Flow rate, dm^3/h	169	169	169
Pressure drop, kPa	5,1	5,1	5,2
Temperature in/out, °C		14,2 / 22,0	
Maximal capacity, kW	13,4	10,8	8,2
Connection, ″		½	

* Option

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
Water heater		DH-315
PPU		PPU-HW-3R-15-1-W2
Water cooler		DCW-1,6-11
Water heater-cooler		DHCW-315
2-way valve		VVP47.20-4,0+SSF161.05HF
DX cooler		DCF-1,6-11
Cooling unit for ducted cooler		MOU-36HFN8a+KA8142

Mounting positions



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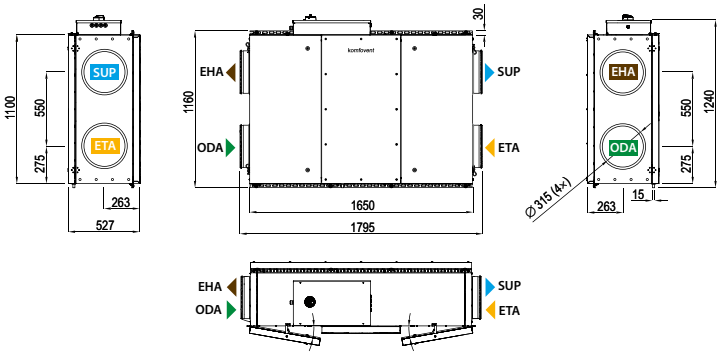

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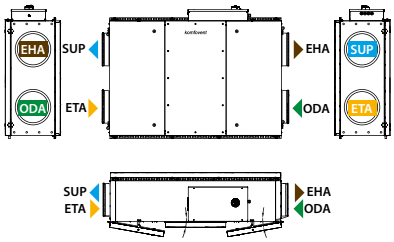


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

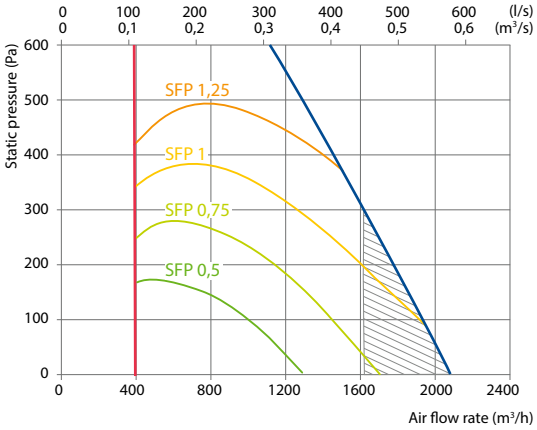
The newest data can be verified in the latest version of selection software. UAB KOMFOVENT reserves the right to introduce the changes of parameters and sizes in the process of improvement of the air handling units.

Verso CF 1700 U C5

Nominal air flow according to ErP 2018, m^3/h	1620
Nominal air flow according to ErP 2018, l/s	450
Electric air heater capacity, kW / Δt, °C	4,5/6,9
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	11,1
Maximal operating current HW, A	4,9
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	526
Noise power level, L_{WA}, dB(A)	52
Noise pressure level, L_{PA}, dB(A), (3 m)	41
Filters dimensions B×H×L, mm	800×400×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	910×905×1810
Panel thickness, mm	50
Maintenance space, mm	800
Unit weight, kg	243

Performance

Verso CF 1700 UH with standard equipment



Does not conform to ErP2018 requirements

Accessories

Closing damper		AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M
PPU		PPU-HW-3R-15-1,6-W2
Water cooler		DCW-1,6-11
2-way valve		VVP47.20-4,0+SSF161.05HF
DX cooler		DCF-1,6-11
Cooling unit for ducted cooler		MOU-36HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-55HFN8a+KA8142

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	15,2	16,1	16,6	17,3	18,2	22,5	23,4	24,2

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	3,7	10,3	3,7	11,0
Maximal capacity, kW	10,8	10,6	6,5	11,5
Pressure drop, kPa	1	66,9	–	–
Air temperature in/out, °C	15,2 / 22	30 / 18	15,2 / 22	30 / 18
Connection, ″ / mm		½	⅝ / 22	

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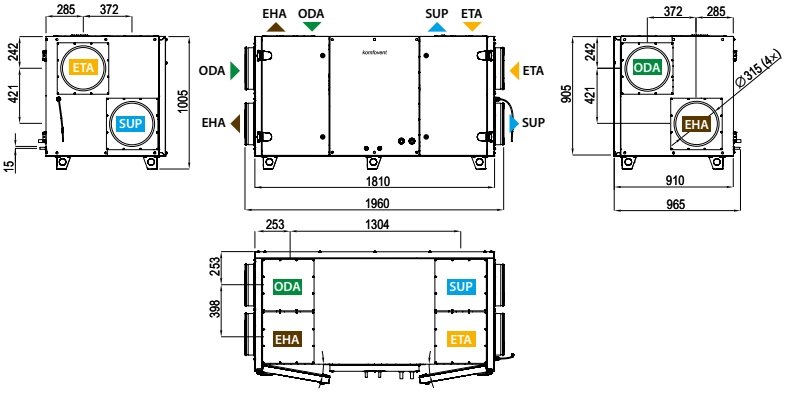

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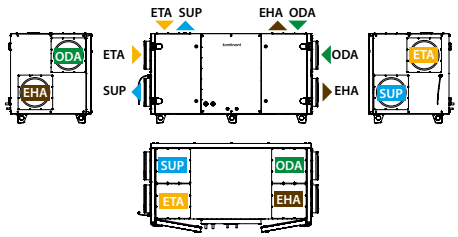


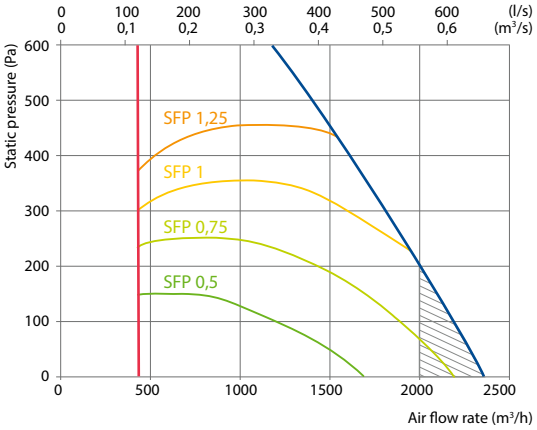
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF 2000 F C5

Nominal air flow according to ErP 2018, m^3/h	2000
Nominal air flow according to ErP 2018, l/s	556
Electric air heater capacity, kW / Δt, °C	7,5/10
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	15,4
Maximal operating current HW, A	4,9
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	544
Noise power level, L_{WA}, dB(A)	56
Noise pressure level, L_{PA}, dB(A), (3 m)	45
Filters dimensions B×H×L, mm	800×375×96
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1600×480×1750
Panel thickness, mm	50
Maintenance space, mm	550
Unit weight, kg	235

Performance

Verso CF 2000 F with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,5	15,4	15,9	16,7	17,7	22,6	23,5	24,5

Indoor +22 °C, 20 % RH

Hot water duct air heater *

	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	5,0	5,0	5,0
Flow rate, dm^3/h	221	220	219
Pressure drop, kPa	1,0	1,0	1,0
Temperature in/out, °C		14,5 / 22,0	
Maximal capacity, kW	22,5	18,0	13,4
Connection, ”		¾	

* Option

Accessories

Closing damper		SRU-M-600×300+LF24/LM24
Silencer	ODA/EHA	STS-BQUNBM-700×400-700-S
	SUP/ETA	STS-IB6GBC-700×400-1250-S
Water heater		SVK-700x400-2
PPU		PPU-HW-3R-15-1,6-W2
Water cooler		DCW-2,0-13
2-way valve		VVP47.20-4,0+SSF161.05HF
DX cooler		DCF-2,0-14
Cooling unit for ducted cooler		MOU-48HFN8a+KA8142

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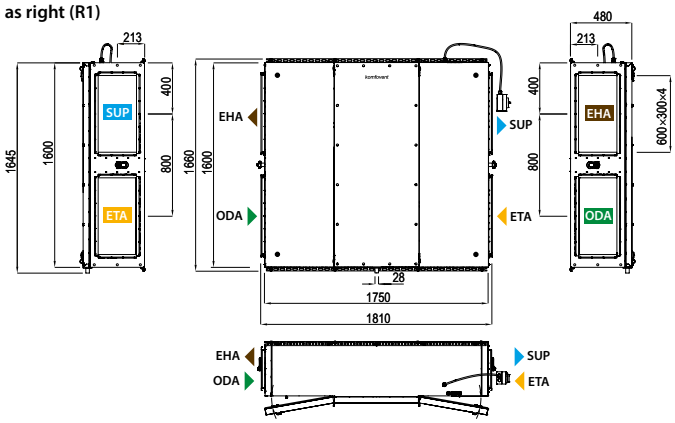

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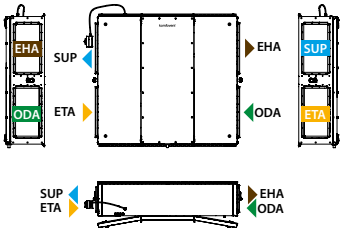
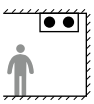


Mounting positions



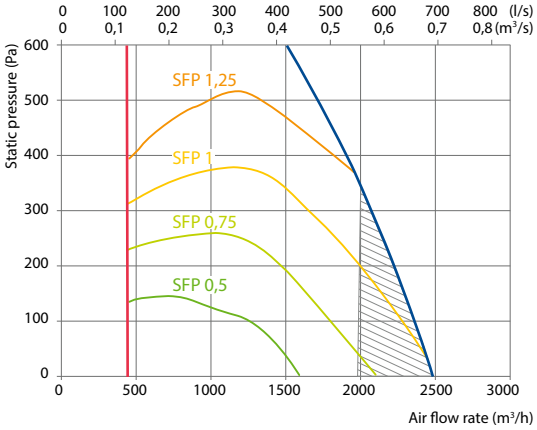
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF 2300 U C5

Nominal air flow according to ErP 2018, m^3/h	1980
Nominal air flow according to ErP 2018, l/s	550
Electric air heater capacity, kW / Δt, °C	7,5/9,3
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	16,8
Maximal operating current HW, A	6,3
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	660
Noise power level, L_{WA}, dB(A)	57
Noise pressure level, L_{PA}, dB(A), (3 m)	47
Filters dimensions B×H×L, mm	800×400×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	910×905×2000
Panel thickness, mm	50
Maintenance space, mm	800
Unit weight, kg	250

Performance

Verso CF 2300 UH with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

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

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	4,2	12,4	3,1	10,0
Maximal capacity, kW	13,4	12,9	6,9	12,0
Pressure drop, kPa	1	50	–	–
Air temperature in/out, °C	15,7 / 22	30/ 18,0	15,7 / 22	30 / 18
Connection, " / mm	¾		1×½ / 1×22	

Summer: +30 °C/ 50 %; HCW – 2200 m^3/h; DX – 1450 m^3/h

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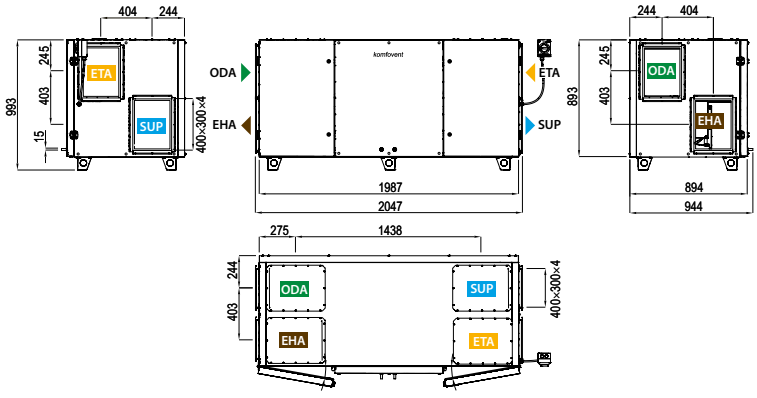

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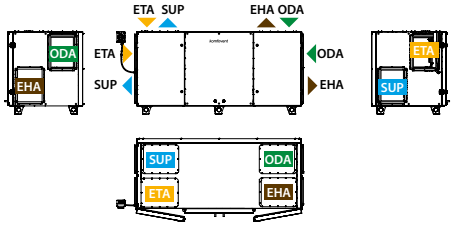


Accessories

Closing damper	H	SRU-M-300×400+LF24/LM24
	V	SRU-M-400×300+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-600-400-700-S
	SUP/ETA	STS-IVR3BA-600-400-1250-S
PPU		PPU-HW-3R-15-1,6-W2
Water cooler		DCW-2,5-17
2-way valve		VVP45.25-6,3+SSB161.05HF
DX cooler		DCF-2,5-17
Cooling unit for ducted cooler		MOU-55HFN8a+KA8142
Cooling unit for integrated DX cooler		MOU-55HFN8a+KA8142

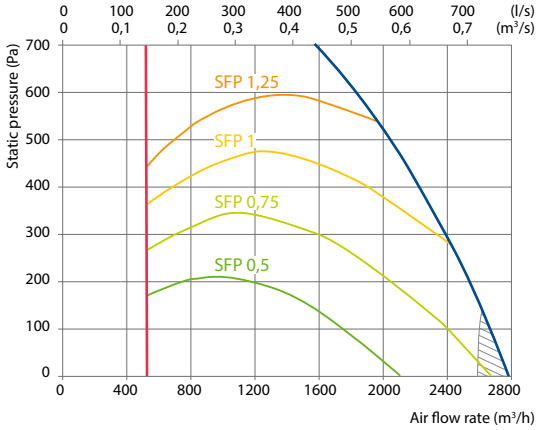
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF 2500 F C5

Nominal air flow according to ErP 2018, m^3/h	2542
Nominal air flow according to ErP 2018, l/s	706
Electric air heater capacity, kW / Δt, °C	7,5/8,3
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	16,9
Maximal operating current HW, A	6,3
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	640
Noise power level, L_{WA}, dB(A)	62
Noise pressure level, L_{PA}, dB(A), (3 m)	51
Filters dimensions B×H×L, mm	888×420×96
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	2000×528×1850
Panel thickness, mm	50
Maintenance space, mm	620
Unit weight, kg	340

Performance

Verso CF 2500 F with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,9	14,9	15,9	16,6	17,6	22,6	23,6	24,7

Indoor +22 °C, 20 % RH

Hot water duct air heater *

	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	7,0	7,0	7,0
Flow rate, dm^3/h	311	309	308
Pressure drop, kPa	4,8	4,8	4,9
Temperature in/out, °C		13,9 / 22	
Maximal capacity, kW	22,3	18,0	13,6
Connection, ″		½	

* Option

Accessories

Closing damper		SRU-M-700×300+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-800-300-700-S
	SUP/ETA	STS-IVR3BA-800-300-1250-S
Water heater		SVK-700×400-2R
PPU		PPU-HW-3R-15-1,6-W2
Water cooler		DCW-2,5-17
2-way valve		VVP45.25-6,3+SSB161.05HF
DX cooler		DCF-2,5-17
Cooling unit for ducted cooler		MOU-55HFN8a+KA8142

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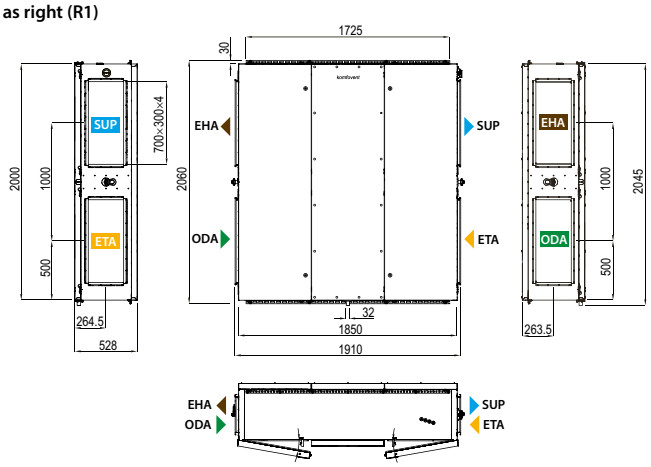

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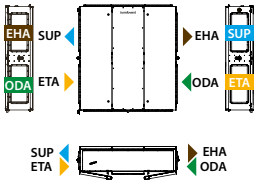
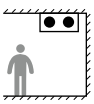


Mounting positions



ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

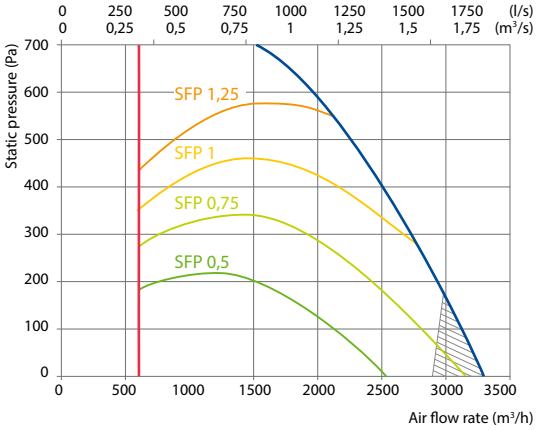
Verso CF 3000 F C5

NEW

Nominal air flow according to ErP 2018, m^3/h	2950
Nominal air flow according to ErP 2018, l/s	819
Electric air heater capacity, kW / Δt, °C	9/8,4
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	17,1
Maximal operating current HW, A	8,3
Power supply cable E, mm^2	5×2,5
Power supply cable W, mm^2	3×1,5
Electric power input of the fan drive at maximum flow rate, W	752
Noise power level, L_{WA}, dB(A)	48
Noise pressure level, L_{PA}, dB(A), (3 m)	38
Filters dimensions B×H×L, mm	1000×498×92
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	2000×594×2050
Panel thickness, mm	45
Maintenance space, mm	560
Unit weight, kg	365

Performance

Verso CF 3000 F with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,7	15,8	16,6	17,3	18	22,5	23,4	24,3

Indoor +22 °C, 20 % RH

Hot water duct air heater *

	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	4	4	4
Flow rate, dm^3/h	178	177	176
Pressure drop, kPa	1	1	1
Temperature in/out, °C		18 / 22	
Maximal capacity, kW	24,9	19,5	14
Connection, ”		¾	

