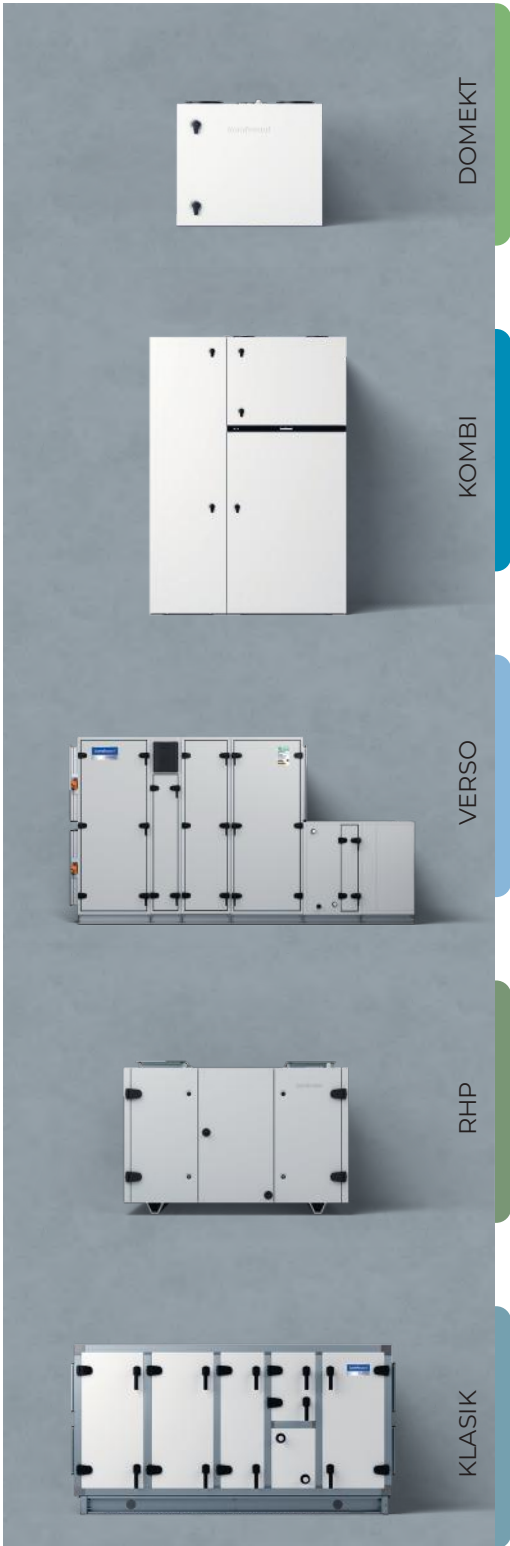


# VENTILATION EQUIPMENT

CATALOGUE | 2026



DOMEKT

KOMBI

VERSO

RHP

KLASIK



VENTILATION  
EQUIPMENT





22

## DOMEKT

Residential ventilation units



54

## KOMBI

All HVAC systems in one unit



64

## VERSO

Commercial ventilation units



116

RHP

Units with rotary heat exchanger and integrated heat pump



136

KLASIK

Industrial/commercial ventilation units



145

Accessories

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# Why Komfovent

## The largest HVAC systems manufacturer in the Baltic region

Through decades of growth, we have evolved to become the largest HVAC systems manufacturer in the Baltic region.

Our company started its life as UAB "Amalva", creating ventilation ducts and other ventilation system components. With steady progress since we were founded in 1997, UAB "Amalva" became UAB "Komfovent", specialising

in advanced air handling units, air flow control, heat pump technology and fire safety in ventilation systems.



## Our Roots

Our roots are grounded in the Baltic region – a place defined by sharp contrasts and harsh seasons. This environment has shaped how we think, design and innovate. It's why our air handling units are built to perform reliably across a wide temperature range, maintaining efficiency and comfort even in the toughest conditions. What inspires us most is the contrast between the raw, wild nature outside and the calm, protected atmosphere of a home.

## Quality of Human Life

We place life at the centre of our purpose, striving to ensure creations positively impact well-being and daily living.

## Environmental Responsibility

We continuously improve our processes to reduce carbon footprint while increasing our positive contributions to society and sustainable development. We prioritize not only optimal performance but also clean, minimalist and functional design.

## Quality and Innovation

Strict control at every stage of production ensures long-term performance, adherence to industry standards and high product quality. We foster innovation by encouraging ourselves to generate and implement ideas that enhance product efficiency.

**Company in numbers**

3

factories

The KOMFOVENT brand unites a group of 12 companies, operating in Lithuania and other European countries. Production is spread across 3 factories in Lithuania and Latvia, totalling over 85 thousand square metres.



28 000

units a year

Over 1 million KOMFOVENT ventilation system components, including 28 thousand air handling units begin their service all over the world every year. Research and development rely on more than 50 engineers.



1000

employees

More than 1000 employees across a group of 12 companies in Lithuania and other European countries handle KOMFOVENT's research, development, manufacturing, distribution and management of ventilation system products.



40

countries

5 official KOMFOVENT branches operate in Europe and export products to more than 40 countries worldwide, working with over 90 distributors.



>10

international approvals

KOMFOVENT product quality is verified by various certification agencies around the world: Eurovent, TÜV SÜD, RLT, Passive House, DIBt, CE and others. All designed prototypes are tested by KomfoLAB – an in-house laboratory using the latest testing equipment.



100

percent of green energy

Local production in Lithuania and Latvia ensures reduced transportation emissions and higher production efficiency. This is further supported by the use of 100% renewable electricity. Not only that, but half of the green energy used in the KOMFOVENT factory in Vilnius is produced by the company's own solar plant.



## Wide range

### DOMEKT

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

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

#### 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

### 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

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.

### VERSO Pro/Pro2

Airflow: 1000–40 000 m<sup>3</sup>/h

### KLASIK

Airflow: 250–100 000 m<sup>3</sup>/h



# Energy-saving technologies

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.

## Efficient heat exchangers

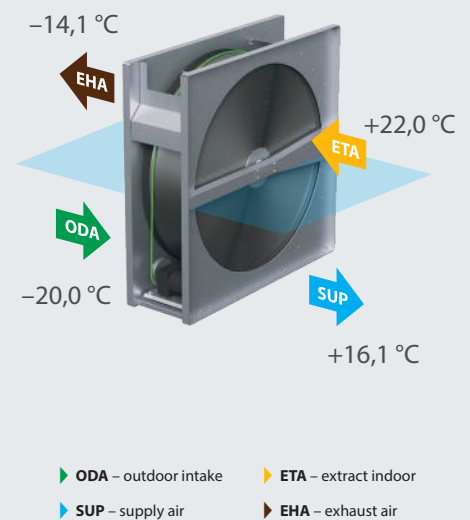
### Rotary heat exchangers

#### 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.



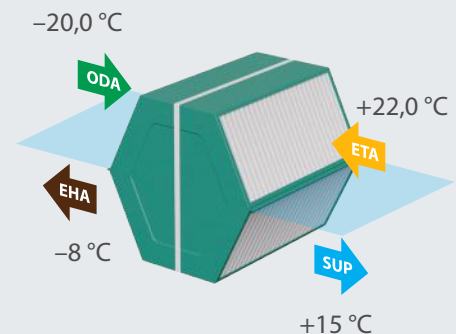
### Counterflow plate heat exchangers

#### 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.



## 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.

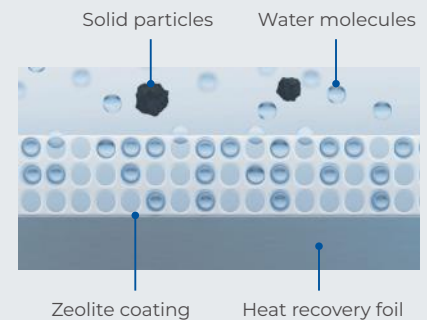
### Sorption-enthalpy rotary heat exchanger

#### 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.



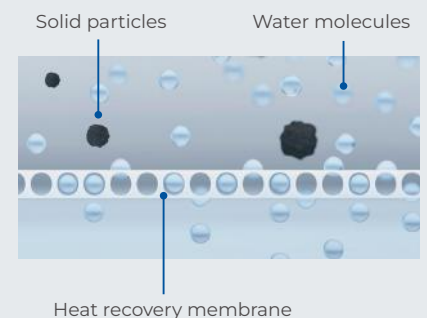
### Diffusion-enthalpy counterflow heat exchanger

#### 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.



## 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.

#### 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.

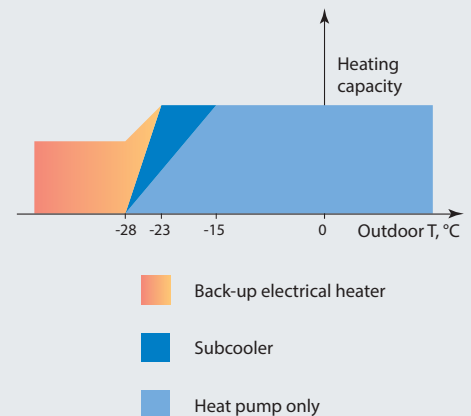
### The Principle of Subcooling Technology

Subcooling increases the efficiency of air-to-water heat pumps by cooling the refrigerant below its condensation temperature before it is expanded and sent to evaporator. 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) 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.
- 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.

### Advantage of subcooler under low outdoor temperatures



## 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

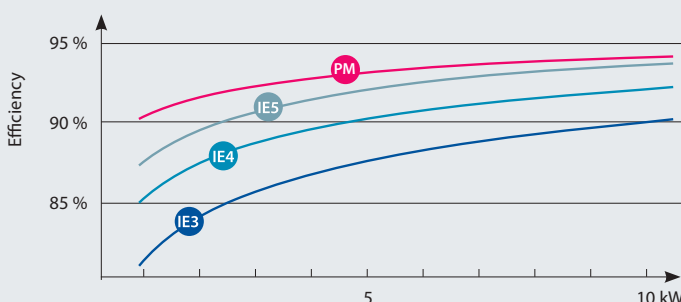
- Energy efficiency higher than 93 %.
- Compact dimensions and light weight.
- Low heat emittance.
- Better performance at low rpm.
- Stable efficiency under different load and rotation speeds.

#### 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 \*



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

\* International Electrotechnical Commission

## 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 <sup>2</sup> 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 <sup>2</sup> (overpressure +700 Pa)	0,22	0,63	1,9	-
L value, l/s*m <sup>2</sup> (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.



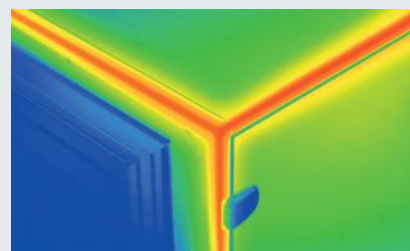
Various types and materials of air gaskets do not compromise the airtightness between the casing panels and doors. Thus L1 tightness class is achieved during the overpressure and vacuum tests.



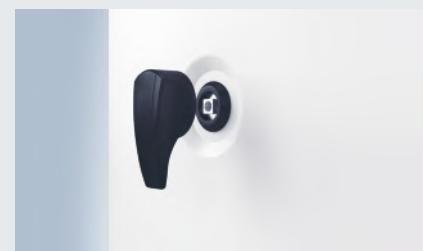
50–75 mm thick mineral wool used for insulation of panels ensures T1 or T2 thermal transmittance class on most AHU models.



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.

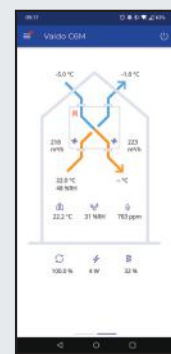


Using plastic parts such as handles, locks, hinges, duct connections or patented internal components further reduces thermal losses.

## 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.

### 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<sub>2</sub>, humidity level.

#### 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.

#### "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*.

\* Except C8 control system.

#### CONTROL OPTIONS



App "Komfovent Control"



Control panels C6.1 and C6.2



Web Server



Connectivity & Protocols

SMART CONTROL FUNCTIONS	C6M	C8
<b>Air temperature control</b> 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.	✓	✓
<b>Temperature balance control</b> 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.	✓	✓
<b>Fan intensity control</b> Fan speed can be adjusted smoothly between 20-100 %, thus ventilation intensity can be set easily by the user.	✓	✓
<b>Constant air volume control (CAV)</b> The unit supplies and extracts a constant air volume as set by the user, regardless of changes in the ventilation system.	✓	✓ <sup>1</sup>
<b>Variable air volume control (VAV)</b> The unit supplies and extracts air volume correspondingly to the ventilation requirements in different premises.	✓	
<b>Directly controlled volume (DCV)</b> The air volumes are controlled by direct external control signals.	✓	
<b>External water coil control</b> There is an estimated an additional water duct heater or cooler control that can be activated by the user on the control panel.	✓	✓ <sup>2</sup>
<b>External DX unit control</b> There is estimated an additional external direct expansion (DX) unit control that can be activated by the user on the control panel.	✓	✓ <sup>2</sup>
<b>Combi-coil control</b> 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.	✓	
<b>Weekly operation schedule</b> 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.	✓	✓
<b>Air quality control (2 sensors)</b> 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.	✓	
<b>Air quality control (1 sensor)</b> 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.		✓
<b>Cool recovery</b> During the summer season, in the conditioned premises cool from extract air is returned back into the premises.	✓	✓
<b>Temperature saving function</b> 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.	✓	✓
<b>Free cooling</b> 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.	✓	✓
<b>Variable speed rotary heat exchanger</b> 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.	✓	
<b>Ventilation control by 3 external contacts</b> Air flow can be controlled by three external contacts, each of which can be assigned to different ventilation intensity.	✓	
<b>Ventilation control by 1 external contact</b> 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.		✓
<b>Control via internet browser or smartphone app</b> 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.	✓	✓
<b>Air dehumidification</b> 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.	✓	✓
<b>Energy counters</b> 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.	✓	

SMART CONTROL FUNCTIONS	C6M	C8
<p><b>Operation time counters</b> Fan, heat exchanger and heater working times are monitored. Day, month or overall time counters are available for ventilation unit operation analysis.</p>		✓
<p><b>Timed ventilation modes</b> 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.</p>	✓	✓
<p><b>Operation on demand</b> 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.</p>	✓	✓
<p><b>Thermostat function</b> 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.</p>	✓	✓

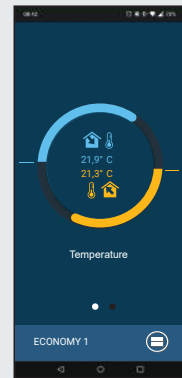
SAFETY FUNCTIONS	C6M	C8
<p><b>Filter clogging indication</b> Clogging of the air filters is measured depending on the duration and intensity of the unit's operation. The user is informed by a message, when it is time to change air filters.</p>	✓	✓
<p><b>Heat exchanger frost prevention</b> Units with 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.</p>	✓	✓ <sup>3</sup>
<p><b>Heat exchanger protection using airflow imbalance</b> The counterflow plate heat exchanger is protected from freezing by reducing the intake speed of the cold outdoor air, while the warmer indoor air flowing over the heat exchanger plates prevents frost formation</p>		✓
<p><b>Heat exchanger failure indication</b> 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.</p>	✓	✓
<p><b>Water heater frost protection</b> 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.</p>	✓	✓
<p><b>Electric heater overheat protection</b> 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.</p>	✓	✓
<p><b>Low air flow indication</b> If the ventilation unit does not reach the set air volume during the specified time, the unit's operation is stopped.</p>	✓	
<p><b>Emergency shut down in case of fire</b> 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.</p>	✓	✓
<p><b>Emergency shut down when temperature reaches critical limits</b> When the supply air temperature drops below or exceeds the permitted value, the unit is stopped.</p>	✓	✓
<p><b>Intelligent self-diagnostic</b> 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.</p>	✓	✓
<p><b>Remote diagnostics possibility</b> 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.</p>	✓	✓

<sup>1</sup> Only on some unit models.

<sup>2</sup> Only one external device can be connected at the same time.

<sup>3</sup> Possibility to control only the external preheater.

## 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.

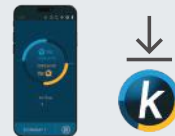
### Detailed information for the user

- Air flow indication (m<sup>3</sup>/h, m<sup>3</sup>/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 C5.1



Web Server



Connectivity & Protocols

## 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<sub>2</sub>, 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 imbalance 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<sub>2</sub>, 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 or smoke extraction in case of fire**

The external fire alarm is provided when the unit is connected to the building fire alarm system. Ventilation can be completely stopped, or forced to extract smoke from the building. 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.

## 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.

### CONTROL OPTIONS



App "Komfovent Control"



Control panel



Web Server



Connectivity & Protocols

**"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.

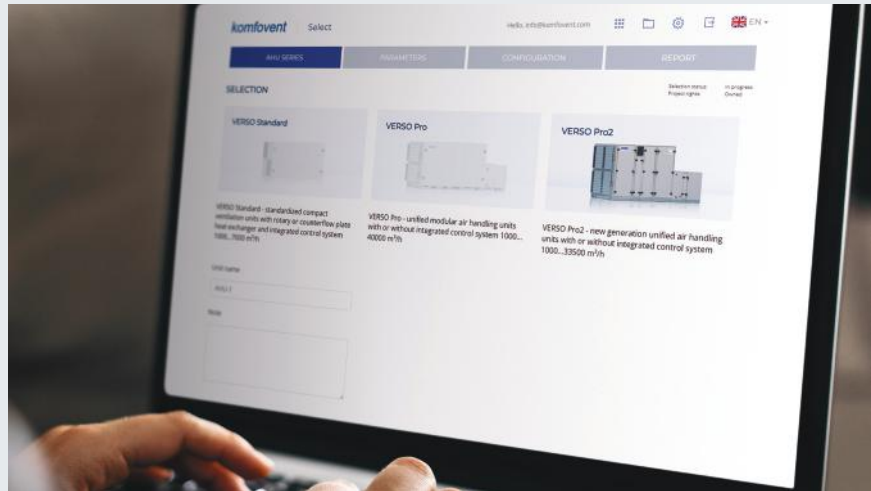
**Automatic hot water disinfection**

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 its 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.