* Option

Accessories

Closing damper		SRU-M-750×400+LF24/LM24
Silencer	ODA/EHA	STS-B6SD8W-750-400-500-S
	SUP/ETA	STS-BTCYBB-750-400-1200-S
Water heater		SVK-750x400-2R
PPU		PPU-HW-3R-15-2,5-W2
Water cooler		DCW-3,0-20
2-way valve		VVP45.25-6,3+SSB161.05HF
DX cooler		DCF-3.0-20-2
Cooling unit for ducted cooler		2×MOU-36HFN8a+KA8142

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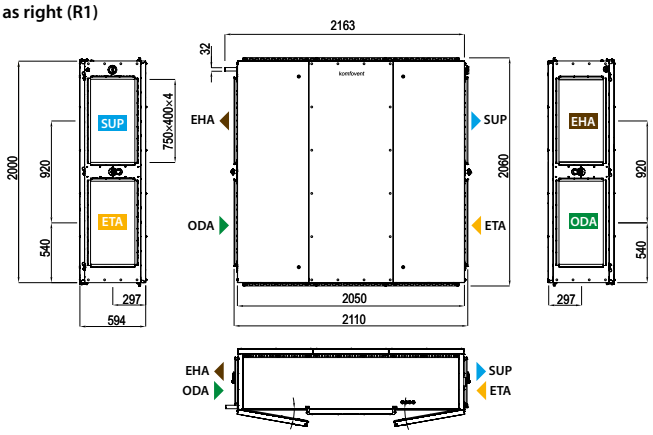

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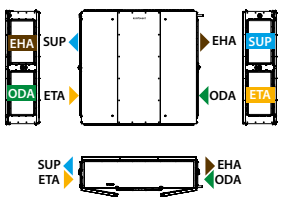


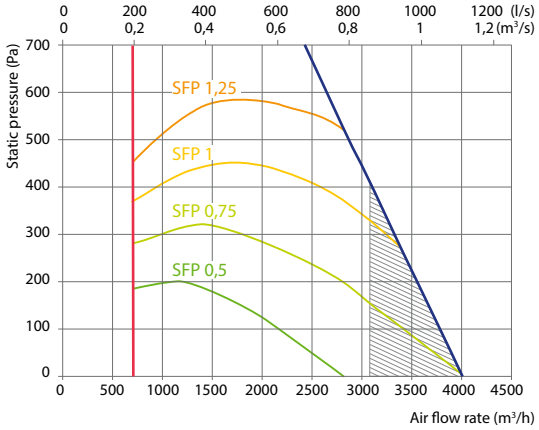
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF 3500 U C5

Nominal air flow according to ErP 2018, m^3/h	3074
Nominal air flow according to ErP 2018, l/s	854
Electric air heater capacity, kW / Δt, °C	12/9,3
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	23,4
Maximal operating current HW, A	6,3
Power supply cable E, mm^2	5×4
Power supply cable W, mm^2	5×1,5
Electric power input of the fan drive at maximum flow rate, W	960
Noise power level, L_{WA}, dB(A)	54
Noise pressure level, L_{PA}, dB(A), (3 m)	43
Filters dimensions B×H×L, mm	525×510×46 (×2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1150×1150×2500
Panel thickness, mm	45
Maintenance space, mm	1000
Unit weight, kg	500

Performance

Verso CF 3500 UH with standard equipment



Does not conform to ErP2018 requirements

Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14	15	15,9	16,3	17,4	22,6	23,7	24,8

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	9,5	8,4	8,2	21,8
Maximal capacity, kW	18,7	10,0	18,3	30,9
Pressure drop, kPa	3,6	25,1	–	–
Air temperature in/out, °C	14,0 / 22	30 / 24	14,0 / 22	30 / 18
Connection, " / mm	¾		2×⅝/2×22	

Summer: 30 °C / 50 %; DX/HCW – 3150 m^3/h

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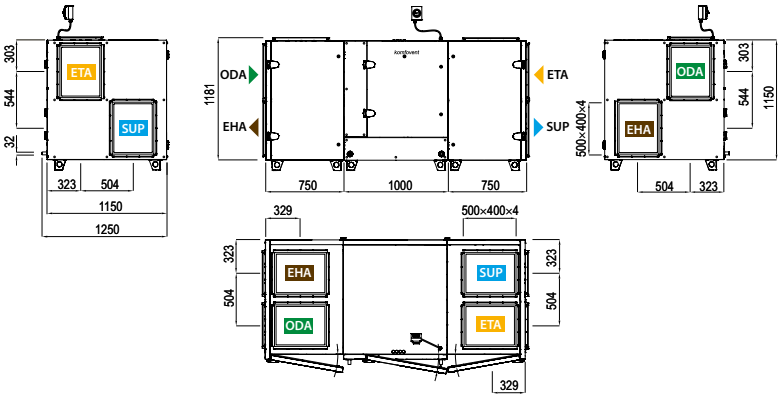

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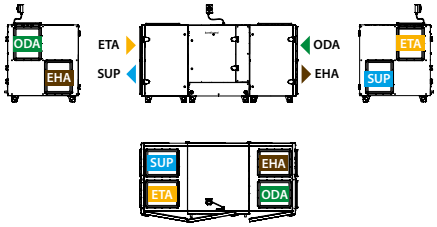


Accessories

Closing damper	H	SRU-M-400×500+LF24/LM24
	V	SRU-M-500×400+LF24/LM24
Silencer	ODA/EHA	STS-IVR3BA-800-500-700-S
	SUP/ETA	STS-IVR3BA-800-500-1250-S
PPU		PPU-HW-3R-15-2,5-W2
Water cooler		DCW-4,0-27
2-way valve		VVP45.25-6,3+SSB161.05HF
DX cooler		DCF-4,0-27-2
Cooling unit for ducted cooler		2×MOU-48HFN8a+KA8142
Cooling unit for integrated DX cooler		2×MOU-36HFN8a+KA8142

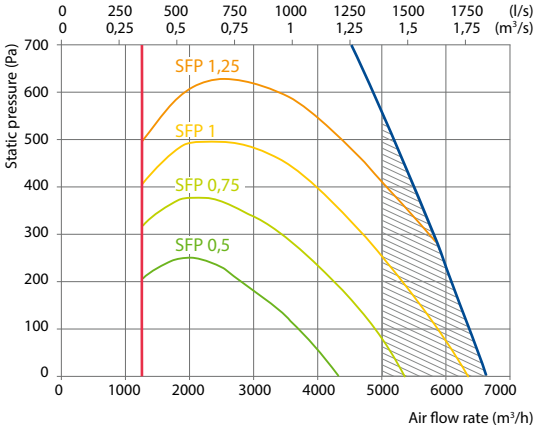
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF 5000 V C5

Nominal air flow according to ErP 2018, m^3/h	5025
Nominal air flow according to ErP 2018, l/s	1396
Electric air heater capacity, kW / Δt, °C	15/6,9
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	29,7
Maximal operating current HW, A	8,3
Power supply cable E, mm^2	5×6
Power supply cable W, mm^2	5×1,5
Electric power input of the fan drive at maximum flow rate, W	1850
Noise power level, L_{WA}, dB(A)	52
Noise pressure level, L_{PA}, dB(A), (3 m)	41
Filters dimensions B×H×L, mm	650×450×92 (×2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1400×1541×2315
Panel thickness, mm	45
Maintenance space, mm	1 500
Unit weight, kg	680

Performance

Verso CF 5000 V with standard equipment



Does not conform to ErP2018 requirements

Accessories

Closing damper		SRU-M-1100×300+LF24/LM24
Silencer	ODA/EHA	STS-IXY5BU-1250-300-700-S
	SUP/ETA	STS-11XAMR-1250-300-1250-S
PPU		PPU-HW-3R-20-4-W2
Water cooler		DCW-4,5-30
2-way valve		VVP45.25-10.0+SSC161.05HF
DX cooler		DCF-4,5-31-2
Cooling unit for ducted cooler		2×MOU-55HFN8a+KA8142
Cooling unit for integrated DX cooler		2×MOU-55HFN8a+KA8142

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	17	17,9	22,6	23,5	24,4

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	12,2	31,2	12,2	33,7
Maximal capacity, kW	40,6	38,6	25,7	35,2
Pressure drop, kPa	1	27,5	–	–
Air temperature in/out, °C	14,8 / 22	30 / 18	14,8 / 22	30 / 18
Connection, ″ / mm	1 ¼		2×⅝/2×22	

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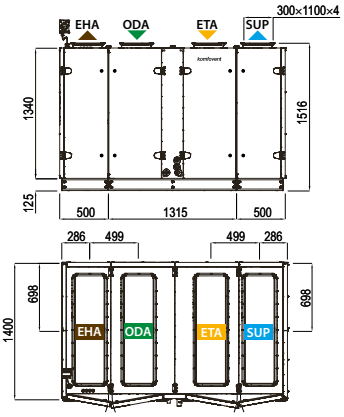

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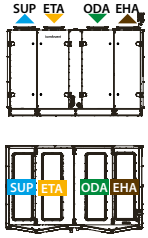


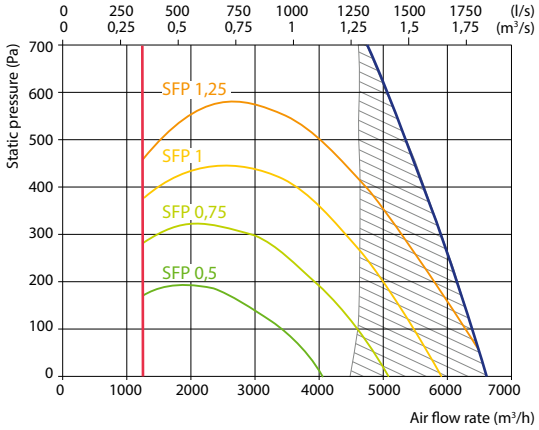
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Verso CF 5000 H C5

Nominal air flow according to ErP 2018, m^3/h	4605
Nominal air flow according to ErP 2018, l/s	1279
Electric air heater capacity, kW / Δt, °C	15/6,9
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	29,7
Maximal operating current HW, A	8,3
Power supply cable E, mm^2	5×6
Power supply cable W, mm^2	5×1,5
Electric power input of the fan drive at maximum flow rate, W	2263
Noise power level, L_{WA}, dB(A)	52
Noise pressure level, L_{PA}, dB(A), (3 m)	41
Filters dimensions B×H×L, mm	650×530×92 (×2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1410×1250×2327
Panel thickness, mm	50
Maintenance space, mm	1450
Unit weight, kg	684

Performance

Verso CF 5000 H with standard equipment



Does not conform to ErP2018 requirements

Accessories

Closing damper		SRU-M-1100×400+LF24/LM24
Silencer	ODA/EHA	STS-BJIM8G-1100-400-700-S
	SUP/ETA	STS-IIJKBO-1100-400-1000-S
PPU		PPU-HW-3R-20-4-W2
Water cooler		DCW-4,5-30
2-way valve		VVP45.25-10.10+SSC161.05HF
DX cooler		DCF-4,5-31-2
Cooling unit for ducted cooler		2×MOU-55HFN8a+KA8142

Temperature efficiency

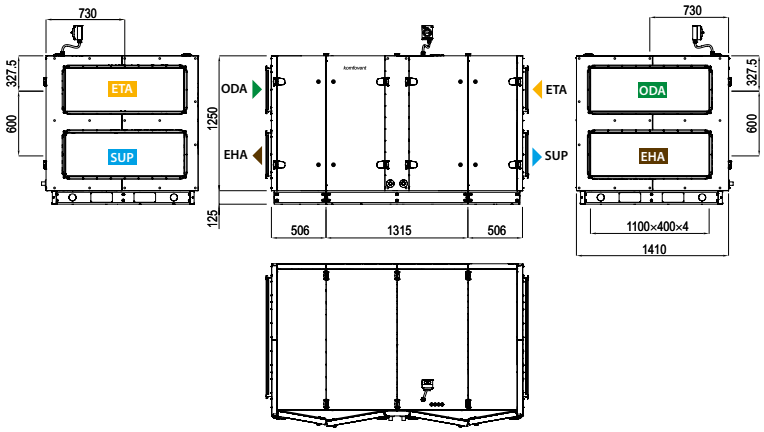
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,9	15,8	16,3	17	18	22,5	23,5	24,3

Indoor +22 °C, 20 % RH

Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	11,1	26,4	11,1	31,9
Maximal capacity, kW	37,7	34	23,7	39,7
Pressure drop, kPa	1	18	–	–
Air temperature in/out, °C	14,9 / 22	30 / 18	14,9 / 22	30 / 18
Connection, " / mm	R1 ¼		2×⅝/2×22	

Shown as right (R1)



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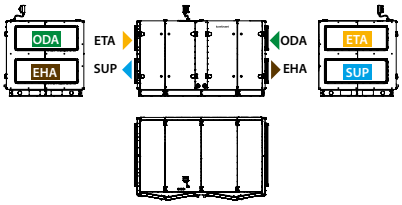
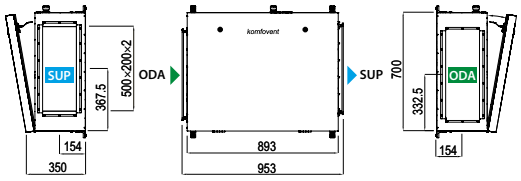


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

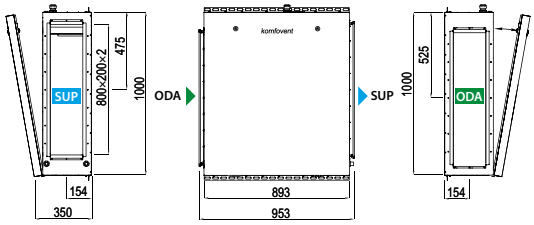
Verso S Standard

False ceiling supply air handling units

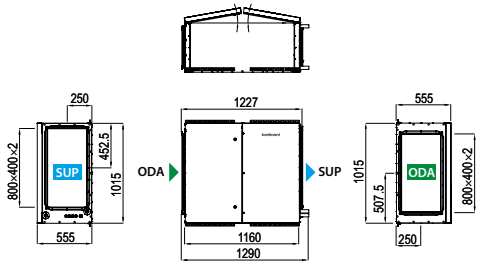
Verso S 1300 F C5



Verso S 2100 F C5

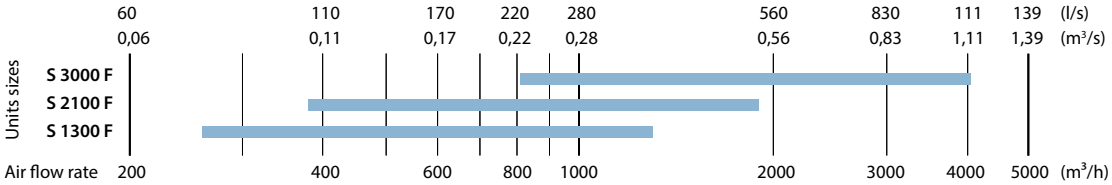


Verso S 3000 F C5



ODA – outdoor intake **SUP** – supply air

Sizes and capacities of Verso S Standard units

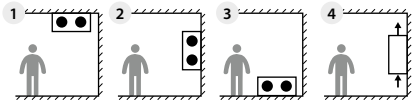


Technical data

Verso S unit	Verso S 1300 F	Verso S 2100 F	Verso S 3000 F
Nominal air flow, m³/h	1350	2210	3800
Electric power input of the fan drive at reference flow rate, W	236	337	680
Sound pressure level L_{PA}, dB(A), distance from casing – 3 m	58	55	53
Filters dimensions B×H×L, mm	558×287×46	858×287×46	450×480×96 (×2)
Unit weight, kg	46	73	130

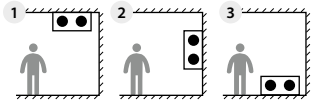
Mounting positions

Verso S 1300 F, Verso S 2100 F



2 3 4 with water heater only

Verso S 3000 F



Modifications of Verso S Standard units

Unit	Supply air filter class	Heater		Cooler		Control system	Control panel
	ePM1 60 (F7)	HE	HW	HCW	HCDX	C5	C5.1
Verso S 1300 F	●	○	○	△	△	●	
Verso S 2100 F	●	○	○	△	△	●	
Verso S 3000 F	●		●	△	△	●	

● standard equipment ○ possible choice △ ordered separately duct heater/cooler

The markings are explained on p. 151.

VERSO Pro
VERSO Pro2

VERSO Pro

Modular air handling units for commercial ventilation.
Air flow capacity: 1000–40 000 m^3/h.
VERSO Pro air handling unit range has two types of durable casings: frameless (sizes 10...70) and reinforced frame design (sizes 80...100).
Both of them are modular, thus custom and flexible configurations are possible. High-efficiency components of the VERSO Pro air handling units ensure the best performance and energy saving. Consequently, the application areas are quite wide: from small offices to huge shopping malls or industrial buildings.

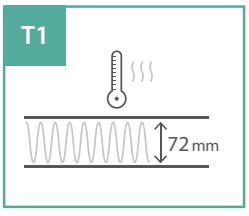
VERSO Pro2

Advanced and highly efficient modular air handling units.
Air flow capacity: 1000–40 000 m^3/h.
VERSO Pro2 range uses the latest technologies to ensure the best energy-saving and operation parameters. The superior performance classes T1 / TB1 / L1 / D1 have been achieved thanks to the patented casing design for sizes from 12 to 72. The VERSO Pro2 series offers 1,6 million possible combinations for the simplest and the most complex projects, such as business centres, shopping malls, sports arenas, cinemas and theatres, hotels, airports, logistic centers, industry.

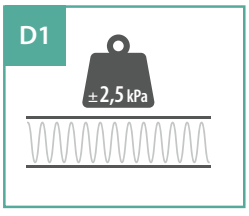
VERSO Pro/VERSO Pro2 casing – superior performance

Thermal bridging

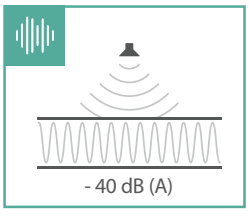
Leakage



Thermal transmittance



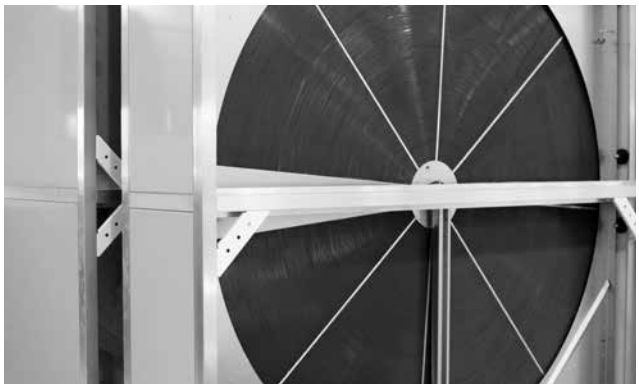
Mechanical strength



Casing sound insulation

Unit size	VERSO Pro								VERSO Pro2							
	VERSO Pro 10-70				VERSO Pro 80-100				VERSO Pro 12-72				VERSO Pro 82-102			
Casing name	Standart5				Standart2				Standart6				Standart2 TB			
Thermal transmittance class	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4
Thermal bridging factor class	TB1	TB2	TB3	TB4	TB1	TB2	TB3	TB4	TB1	TB2	TB3	TB4	TB1	TB2	TB3	TB4
Casing air leakage	L1	L2	L3	–	L1	L2	L3	–	L1	L2	L3	–	L1	L2	L3	–
Casing strenght class	D1	D2	D3	–	D1	D2	D3	–	D1	D2	D3	–	D1	D2	D3	–

VERSO Pro, VERSO Pro2 design



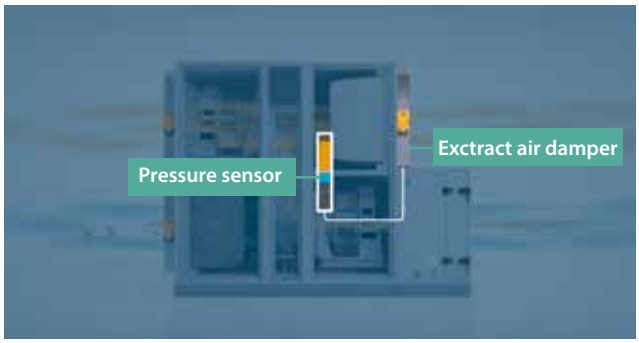
HEAT EXCHANGERS

Rotary heat exchanger
Used in Verso R series units. Temperature efficiency factor – up to 86 %. Possible wave height: L, ML, SL.
Types of rotary heat exchangers:
- Condensing (aluminium);
- Condensing with epoxy coating;
- Sorption-enthalpy (aluminium with zeolite 3Å coating).

Rotary heat exchangers are made of seawater-resistant aluminum foil, the casing is also made of galvanized steel. 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.

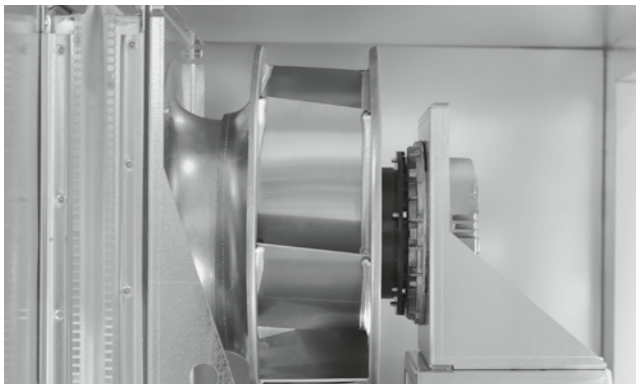
Pressure Auto Balance function
In certain cases, when the pressure drop of the exhaust air system is much lower than the supply flow, air mixing through the rotor may increase. To avoid this, the Auto Balance function can be selected.

> Additional elements are needed for the pressure auto balance option



Counter flow plate heat exchanger
Used in Verso CF series units. Temperature efficiency factor – up to 95 % in wet conditions and up to 88 % in dry conditions. The plate heat exchanger is equipped with an automatic by-pass. The heat exchanger is made of seawater-resistant aluminum plates. The distance between the plates is 2,1 or 3 mm.
VERSO Pro2 series units can be ordered with an diffusion-enthalpy counterflow plate heat exchanger.

Heat exchanger frost prevention
Under conditions when outdoor air temperature is low and humidity is high, risk of heat exchanger frosting may occur. Various types of frost prevention are used in VERSO Pro and Pro2 units:
- Counterflow plate exchangers have integrated pressure drop sensors, which detect accumulating ice and initiate defrosting algorithms when needed. As standard, the cold air by-pass damper is opened in case of frost, while warm extracted air heats up the exchanger. Optionally, multi-level frost prevention (FP) can be added when selecting an air handling unit with a counterflow plate heat exchanger. The function controls the segmented air damper, which performs partial defrosts, at the same time allowing 2/3 of heat exchanger still to be used for heat recovery, thus more thermal energy is saved without a significant increase in heater power.
- Rotary heat exchangers usually do not freeze, however, with high indoor humidity and extremely low outdoor temperatures, snow crystals may start blocking air flow. Thus heat exchanger efficiency fluctuations are preventively monitored and rotary wheel speed is slowed down to increase its surface temperature if efficiency is constantly decreasing in winter.
- Besides all mentioned measures, external preheater control is also available, for units that are intended to be used under harsh outdoor conditions.



FANS

VERSO series units use plug type fans that are silent and use electricity effectively. These fans are balanced statically and dynamically, based on the ISO 1940 standard; therefore, unit vibration is minimal and they meet 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, so, there is no a belt gear that simplifies maintenance.

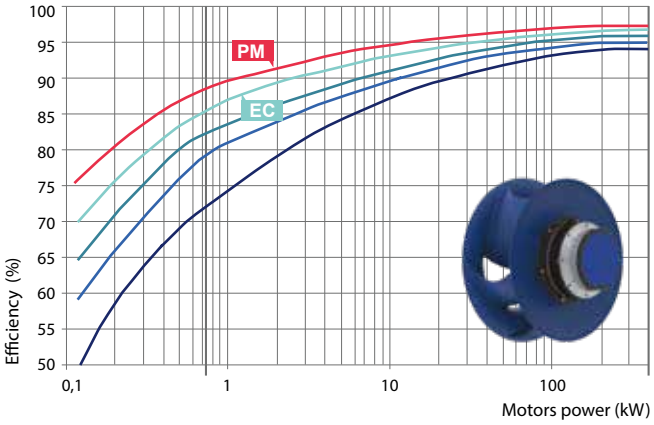
Two types of fan motors are available – three-phase permanent magnet synchronous motors (PM) (400 V, 50 Hz), controlled by frequency converters, or electronically commutated (EC) with an integrated electronic controller with 20-100 % speed regulation. Safety category – IP54 according to IEC 34-5. Windings insulation category – F.
Maximum operating temperature is 40°C. Airflow measuring device is available for installation.

Fan impellers
- The highest efficiency of the impeller with backward curved blades.
- Static efficiency up to 80 %.
- Statically and dynamically balanced in accordance with the standard ISO1940.
- Material – composite, aluminium or painted steel.

Frequency converters
- High energy efficiency – 97 %.
- Low heat dissipation.
- Specially designed algorithms for optimal PM motor control.

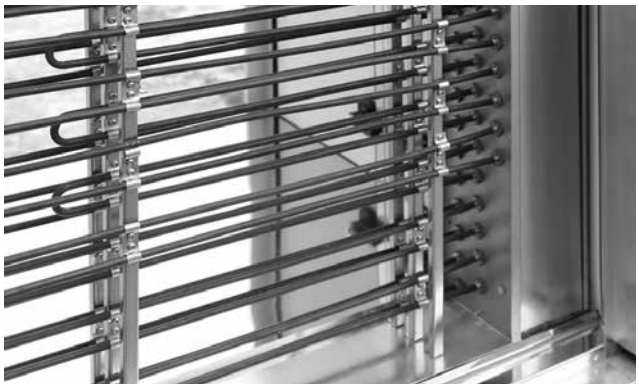
PM motors
- Highest energy efficiency – more than 93 %.
- Ultra Premium IE5 efficiency class according to IEC.
- Compact dimensions and low weight.
- Wide range of regulation while maintaining high efficiency.
- Low heat dissipation.
- Reliability and durability.
- The shortest payback time.

Motor efficiency classes according to IEC *



IEC
- IE5 Ultra Premium efficiency
- IE4 Super Premium efficiency
- IE3 Premium efficiency
- IE2 High efficiency
- IE1 Standard efficiency

* International Electrotechnical Commission



AIR HEATERS

Water air heaters
Heaters are made of copper tubes and aluminum fins (spacing 2,2; 2,6; 3,0; 3,4 mm) in galvanized steel casing insulated with a mineral wool. As an option can be ordered with a threat joint to connect a freezing sensor. Capillary antifreeze sensor can also be ordered.

- Maximum operating pressure – 21 bars.
- Maximum water temperature +130 °C.
- Heated air temperature – up to +40 °C.

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

Note: The exact dimensions of the electric air heater and other data can be found in the KOMFOVENT SELECT selection software. The electric heater has a separate power supply.

AIR COOLERS

Water air coolers
Air coolers are made of copper tubes and aluminum fins (spacing 2,2; 2,6; 3,0; 3,4 mm) in galvanized steel casing insulated with mineral wool. Cooler section is assembled with stainless steel (AISI 304) sloping drain tray and a water trap.
Maximum operating pressure – 21 bars.

Direct evaporation air coolers
DX coolers are made of copper tubes and aluminum fins (spacing 2,2; 2,6; 3,0; 3,4 mm) in galvanized steel casing insulated with a mineral wool. Cooler section is assembled with stainless steel (AISI 304) sloping drain tray and a water trap.
Maximum operating pressure – 42 bars.
Power of the DX cooler can be divided into 2; 3 or 4 steps. DX coil also can operate in heating mode.

AIR DAMPERS

Closing air dampers installed in the air handling units are produced from aluminium with rubber sealing.
Duct connecting flanges – L20.
For unit sizes 60, 70, 80 – L30; for sizes 90; 100 – L40.
Dampers are located outside the unit; they can be made with an insulated damper casing. Standard tightness Class 2 damper actuator torque – 4 Nm/m^2. Higher tightness Class 3 dampers actuator torque – 15 Nm/m^2.

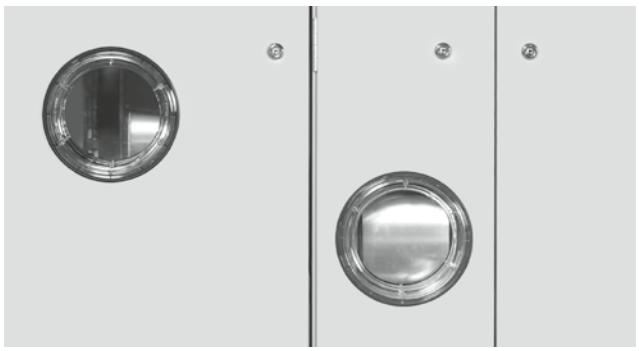
SILENCER SECTIONS

Integrated silencer sections can be ordered for VERSO air handling units, which will reduce the noise of the fans to the duct system.
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.
Sound attenuating splitters with resonating panels are mounted inside the section. Splitters are filled with special acoustic mineral stone wool and are covered by non-woven glass fiber felt certified to be inside the air duct. Mineral wool can be replaced with polyester wool in 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.

AIR FILTERS

G4 to F9 class synthetic bag filters are available. Also G4 or M5 panel type prefilter can be selected on supply air flow.
The filter clamping mechanism ensures tightness and simplifies the filter replacement procedure.
Internal pressure sensors monitor filter pressure drop in real-time and display filter impurity percentage on the user interface.
KOMFOVENT air filters correspondence to ISO 1890 standard:

Bag filters ISO 16890	**Filter class EN 779:2012**	**Filter depth, mm**
Coarse 65%	G4	360
ePM10 60%	M5	500; 635
ePM10 65%	M6	500; 635
ePM1 60%	F7	500; 635
ePM1 85%	F9	500; 635



INSPECTION WINDOW AND LIGHTING

Inspection windows and internal lightning enable you to observe the unit's operation and help perform maintenance in a poorly lit environment.
The diameter of the plastic window is 200 mm.

CASING CORROSION PROTECTION

Standard casing anti-corrosion protection class – C3.
Higher anti-corrosion protection class C4 Is also available.

OUTDOOR HOODS

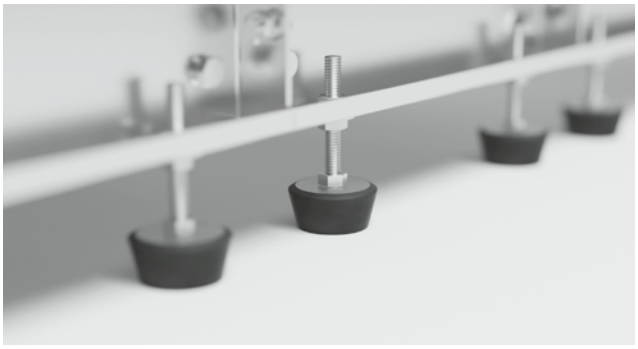
Outdoor hoods can be additionally mounted on supply and exhaust air dampers, to protect damper actuators, and to cover inlet/outlet openings when units are installed outside.

ROOF

When an outdoor air handling unit is selected it will be equipped with a specially designed roof to protect it from weather conditions.

DOOR LOCKS AND HANDLES

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

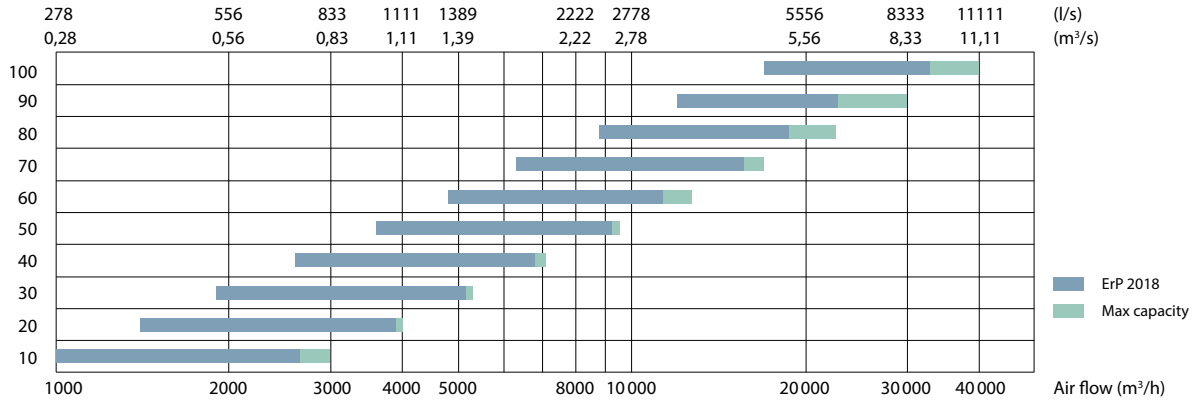


HEIGHT-ADJUSTABLE FEET

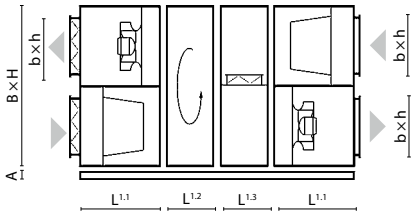
The construction frame of the air handling unit with height adjustable feet makes it much easier to level the unit on the site.

Sizes and capacities of VERSO Pro, Pro2 units

Verso R Pro

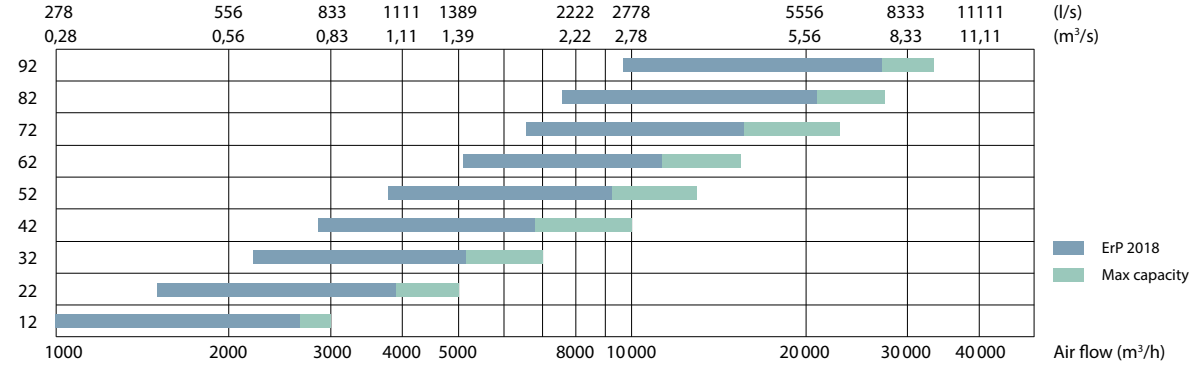


Size	B	H	$L^{1.1}$	$L^{1.2}$	$L^{1.3}$	b	h	A
10	1000	1000	618	370	435	700	300	125
20	1150	1150	751	370	435	900	400	125
30	1300	1300	751	370	435	1000	500	125
40	1500	1520	751	390	435	1200	600	125
50	1700	1715	885	390	435	1400	700	125
60	1900	1920	885	390	570	1600	800	125
70	2100	2100	885	390	705	1800	900	125
80	2300	2420	1250	510	841	2000	1000	125
90	2610	2650	1400	550	1040	2200	1100	125
100	3770	2420	1250	1400	841	3400	1000	125

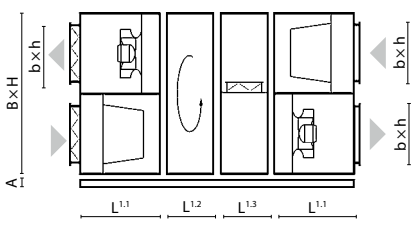


Note: electric air heater, water heater and cooler section length and configuration is noted in KOMFOVENT SELECT.