# KOMFOVENT selection software



- Cloud-based selection software.
- For VERSO Standard and Pro units with capacity from 250 to 40 000 m<sup>3</sup>/h.
- For RHP units with capacity from 250 to 46 000 m<sup>3</sup>/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 projects.



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



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

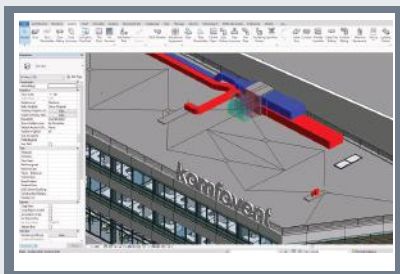
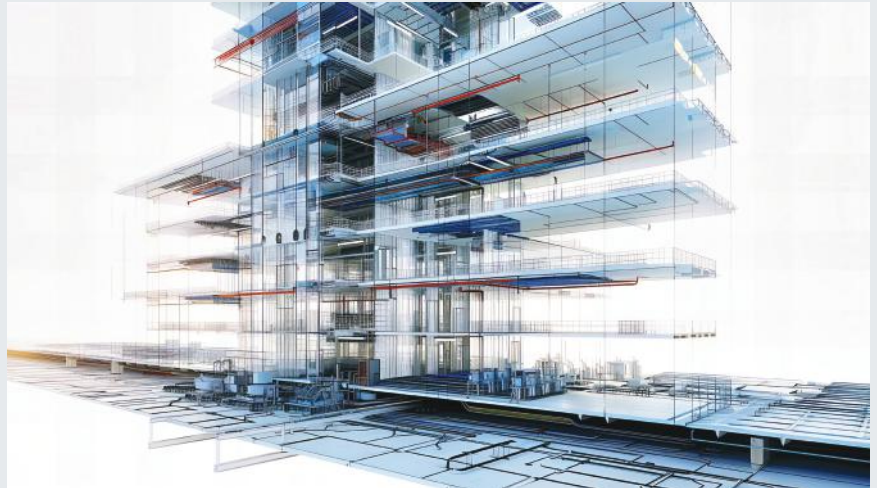


## Log plotter software

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](http://www.komfovent.com).

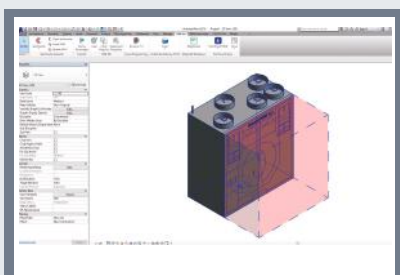
## Seamless integration of KOMFOVENT products into BIM projects



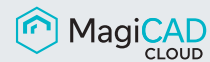
### KOMFOVENT add-in for REVIT

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.



### 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

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.

# DOMEKT

Smart Home Comfort



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



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# Breathe Better at Home



The air we breathe at home shapes how we feel, rest and live every day. DOMEKT residential ventilation units are designed to control the indoor air while operating quietly and using energy wisely.

DOMEKT units supply fresh filtered outdoor air into the home, remove polluted indoor air and recover its heat. This allows to enjoy a comfortable indoor climate throughout the year, keeping warmth in winter and preserving cool air in summer, which also helps reduce heating and cooling costs. Each unit features a high-efficiency rotary or counter-flow plate heat exchanger that operates reliably even in cold or humid conditions. Both types of heat exchangers can also be enthalpy, providing excellent humidity recovery performance.

### Fits Every Home

Every home, apartment, house or townhouse is different. That is why the DOMEKT range includes horizontal, vertical and flat models designed for installation in various parts of the home. The units can be easily installed above suspended ceilings, in utility rooms, cabinets or other compact spaces. All DOMEKT units are fully assembled and preprogrammed at the factory. They are designed to make installation as simple as possible and daily use more convenient and effortless. DOMEKT ventilation units are efficient, durable and easy to maintain.

Vertical



Horizontal



Flat



## Types of the heat exchangers

### Domekt R with rotary heat exchanger

A wide selection of residential ventilation units with rotary heat exchanger in horizontal, vertical and flat versions.

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 a comfortable indoor climate and humidity recovery.

### Domekt CF with counterflow heat exchanger

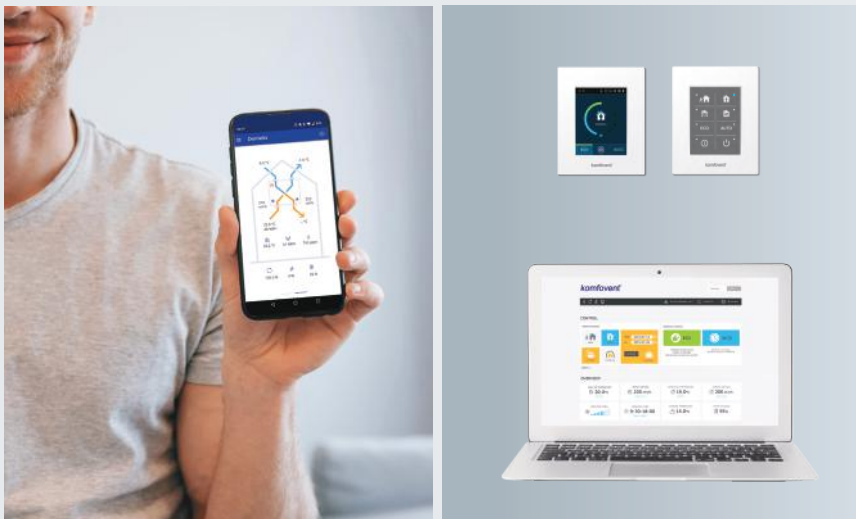
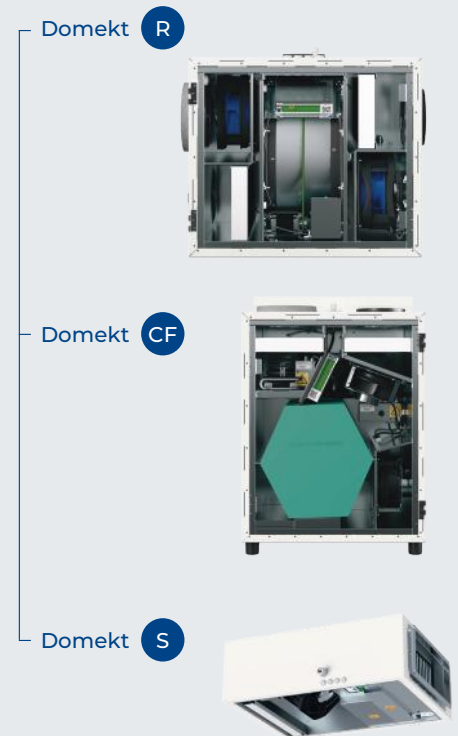
A wide selection of residential ventilation units with counterflow plate heat exchanger in horizontal, vertical and flat versions.

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.



### Control without effort

These units take care of the home's indoor climate automatically.

The smart control system adjusts ventilation settings without the need for constant user input. Ventilation modes are optimised according to daily needs, while automatic air quality control selects the most suitable mode to maintain a comfortable indoor environment. The unit can also be customised manually by setting a weekly schedule or choosing specific modes for different situations. DOMEKT units can be conveniently controlled via a control panel, mobile app or web browser.

## Quick Mounting Plate for Domekt R 350 V C8: Faster, Cleaner and More Flexible Installation

The Domekt R 350 V C8 residential ventilation unit has just become even easier to install, thanks to its new optional quick mounting plate.

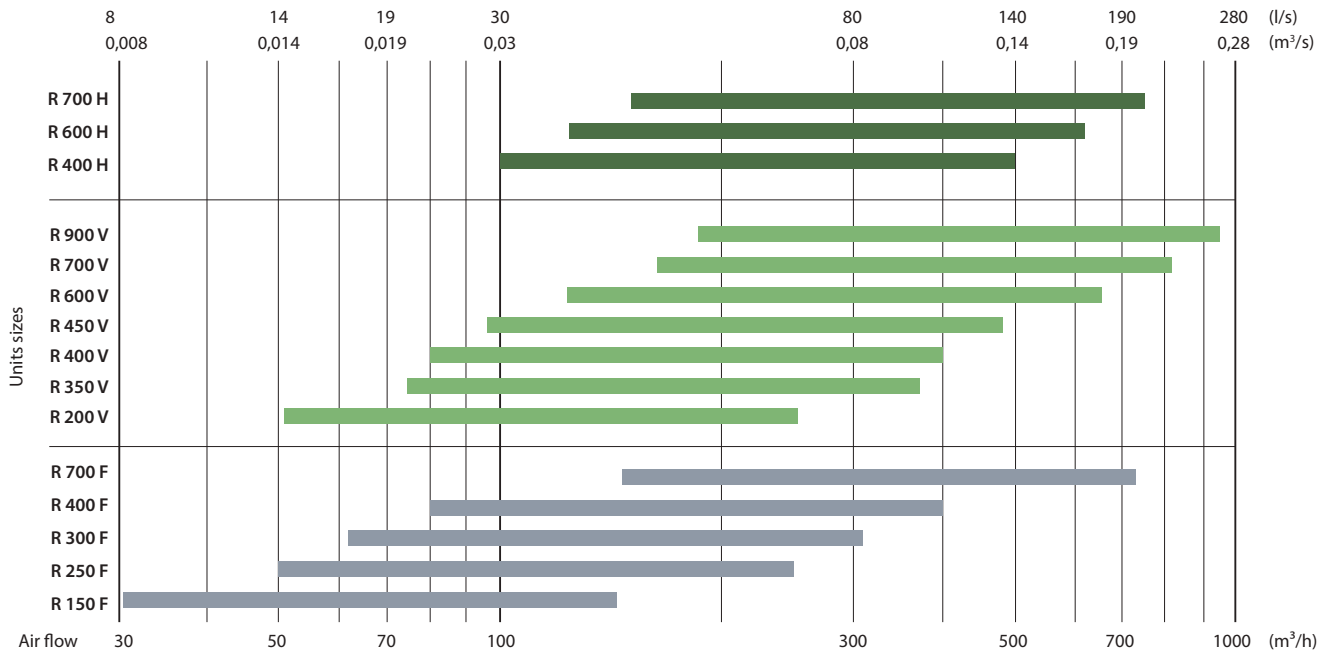
This feature streamlines installation workflow and provides more flexibility during construction of the premises.



# Domekt R

## Air handling units with rotary heat exchanger

### Sizes and air volumes of Domekt R units



### Modifications of Domekt R units

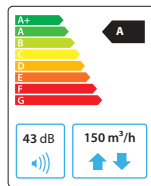
Unit	Heat exchanger		Supply/exhaust air filter class ePM1 60 % / ePM10 50 %	Heater			Cooler		Inspection side	
	Condensing L/A	Enthalpy L/AZ		HE	DH	DHCW	DHCW	HCDX	R1	L1
Domekt R 150 F C8	●	○	●	●	△				○	○
Domekt R 200 VSO C8	●		●	●					○	○
Domekt R 200 V C8	●		●	●	△				○	○
Domekt R 250 F C8	●	○	●	●	△	△	△	△	○	○
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. 153.

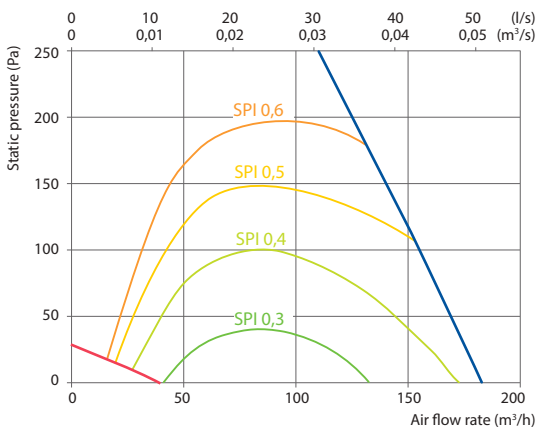
# Domekt R 150 F C8

Maximal air flow, m <sup>3</sup> /h	150
Maximal air flow, l/s	42
Reference flow rate, m <sup>3</sup> /s	0,029
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	43
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	32
Filters dimensions BxHxL, mm	225×172×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	460×280×780
Maintenance space, mm	780
Unit weight, kg	29



## Performance

Unit with standard equipment

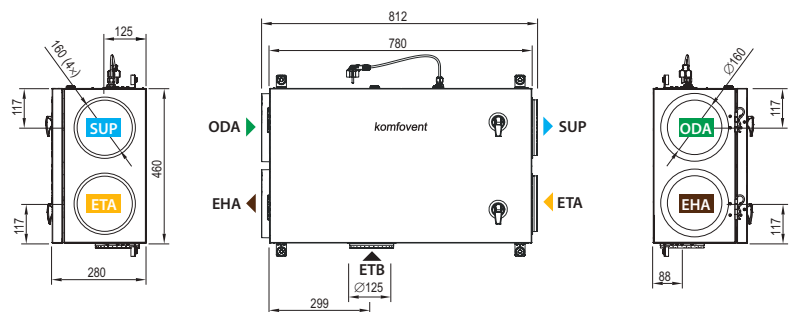


## Temperature efficiency

Outdoor temperature, °C	Winter				Summer			
	-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

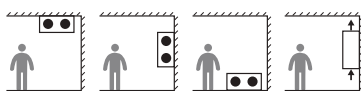
Shown as right (R1)  
View from inspection side



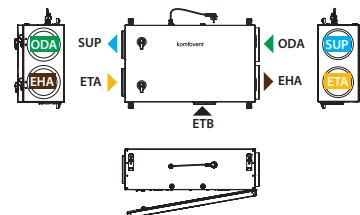
## Accessories

Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA 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



Shown as left (L1)



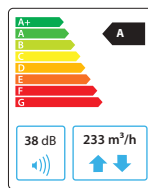
▶ ODA – outdoor intake      ▶ SUP – supply air      ▶ ETA – extract indoor      ▶ EHA – exhaust air      ▶ ETB – additional extraction connection (by-pass – extraction without heat recovery)

# Domekt R 200 V C8

Maximal air flow, m <sup>3</sup> /h	233
Maximal air flow, l/s	65
Reference flow rate, m <sup>3</sup> /s	0,05
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA</sub> , dB(A)	38
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	28
Filters dimensions BxHxL, mm	285x125x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	325x607x600
Maintenance space, mm	300
Unit weight, kg	39

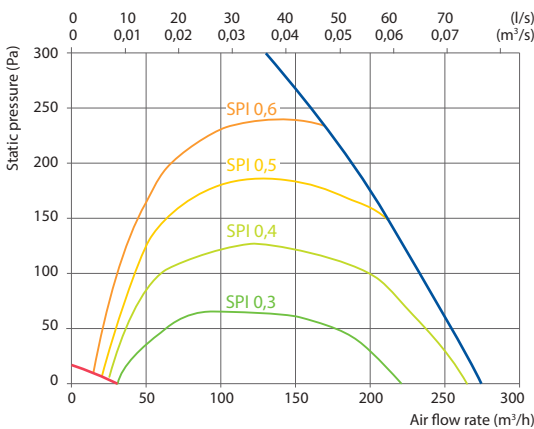


PATENTED DESIGN



## Performance

Unit with standard equipment



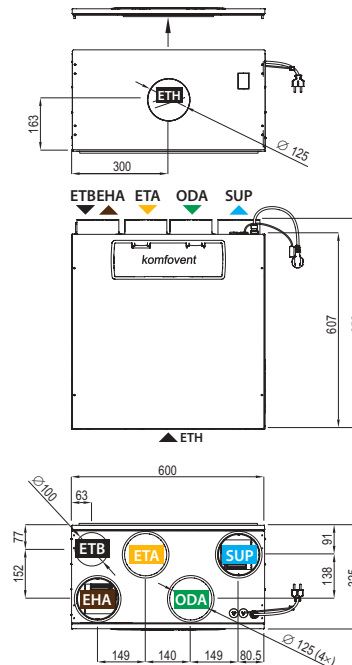
## Accessories

Closing damper	AGUJ-M-125+TF230/CM230
Silencer	ODA/ETA ASTS-125-600-M
	SUP/EHA 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	KH Monolit
Adapter	A Monolit
Decorative panel	DP Monolit
Kitchen hood	KH 394-12
Adapter	A 394-12
Decorative panel	DP 394-12
Air distribution box	OSD R 200 V C8 (E1) (125 mm)
Outdoor grill	LD-125

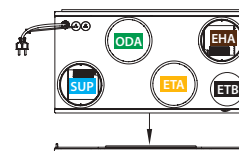
## Temperature efficiency

	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)



Shown as left (L1)