Verso R Pro2

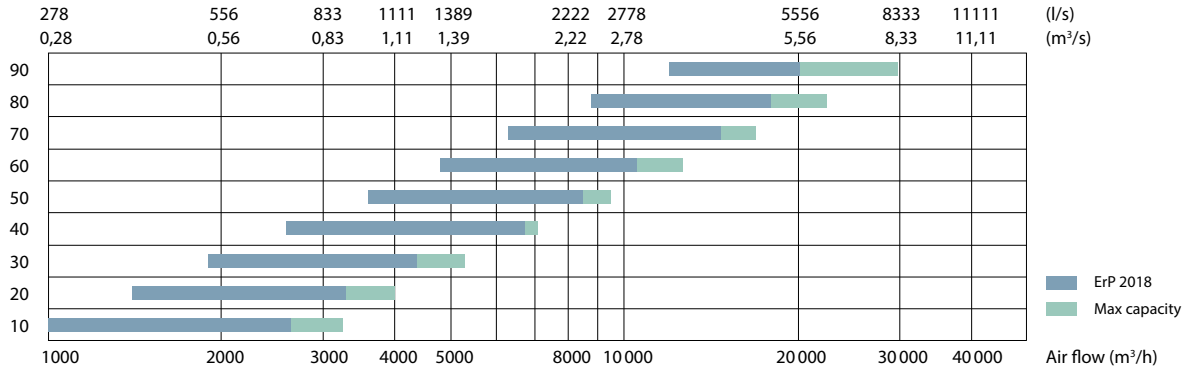


Size	B	H	$L^{1.1}$	$L^{1.2}$	$L^{1.3}$	b	h	A
12	1054	1054	751	380	515	700	300	150
22	1204	1204	751	380	515	900	400	150
32	1354	1354	751	380	515	1000	500	150
42	1554	1574	751	380	515	1200	600	150
52	1754	1769	885	380	515	1400	600	150
62	1954	1974	885	380	640	1600	700	150
72	2154	2154	885	380	765	1800	800	150
82	2360	2440	1250	500	825	2000	1000	125
92	2660	2660	1400	500	1020	2300	1100	125

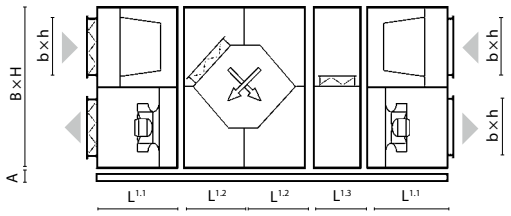


Note: electric air heater, water heater and cooler section length and configuration is noted in KOMFOVENT SELECT.

Verso CF Pro

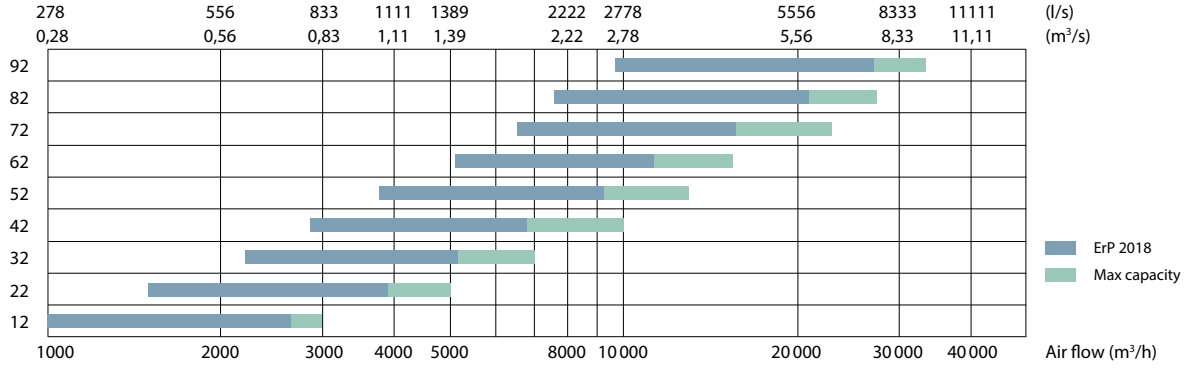


Size	B	H	$L^{1.1}$	$L^{1.2}$	$L^{1.3}$	b	h	A
10	1000	1000	618	570	435	700	300	125
20	1150	1150	751	645	435	900	400	125
30	1300	1300	751	720	435	1000	500	125
40	1500	1520	751	720	435	1200	600	125
50	1700	1715	885	720	435	1400	700	125
60	1900	1920	885	930	570	1600	800	125
70	2100	2100	885	1020	705	1800	900	125
80	2300	2420	1250	1250	841	2000	1000	125
90	2610	2650	1400	1250	1040	2200	1100	125

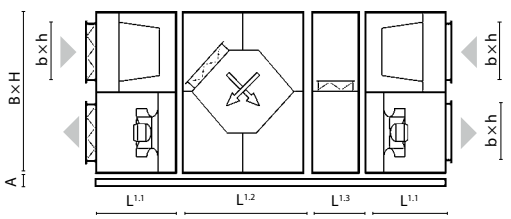


Note: size 20÷70 plate heat exchanger section is made of two parts.
Size 10, 80 and 90 – of one part. The electric air heater section length is noted in KOMFOVENT SELECT.

Verso CF Pro2

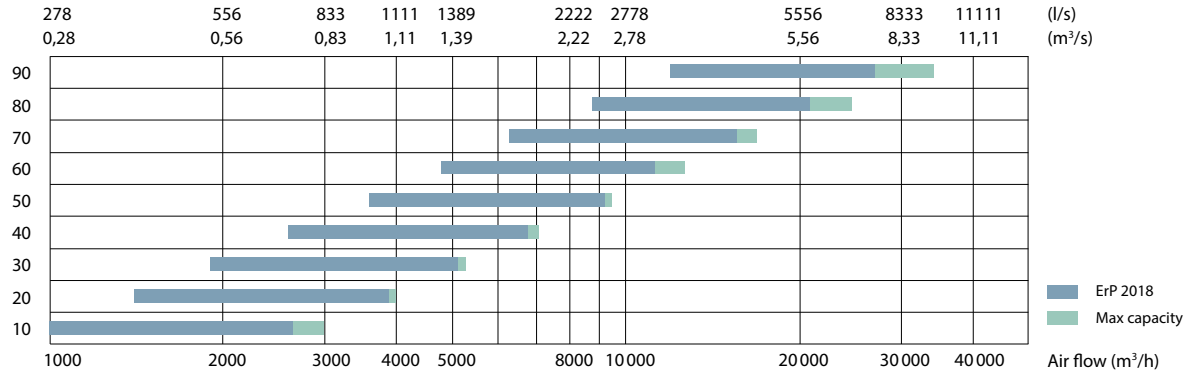


Size	B	H	$L^{1.1}$	$L^{1.2}$	$L^{1.3}$	b	h	A
12	1054	1204	751	1428	515	700	300	150
22	1204	1354	751	1548	515	900	400	150
32	1354	1574	751	1648	515	1000	500	150
42	1554	1769	751	1934	515	1200	600	150
52	1754	1974	885	2102	515	1400	600	150
62	1954	2154	885	2102	640	1600	700	150
72	2154	2154	885	2102	765	1800	800	150
82	2360	2440	1250	2770	825	2000	1000	125
92	2660	2660	1400	2770	1020	2300	1100	125

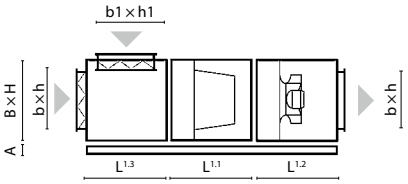


Note: if data do not correspond to data in the selection software, please refer to data shown in software.

Verso S Pro

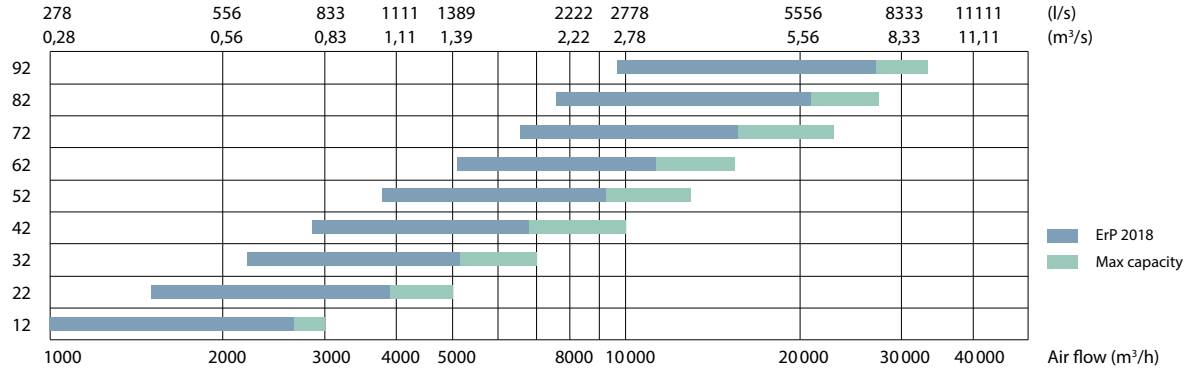


Size	B	H	L1.1	L1.2	L1.3	b	h	b1	h1	A
10	1000	490	750	705	430	900	400	700	300	125
20	1150	585	750	705	430	1100	500	1000	300	125
30	1300	660	750	705	470	1200	600	1100	400	125
40	1500	740	750	842	470	1400	700	1200	400	125
50	1700	890	750	842	470	1600	800	1400	400	125
60	1900	960	750	979	570	1800	900	1600	500	125
70	2100	1085	750	979	705	2000	1000	1800	600	125
80	2300	1235	750	1250	705	2200	1100	2000	600	125
90	2610	1350	750	1400	705	2500	1200	2200	600	125

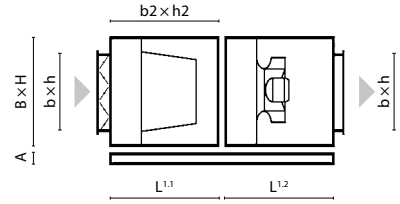


Note: the electric air heaters, water heaters and coolers section length and configuration is noted in KOMFOVENT SELECT.

Verso S Pro2

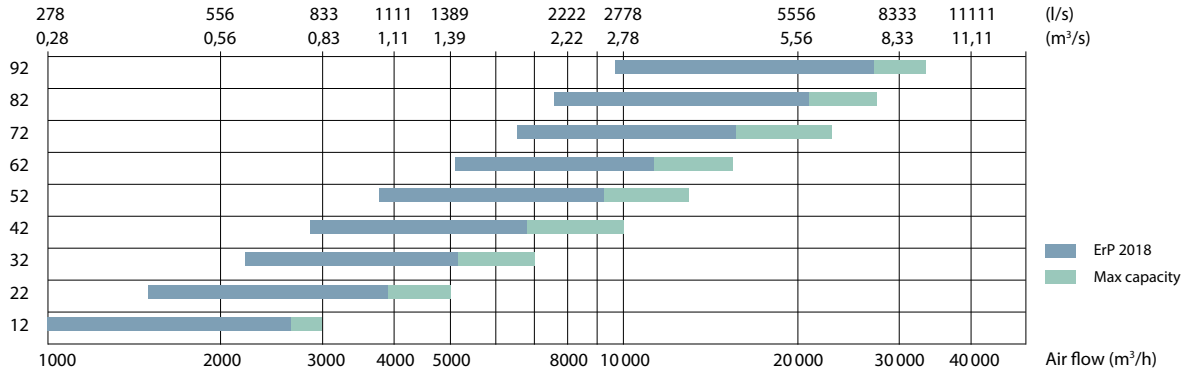


Size	B	H	L1.1	L1.2	b	h	A
12	1054	540	650	1000	700	300	150
22	1204	635	650	1000	900	400	150
32	1354	710	650	1000	1000	500	150
42	1554	790	650	1000	1200	600	150
52	1754	940	650	1000	1400	600	150
62	1954	1040	650	1000	1600	700	150
72	2154	1125	650	1000	1800	800	150
82	2360	1200	705	1250	2000	1000	125
92	2660	1400	705	1400	2300	1100	125

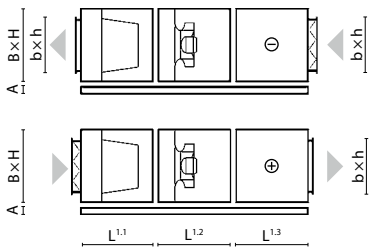


Note: the electric air heaters, water heaters and coolers section length and configuration is noted in KOMFOVENT SELECT.

Verso RA Pro2



Size	B	H	$L^{1.1}$	$L^{1.2}$	$L^{1.3}$	b	h	A
12	1054	540	650	1000	840	700	300	150
22	1204	635	650	1000	840	900	400	150
32	1354	710	650	1000	840	1000	500	150
42	1554	790	650	1000	840	1200	600	150
52	1754	940	650	1000	840	1400	600	150
62	1954	1 040	650	1000	840	1600	700	150
72	2154	1 125	650	1000	840	1800	800	150
82	2360	1200	705	1250	830	2000	1000	125
92	2660	1400	705	1400	830	2300	1100	125



Note: the electric air heaters, water heaters and coolers section length and configuration is noted in KOMFOVENT SELECT.

RHP

Complete Indoor Climate Control

komfovent

The range of innovative air handling units with integrated heat pumps, covering all indoor climate support systems

RHP Unit Range Overview

The latest and most advanced engineering and technological solutions developed and refined in the fields of heating, ventilation, and air conditioning are included in RHP range of air handling units:

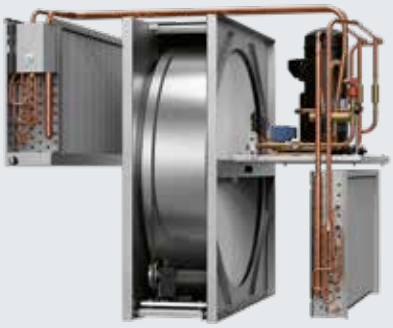
RHP Standard

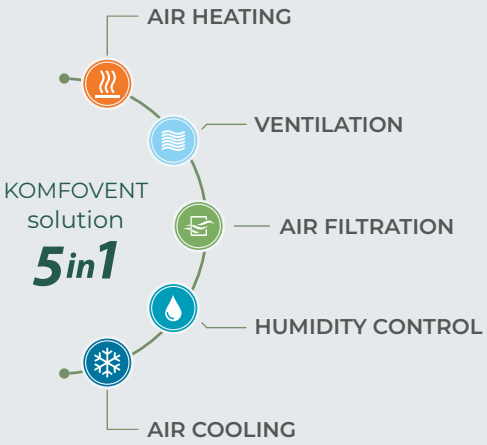
Series of compact air handling units with integrated air-to-air heat pumps, providing an efficient solution that saves installation space while ensuring a comfortable indoor climate. These units feature a reliable and convenient "Plug and Play" design, with factory-charged Eco-friendly refrigerants (R1234yf and R134A), eliminating the need for refrigeration expertise during installation or startup. This makes installation, commissioning, and operation straightforward and hassle-free.

RHP Pro
RHP Pro2

The RHP Pro and RHP Pro2 series are designed for demanding applications, offering modular ventilation units with integrated heat pumps available in various sizes and capacities. These units are versatile, making them suitable for a wide range of applications, from commercial buildings to large-scale industrial projects. Their flexibility is further enhanced by the ability to connect a variety of additional devices, such as heaters, coolers, recirculation sections, and humidifiers, ensuring they can meet diverse operational requirements.

Comfortable indoor climate





Two-stage heat / cool recovery
To reach the maximum efficiency Komfovent RHP units are designed to recover the energy in two steps:

1st step **recovery up to 80 %**
by sorption-enthalpy rotary heat exchanger

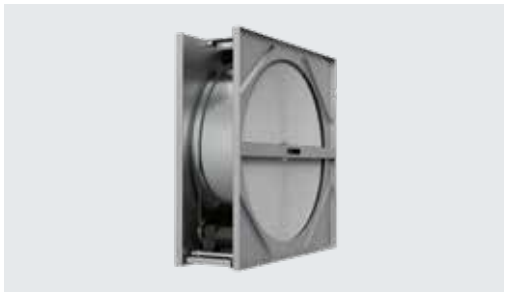
2nd step **recovery up to 60 %**
by reversible heat pump

Operation range

Wide possibilities with RHP:
- Unit monitoring and management through the Internet and BMS.
- Extremely high energy efficiency.
- Simple designing, installing, operation and maintenance.
- Shortest payback time.
- Unified smart control, simplified management.
- No outdoor unit, no refrigeration specialists required.

Integrated control system C5
Automatic system designed for professionals, controls thermodynamic processes and saves energy.
The user is given detailed information about the operation of the unit. Variety of modes and functions allows the user to choose the optimal operating mode that maximizes energy saving.

RHP Standard range review



Sorption-enthalpy rotary heat exchanger

- Sorption-enthalpy rotary heat exchanger controls the humidity in the premises more efficiently than a condensing rotor.
- The humidity from the exhaust air is used to humidify the supply air in winter.
- Humid air taken from outdoors in the summertime is dried before supplying into the rooms.
- High comfort is ensured all year long.

Inverter compressor and electronic expansion valve

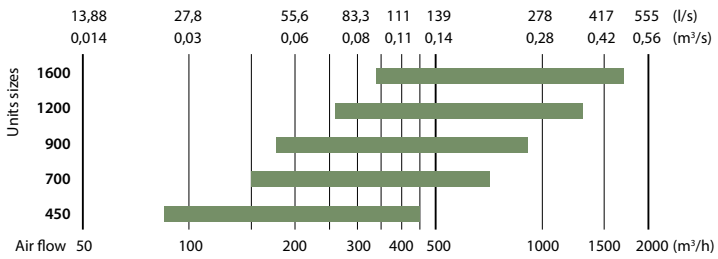
Efficient and quiet operation of the heat pump is achieved through the latest generation of double-rotor inverter compressors and an electronic expansion valve, ensuring optimal performance across the unit's entire airflow range.

Compact units for space-saving installation

- Monoblock units are fully prepared for operation.
- Available in vertical or universal duct connection orientations.
- Mounting legs included.
- "Clean" building exterior – no outdoor unit is needed.

[1] Rotary heat exchanger + heat pump at -7 °C outdoor temperature.

Sizes and capacities of RHP Standard units



KK-25-06

RHP 450 V C5

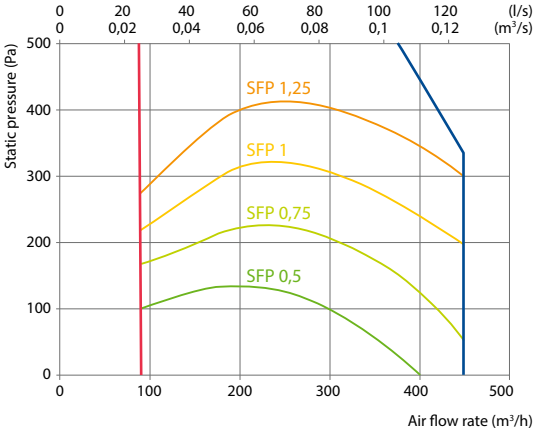
NEW

Nominal air flow, m³/h	450
Nominal air flow, l/s	125
Electric air heater capacity, kW / Δt, °C	1/6,5
Supply voltage, V	1~230
Maximal operating current, A	10,8
Power supply cable, mm²	3×1,5
Electric power input of the fan drive at maximum flow rate, W	116
Noise power level, L_{WA}, dB(A)	52
Noise pressure level, L_{PA}, dB(A) (3 m)	42
Filters dimensions B×H×L, mm	540×185×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	645×1050×830
Panel thickness, mm	45
Maintenance space, mm	700
Refrigerant R1234YF, kg	0,6
Unit weight, kg	121

EXV BLDC

Performance

Unit with standard equipment



Temperature efficiency

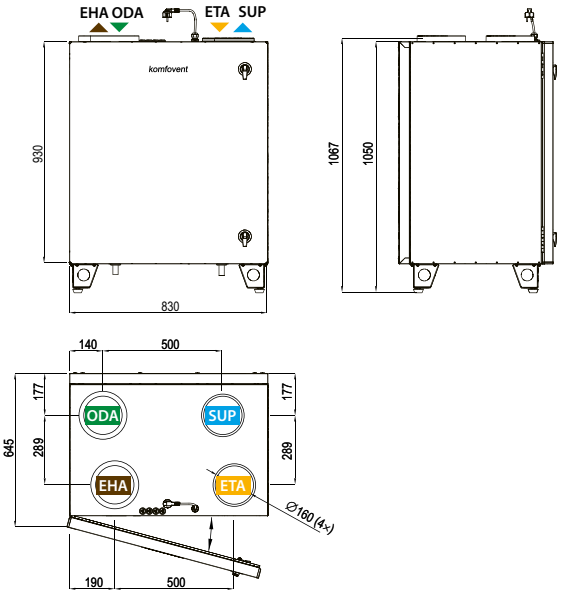
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,5	15	16	16,9	17,9	22,6	23,5	24,4

Indoor +22°C, 20 % RH

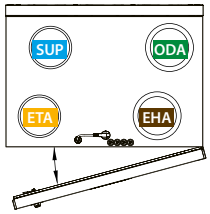
Accessories

Closing damper		AGUJ-M-160+LF24/CM24
Silencer	ODA/EHA	AGS-160-50-600-M
	SUP/ETA	AGS-160-50-900-M

Shown as right (R1)

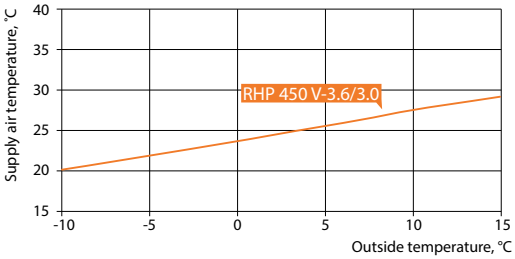


Shown as left (L1)



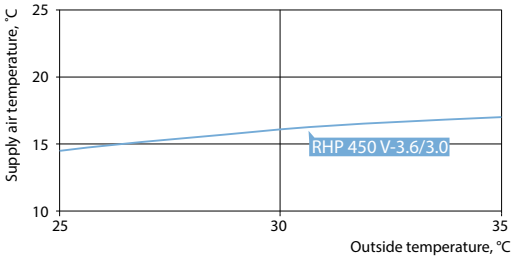
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Heating mode



Application: 20°C, RH 45% indoor.

Cooling mode



Application: 24°C, RH 55% indoor.
Total (heating and cooling) – rotary heat recovery + heat pump.

Heat pump parameters

	RHP 450 V-3.6/3.0				
	Heating			Cooling	
Outdoor temperature, °C	7	2	-7	35	27
Outdoor air related humidity, %	86	84	74	40	45
Indoor air temperature, °C		20		27	21
Indoor air related humidity, %	50	50	45	40	50
Supply air temperature, °C	30,6	28,3	24,8	17,3	12,2
Heat pump heating/cooling power, kW	1,99	1,79	1,51	1,92	1,9
Heat pump heating/cooling power consumption, kW	0,51	0,46	0,4	0,66	0,56
System SCOP [1,2,3], Average climate / System SEER [1,2,3]		8,15		3,97	
COP/EER	3,91	3,91	3,76	2,89	3,41

[1] Rotary heat exchanger wave size "ML"
[2] Rotary heat exchanger + heat pump
[3] According to EN 14825 standard

RHP 700 V C5

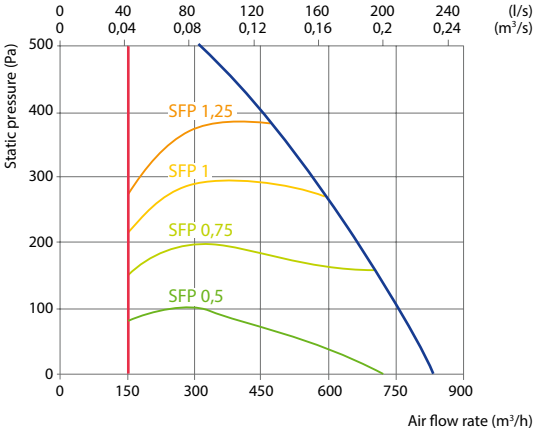
NEW

Nominal air flow, m³/h	720
Nominal air flow, l/s	200
Electric air heater capacity, kW / Δt, °C	1,5 / 5,8
Supply voltage, V	1~230
Maximal operating current, A	14,1
Power supply cable, mm²	3×1,5
Electric power input of the fan drive at maximum flow rate, W	154
Noise power level, L_{WA}, dB(A)	53
Noise pressure level, L_{PA}, dB(A) (3 m)	42
Filters dimensions B×H×L, mm	640×260×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	745×1220×1000
Panel thickness, mm	45
Maintenance space, mm	1020
Refrigerant R1234YF, kg	1,1
Unit weight, kg	150

EXV BLDC C5.1

Performance

Unit with standard equipment

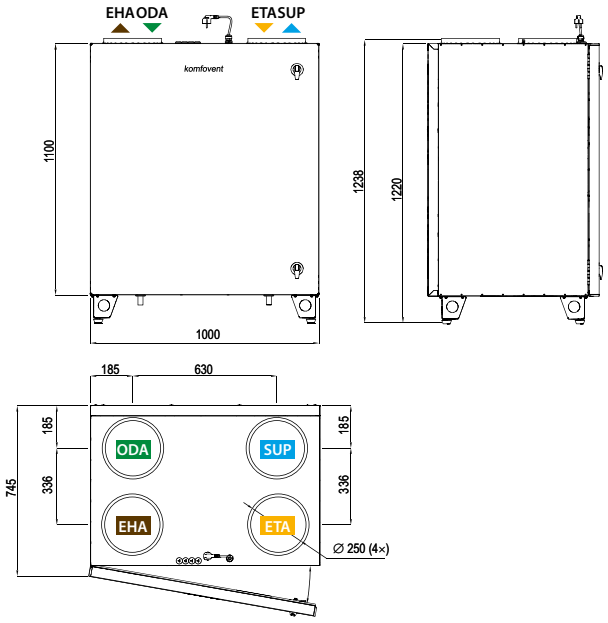


Temperature efficiency

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

Indoor +22°C, 20 % RH

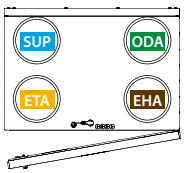
Shown as right (R1)



Accessories

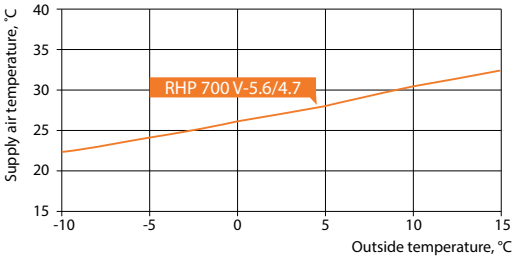
Closing damper		AGUJ-M-250+LF24/CM24
Silencer	ODA/EHA	AGS-250-50-600-M
	SUP/ETA	AGS-250-50-900-M

Shown as left (L1)



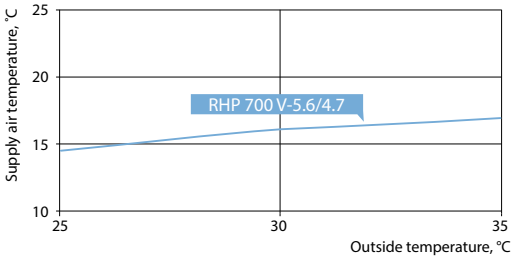
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Heating mode



Application: 20°C, RH 45% indoor.

Cooling mode



Application: 24°C, RH 55% indoor.
Total (heating and cooling) – rotary heat recovery + heat pump.

Heat pump parameters

	RHP 700 V 5.6/4.7				
	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	29,7	27,7	24,4	16,2	11,3
Heat pump heating/cooling power, kW	2,93	2,66	2,23	3,07	2,9
Heat pump heating/cooling power consumption, kW	0,54	0,5	0,45	0,82	0,67
System SCOP [1,2,3], Average climate / System SEER [1,2,3]		9,18		4,95	
COP/EER	5,46	5,31	5	3,74	4,36

[1] Rotary heat exchanger wave size "ML"
[2] Rotary heat exchanger + heat pump
[3] According to EN 14825 standard

RHP 900 V C5

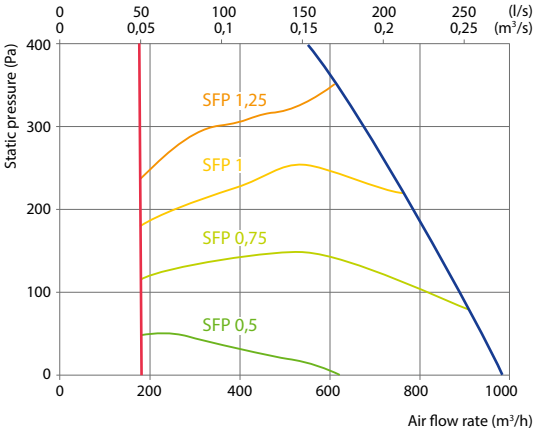
NEW

Nominal air flow, m³/h	889
Nominal air flow, l/s	247
Electric air heater capacity, kW / Δt, °C	2 / 6,2
Supply voltage, V	3~400
Maximal operating current, A	8,7
Power supply cable, mm²	5x1,5
Electric power input of the fan drive at maximum flow rate, W	200
Noise power level, L_{WA}, dB(A)	48
Noise pressure level, L_{PA}, dB(A) (3 m)	39
Filters dimensions B×H×L, mm	695×330×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	800×1300×1070
Panel thickness, mm	45
Maintenance space, mm	1100
Refrigerant R1234YF, kg	1,2
Unit weight, kg	195

EXV BLDC C5.1

Performance

Unit with standard equipment



Temperature efficiency

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

Indoor +22°C, 20 % RH

Accessories

Closing damper		AGUJ-250+TF24/CM24
Silencer	ODA/EHA	ASTS-250-600-M
	SUP/ETA	AGS-250-100-900-M

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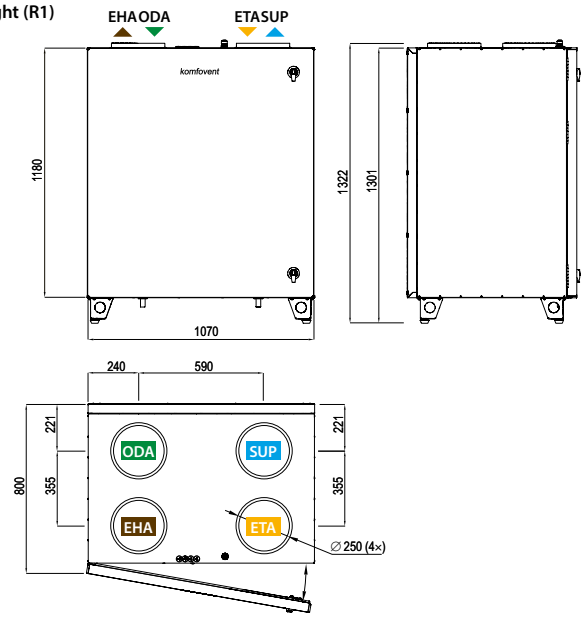

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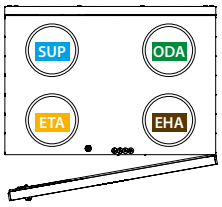
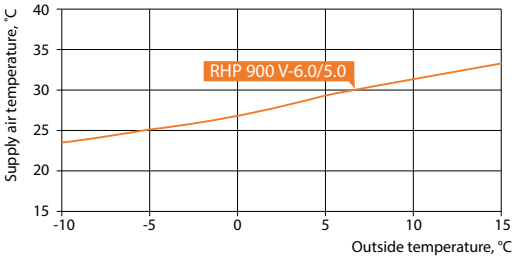


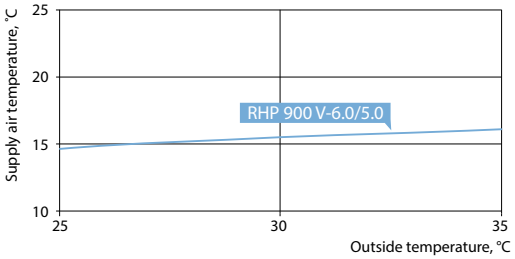
ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Heating mode



Application: 20°C, RH 45% indoor.

Cooling mode



Application: 24°C, RH 55% indoor.
Total (heating and cooling) – rotary heat recovery + heat pump.

Heat pump parameters

	RHP 900 V 6.0/5.0				
	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	27,6	26	22,7	17,5	12,5
Heat pump heating/cooling power, kW	2,98	2,65	2,23	3,28	3,02
Heat pump heating/cooling power consumption, kW	0,49	0,45	0,4	0,75	0,6
System SCOP [1,2,3], Average climate / System SEER [1,2,3]		9,61		5,47	
COP/EER	6,12	5,88	5,53	4,38	5,06

[1] Rotary heat exchanger wave size "ML"
[2] Rotary heat exchanger + heat pump
[3] According to EN 14825 standard

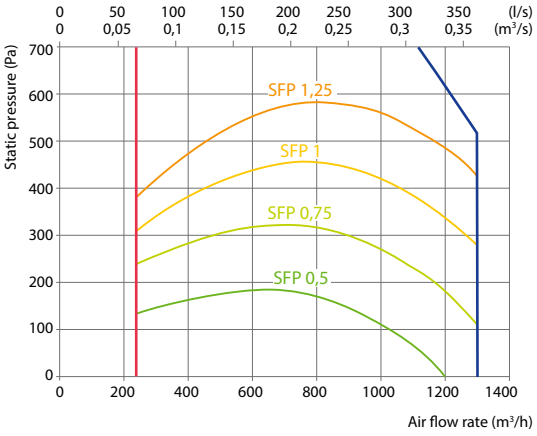
RHP 1200 U C5

Nominal air flow, m³/h	1300
Nominal air flow, l/s	361
Electric air heater capacity, kW / Δt, °C	3 / 6,7
Supply voltage, V	3~400
Maximal operating current, A	12,2
Power supply cable, mm²	5×2,5
Electric power input of the fan drive at maximum flow rate, W	295
Noise power level, L_{WA}, dB(A)	51
Noise pressure level, L_{PA}, dB(A) (3 m)	41
Filters dimensions B×H×L, mm	805×400×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	905×905×1505
Panel thickness, mm	45
Maintenance space, mm	850
Refrigerant R134A, kg	3,4
Unit weight, kg	270

EXV BLDC C5.1

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

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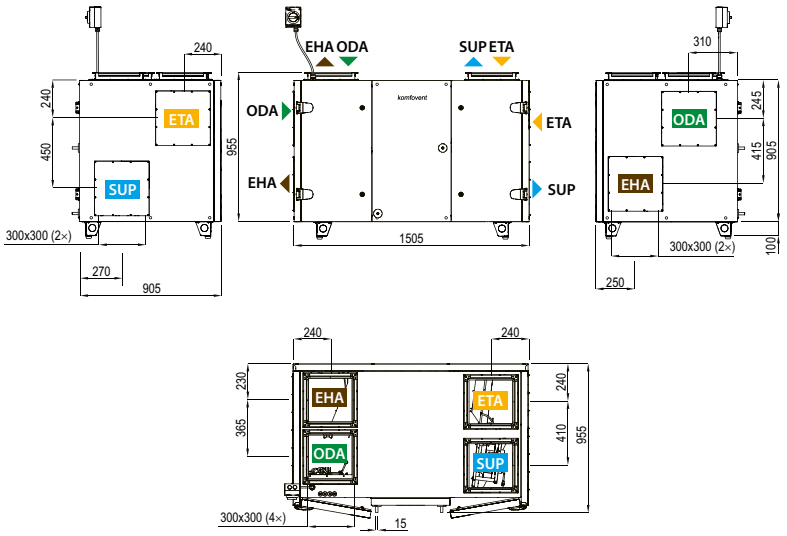

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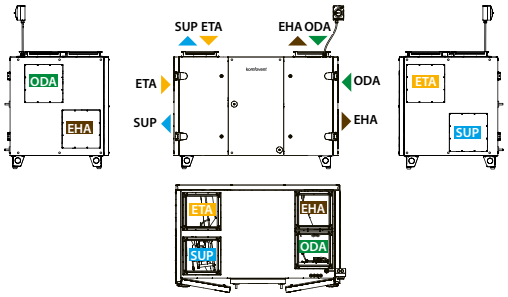
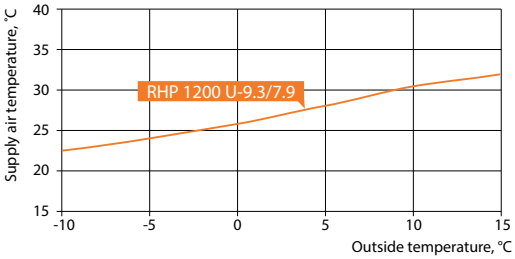


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Accessories

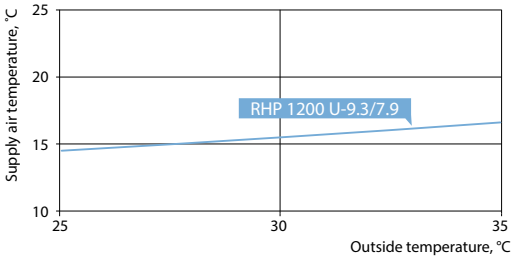
Closing damper		SRU-M-300x300+LF24/CM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M

Heating mode



Application: 20°C, RH 45% indoor.

Cooling mode



Application: 24°C, RH 55% indoor.
Total (heating and cooling) – rotary heat recovery + heat pump.