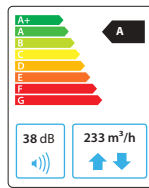
▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air    ▶ ETB – additional extraction connection (by-pass – extraction without heat recovery)    ▶ ETH – kitchen hood connection (by-pass – extraction without heat recovery)

# Domekt R 200 V C8 E1

Maximal air flow, m <sup>3</sup> /h	233
Maximal air flow, l/s	65
Reference flow rate, m <sup>3</sup> /s	0,05
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	38
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	28
Filters dimensions BxHxL, mm	285×125×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	325×607×600
Maintenance space, mm	300
Unit weight, kg	39

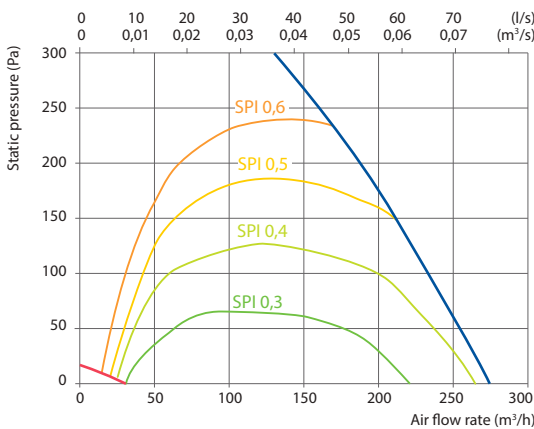


PATENTED DESIGN



## Performance

Unit with standard equipment



## Accessories

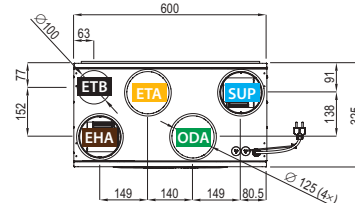
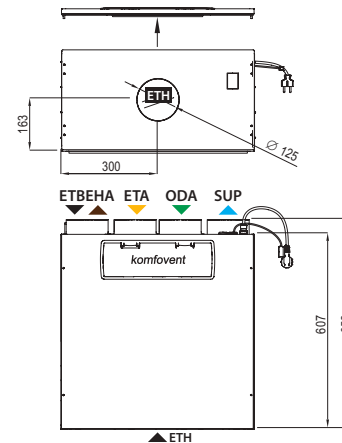
Closing damper	AGUJ-M-125+TF230/CM230
Silencer	ODA/ETA ASTS-125-600-M
	SUP/EHA ASTS-125-900-M
Water heater	DH-125
PPU	PPU-HW-3R-15-0,4-W2
2-way valve (heater)	VVP47.10-0,4+SSF161.05HF
Kitchen hood	KH Monolit
Adapter	A Monolit
Decorative panel	DP Monolit
Kitchen hood	KH 394-12
Adapter	A 394-12
Decorative panel	DP 394-12
Air distribution box	OSD R 200 V C8 (E1) (125 mm)
Outdoor grill	LD-125

## Temperature efficiency

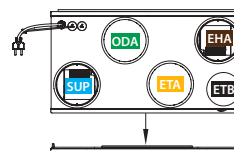
Outdoor temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,9	14,5	15,5	16,5	17,5	22,6	23,6	24,6

indoor +22 °C, 20 % RH

Shown as right (R1)



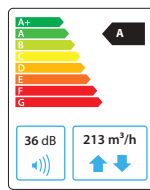
Shown as left (L1)



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

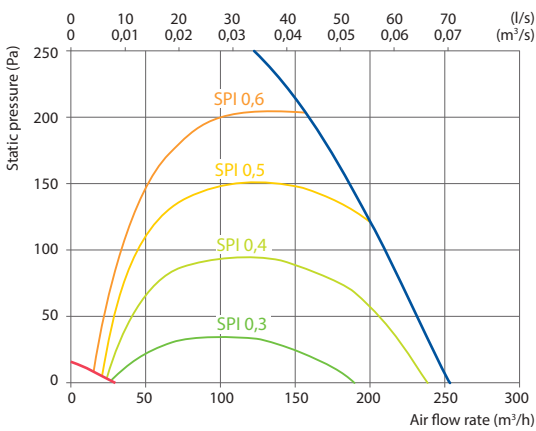
# Domekt R 200 VSO C8

Maximal air flow, m <sup>3</sup> /h	213
Maximal air flow, l/s	59
Reference flow rate, m <sup>3</sup> /s	0,041
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA,r</sub> dB(A)	36
Noise pressure level, L <sub>PA,r</sub> dB(A), (3 m)	25
Filters dimensions BxHxL, mm	285x125x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	1370x2160x750
Maintenance space, mm	750
Unit weight, kg	153



## Performance

Unit with standard equipment

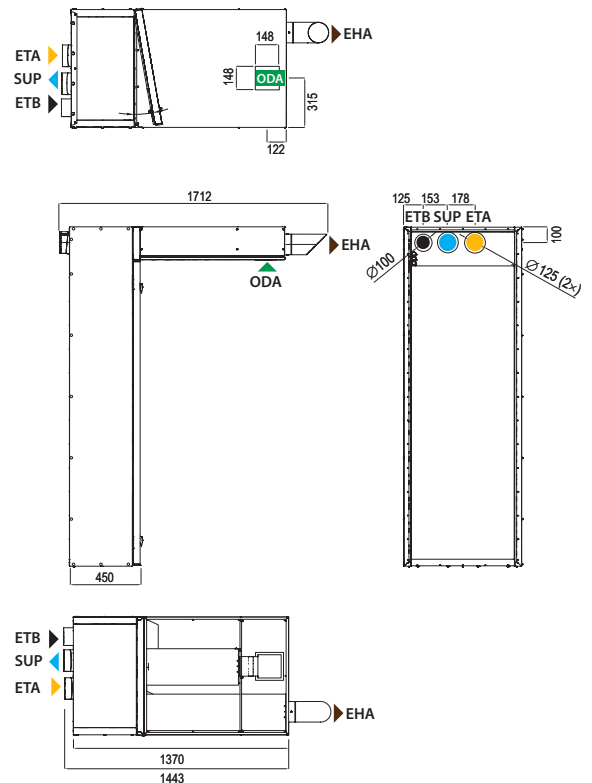


## Temperature efficiency

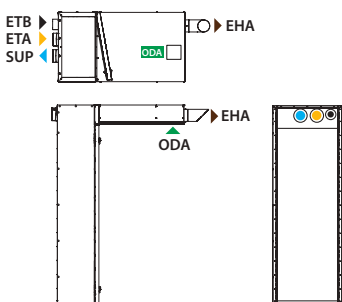
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,5	15,0	15,9	16,9	17,8	22,6	23,5	24,5

indoor +22 °C, 20 % RH

Shown as right (R1)



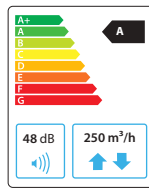
Shown as right (R2)



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

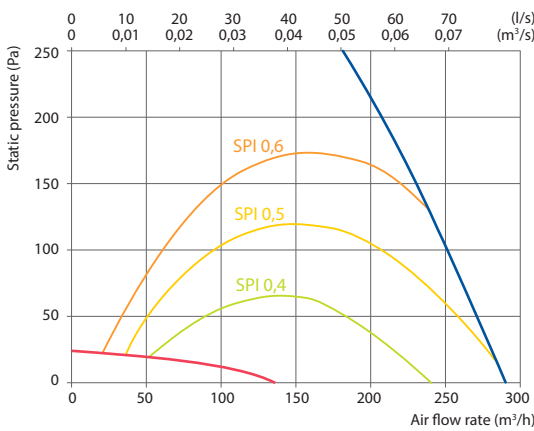
# Domekt R 250 F C8

Maximal air flow, m <sup>3</sup> /h	250
Maximal air flow, l/s	69
Reference flow rate, m <sup>3</sup> /s	0,049
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	48
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	37
Filters dimensions BxHxL, mm	278×258×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	602×310×842
Maintenance space, mm	300
Unit weight, kg	42



## Performance

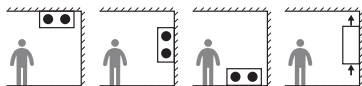
Unit with standard equipment



## Accessories

Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA 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

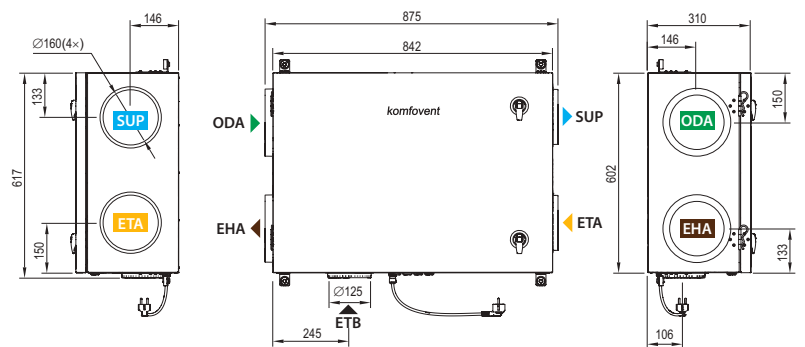


## Temperature efficiency

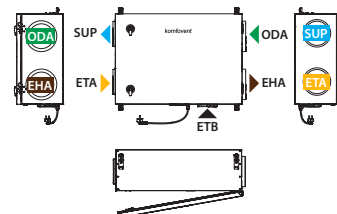
Outdoor temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,0	14,6	15,6	16,6	17,6	22,6	23,6	24,6

indoor +22 °C, 20 % RH

Shown as right (R1)  
View from inspection side



Shown as left (L1)

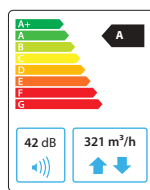
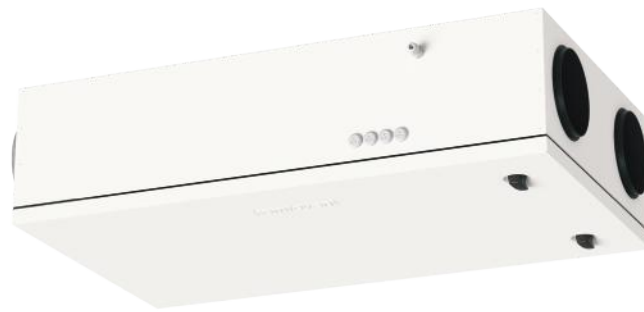


- ▶ ODA – outdoor intake
- ▶ SUP – supply air
- ▶ ETA – extract indoor
- ▶ EHA – exhaust air
- ▶ ETB – additional extraction connection (by-pass – extraction without heat recovery)

# Domekt R 300 F C8

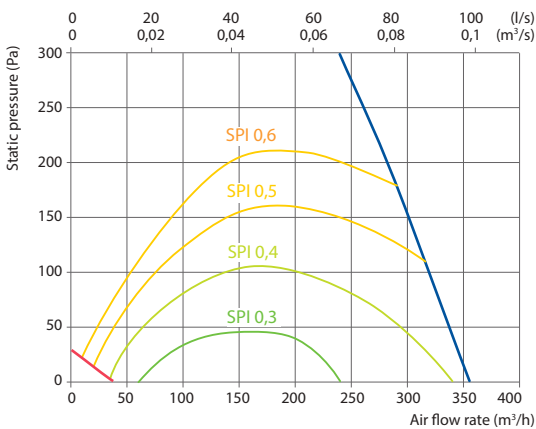
NEW

Maximal air flow, m <sup>3</sup> /h	321
Maximal air flow, l/s	89
Reference flow rate, m <sup>3</sup> /s	0,062
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /h)	0,33
Thermal efficiency of heat recovery, %	82
Electric air heater capacity, kW / Δt, °C	1/13
Supply voltage, V	1~230
Maximal operating current HE, A	6,1
Power supply cable, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	89
Electric power input of the fan drive at reference flow rate, W	41
Noise power level, L <sub>WA,r</sub> dB(A)	42
Noise pressure level, L <sub>pA,r</sub> dB(A), (3 m)	31
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

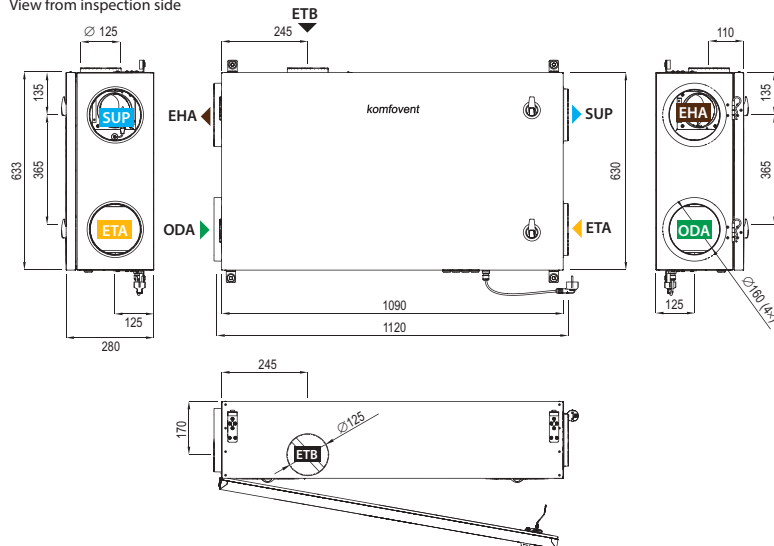


## Temperature efficiency

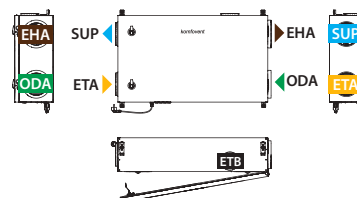
	Winter				Summer			
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,8	15,2	16,1	17,1	18	22,5	23,5	24,4

indoor +22 °C, 20 % RH

Shown as right (R1)  
View from inspection side



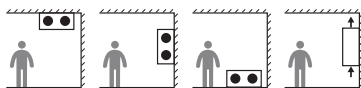
Shown as left (L1)



## Accessories

Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA 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

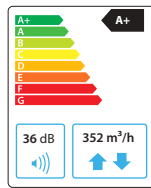
## Mounting positions



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

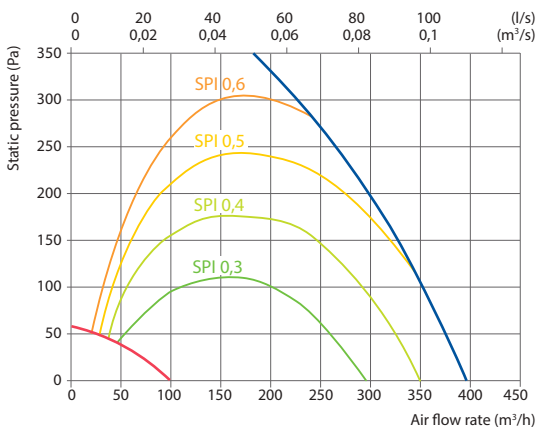
# Domekt R 350 V C8

Maximal air flow, m <sup>3</sup> /h	352
Maximal air flow, l/s	98
Reference flow rate, m <sup>3</sup> /s	0,068
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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	5,3
Power supply cable, mm <sup>2</sup>	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 <sub>WA</sub> , dB(A)	36
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	26
Filters dimensions BxHxL, mm	428×204×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	495×512×598
Maintenance space, mm	600
Unit weight, kg	45



## Performance

Unit with standard equipment



## Accessories

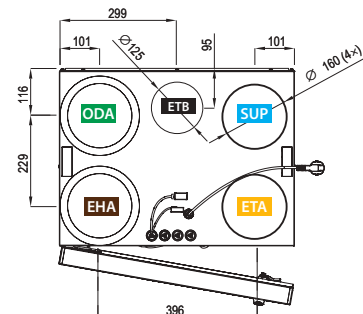
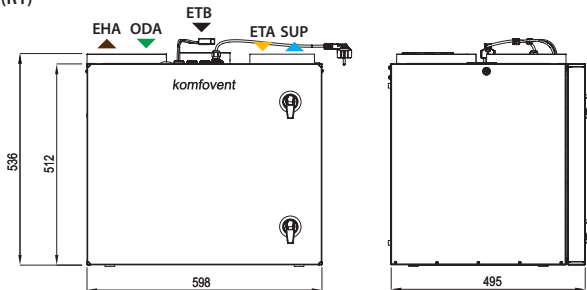
Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA ASTS-160-900-M
Water heater	DH-160
PPU	PPU-HW-3R-15-0,4-W2
2-way valve (heater)	VVP47.10-0,4+SSF161.05HF
Water cooler	DCW-0,4-3
2-way valve (cooler)	VVP47.10-1,6+SSF161.05HF
Outdoor grill	LD-160
Quick mounting plate	MP-R350V
Water heater-cooler	DHCW-160
DX cooler	DCF-0,4-3
Cooling unit	MOU-12HFN8a+ KA8142

## Temperature efficiency

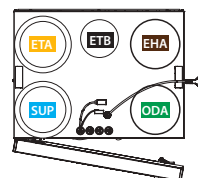
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	15,6	16,7	17,4	18,1	18,9	22,4	23,1	23,9

indoor +22 °C, 20 % RH

Shown as right (R1)



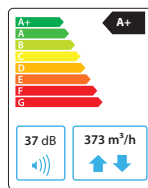
Shown as left (L1)



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

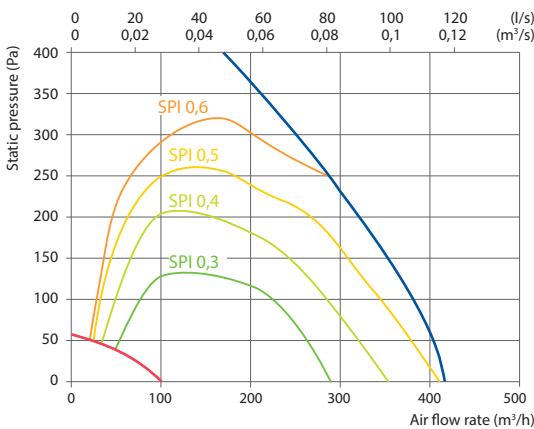
# Domekt R 400 V C6M

Maximal air flow, m <sup>3</sup> /h	373
Maximal air flow, l/s	104
Reference flow rate, m <sup>3</sup> /s	0,073
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA,r</sub> dB(A)	37
Noise pressure level, L <sub>pA,r</sub> dB(A), (3 m)	27
Filters dimensions BxHxL, mm	428x231x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	495x561x598
Maintenance space, mm	600
Unit weight, kg	49



## Performance

Unit with standard equipment

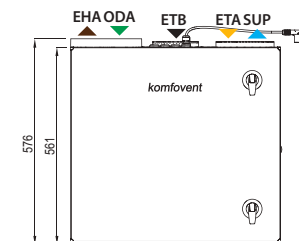


## Temperature efficiency

	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

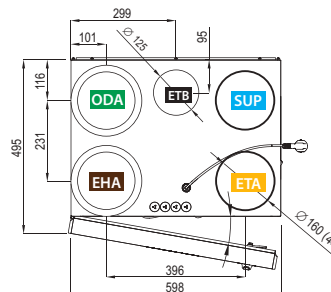
indoor +22 °C, 20 % RH

Shown as right (R1)

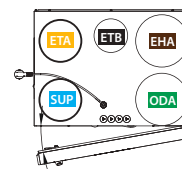


## Accessories

Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA 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



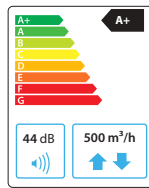
Shown as left (L1)



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

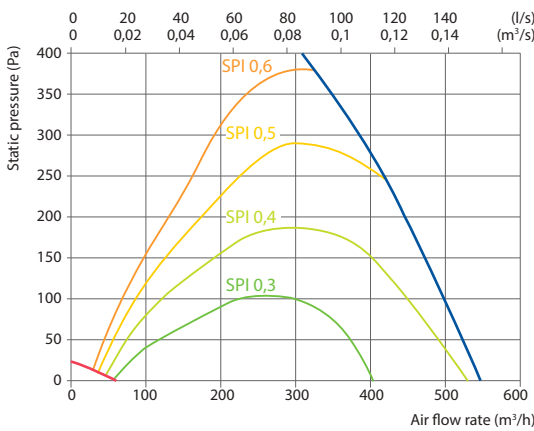
# Domekt R 400 H C6M

Maximal air flow, m <sup>3</sup> /h	500
Maximal air flow, l/s	139
Reference flow rate, m <sup>3</sup> /s	0,097
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	44
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	32
Filters dimensions BxHxL, mm	417×210×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	515×567×660
Maintenance space, mm	650
Unit weight, kg	49



## Performance

Unit with standard equipment

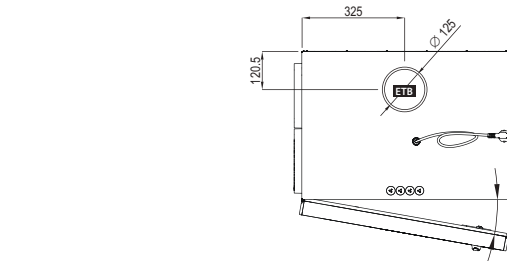
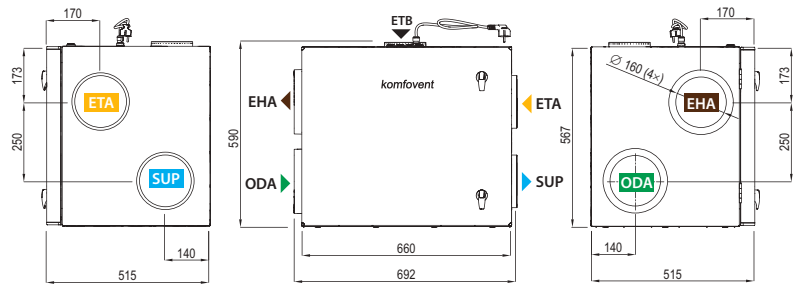


## Temperature efficiency

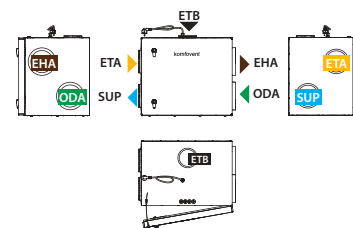
Outdoor temperature, °C	Winter				Summer			
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,9	16,2	17	17,7	18,5	22,5	23,3	24

indoor +22 °C, 20 % RH

Shown as right (R1)



Shown as left (L1)



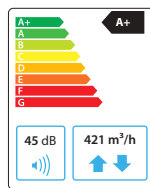
## Accessories

Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA 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)

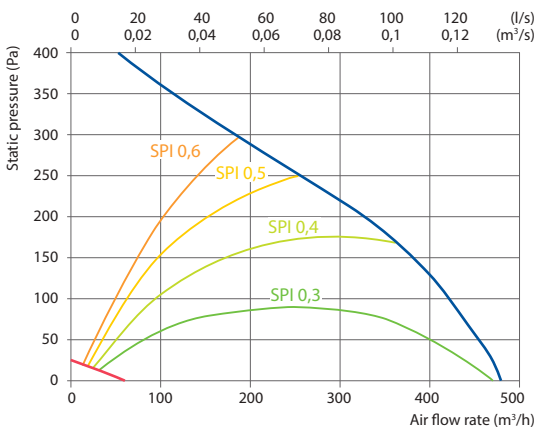
# Domekt R 400 F C6M

Maximal air flow, m <sup>3</sup> /h	421
Maximal air flow, l/s	117
Reference flow rate, m <sup>3</sup> /s	0,082
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA,r</sub> dB(A)	45
Noise pressure level, L <sub>pA,r</sub> dB(A), (3 m)	33
Filters dimensions BxHxL, mm	346x258x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	700x310x1170
Maintenance space, mm	300
Unit weight, kg	65



## Performance

Unit with standard equipment



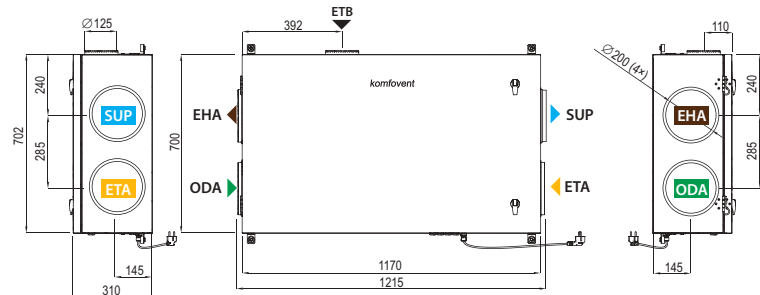
## Temperature efficiency

	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)

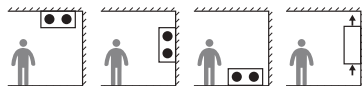
View from inspection side



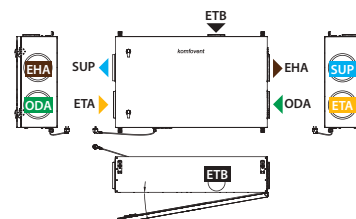
## Accessories

Closing damper	AGUJ-M-200+TF230/CM230
Silencer	ODA/ETA ASTS-200-600-M
	SUP/EHA 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



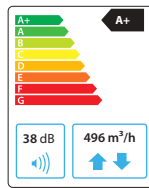
### Shown as left (L1)



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

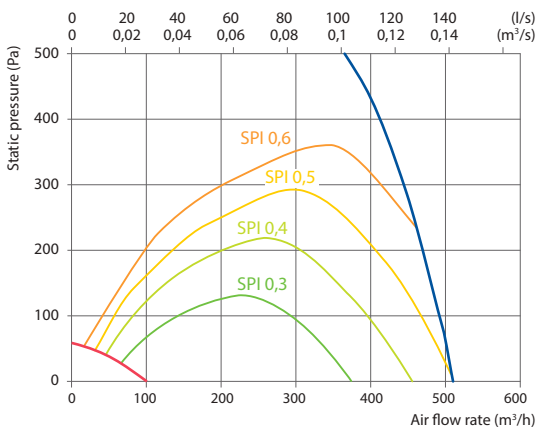
# Domekt R 450 V C6M

Maximal air flow, m <sup>3</sup> /h	496
Maximal air flow, l/s	138
Reference flow rate, m <sup>3</sup> /s	0,096
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA</sub> , dB(A)	38
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	28
Filters dimensions BxHxL, mm	517x278x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	585x655x680
Maintenance space, mm	700
Unit weight, kg	60



## Performance

Unit with standard equipment



## Accessories

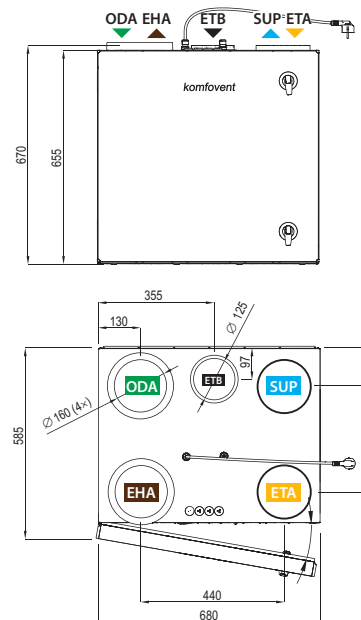
Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA ASTS-160-900-M
Water heater	DH-160
PPU	PPU-HW-3R-15-0,4-W2
2-way valve (heater)	VVP47.10-0,4+SSF161.05HF
Water cooler	DCW-0,5-3
2-way valve (cooler)	VVP47.10-1,6+SSF161.05HF
Outdoor grill	LD-160
Water heater-cooler	DHCW-160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

## Temperature efficiency

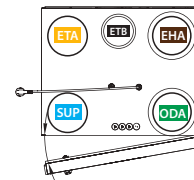
	Winter				Summer			
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	15,7	16,8	17,5	18,2	18,9	22,4	23,1	23,8

indoor +22 °C, 20 % RH

Shown as right (R1)



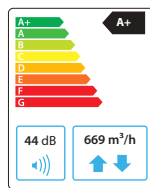
Shown as left (L1)



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

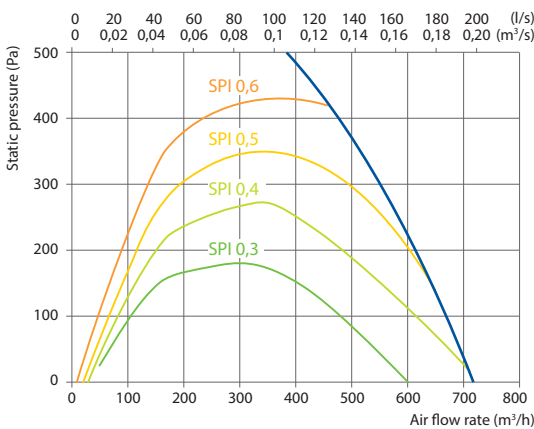
# Domekt R 600 V C6M

Maximal air flow, m <sup>3</sup> /h	669
Maximal air flow, l/s	186
Reference flow rate, m <sup>3</sup> /s	0,130
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA</sub> , dB(A)	44
Noise pressure level, L <sub>pA</sub> , dB(A), (3 m)	32
Filters dimensions BxHxL, mm	515x240x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	610x750x905
Maintenance space, mm	900
Unit weight, kg	82



## Performance

Unit with standard equipment



## Accessories

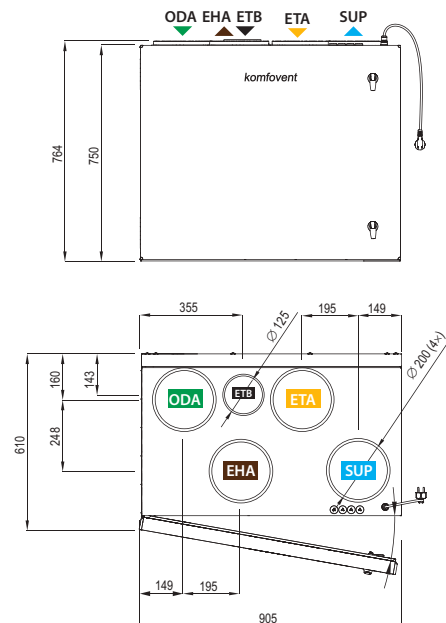
Closing damper	AGUJ-M-200+TF230/CM230
Silencer	ODA/ETA ASTS-200-600-M
	SUP/EHA ASTS-200-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,63-W2
2-way valve (heater)	VVP47.15-2,5+SSF161.05HF
Water cooler	DCW-0,5-3
2-way valve (cooler)	VVP47.15-2,5+SSF161.05HF
Outdoor grill	LD-200
Water heater-cooler	DHCW-250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

## Temperature efficiency

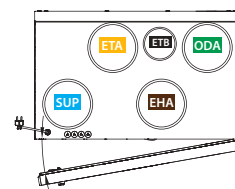
	Winter				Summer			
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,8	16,1	16,9	17,7	18,5	22,5	23,2	24,1

indoor +22 °C, 20 % RH

Shown as right (R1)



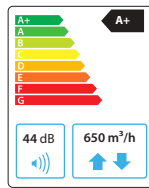
Shown as left (L1)



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

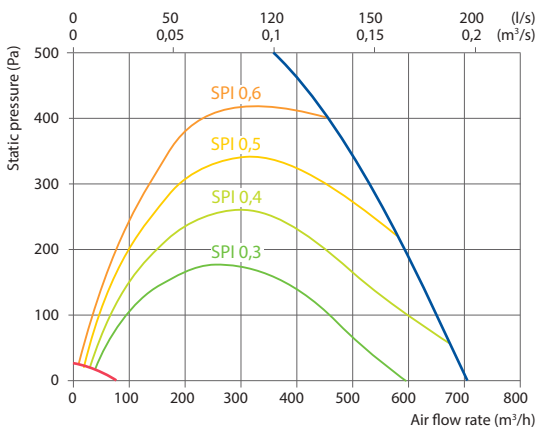
# Domekt R 600 H C6M

Maximal air flow, m <sup>3</sup> /h	650
Maximal air flow, l/s	181
Reference flow rate, m <sup>3</sup> /s	0,126
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	44
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	33
Filters dimensions BxHxL, mm	475×235×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	570×600×1060
Maintenance space, mm	1100
Unit weight, kg	80



## Performance

Unit with standard equipment



## Accessories

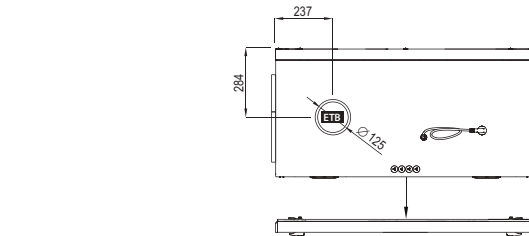
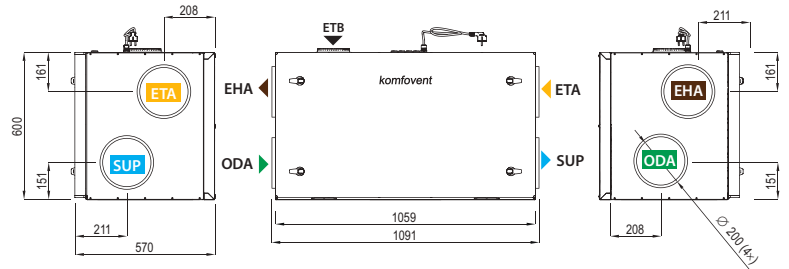
Closing damper	AGUJ-M-200+TF230/CM230
Silencer	ODA/ETA ASTS-200-600-M
	SUP/EHA ASTS-200-900-M
Water heater	DH-200
PPU	PPU-HW-3R-15-0,63-W2
2-way valve (heater)	VVP47.10-0,63+SSF161.05HF
Water cooler	DCW-0,7-5
2-way valve (cooler)	VVP47.10-0,63+SSF161.05HF
Outdoor grill	LD-200
Water heater-cooler	DHCW-200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

## Temperature efficiency

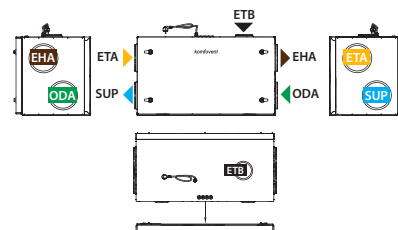
Outdoor temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,4	15,7	16,6	17,4	18,3	22,5	23,4	24,2

indoor +22 °C, 20 % RH

Shown as right (R1)



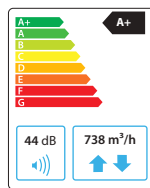
Shown as left (L1)