Heat pump parameters

	RHP 1200 U 9.3/7.9				
	Heating			Cooling	
Outdoor temperature, °C	7	2	-7	35	27
Outdoor air related humidity, %	86	84	74	40	45
Indoor air temperature, °C		20		27	21
Indoor air related humidity, %	50	50	45	40	50
Supply air temperature, °C	29	27,1	23,9	17	12
Heat pump heating/cooling power, kW	4,97	4,48	3,77	5,21	5,07
Heat pump heating/cooling power consumption, kW	0,93	0,87	0,79	1,48	1,24
System SCOP [1,2,3], Average climate / System SEER [1,2,3]		10,45		4,08	
COP/EER	5,32	5,18	4,8	3,53	4,09

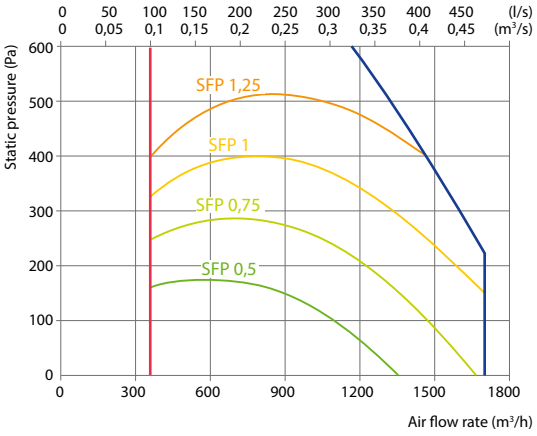
[1] Rotary heat exchanger wave size "ML"
[2] Rotary heat exchanger + heat pump
[3] According to EN 14825 standard

RHP 1600 U C5

Nominal air flow, m^3/h	1700
Nominal air flow, l/s	472
Electric air heater capacity, kW / Δt, °C	3 / 5,2
Supply voltage, V	3~400
Maximal operating current, A	12,2
Power supply cable, mm^2	5×2,5
Electric power input of the fan drive at maximum flow rate, W	393
Noise power level, L_{WA}, dB(A)	50
Noise pressure level, L_{PA}, dB(A) (3 m)	41
Filters dimensions B×H×L, mm	805×400×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	905×905×1505
Panel thickness, mm	45
Maintenance space, mm	850
Refrigerant R134A, kg	3,4
Unit weight, kg	270

Performance

Unit with standard equipment

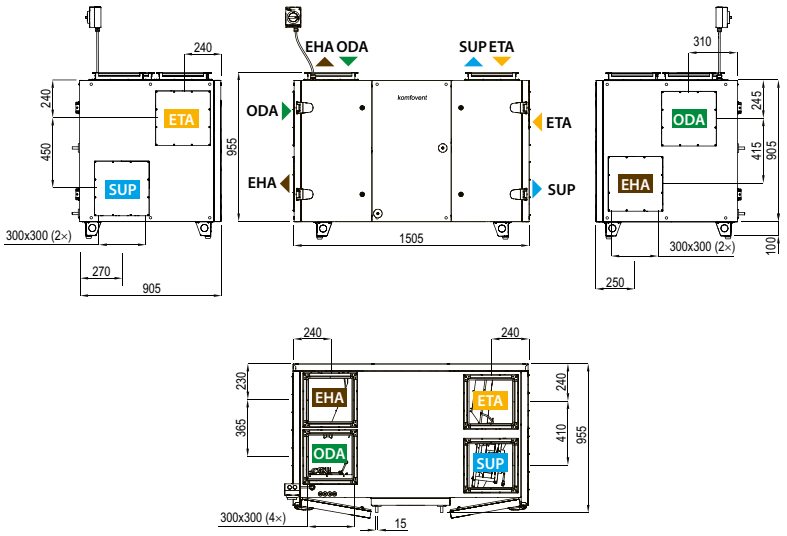


Temperature efficiency

	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,4	14,9	15,9	16,8	17,8	22,6	23,5	24,5

Indoor +22°C, 20 % RH

Shown as right (R1)



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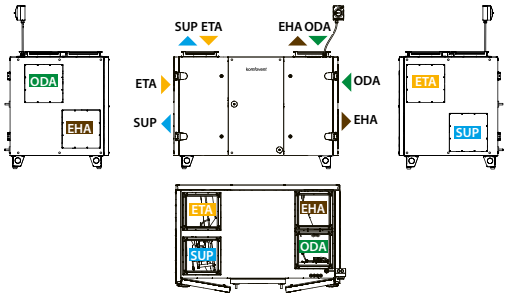
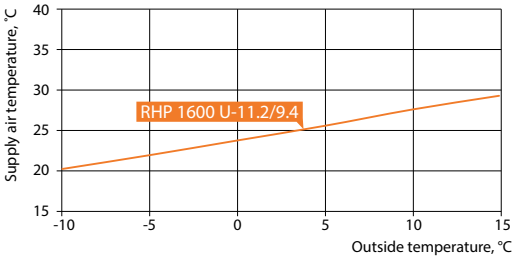


ODA – outdoor intake **SUP** – supply air **ETA** – extract indoor **EHA** – exhaust air

Accessories

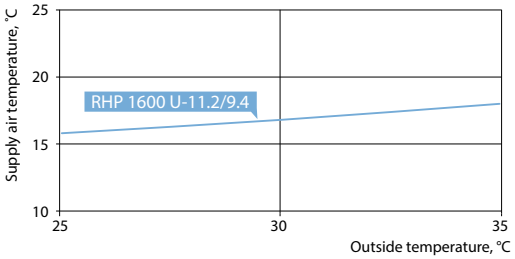
Closing damper		SRU-M-300x300+LF24/CM24
Silencer	ODA/EHA	AGS-315-100-900-M
	SUP/ETA	AGS-315-100-1200-M

Heating mode



Application: 20°C, RH 45% indoor.

Cooling mode



Application: 24°C, RH 55% indoor.
Total (heating and cooling) – rotary heat recovery + heat pump.

Heat pump parameters

	RHP 1600 U 11.2/9.4				
	Heating			Cooling	
Outdoor temperature, °C	7	2	-7	35	27
Outdoor air related humidity, %	86	84	74	40	45
Indoor air temperature, °C		20		27	21
Indoor air related humidity, %	50	50	45	40	50
Supply air temperature, °C	26,3	24,7	21,5	18,9	13,4
Heat pump heating/cooling power, kW	5,06	4,67	3,81	5,64	5,42
Heat pump heating/cooling power consumption, kW	0,84	0,82	0,71	1,41	1,15
System SCOP [1,2,3], Average climate / System SEER [1,2,3]		11,9		4,1	
COP/EER	6	5,73	5,41	3,99	4,7

[1] Rotary heat exchanger wave size "ML"
[2] Rotary heat exchanger + heat pump
[3] According to EN 14825 standard

RHP Pro
RHP Pro2

Advantages of RHP Pro / Pro2 units

"Plug and Play" solution
Factory-charged with refrigerant and fully tested on cooling/heating modes before shipping. No need for a refrigeration specialist for installation and commissioning works.

Inverter compressors
Energy-efficient and silent inverter compressors enable accurate regulation and maintenance of supply air temperature.

Sorption-enthalpy rotary heat exchanger
In RHP units sorption-enthalpy rotary regenerators with special 3Å zeolite coating are used, because of their hygroscopic selective features ensure good heat and humidity exchange, so the RHP units maintain an optimum indoor climate with minimal energy consumption.

Electronic expansion valve
For power adjustment of the integrated heat pump use an electronic EXV (electronic expansion valve), which ensures a stable supply air temperature and allows a wide range of regulation of device performance and heating/cooling capacity.

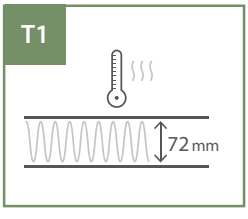
Air filters
All units are equipped with large surface area air filters with low pressure loss, saving energy and reducing replacement quantity.

PM/EC fan motors
In RHP Pro units PM (permanent magnet) and EC (electronically commutated) fan motors are used, the most efficient on the market, conforming to Ultra Premium IE5 or Super Premium IE4 efficiency class.

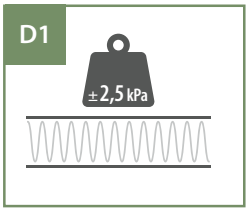
RHP Pro/RHP Pro2 casing – superior performance

Thermal bridging

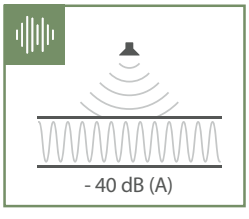
Leakage



Thermal transmittance



Mechanical strength

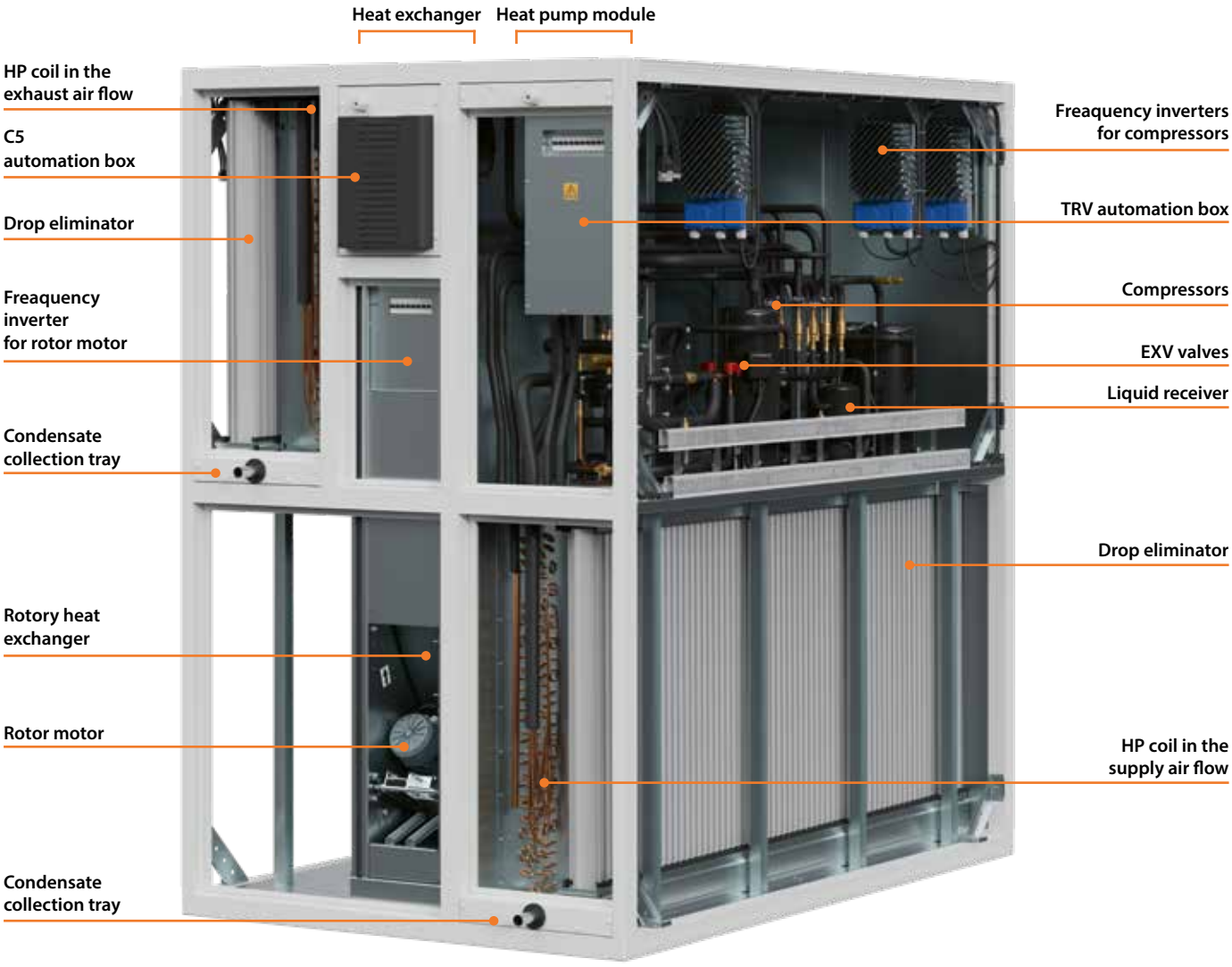


Casing sound insulation

Unit size	RHP Pro								VERSO Pro2							
	RHP Pro 10-70				RHP Pro 80-100				RHP Pro 12-72				RHP Pro 82-102			
Casing name	Standart5				Standart2				Standart6				Standart2 TB			
Thermal transmittance class	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4
Thermal bridging factor class	TB1	TB2	TB3	TB4	TB1	TB2	TB3	TB4	TB1	TB2	TB3	TB4	TB1	TB2	TB3	TB4
Casing air leakage	L1	L2	L3	–	L1	L2	L3	–	L1	L2	L3	–	L1	L2	L3	–
Casing strenght class	D1	D2	D3	–	D1	D2	D3	–	D1	D2	D3	–	D1	D2	D3	–

RHP Pro2

Units with integrated heat pump

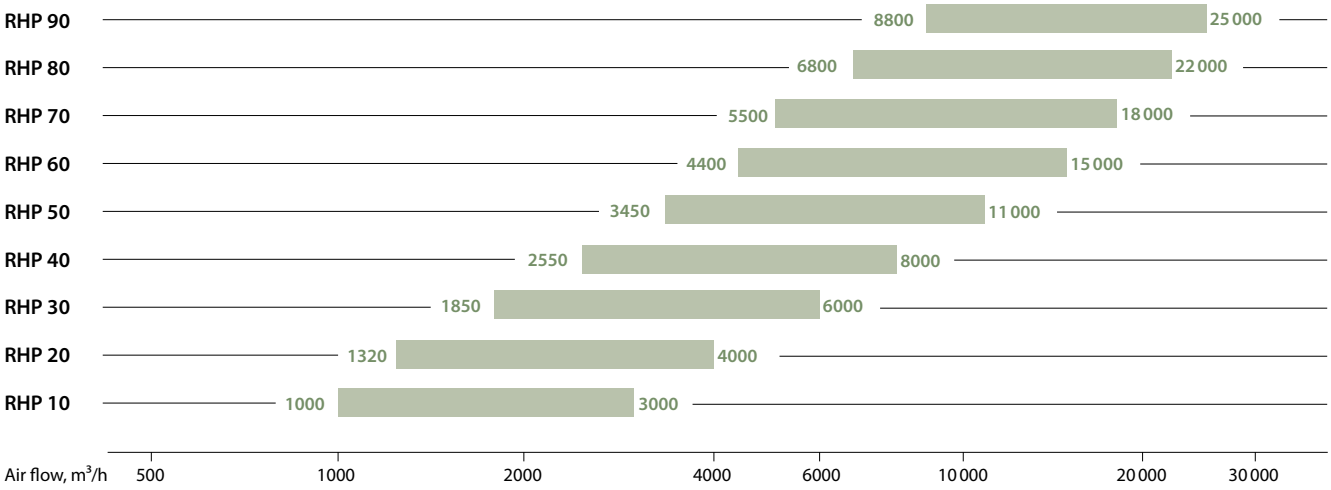


KK-25-06

RHP Pro

for larger area premises and required air flows
from **1000** m³/h to **25 000** m³/h

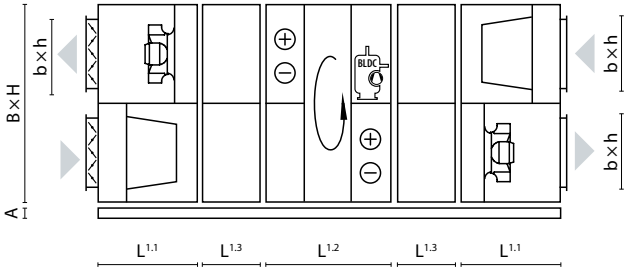
Air flow



Outdoor		Indoor	Size	RHP 10	RHP 20	RHP 30	RHP 40	RHP 50	RHP 60	RHP 70	RHP 80	RHP 90
Conditions according to EN 14511			Max air flow, m³/h	3000	4000	6000	8000	11000	15000	18000	22000	25000
			Min air flow, m³/h	1000	1320	1850	2550	3450	4400	5500	6800	8800
Heating mode *												
T, °C	-7	20	Total heating capacity, kW	34	48	68	96	123	161	197	234	277
RH, %	90	40	Supply temperature, °C	24	24	24	24	24	24	24	24	24
			Nominal compressor power consumption, kW	2,8	3,9	4,6	8,2	7,4	7,7	10,5	13,3	16,2
			System COP, kW/kW	9,7	10,4	12,8	10,8	15,1	19,2	17,4	16,7	16,3
Cooling mode *												
T, °C	35	27	Total cooling capacity, kW	18	26	50	54	73	93	115	127	154
RH, %	40	50	Supply temperature, °C	20	20	20	20	20	20	20	20	20
			Nominal compressor power consumption, kW	2,7	3,9	7,2	8,8	11,4	12,1	16,2	18,2	23,3
			System EER, kW/kW	5,3	5,5	6,3	5,6	6,0	7,2	6,8	6,7	6,4

* L rotary heat exchanger + heat pump

Size	B	H	$L^{1.1}$	$L^{1.2}$	$L^{1.3}$	b	h	A
RHP 10	1000	1000	618	900	250	700	300	125
RHP 20	1150	1150	751	900	250	900	400	125
RHP 30	1300	1300	751	900	250	1000	500	125
RHP 40	1500	1520	751	900	250	1200	600	125
RHP 50	1700	1715	885	900	250	1400	700	125
RHP 60	1900	1920	885	900	250	1600	800	125
RHP 70	2100	2100	885	900	250	1800	900	125
RHP 80	2300	2420	1250	1500	–	2000	1000	125
RHP 90	2610	2650	1400	1500	–	2200	1100	125

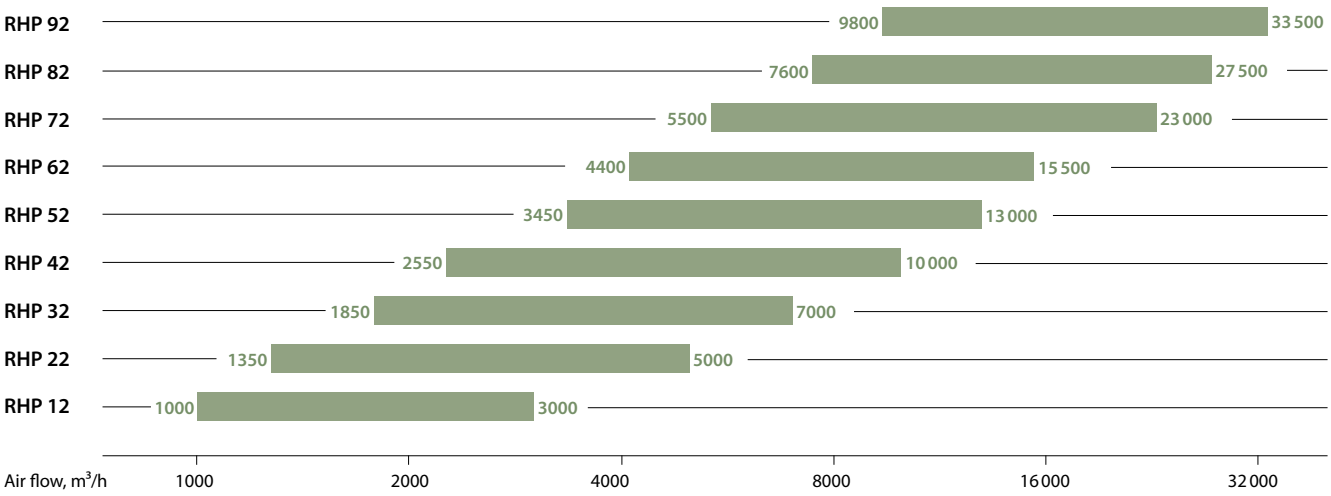


komfovent

RHP Pro2

for larger area premises and higher heating / cooling capacity from **1000** m³/h to **33 500** m³/h