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

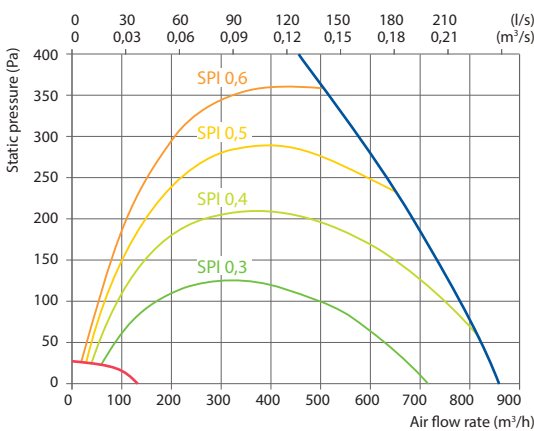
# Domekt R 700 V C6M

Maximal air flow, m <sup>3</sup> /h	738
Maximal air flow, l/s	205
Reference flow rate, m <sup>3</sup> /s	0,140
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA</sub> , dB(A)	44
Noise pressure level, L <sub>pA</sub> , dB(A), (3 m)	33
Filters dimensions BxHxL, mm	540x260x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	637x950x1070
Maintenance space, mm	1070
Unit weight, kg	110



## Performance

Unit with standard equipment



## Accessories

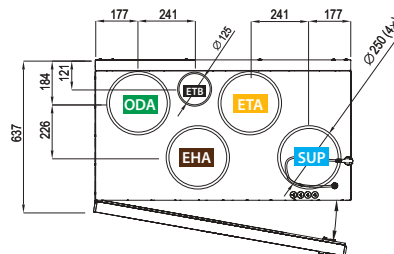
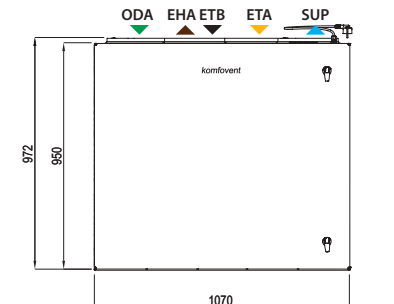
Closing damper	AGUJ-M-250+TF230/CM230
Silencer	ODA/ETA ASTS-250-600-M
	SUP/EHA ASTS-250-900-M
Water heater	DH-250
PPU	PPU-HW-3R-15-0,63-W2
2-way valve (heater)	VVP47.10-0,63+SSF161.05HF
Water cooler	DCW-0,7-5
2-way valve (cooler)	VVP47.15-2,5+SSF161.05HF
Outdoor grill	LD-250
Water heater-cooler	DHCW-250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

## Temperature efficiency

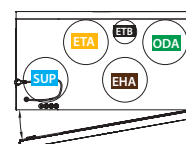
	Winter				Summer			
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,7	16,0	16,8	17,6	18,4	22,5	23,3	24,1

indoor +22 °C, 20 % RH

Shown as right (R1)



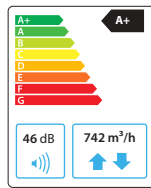
Shown as left (L1)



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

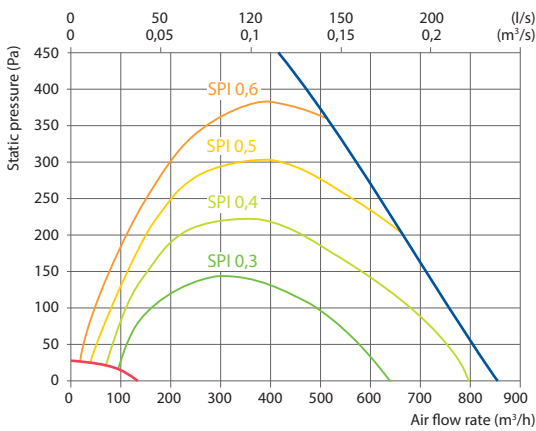
# Domekt R 700 H C6M

Maximal air flow, m <sup>3</sup> /h	742
Maximal air flow, l/s	206
Reference flow rate, m <sup>3</sup> /s	0,144
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	46
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	35
Filters dimensions BxHxL, mm	540x260x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	634x700x930
Maintenance space, mm	950
Unit weight, kg	83



## Performance

Unit with standard equipment

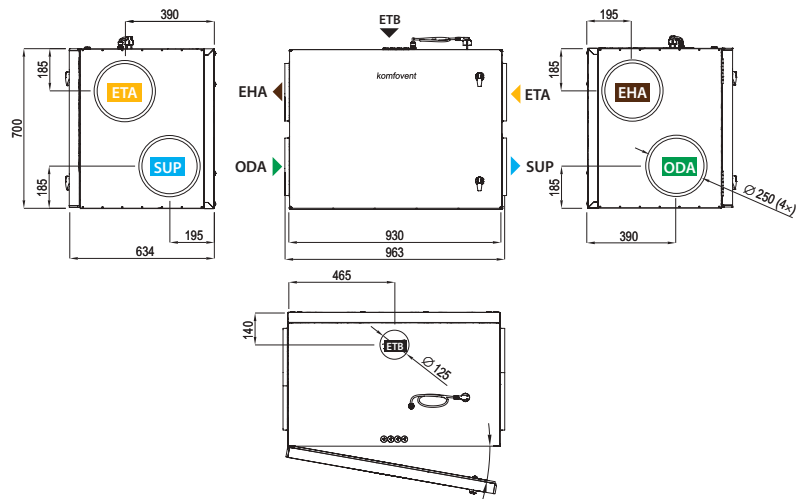


## Temperature efficiency

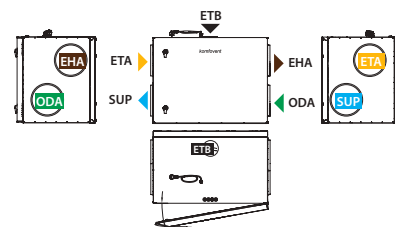
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,8	16,1	16,9	17,7	18,5	22,5	23,3	24,1

indoor +22 °C, 20 % RH

Shown as right (R1)



Shown as left (L1)



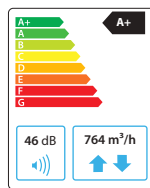
## Accessories

Closing damper	AGUJ-M-250+TF230/CM230
Silencer	ODA/ETA ASTS-250-600-M
	SUP/EHA 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)

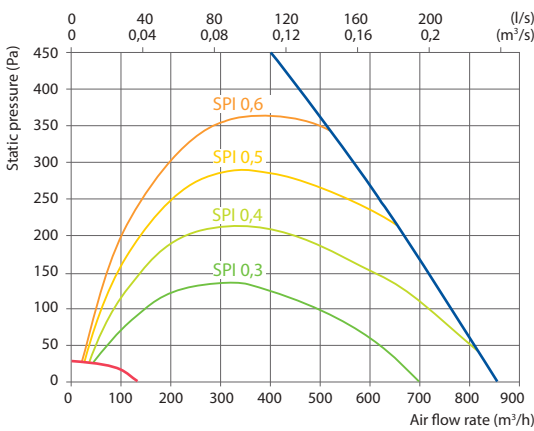
# Domekt R 700 F C6M

Maximal air flow, m <sup>3</sup> /h	764
Maximal air flow, l/s	212
Reference flow rate, m <sup>3</sup> /s	0,149
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA,r</sub> dB(A)	46
Noise pressure level, L <sub>PA,r</sub> dB(A), (3 m)	35
Filters dimensions BxHxL, mm	368x375x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	850x420x1240
Maintenance space, mm	500
Unit weight, kg	93



## Performance

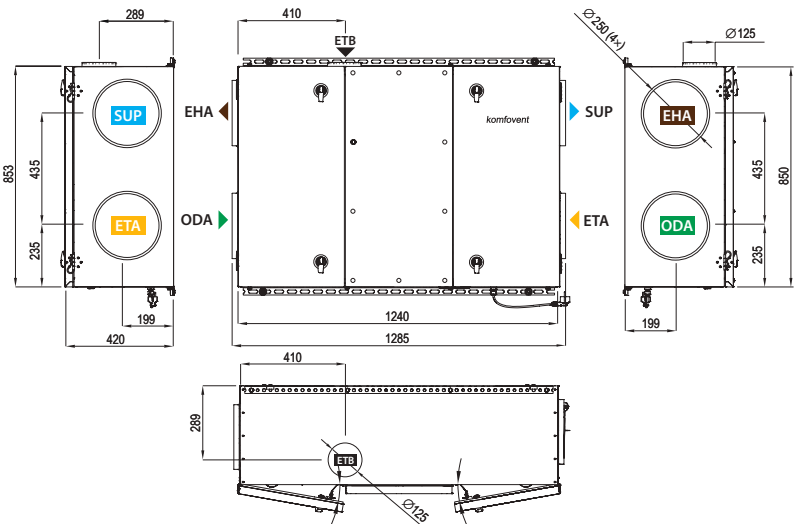
Unit with standard equipment



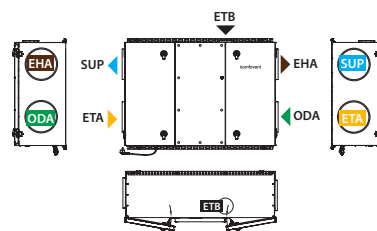
## Temperature efficiency

	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								

Shown as right (R1)  
View from inspection side



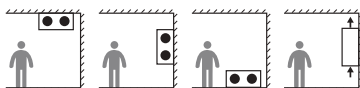
Shown as left (L1)



## Accessories

Closing damper	AGUJ-M-250+TF230/CM230
Silencer	ODA/ETA ASTS-250-600-M
	SUP/EHA 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

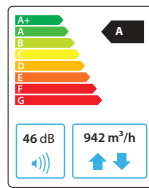
## Mounting positions



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

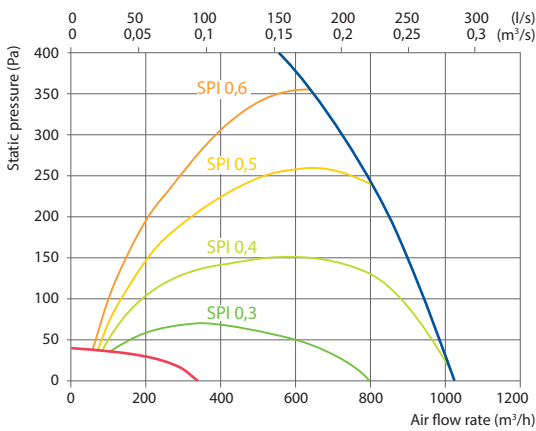
# Domekt R 900 V C6M

Maximal air flow, m <sup>3</sup> /h	942
Maximal air flow, l/s	262
Reference flow rate, m <sup>3</sup> /s	0,183
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA</sub> , dB(A)	46
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	36
Filters dimensions BxHxL, mm	540x260x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	637x950x1070
Maintenance space, mm	1070
Unit weight, kg	110



## Performance

Unit with standard equipment



## Accessories

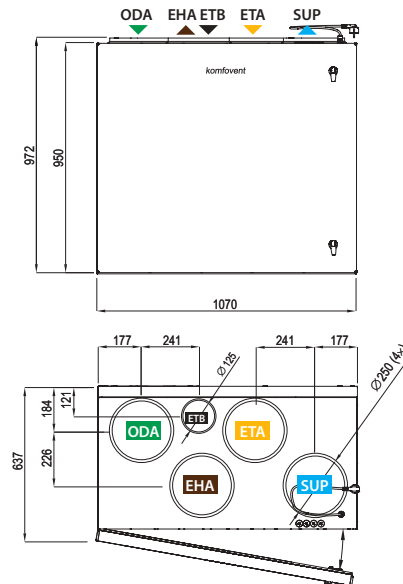
Closing damper	AGUJ-M-250+TF230/CM230
Silencer	ODA/ETA ASTS-250-900-M
	SUP/EHA ASTS-250-1200-M
Water heater	DH-250
PPU	PPU-HW-3R-15-0,63-W2
2-way valve (heater)	VVP47.10-0,63+SSF161.05HF
Water cooler	DCW-0,9-6
2-way valve (cooler)	VVP47.15-2,5+SSF161.05HF
Outdoor grill	LD-250
Water heater-cooler	DHCW-315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

## Temperature efficiency

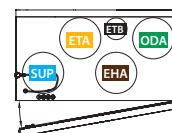
Outdoor temperature, °C	Winter				Summer			
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,2	15,6	16,5	17,3	18,2	22,5	23,4	24,2

indoor +22 °C, 20 % RH

Shown as right (R1)



Shown as left (L1)

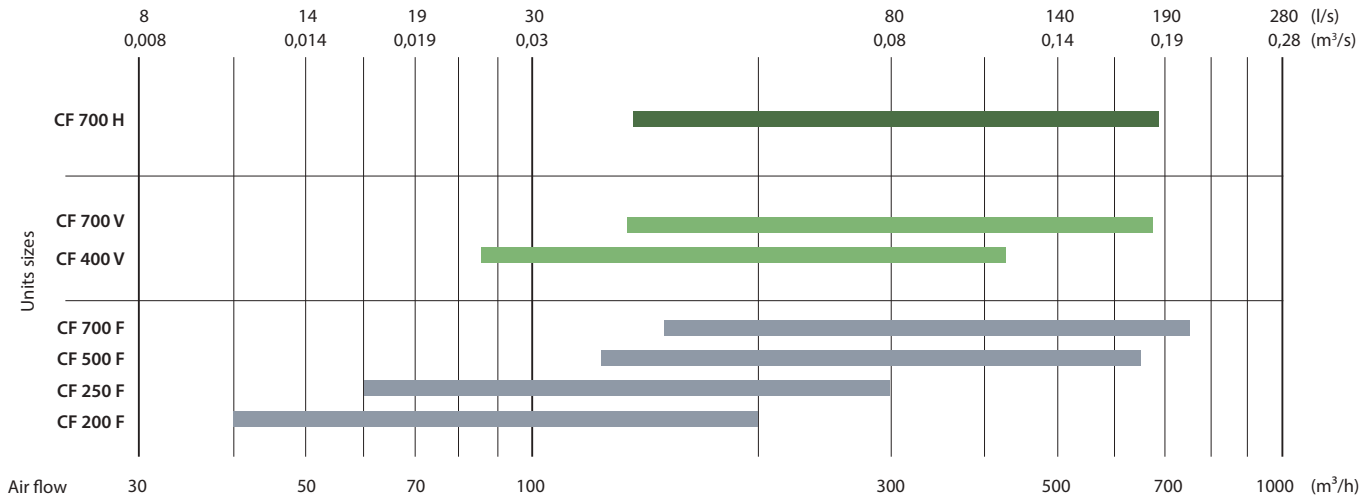


- ▶ ODA – outdoor intake
- ▶ SUP – supply air
- ▶ ETA – extract indoor
- ▶ EHA – exhaust air
- ▶ ETB – additional extraction connection (by-pass – extraction without heat recovery)

# Domekt CF

Air handling units with counterflow plate heat exchangers

## Sizes and air volumes of Domekt CF units



## Modifications of Domekt CF units

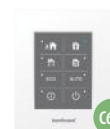
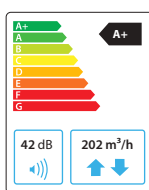
Unit	Heat exchanger		Supply/exhaust air filter class ePM1 60 % / ePM10 50 %	Preheater	Heater			Cooler		Inspection side		Bypass
	Condensing	Enthalpy		HE	HE	DH	DHCW	DHCW	HCDX	R1	L1	Inner
Domekt CF 200 F C8	●	○	●	△	●	△					○	●
Domekt CF 250 F C6	●	○	●	●	●	△	△	△		○	○	●
Domekt CF 400 V C6M	●	○	●	●	●	△	△	△	△	○	○	●
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. 153.

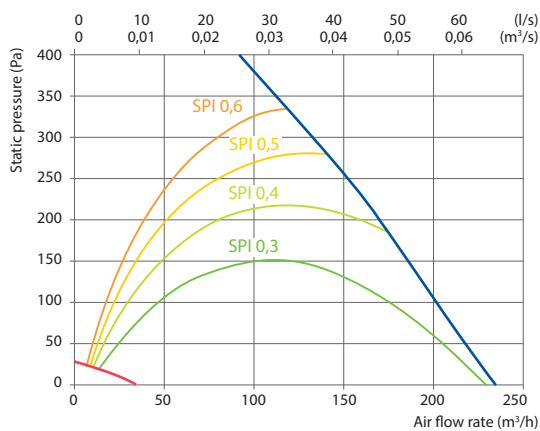
# Domekt CF 200 F C8

Maximal air flow, m <sup>3</sup> /h	202
Maximal air flow, l/s	56
Reference flow rate, m <sup>3</sup> /s	0,039
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	42
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	31
Filters dimensions BxHxL, mm	250×232×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	560×294×1100
Maintenance space, mm	300
Unit weight, kg	28



## Performance

Unit with standard equipment



## Accessories

Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA 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



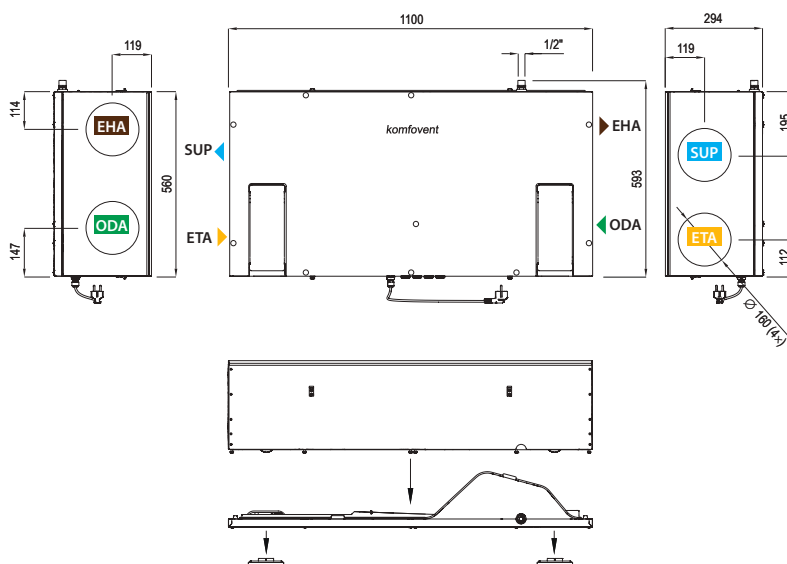
## Temperature efficiency

Outdoor temperature, °C	Winter					Summer		
	-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)

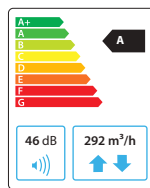
View from inspection side



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

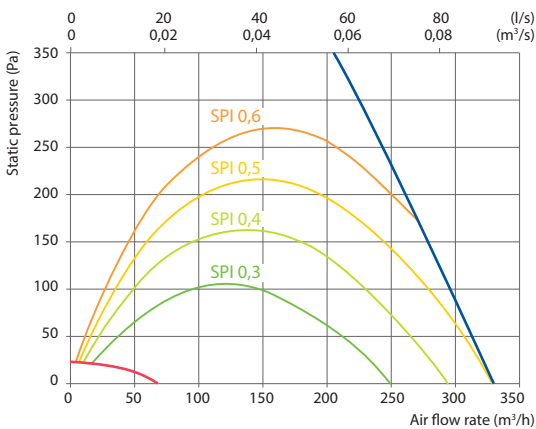
# Domekt CF 250 F C6

Maximal air flow, m <sup>3</sup> /h	292
Maximal air flow, l/s	81
Reference flow rate, m <sup>3</sup> /s	0,057
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA</sub> , dB(A)	46
Noise pressure level, L <sub>pA</sub> , dB(A), (3 m)	35
Filters dimensions BxHxL, mm	265x250x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	604x294x1250
Maintenance space, mm	300
Unit weight, kg	52



## Performance

Unit with standard equipment



## Temperature efficiency

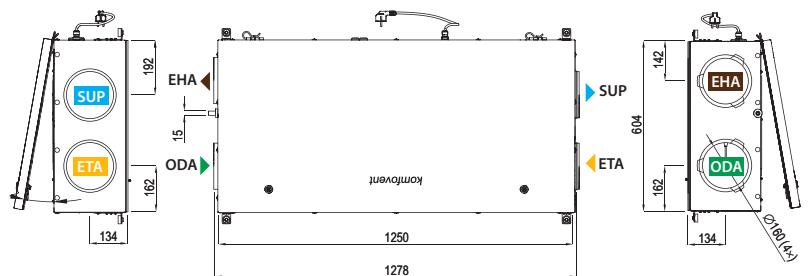
Outdoor temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	18*	18,9*	18,9*	18,9*	18,9	22,4	23,1	23,8

indoor +22 °C, 20 % RH

\* calculations made after evaluation of the preheater.

### Shown as right (R1)

View from inspection side



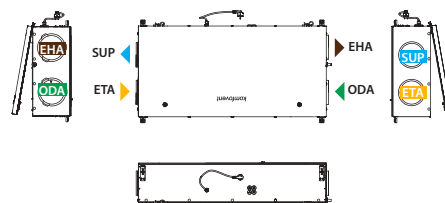
## Accessories

Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA 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



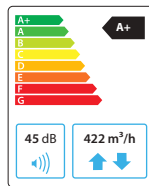
### Shown as left (L1)



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

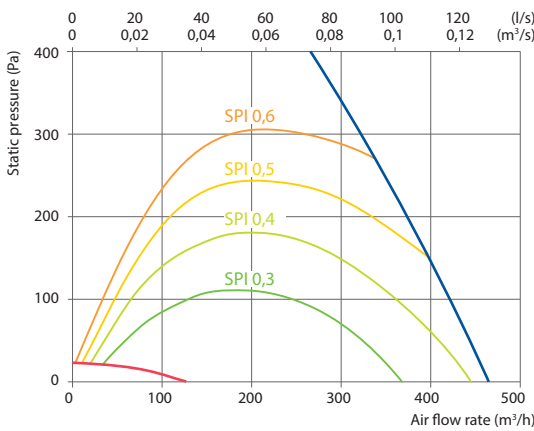
# Domekt CF 400 V C6M

Maximal air flow, m <sup>3</sup> /h	422
Maximal air flow, l/s	117
Reference flow rate, m <sup>3</sup> /s	0,082
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	45
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	34
Filters dimensions BxHxL, mm	350×220×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	585×750×598
Maintenance space, mm	750
Unit weight, kg	55



## Performance

Unit with standard equipment



## Accessories

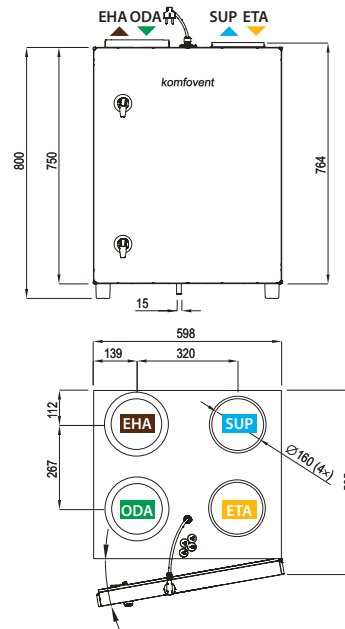
Closing damper	AGUJ-M-160+TF230/CM230
Silencer	ODA/ETA ASTS-160-600-M
	SUP/EHA ASTS-160-900-M
Water heater	DH-160
PPU	PPU-HW-3R-15-0,4-W2
2-way valve (heater)	VVP47.10-0,4+SSF161.05HF
Water cooler	DCW-0,4-3
2-way valve (cooler)	VVP47.10-1,6+SSF161.05HF
Outdoor grill	LD-160
Water heater-cooler	DHCW-160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

## 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)



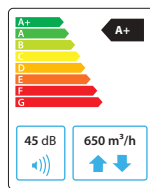
Shown as left (L1)



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

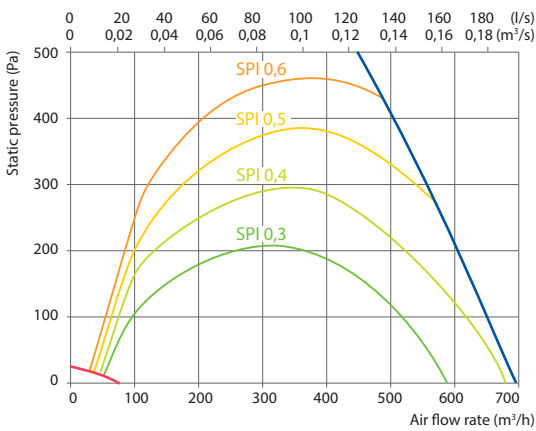
# Domekt CF 500 F C6M

Maximal air flow, m <sup>3</sup> /h	650
Maximal air flow, l/s	181
Reference flow rate, m <sup>3</sup> /s	0,13
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA,r</sub> dB(A)	45
Noise pressure level, L <sub>PA,r</sub> dB(A), (3 m)	33
Filters dimensions BxHxL, mm	473x242x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	1045x292x1400
Maintenance space, mm	560
Unit weight, kg	93



## Performance

Unit with standard equipment



## Accessories

Closing damper	AGUJ-M-200+TF230/CM230
Silencer	ODA/ETA ASTS-200-600-M
	SUP/EHA 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



## Temperature efficiency

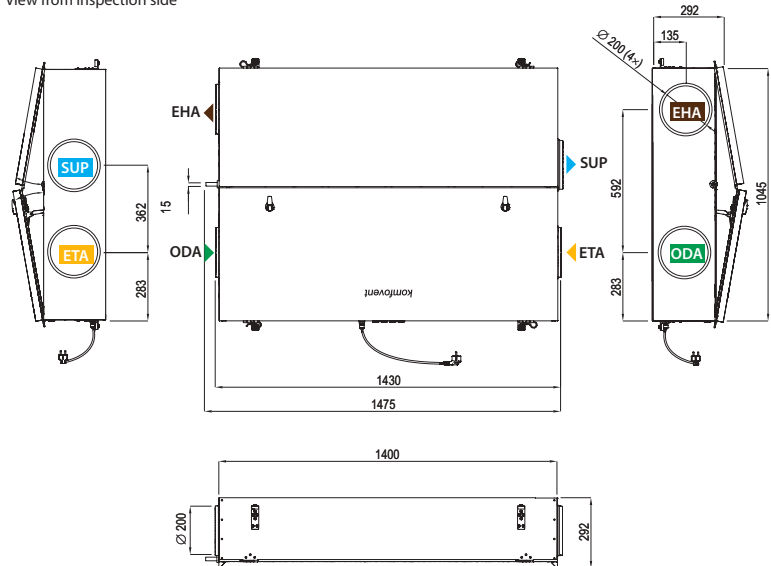
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	17,4*	18,2*	18,9*	18,9*	18,9	22,4	23,1	23,8

indoor +22 °C, 20 % RH

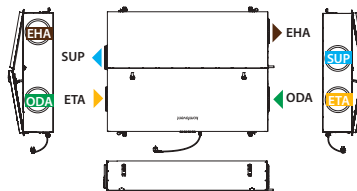
\* calculations made after evaluation of the preheater.

### Shown as right (R1)

View from inspection side



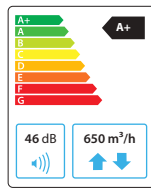
### Shown as left (L1)



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

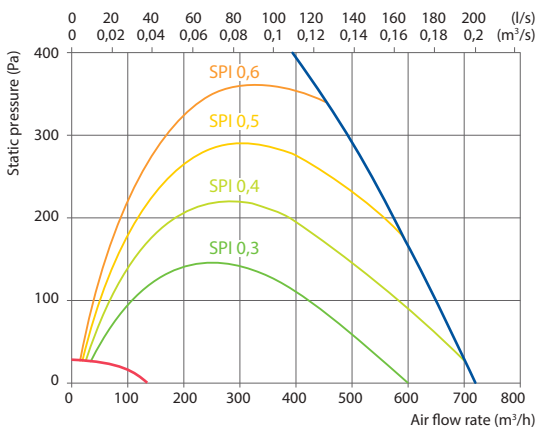
# Domekt CF 700 V C6M

Maximal air flow, m <sup>3</sup> /h	650
Maximal air flow, l/s	181
Reference flow rate, m <sup>3</sup> /s	0,130
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	46
Noise pressure level, L <sub>PA</sub> , 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



## Accessories

Closing damper	AGUJ-M-200+TF230/CM230
Silencer	ODA/ETA ASTS-200-600-M
	SUP/EHA 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

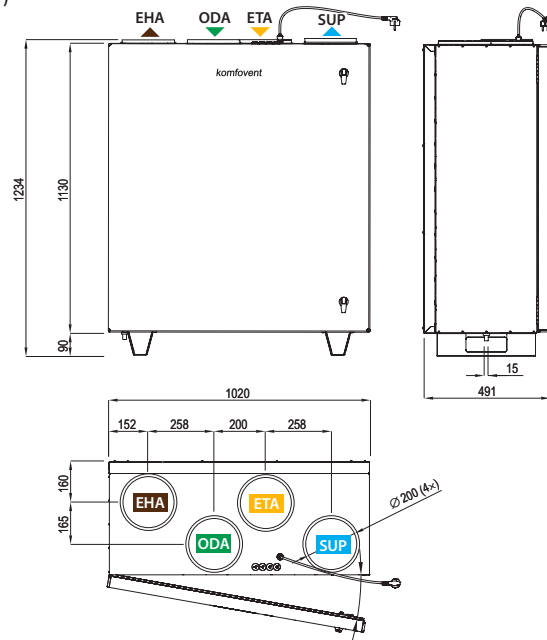
## Temperature efficiency

	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

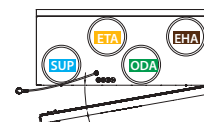
indoor +22 °C, 20 % RH

\* calculations made after evaluation of the preheater.

Shown as right (R1)



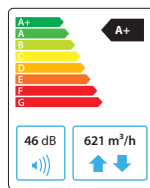
Shown as left (L1)



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

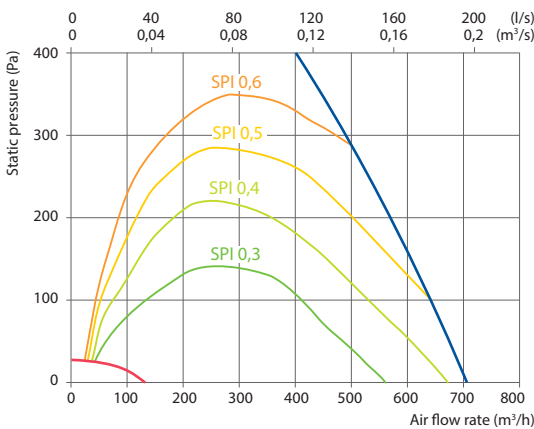
# Domekt CF 700 H C6M

Maximal air flow, m <sup>3</sup> /h	621
Maximal air flow, l/s	173
Reference flow rate, m <sup>3</sup> /s	0,121
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	3x1,5
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 <sub>WA</sub> , dB(A)	46
Noise pressure level, L <sub>pA</sub> , dB(A), (3 m)	34
Filters dimensions BxHxL, mm	390x300x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	487x700x1500
Maintenance space, mm	500
Unit weight, kg	95



## Performance

Unit with standard equipment



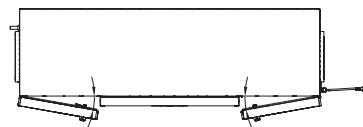
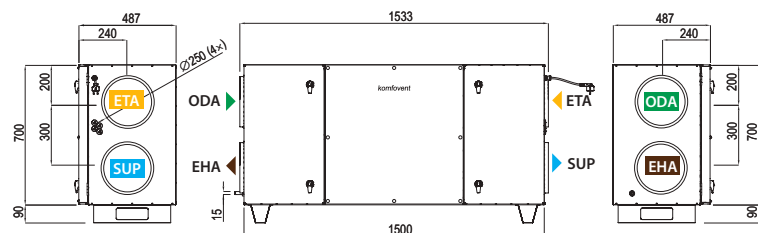
## Temperature efficiency

	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.

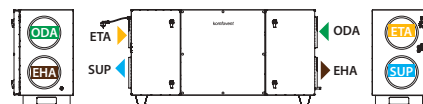
Shown as right (R1)



## Accessories

Closing damper	AGUJ-M-250+TF230/CM230
Silencer	ODA/ETA ASTS-250-600-M
	SUP/EHA 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

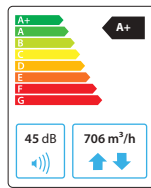
Shown as left (L1)



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

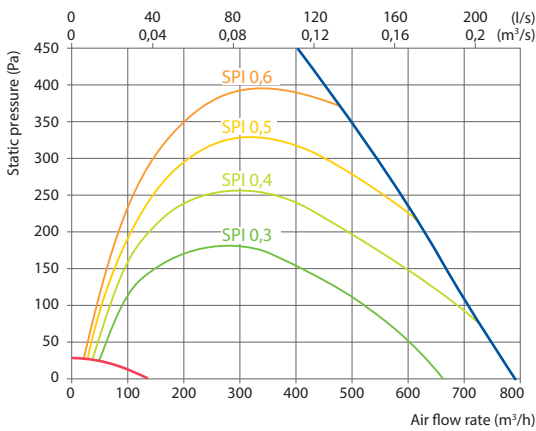
# Domekt CF 700 F C6M

Maximal air flow, m <sup>3</sup> /h	706
Maximal air flow, l/s	196
Reference flow rate, m <sup>3</sup> /s	0,14
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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 <sup>2</sup>	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 <sub>WA</sub> , dB(A)	45
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	34
Filters dimensions BxHxL, mm	390×287×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	875×344×1365
Maintenance space, mm	300
Unit weight, kg	84



## Performance

Unit with standard equipment



## Accessories

Closing damper	AGUJ-M-250+TF230/CM230
Silencer	ODA/ETA ASTS-250-600-M
	SUP/EHA 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



## Temperature efficiency

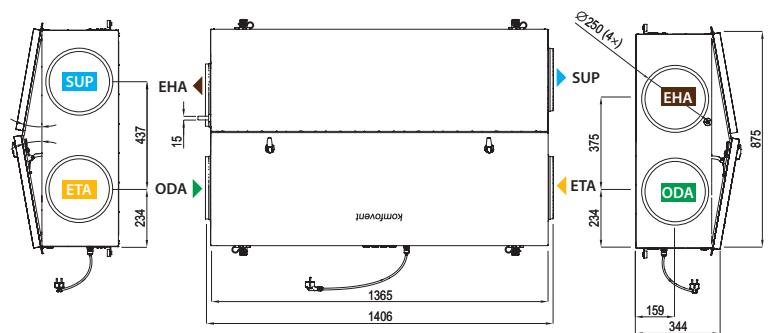
	Winter					Summer		
Outdoor temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger*, °C	17*	17,7*	18,5*	18,6*	18,6	22,5	23,2	23,9

indoor +22 °C, 20 % RH

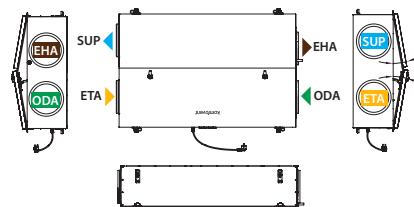
\* calculations made after evaluation of the preheater.