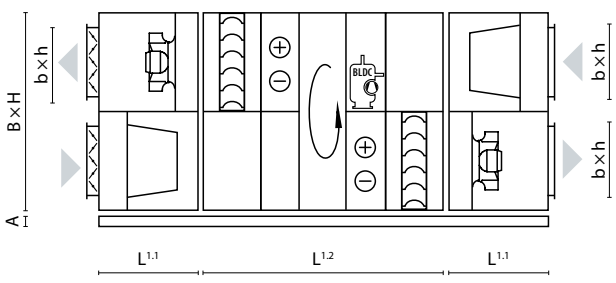
Air flow



Outdoor		Indoor	Size	RHP 12	RHP 22	RHP 32	RHP 42	RHP 52	RHP 62	RHP 72	RHP 82	RHP 92
Conditions according to EN 14511			Max air flow, m³/h	3000	5000	7000	10000	13000	15500	23000	27500	33500
			Min air flow, m³/h	1000	1350	1850	2550	3450	4400	5500	7600	9800
Heating mode*												
T, °C	-7	20	Total heating capacity, kW	36	59	80	118	149	178	258	301	375
RH, %	90	40	Supply temperature, °C	24	21,8	20,7	21,8	20,7	20,8	20	21,2	21,5
			Nominal compressor power consumption, kW	2,4	3,8	4,5	7,7	8,3	9,1	14,2	21,2	24,7
			System COP, kW/kW	11,7	12,9	15,2	14,0	16,4	18,0	17,6	14,2	14,9
Cooling mode*												
T, °C	35	27	Total cooling capacity, kW	21	36	50	72	93	110	166	217	260
RH, %	40	50	Supply temperature, °C	20	20	20,1	20	20	20,2	20	19,8	19,3
			Nominal compressor power consumption, kW	2,4	4,2	7,2	8,8	11,8	13,3	22,6	25,7	30,5
			System EER, kW/kW	7,3	7,2	6,3	7,6	7,4	7,9	7,2	8,26	8,38

* ML rotary heat exchanger + heat pump

Size	B	H	$L^{1.1}$	$L^{1.2}$	b	h	A
RHP 12	1054	1054	751	1450	700	300	150
RHP 22	1204	1204	751	1450	900	400	150
RHP 32	1354	1354	751	1450	1000	500	150
RHP 42	1554	1574	751	1450	1200	600	150
RHP 52	1754	1769	885	1450	1400	600	150
RHP 62	1954	1974	885	1450	1600	700	150
RHP 72	2154	2154	885	1450	1800	800	150
RHP 82	2360	2440	1250	1500	2000	1000	125
RHP 92	2660	2660	1400	1500	2300	1100	125



KK-25-06

KLASIK

Unique Custom-made Solutions

komfovent

The series of unique ventilation units: non-standard dimensions, hygienic and medical applications, a wide selection of internal components and many other complex solutions

KLASIK range review

The widest range of options
KLASIK selection software offers the widest range of options – equipment dimensions, design solutions, heat exchanger technical parameters, fans and other elements are also presented there.

Energy saving components
Units can be equipped with efficient components – a non-freezing condensing or sorption-enthalpy rotary heat exchanger, a counterflow plate heat exchanger, run-around coils, Super Premium IE4 class EC fans or Ultra Premium IE5 class PM fans.

Conformity with international standards
All KLASIK units are designed and made according to EN (EN 13053, EN 13779, EN 1886), VDI (VDI 6022, VDI 3803/1), RLT (RLT 01) standards.

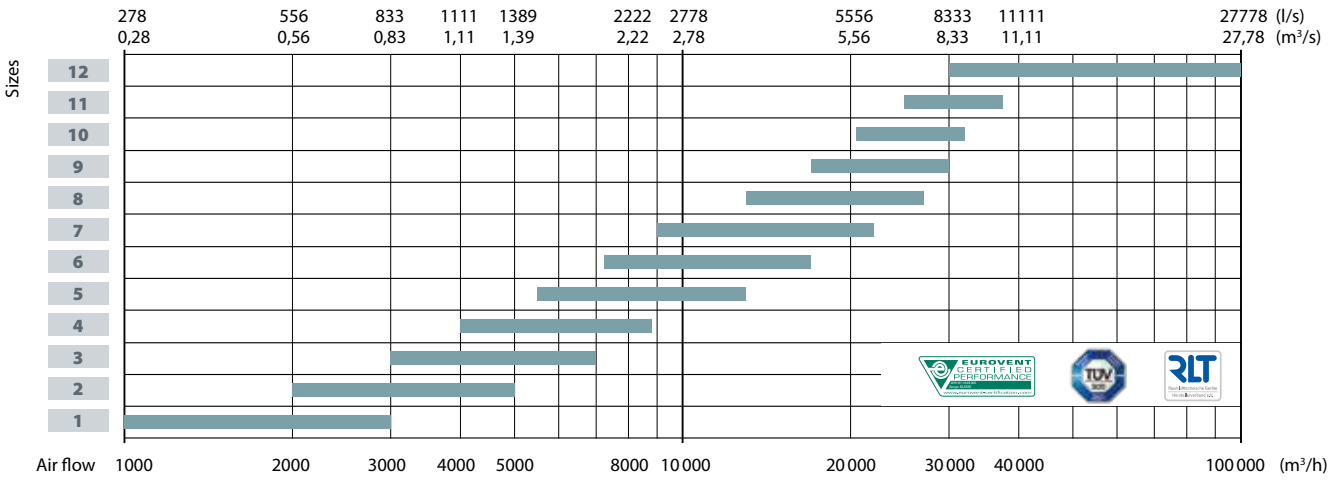
Modular or monoblock construction
KLASIK units consist of modules, as a result the transportation and installation of the unit is facilitated. Non-standard dimensions units and monoblocks are produced on request.

Quality certificates
KLASIK selection software and units are tested in the largest independent laboratories: Eurovent, TÜV, RLT.

C5 Control system
KLASIK air handling units can be ordered with an integrated and factory preset and tested C5 control system or only an automation box, which is installed on site. Automatic system C5 is designed for all thermodynamic processes (heating, cooling, ventilation, humidification, etc.) and has many safety and energy saving functions (CAV, VAV, DCV, timers, control according to temperature, humidity, CO_2 or air quality sensors).

Selection software
KLASIK air handling unit software is designed to select the most sophisticated units with specific requirements. The widest selection of components is available: heat exchangers – rotary, plate cross and counter-flow, run around; heaters – electric, water, DX and gas, coolers – water, DX and adiabatic. Unit dimensions and other technical characteristics can be precisely adjusted according to project requirements.

Sizes and capacities of KLASIK units



Unit types

MONOBLOCK

Monoblock units are ordered when a fully assembled KLASIK unit is needed, designed for convenient transportation and simple installation.

MODULAR

Modular construction of KLASIK units allows it to be carried through narrow openings and installed in tight rooms.

Klasik R

Air handling units with a rotary heat exchanger.
Temperature efficiency and energy saving up to 86 %.
On request, a low profile unit with two parallel rotors can be manufactured.

Klasik CF

Air handling units with a counterflow plate heat exchanger. Temperature efficiency and energy saving up to 92 % in wet conditions and up to 88 % in dry conditions.
Upon request, it is possible to manufacture a low profile with fan / filters sections located side by side.

Klasik S

Supply or exhaust air handling unit without heat recovery. On request, explosion-, corrosion- or high-temperature-resistant units can be ordered.

Klasik RA

Air handling units with run-around coil heat exchanger.

Purpose

Ventilation units with separate air flow heat exchangers are used in cases where there must be 100 % of supply and extract air flow separation:

- the extracted air is technologically contaminated with an aggressive, pungent odour or poisonous substances;
- the risk of biological contamination (medical institutions);
- high temperature of extract air.

Advantages

- The supply and extract air sections can be separated from each other.
- Compact size.
- The heat exchanger can be integrated into existing supply – extract ventilation system.

Specialized pipework package units LCHX for run around coil heat exchangers

- Depending on the operating conditions, the unit is filled with the corresponding concentration of ethylene glycol solution.
- Unit control signal 0 ... 10 V.

Maximum performance of the LCHX units

DN (mm)	Liquid flow (m^3/h)
20	1,8
25	3,6
32	6,8
40	11
50	18
65	25

KLASIK units for hygienic and medical application

Purpose
Hygienic ventilation units are designed for premises where sterile conditions are mandatory – such as hospitals, clinics, medical or pharmaceutical facilities, clean rooms, etc.

RLT01 general requirements for hygienic application units

General requirements	Mechanical performance	Performance data	Hygiene requirements
EN 13053 EN 16798-3 VDI 3803-1 RLT 01	EN 13053 DIN 1751 EN 13501-1 RLT 01	EN 13053 EN 16798-3 VDI 3803-5 RLT 01	EN 13053 VDI 6022-1 DIN 1946-4 RLT 01

Casing
- Double-sealed panels filled with insulating material.
- Insulation class A1 or A2-s1 d0.
- All materials used are durable, with no accumulated humidity that might provide a supportive medium for microorganisms reproduction.
- Interior surfaces are smooth, without adsorption properties. No porous materials are used.
- Requirements for the unit casing according to the requirements of medical standard DIN 1946-4:
  - mechanical resistance not less than D2 class.
  - tightness is not worse than class L2.
  - filter bypass leakage: max. 0,5 % of the nominal air flow rate (class PM1/≥80);
  - thermal conductivity is not higher than T2.
  - cold bridges are no worse than TB2.

Heat exchangers
- The system for supplying and discharging air should be recuperated, except where there is not enough room for it or the payback time is too long.
- Depending on the quality of the exhaust air quality, such types of heat exchangers are recommended: ETA2 – rotary or plate with overpressure; ETA3 – rotary or plate with overpressure; ETA4 – Separate Flow (Run Around coil) or Heat Pipe.
- A stainless steel or aluminium condensate tray is designed. Rotary heat exchanger condensate tray is necessary in exceptional cases.
- A rotor is recommended to be fitted with a purge section.
- To reduce the need for frost it is recommended to use adiabatic cooling by humidifying exhaust air.

Air filters
- Only filters that are tested in accordance with ISO 16890 standard can be used.
- Each filter must be marked accordingly. Recommended is class ISO ePM2,5 ≥ 50 % in the extract air before the heat recovery unit. In case of single-stage supply air filtering min. ISO ePM1 ≥ 50 %.
- The surface of the bag-type air filter must have at least 10 m^2 for 1 m^2 openings the area.
- Max. permitted maximum final pressure loss:
  Filter class ISO ePM1 ≥ 70 % 300 Pa.
  Filter class ISO ePM1 ≥ 50 % 200 Pa.
  Filter class ISO ePM2,5 ≥ 50 % 200 Pa.
  Filter class ISO ePM10 ≥ 50 % 200 Pa.

Dampers
- Air leakage class 2 for dampers that are closed while the system is in operation, e.g. mixing dampers or bypass dampers.
- Air velocity for dampers max. 8 m/s (except recirculation air and bypass dampers).
- The position of the damper must be visible from the outside of the damper.

Fans
- Fans with backward curved blades are preferred. Energy saving motors are recommended.
- Fan impeller generally protected against corrosion.
- It is recommended to use fans without belt drive (especially open impeller). Base frame of fan and motor in hot-dip galvanized steel sheeting.

Cooling coils
- Installation rails for cooling coils in stainless steel or aluminium.
- Condensate tray in stainless steel (AISI 304) or aluminium.
- Minimum fin spacing: 2 mm for cooling coil without dehumidification; 2,5 mm for cooling coil with dehumidification.

Humidifier section
- Humidifiers must not be placed directly upstream of filters or attenuator (exception: steam humidifiers).
- All components are demountable. All parts in contact with water accessible for inspection and cleaning and consisting of corrosion-resistant and disinfectant resistant material.
- Sealing compounds not be of material that can be metabolised.

Sound attenuator section
- Pressure drop max. 80 Pa.
- Surface quality material permanently abrasion-resistant and made of material that is durable when exposed to cleaning processes (e.g. fiberglass).
- Splitters demountable for cleaning without having to remove other parts.

KLASIK design

CASING

"Standart2"
Air handling units of the KLASIK series have a reliable and stable design. Casing framework are made of aluminium profiles and solid cast aluminium corner pieces. Covering panels are made of double-skin galvanized (corrosion resistance class C3), or stainless sheet steel (class C5) and is filled with fireproof thermal and sound insulation – 50 mm thickness mineral wool. On request, casing can be painted (class C4).
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 at the customers' request.
Casing classification in conformance with standard EN 1886 and approved by Eurovent: thermal transmittance class T3; thermal bridging factor TB4; casing strength class D2; casing air leakage class L1; filter bypass leakage class F9.

"Standart2 TB"
Casing framework are made of aluminium profiles with thermal break system and plastic corners. 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 with standard EN 1886 and approved by Eurovent : thermal transmittance class T2; thermal bridging factor TB2; casing strength class D1; casing air leakage class L1; filter bypass leakage class F9.

FILTERS

KLASIK units pocket synthetic or fiberglass filters with a class of filtration from G4 up to F9 are used.
Filters have big filtration surface which results in longer terms of operation.
Filters are fastened by a clamping mechanism that secures tightness and simplifies the filter replacement procedure.

HEAT EXCHANGERS

Rotary heat exchanger
Temperature efficiency – up to 86 %. Depending on required temperature efficiency ŋ (%), the height of a wave of a rotor can be L, ML or SL.
Rotors may be offered of four types:

- aluminium;
- aluminium with a sorption (zeolite) coating;
- aluminium with an epoxy paint covering on embossed rotor edges;
- aluminium with deep epoxy coating.

The drive of a rotor is supplied with the frequency converter, allowing support for 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. Reduced height units with two rotors are also available.

Run-around type heat exchanger
Temperature efficiency – up to 70 %.
In such systems, coupled coils are placed in supply and exhaust air. Coils are connected with pipes through a specialized PPU LCHX unit and are filled with a waterglycol mixture, which circulates around and transfers heat from one air flow to another. Air handling units with such heat recovery are used in cases when air streams must be absolutely separated or when the building layout or other requirements mean the unit must be installed on different floors. Heat exchangers are made of copper pipes with aluminium fins.

Counterflow plate heat exchanger
Made of seawater-resistant aluminum plates. Temperature efficiency is 92 % for condensation and up to 88 % for dry air. An automatic bypass is integrated in the heat exchanger. The heat recovery section has stainless steel (AISI 304) sloping trays and a condensate drain trap.

AIR DAMPERS

Closing air dampers installed in air handling units are produced from aluminium blades with rubber sealing complying to standard tightness – Class 2. Higher Class 3 or Class 4 dampers are offered as an option.

FANS

Fans are statically and dynamically balanced according to standard ISO 1940, corresponding 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 for 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/PM motors are available in all types of KLASIK units and correspond to the IE4/IE5 Super/Ultra 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/PM fans in KLASIK units the following advantages are achieved:

- extremely high efficiency up to 94 %;
- valuable energy saving up to 20 % compared with AC IE3 class motors;
- integrated motor controller, no need for a frequency converter;
- very smooth and silent operation;
- long-life;
- compact construction.

PM type motors correspond to the *Ultra Premium* Efficiency Class IE5 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.

COOLERS AND HUMIDIFIERS

Water Air Coolers
Air coolers are made of copper tubes and aluminum fins (spacing 2,2; 2,6; 3,0; 3,4 mm) in galvanized steel casing insulated with mineral wool. Air cooler section assembled with stainless steel sloping drain tray and water trap manifold pipes are covered with a condensation-proof material.
Maximum operating pressure – 21 bar.

Direct Evaporation Air Coolers
DX air coolers are made of copper tubes and aluminum fins (spacing 2,2; 2,6; 3,0; 3,4 mm) in galvanized steel casing insulated with mineral wool. Air cooler section assembled with stainless steel sloping drain tray and water trap manifold pipes are covered with a condensation proof material.
Maximum operating pressure – 42 bar.
Power of direct evaporation air cooler can be divided into stages. It is necessary to indicate this when ordering.

Adiabatic humidifiers
Application areas: museums, light industry, paper industry, textile industry, wood industry, poultry farms, data centers.
Advantages: Hygienic Certificate VDI 6022, optimal performance and minimal operating costs, wide range of sizes and performance, easy maintenance, durability.
Technical characteristics:

- Air flow from 425 to 55 000 m^3/h.
- Efficiency – up to 97 % RH.

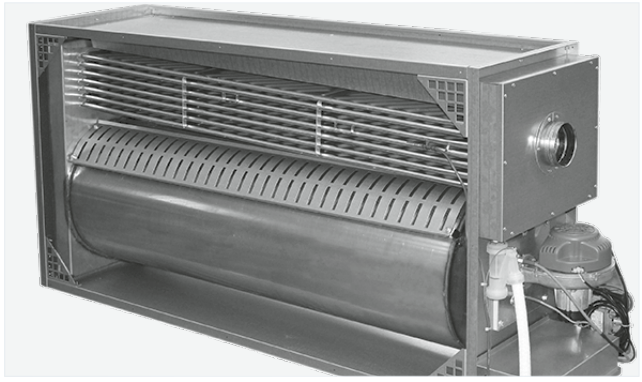
AIR HEATERS

Hot water air heaters
Heaters are made of copper tubes and aluminum fins (spacing 2,2; 2,6; 3,0; 3,4 mm) in galvanized steel casing insulated with mineral wool. As an option can be ordered with a threat joint to connect a freezing sensor. Capillary antifreeze sensor can also be ordered.
Maximum operating pressure – 21 bar.
Maximum water temperature +130 °C.
Heated air temperature up to +40 °C.

Electric air heaters
Three-phase (400 V / 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.