Shown as right (R1)

View from inspection side



Shown as left (L1)

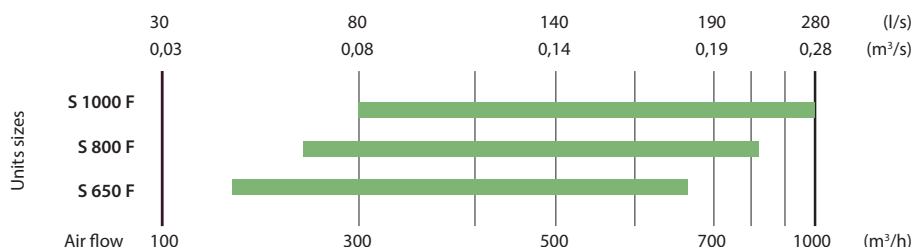


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

# Domekt S

## False ceiling supply air handling units

### Sizes and air volumes of Domekt S units



### Modifications of Domekt S units

Unit	Supply air filter class		Heater		Cooler	
	ePM1 60 %	ePM10 50 %	HE	HW	HCW	HCDX
Domekt S 650 F	○	●	●		△	△
Domekt S 800 F	○	●	●	○	△	△
Domekt S 1000 F	○	●	●	○	△	△



Control system C5  
Control panel 5.1

- standard equipment
- possible choice
- △ ordered separately duct heater/cooler

The markings are explained on p. 153.

### Technical data

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 BxHxL, mm	371x235x46	371x287x46	558x287x46
Unit weight, kg	35	37	46

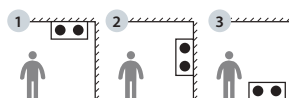
### Mounting positions

Domekt S 650 F C5



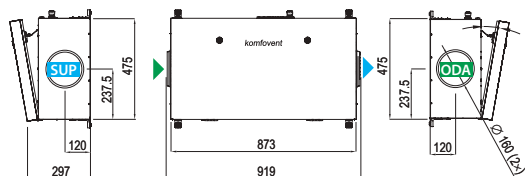
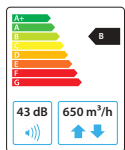
Domekt S 800 F C5

Domekt S 1000 F C5



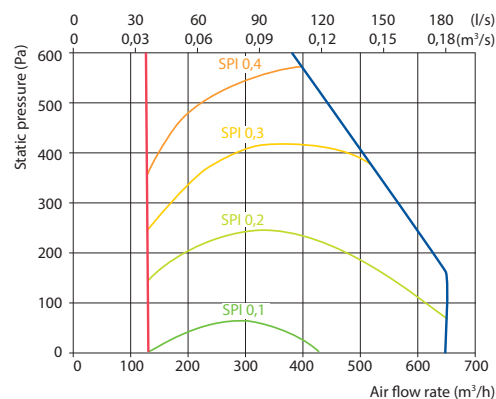
2 3 with water heater only

## Domekt S 650 F C5

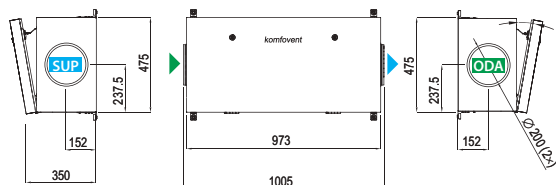
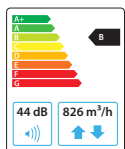


### Performance

Unit with standard equipment

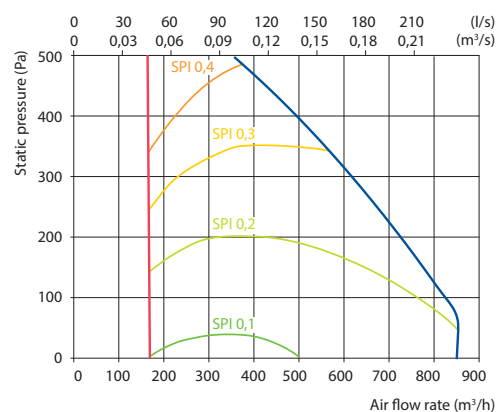


## Domekt S 800 F C5

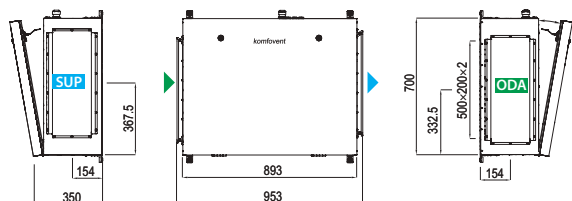
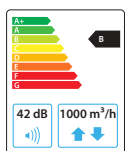


### Performance

Unit with standard equipment

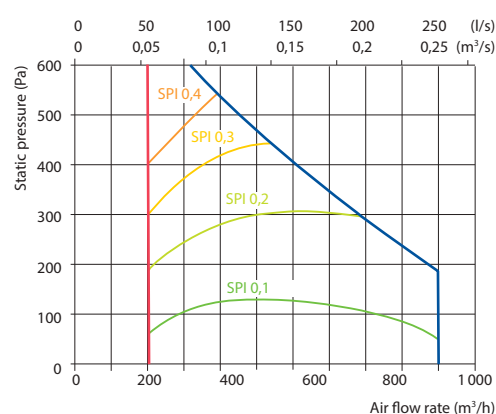


## Domekt S 1000 F C5



### Performance

Unit with standard equipment



▶ ODA – outdoor intake ▶ SUP – supply air

# KOMBI

All HVAC systems in one unit



KOMBI – your comfort and perfect well-being



KOMBI – hybrid heating and ventilation unit	56
KOMBI features and components	58
<b>NEW</b> Kombi A7	60
Kombi A9	62

# KOMBI – hybrid heating and ventilation unit



## Discover KOMBI

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.

Integrated comfort solution for homes 80–200 m<sup>2</sup>



  
Air-to-water heating

  
Air-to-Air heating

  
Domestic hot water

  
Cooling

  
Ventilation with heat recovery

  
Air filtration

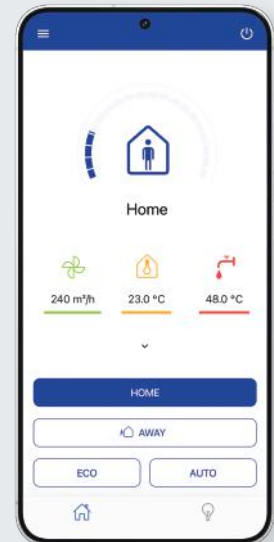
  
Humidity recovery

## 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.



All HVAC systems  
in one unit



Capacity:  
7–9 kW



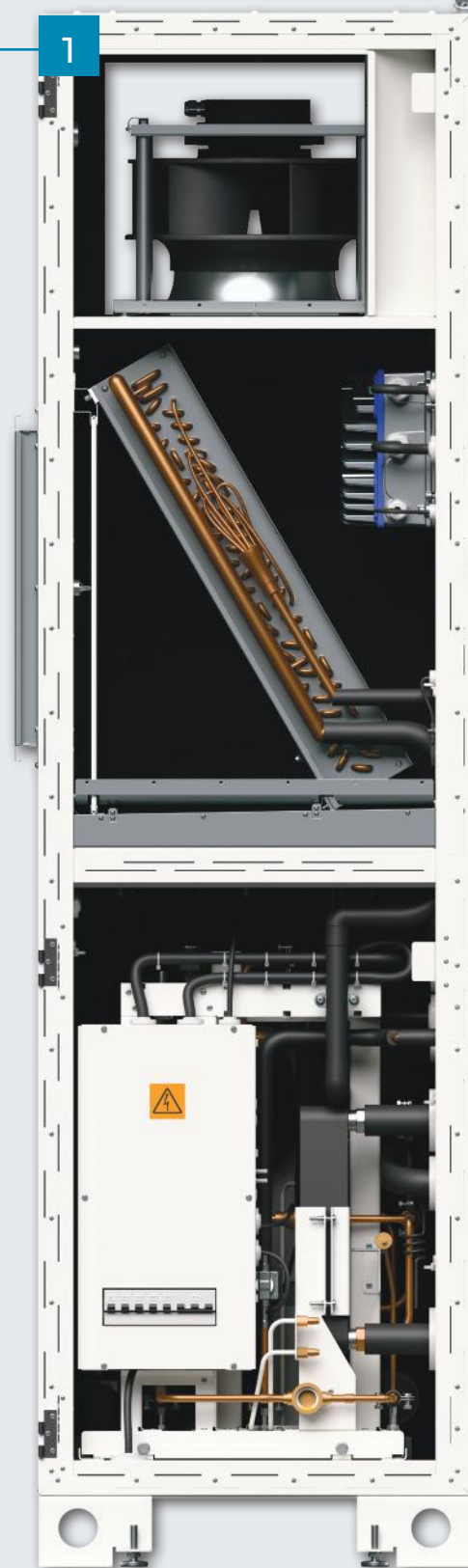
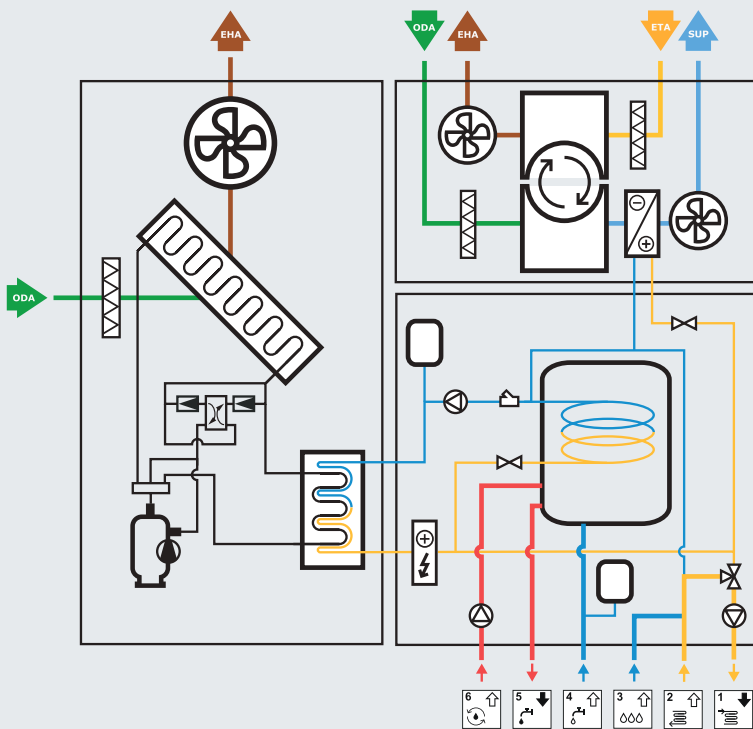
Airflow:  
100–500 m<sup>3</sup>/h

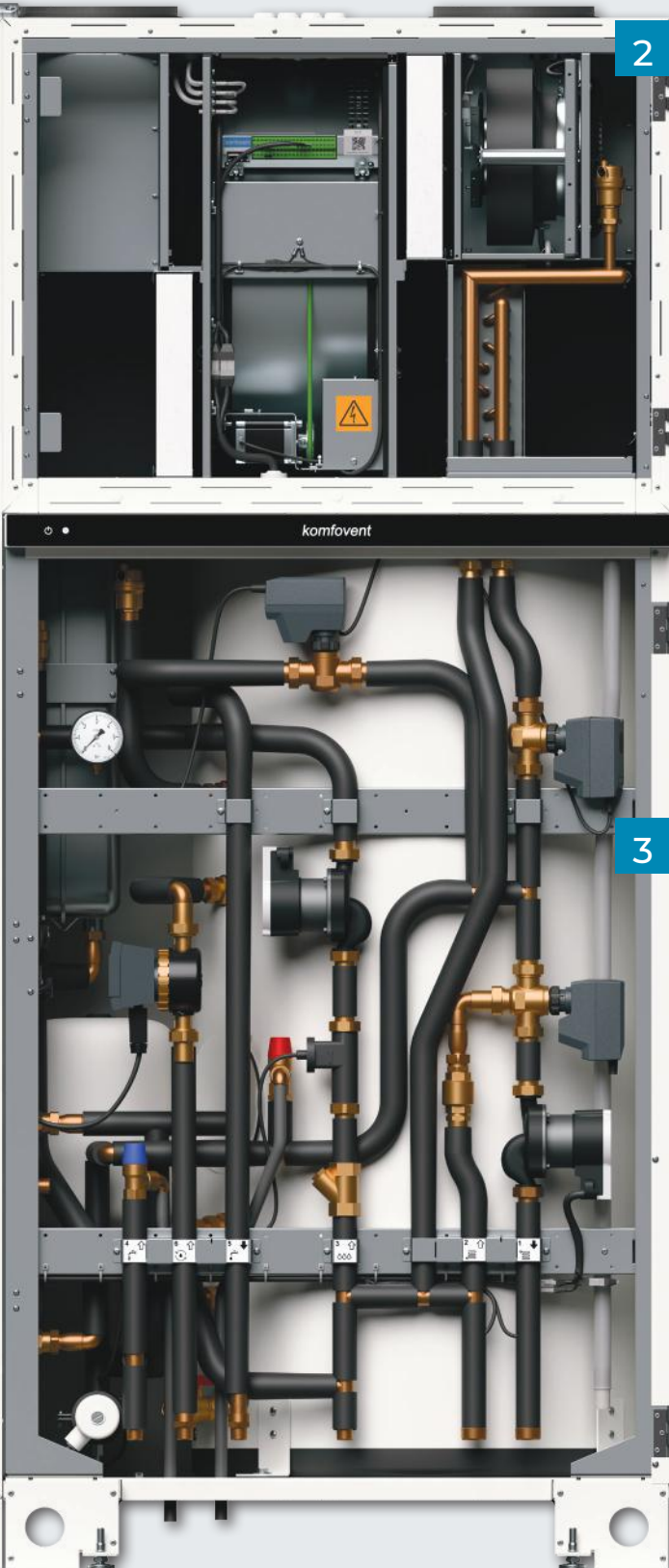
# KOMBI features and components

## The heat pump module:

- The air-to-water heat pump maintains constant heating output across the entire outdoor temperature range.
- Twin rotor, premium class inverter compressor, ensures quiet and economical operation, as well as maximum reliability and durability.
- Pre-filled with 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.
- 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<sup>3</sup>/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<sup>3</sup>/h).
- Additional air-to-air heating/cooling power of 3.3 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 A7

NEW

### General data

Voltage, V	3~400
Nominal current, A	21,2
Power cable, mm <sup>2</sup>	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<sub>WA</sub>

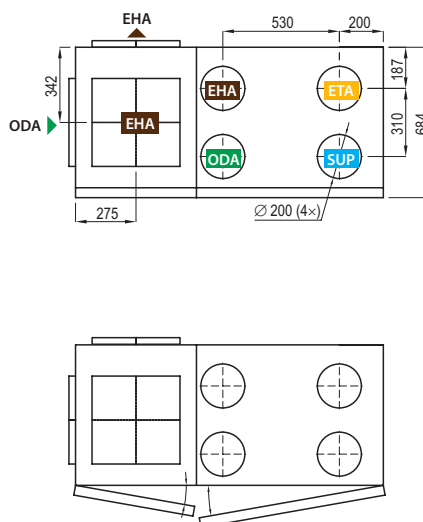
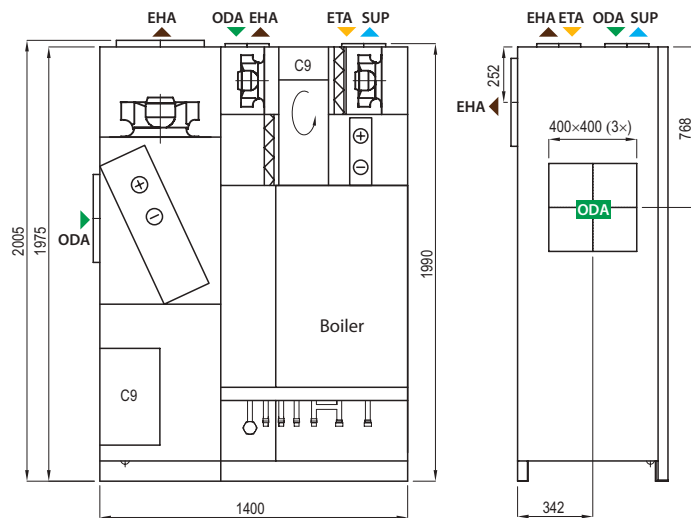
Casing in heating mode (A7/W35), dB(A)	48
Casing in heating mode (A7/W45), dB(A)	49,5
Casing in heating mode (A7/W55), dB(A)	49
Casing max., dB(A)	53,6
Outdoor in heating mode (A7/W35), dB(A)	50,4
Outdoor in heating mode (A7/W45), dB(A)	50,5
Outdoor in heating mode (A7/W55), dB(A)	51,1
Outdoor max, dB(A)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