SOUND ATTENUATOR SECTION

Integrated or separated silencers may be offered with air handling units. Integrated silencers have completely insulated casing. Sound attenuator splitters with resonating panels are mounted inside the section. Its elements can easily be removed 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 a special acoustic mineral wool.
The mineral wool is covered with a fiberglass mat preventing cotton particles from getting into an air channel when the air flow is running at high speed.
The fiberglass mat is maximally resistant to the occurrence of dust inside the air channel.



CONDENSING GAS HEATERS

Advantages of gas condensing heaters:
- there is no risk of freezing;
- no circulation pumps required;
- high temperature efficiency – up to 106 %;
- wide range from 22 to 125 kW.

ADDITIONAL ACCESSORIES

KLASIK air handling units can be of the outdoor type. For outdoor performance, a complete set is provided, which includes a protective roof, intake and exhaust air hoods, and external grilles. Additionally, the following elements are available: an inspection window, extra sections such as lighting, activated carbon air filters and UV lamps.

Accessories

Filters

Bag filters

Compact filters

Panel pre-filter

Ventilation unit filters are designed for air purification and protection of unit components. Filters are classified by type and filtration class. The filter type and class depend on the ventilation unit and the specific air quality requirements.
Standard KOMFOVENT ventilation units use bag or compact air filters, that are manufactured using optimized technology, ensuring durability and a large filtration area. These filters have low pressure losses, reducing electricity consumption.
Filters are made of environmentally friendly materials that pose no disposal issues.
According to the ISO 16890 standard, filters are classified based on particulate matter (PM), specifying the size and capture percentage of collected particles.

Coarse 65	**525 × 510**			**×**	**46**	**(G4)**
ePM10 50	**700 × 847**	**–**	**8**	**×**	**320**	**(M5)**
❶	❷	❸	❹		❺	❻

❶	Coarse – filters for coarse particle removal ePM10 – captures particles ranging from 0,3 to 10 µm ePM2,5 – captures particles from 0,3 to 2,5 µm ePM1 – captures particles from 0,3 to 1 µm The percentage (50/60/65/70/75/80/85) indicates the proportion of the biggest size particles captured
❷	Filter width, mm
❸	Filter height, mm
❹	The number of pockets of the bag filter, which is usually from 3 to 12 pcs.
❺	Filter length, mm
❻	Filtration class according to EN 779:2012

Silencers

AGS – round silencer

STS – rectangular silencer

To ensure noise levels in the ventilation system and premises comply with regulations, silencers are recommended for installation with ventilation units. There are circular and rectangular silencers of standard dimensions. Silencers are constructed using high-quality materials for effective sound absorption with minimal pressure loss. Their design allows adaptation to the available space.

An appropriate silencer can be selected using the selection program "Komfovent Silencer", which can be found on www.komfovent.com.

STS	–	**IVR3BA**	–	**1200-900**	–		–	**1200**	–	**S**
AGS				**250**	–	**50**	–	**900**	–	**M**
ASTS				**100**	–		–	**600**	–	**M**
❶		❷		❸		❹		❺		❻

❶	STS – rectangular silencer ASTS – rectangular silencer with round connections AGS – round silencer
❷	Unique construction code
❸	Connection diameter or width and height, mm
❹	AGS silencer insulation thickness, mm
❺	Silencer length, mm
❻	M – inside of galvanized perforated sheet steel, S – fiberglass

Shut-Off Dampers

AGUJ – circular air shut-off damper

SRU – rectangular shut-off damper

To protect ventilation units from freezing or external factors, shut-off dampers with electric actuators must be installed on air intake and exhaust ducts. Dampers are selected based on the duct shape and are available in circular or rectangular designs.

Dampers can have manual or motorized control. Motorized actuators are available with or without return springs. Circular shut-off dampers are rated at C3 tightness class, rectangular – C2, but there is an option to choose a better tightness class.

SRU	–	**M**	–	**300-300**	**+LF**	**24**
AGUJ	–	**M**		**250**	**+CM**	**230**
❶		❷		❸	❹	❺

❶	AGUJ – circular air shut-off damper SRU – rectangular shut-off damper
❷	M – actuator powered control R – manual control
❸	Connection diameter or width and height, mm
❹	TF..., LF... – actuators with return spring CM..., LM... – actuators without return spring
❺	24 or 230 – voltage, V

Pipework package

PPU – pipework package unit

Pipework Package Units (PPU) are used for water heater power regulation, i. e., for temperature control of supplied air by mixing hot water from a boiler with recycled water in the heat exchanger. The fully assembled pipework package is available for each size of ventilation unit where a hot water heater is used.
The quantity and arrangement of elements used in the unit are ideally suited for optimal heat exchanger operation. When choosing the type of control unit, it is important to pay attention to what temperatures the heat carrier, i.e. what is the purpose of the heat exchanger, will flow through the circuit. For easier selection of the unit, it is recommended to use the selection program.

PPU – HW – 3R – 40 – 25 – W2

❶ ❷ ❸ ❹ ❺ ❻

❶	PPU – pipework package unit
❷	HW – used for heating CW – used for cooling
❸	Three-way mixing valve R – heating/cooling medium connection from the right L – heating/cooling medium connection from the left
❹	Nominal piping diameter DN, mm
❺	Amount of flow (Kvs) through the mixing valve, m^3/h
❻	Circulation pump size

Air Coolers (Water/Freon)

DCW – water cooler

DCF – freon cooler

For summer cooling, standalone air coolers are installed in the duct. The cooler casing is insulated with 45 mm mineral wool. Cooling sections include a droplet separator and condensate tray, with controls integrated into the unit's automation system. Coolers are selected considering the amount of air, cooling capacity, dimensions and pressure losses. Currently, you can choose coolers with a supply air volume of 200 to 7000 m^3/h and a capacity of 1,3 to 48,7 kW.

DCF – 3,0 – 20 – 2

❶ ❷ ❸ ❹

❶	DCW – water cooler DCF – freon cooler
❷	Air supply, m^3/h /1000
❸	Capacity, kW
❹	Number of stages (indicated only if more than one)

Water Duct Heaters and Coolers

DHCW – round water duct heater-cooler

SVK – rectangular water heater

Duct water air heaters or coolers can be equipped with DOMEKT and VERSO Standard units. They must be used with a PPU mixing unit or 2-way valve with modulating actuator.
DOMEKT units have a 0...10 V signal for actuator control. Heaters and coolers are also made of galvanized steel. The maximum speed through the heater is 3 m/s.
The maximum water temperature is 130°C.
Heaters supply air volumes from 250 to 3000 m^3/h, power from 1 to 12,2 kW. Coolers supply air volumes from 250 to 1600 m^3/h, power from 0,8 to 5,2 kW. If it is planned that the unit will perform both heater and cooler functions, the selection should be made according to the cooler.

DH	**–**	**315**		
SVK	**–**	**700 × 400**	**–**	**2R**
DHCW	**–**	**250**		
❶		❷		❸

❶ DH – round water duct heater
DHCW – round water duct heater-cooler
SVK – rectangular water heater

❷ Connection diameter or width and height, mm

❸ Number of rows

Electric Duct Heaters

EHC – round electric duct heater

The electric round duct heaters are intended to be used for heating of clean air in ventilation systems. Also, heaters can be used for heating or preheating function with ventilation units.
Heaters can be supplied with or without installed electronic controller, with pressure and flow monitoring system. The heater casing is made of alu-zinc coated metal sheet, with sealing rubber for a tight connection with the ventilation duct system. Stainless steel heating elements are used for the heaters. All heaters are equipped with 2 overheat thermostats. Automatic 60 °C reset thermostat is for controlling output air temperature, manual 100 °C reset thermostat is for cut-off function in case of overheating. To carry out a manual reset, a thermostat push button is installed on the heater's cover. Minimum air speed for heaters must be not less than 1,5 m/s. Standard operating range is from -10 °C up to +20 °C. The heater power output ranges from 1 to 9 kW.

EHC	**–**	**160**	**–**	**1.0**	**–**	**1f**	**SI/FC**				
EHR		**400 × 200**	**–**	**6.0**	**–**	**3f**	**CE/FC**	**(0...+30)**			
❶		❷		❸		❹	❺	❻			

❶ EHC – round electric duct heater
EHR – rectangular electric duct heater

❷ Connection diameter or width and height, mm

❸ Heater power, kW

❹ Phases

❺ Control type: no entry – without integrated control, SI – with integrated control (internal setting), complete with temperature sensor (0...+30), CE/FC, SE/FC, SI/FC – with integrated automation, SI/FC – temperature setting internal / flow and pressure control (-10...+20) or (0...+30), SE/FC – temperature setting external / flow and pressure control (-10...+20), CE/FC – external control signal 0-10 VDC / with flow and pressure control (-10...+20) or (0...+30)

❻ Temperature operating range (-10...+20) or (0...+30). It is necessary to specify when choosing CE/FC or SI/FC

DX Heat Pumps

MOU – outdoor unit

The operation of cooling and heating coils requires an external source of heat or cold. Just like an external unit, it can be used as a DX heat pump. Control can be linked to the ventilation unit. DX heat pumps usually perform cooling or heating and cooling functions. The offered external units use high-performance compressors, smart defrost technology, and R32 eco-friendly refrigerant. Cooling capacities from 3,5 to 15,24 kW are available. Energy efficiency classes are up to A++. Units operate even at -20°C. Up to 4 DX heat pumps can be selected for one ventilation unit, if it has a 4-stage cooler or heater. When choosing an external unit, an AHU kit controller must be purchased additionally.

MOU	–	**48**	**HFN8a**
❶		❷	❸

❶	MOU – outdoor unit
❷	Number indicating the power of the heat pump (BTU x10^3)
❸	Inverter compressor, R32 refrigerant

Hoods and Roof

Roof

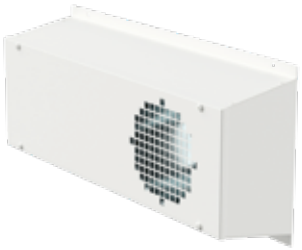
Hood

Certain VERSO series ventilation units can be installed outdoors, provided they have horizontal connections. Outdoor installations require a roof for rain protection and intake/exhaust hoods if necessary. Accessories must be selected based on the size of the ventilation unit.

ROOF		**VERSO R 3000-4000H/UH**
HOOD	**ODA**	**VERSO R 2500 / VERSO 10**
❶	❷	❸

❶	Name of the accessories
❷	ODA – outdoor intake hood EHA – exhaust air hood
❸	Model or models of the ventilation unit for which the specified accessory is suitable

Outdoor Intake/Exhaust Box



LD – outdoor box

Meant to separate the intake and exhaust air flows with one opening in the wall. Such outdoor boxes are used when it is not possible to install air intake and exhaust grilles separately. Standard and most used sizes are up to 315 mm in diameter. These outdoor intake and exhaust grilles can be white (RAL 9003) or black (RAL9005) in colour.

LD – 315 RAL9003

❶ ❷ ❸

❶	LD – outdoor box
❷	Connector (duct) diameter, mm
❸	RAL 9003 – white colour, RAL 9005 – black colour

Kitchen Hoods

Kitchen hoods

Kitchen hoods are designed to be installed above a hob or stove and are designed to extract cooking fumes and odours. These hoods do not have an exhaust fan and are connected to the 5th connection on DOMEKT units, which is why they perform quieter. An additional opening to the outside is not required for extracting kitchen steam, because the air is removed through the ventilation unit. Kitchen hoods can be equipped with LED lighting, a grease filter, and coloured white or grey. These hoods can also be integrated in to kitchen cabinet together with a Domekt R 200 V C8 unit, which can be covered with a decorative or furniture panel.

Sensors and Air Quality Control

Sensors are designed to regulate air intensity and can be installed in a room or in a duct. By connecting the sensor to a ventilation unit, the AQC (air quality control) function is activated, which adjusts the ventilation intensity, considering the increased level of pollution (CO_2, humidity, etc.) in the room. The user can activate this function at any time, as soon as necessary, and can also monitor the air quality in the room on the control panel display. This function is available for all KOMFOVENT units simply by connecting one of the available sensors.

S Q R
❶ ❷ ❸

❶	Sensor
❷	C – CO_2, humidity and temperature Q – air quality, humidity and temperature
❸	R – wall mounted in the room D – duct mounted

DTV 500
❶ ❷

❶	Differential pressure switch
❷	Pressure range from 50 to 500 Pa

Wireless Router

Provides a simple way to connect the ventilation unit to the internet or internal network via Wi-Fi. Suitable for cases where it is not possible to run a network cable from the unit to the internet access point. The router comes with a power supply (adapter and micro USB cable) and a computer network (ethernet) cable. Transmission speed – up to 300 Mb/s.

Pressure Sensor and Variable Air Volume (VAV) Control

The pressure sensor ensures reliable operation of the ventilation unit in VAV (variable air flow) mode, providing the ability to ensure constant air pressure in the duct or balance of air pressure in the premises. By installing VAV dampers and a pressure sensor, the ventilation unit can operate in Variable Air Flow Control (VAV) mode. The VAV function can be selected with all KOMFOVENT ventilation units*.

* Except units with C8 control system.

SPM 50
❶ ❷

❶	Pressure sensor
❷	50 – pressure sensor for single air flow control 55 – pressure sensor for pressure control in the supply and exhaust ducts independently

Unit marking and ordering samples

DOMEKT-R-350-V-L1-F7/M5-C8-L/A

❶ **Series**: DOMEKT
❷ **Type of heat exchanger**: R – rotary; CF – counterflow; S – supply unit
❸ **Unit size**: 150, 200, 250, 300, 350, 400, 450, 500, 600, 650, 700, 800, 900, 1000
❹ **Duct connection**: V – vertical; H – horizontal; F – ceiling
❺ **Inspection side**: R1; R2; L1; L2
❻ **Air filter class**: F7/M5 (ePM1 60%/ePM10 50%)
❼ **Controller**: C6M, C8
❽ **Heat exchangers characteristic**: L/A; L/AZ; ER (diffusion-enthalpy counterflow plate heat exchanger)

VERSO-R-1300-UH-E-L1-F7/M5-C5-SL/A

❶ **Series**: VERSO
❷ **Type of heat exchanger**: R – rotary; CF – counterflow; S – supply unit
❸ **Unit size**: 1000, 1300, 1500, 1700, 2000, 2100, 2300, 2500, 3000, 3500, 4000, 5000, 7000
❹ **Duct connection**: UH – universal/horizontal; UV – universal/vertical; H – horizontal; V – vertical; F – ceiling
❺ **Heater type:** E – electric; W – water; HCW – heater-cooler; HCDX – heater-cooler direct expansion
❻ **Inspection side**: R1; R2; L1; L2
❼ **Air filter class**: F7/M5 (ePM1 60%/ePM10 50%)
❽ **Control system**: C5
❾ **Rotary characteristic**: ML/A; SL/A; ML/AZ

VERSO-RHP-1600-11.2/9.4-UH-L1-F7/M5-C5-ML/AZ

❶ **Series**: VERSO
❷ **Type**: RHP
❸ **Unit size**: 400, 450, 600, 700, 800, 900, 1200, 1600
❹ **Heating / cooling capacity**: 11.2/9.4
❺ **Duct connection**: UH – universal/horizontal; UV – universal/vertical; V – vertical
❻ **Inspection side**: L1; R1
❼ **Air filter class**: F7/M5 (ePM1 60%/ePM10 50%)
❽ **Control system**: C5
❾ **Rotary characteristic**: ML/AZ

KOMBI-A9-W-E6-R-C9-CP

❶ **Series**: KOMBI
❷ **Heat pump heating power:** A5; A7; A9 [kW]
❸ **DHW boiler:** W – standard; WSS – stainless steel
❹ **Electric heater power:** 3; 4,5; 6 [kW]
❺ **Inspection side**: R; L
❻ **Controller**: C9
❼ **Options:** CP – DHW recirculation

Modifications to standard products

Rotary heat exchanger
ML/A – aluminium, condensing rotor – a standard for Verso R Standard units. The optimal efficiency and pressure loss ensures the shortest time to pay off the investment.
SL/A – aluminium, condensing rotor with increased surface and efficiency.
ML/AZ – sorption-enthalpy rotary heat exchanger coated with special hygroscopic zeolite coating. The most effective control of humidity and the most comfortable indoor climate.

Counterflow plate heat exchanger
Condensing – plate heat exchanger made of special polystyrene or aluminium; there are no moving parts, which results in long-term operation.
Diffusion-enthalpy – plate heat exchanger made of special membrane ensures the best heat and humidity recovery, also known to be hygienic and durable.

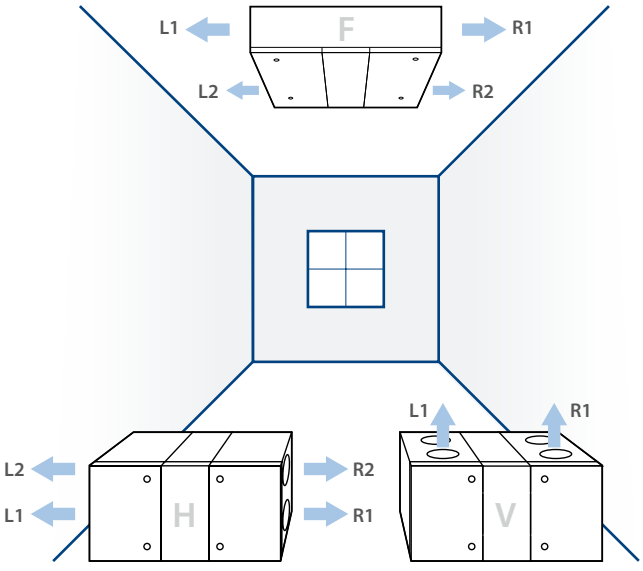
Duct connection
H – horizontal
V – vertical
U – universal, 16 installation options
F – flat (please refer to the installation options in the specific unit page)

Inspection side
Left or right inspection side is available for all units.

Cooler
HCW – designed for air cooling using cold water (water-glycol mixture), provides a higher comfort level in rooms.
HCDX – direct expansion changeover heater and cooler in one piece. Used with outdoor heat pump unit.

Heater
E – electric heater.
DH, **SVK** – a water duct heater is installed in the duct and must be ordered separately. Heaters are mounted 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.

Abbreviations
ODA – outdoor air
SUP – supply air
ETA – extract air
EHA – exhaust air
ETB – by-pass extraction without heat recovery
ETH – kitchen hood connection (without heat recovery)
L_{wa}, dBA – A-weighted sound power level at reference flow rate
L_{pa}, dBA – A-weighted sound pressure level in 10 m^2 normally isolated room, distance from casing – 3 m



supply air

Inspection side is determined by the supply air direction, looking at the unit from the user's side.

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