### Accessories

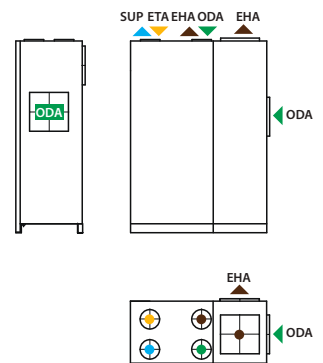
Closing damper	AGUJ-M-200 + TF230/CM230	
Silencer	ODA/ETA	AGS-200-50-600-M
	SUP/EHA	AGS-200-50-900-M
Noise damping / connection boxes	KSD-800 × 800	
Flexible duct connection, mm	JLSF-400 × 400	



Shown as right



Shown as left



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

**Air handling unit data**

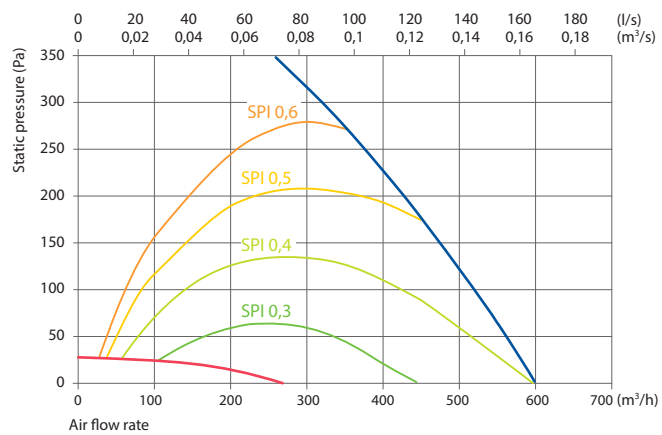
Maximal air flow, m <sup>3</sup> /h	517
Maximal air flow, l/s	144
Reference flow rate, m <sup>3</sup> /s	0,101
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /h)	0,31
Thermal efficiency of heat recovery, %	86
Air heater capacity at nominal airflow, W45, kW	3,4
Air cooler capacity at nominal airflow, W7, kW	3,3
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 inlet, L <sub>WA,r</sub> , dB(A)	55
Noise power level, Supply outlet, L <sub>WA,r</sub> , dB(A)	67
Noise power level, Exhaust inlet, L <sub>WA,r</sub> , dB(A)	57
Noise power level, Exhaust outlet, L <sub>WA,r</sub> , dB(A)	68
Air filters dimensions BxHxL, mm	585 × 258 × 46
Air filters class according to ISO 16890, Supply/Extract	ePM10 50 %

**Heat pump data**

Compressor type	Twin rotor
Refrigerant type	R454C
Refrigerant charge, kg	1,7
Nominal heating capacity, kW	7
Nominal cooling capacity (floor+AHU), kW	7
Back-up electrical heater, kW	4,5
Number of integrated water pumps	2
Max. water pump power consumption, W	75
Integrated expansion vessel for heating system, l	12
Internal water volume for heating system, l	13,6
Heating circuit water flow min., m <sup>3</sup> /h	0,34
Heating circuit water flow at nominal capacity, m <sup>3</sup> /h	1,2
Operating water pressure min., bar	0,5
Operating water pressure max., bar	3
Operating outdoor temperature min. (heat pump only), °C	-23
Operating outdoor temperature max. (heating), °C	17
Operating outdoor temperature min. (cooling), °C	15
Air filter dimensions BxH, mm	585 × 505
Filter class according to ISO 16890	coarse 65%
Heat pump seasonal energy efficiency according to EN 14825	
Heating average climate (+2 °C), SCOP W 35 °C	4,91
Heating warm climate (+7 °C), SCOP W 35 °C	6,62
Heating cold climate (-7 °C), SCOP W 35 °C	4,23
Cooling (35 °C), SEER W 18 °C	5,34

**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.	30
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 performance****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	7	1,85	3,78	-
A7/W35	7	1,46	4,79	-
A2/W45	7	2,25	3,11	-
A7/W45	7	1,85	3,78	-
A2/W55	7	2,49	2,81	-
A7/W55	7	2,31	3,04	-
A35/W18	7	1,36	-	5,16
A35/W7*	3,3	1,23	-	2,68

\* AHU only

# Kombi A9

## General data

Voltage, V	3~400
Nominal current, A	27,7
Power cable, mm <sup>2</sup>	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<sub>WA</sub>

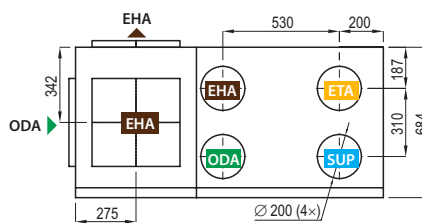
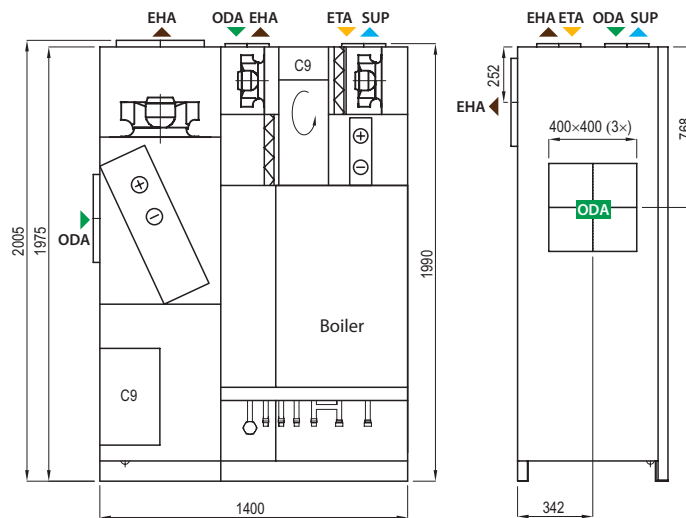
Casing in heating mode (A7/W35), dB(A)	48
Casing in heating mode (A7/W45), dB(A)	49,5
Casing in heating mode (A7/W55), dB(A)	49
Casing max., dB(A)	53,6
Outdoor in heating mode (A7/W35), dB(A)	50,4
Outdoor in heating mode (A7/W45), dB(A)	50,5
Outdoor in heating mode (A7/W55), dB(A)	51,1
Outdoor max.,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

## Accessories

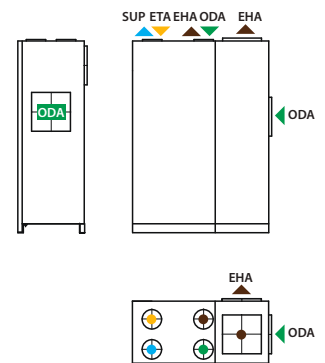
Closing damper	AGUJ-M-200 + TF230/CM230	
Silencer	ODA/ETA	AGS-200-50-600-M
	SUP/EHA	AGS-200-50-900-M
Noise damping / connection boxes	KSD-800 × 800	
Flexible duct connection, mm	JLSF-400 × 400	



Shown as right



Shown as left



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

### Air handling unit data

Maximal air flow, m <sup>3</sup> /h	517
Maximal air flow, l/s	144
Reference flow rate, m <sup>3</sup> /s	0,101
Reference pressure difference, Pa	50
SPI, W/(m <sup>3</sup> /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	3,3
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 inlet, L <sub>WA,r</sub> , dB(A)	55
Noise power level, Supply outlet, L <sub>WA,r</sub> , dB(A)	67
Noise power level, Exhaust inlet, L <sub>WA,r</sub> , dB(A)	57
Noise power level, Exhaust outlet, L <sub>WA,r</sub> , dB(A)	68
Air filters dimensions BxHxL, mm	585 × 258 × 46
Air filters class according to ISO 16890, Supply/Extract	ePM10 50 %

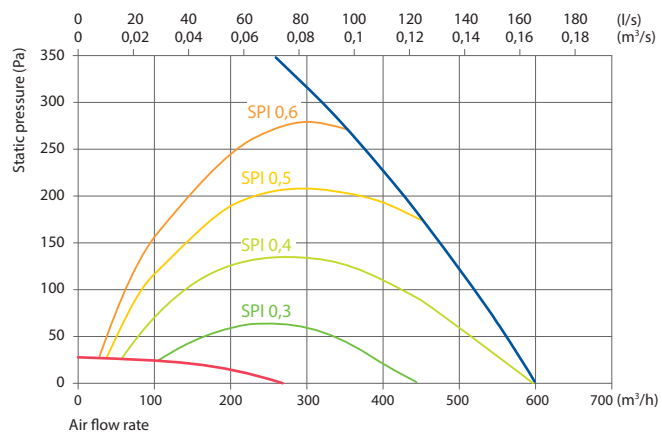
### Heat pump data

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 volume for heating system, l	13,6
Heating circuit water flow min., m <sup>3</sup> /h	0,34
Heating circuit water flow at nominal capacity, m <sup>3</sup> /h	1,54
Operating water pressure min., bar	0,5
Operating water pressure max., bar	3
Operating outdoor temperature min. (heat pump only), °C	-23
Operating outdoor temperature max. (heating), °C	17
Operating outdoor temperature min. (cooling), °C	15
Air filter dimensions BxH, mm	585 × 505
Filter class according to ISO 16890	coarse 65%
Heat pump seasonal energy efficiency according 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 performance



### 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 and public spaces, offering standardized and individual project solutions



## Verso R Standard 70

Verso R 1000 U C5	71
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<b>NEW</b> Verso CF 2500 V C5	99
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Verso CF 5000 V C5	103
Verso CF 5000 H C5	104
<b>NEW</b> Verso CF 7000 V C5	105

## Verso S Standard 106

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Verso S 2100 F C5	106
Verso S 3000 F C5	106

## VERSO Pro, VERSO Pro2 107

# 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<sup>3</sup>/h** to **7000 m<sup>3</sup>/h**

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## 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<sup>3</sup>/h** to **40 000 m<sup>3</sup>/h**

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## 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 thermaly 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<sup>3</sup>/h** to **40 000 m<sup>3</sup>/h**

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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



### Types of the heat exchangers

#### **Verso R Standard with rotary heat exchanger**

A wide selection of residential ventilation units with rotary heat exchanger, available in horizontal, vertical and flat versions. Verso 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.



#### **Verso CF Standard with counterflow heat exchanger**

A wide selection of residential ventilation units with counterflow plate heat exchanger, available in horizontal, vertical and flat versions.

Verso 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.



#### **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.



# 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.



## 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.



## 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. 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<sup>1</sup>.

Flat units with rotary heat exchangers as well as supply units can also be mounted on the wall or on the floor if needed<sup>2</sup>.



<sup>1</sup> Except Verso CF 2500 F C5.

<sup>2</sup> AHUs with water heater only.



### 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.
- 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.



### 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.

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

### Protected from weather conditions

For outdoor mounted units dedicated roof and air hoods are available for convenient protection from rain and snow. Each hood has removable rain blinds and standard flange connection allowing easy duct connection to prevent air mixing between air flows.



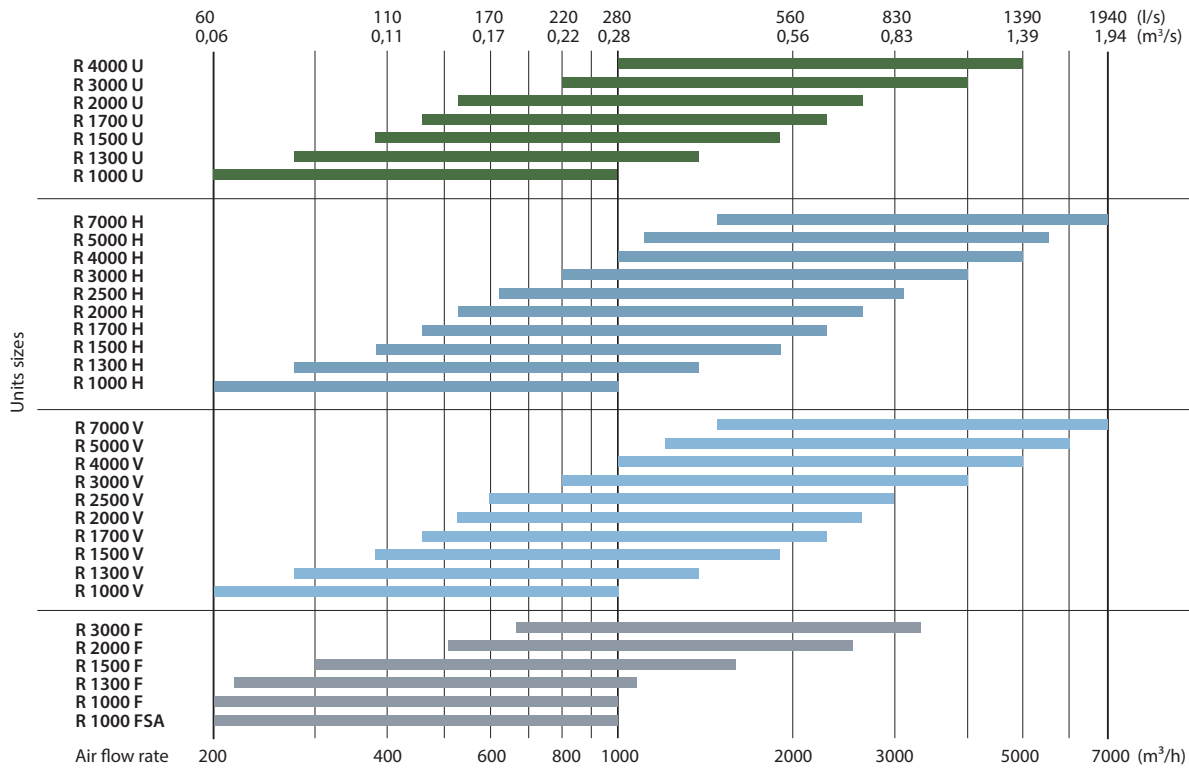
### Prepared for seamless placement

Each VERSO Standard unit is prepared for onsite mounting, equipped with legs or base frame and included adjustable feet.

# 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 ePM1 60% / ePM10 50%	Heater			Cooler		Inspection side			
	Condensing ML/A	SL/A	Enthalpy ML/AZ		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. 153.

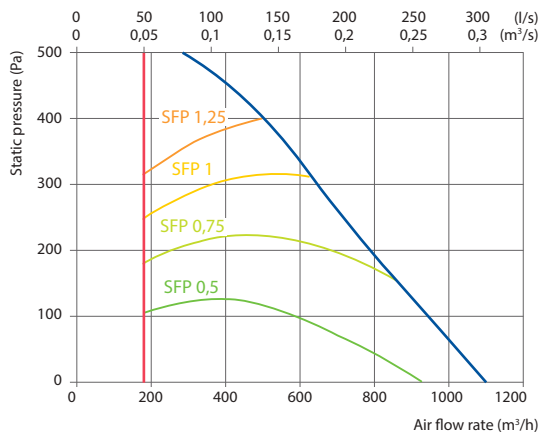
# Verso R 1000 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×1,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	179
Noise power level, L <sub>WA</sub> , dB(A)	52
Noise pressure level, L <sub>PA</sub> , 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	895×990×1345
Panel thickness, mm	45
Maintenance space, mm	800
Unit weight, kg	196



## Performance

Verso R 1000 UH with standard equipment



## Accessories

Closing damper	AGUJ-M-315+LF24/LM24	
Silencer	ODA/ETA	AGS-315-100-900-M
	SUP/EHA	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	

## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

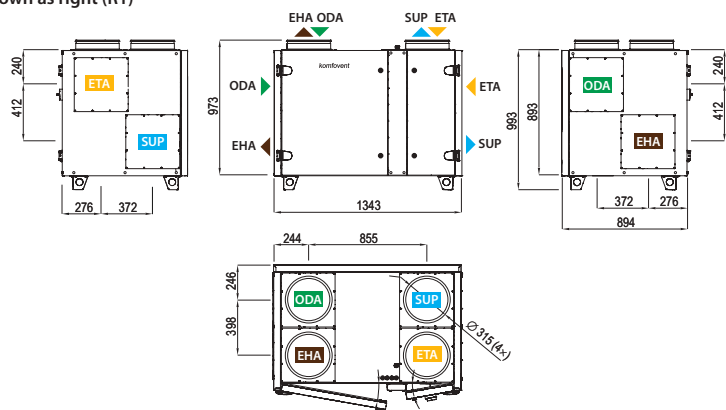
Indoor +22 °C, 20 % RH

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

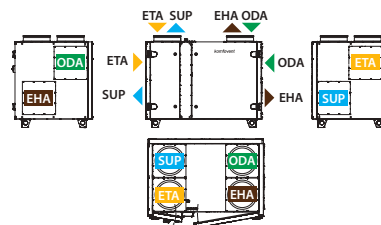
	Winter	Summer	Winter	Summer
	Water temperature in/out, °C	60/40	7/12	-
Condensation/evaporation T, °C	-	-	45	45/5
Capacity, kW	2,2	5,3	2,2	6,6
Maximal capacity, kW	5,5	7,1	5,7	9,7
Pressure drop, kPa	1	3,3	-	-
Air temperature in/out, °C	15 / 22	30 / 18	15 / 22	30 / 18
Connection, " / mm	¾		½ / 22	

Summer: +30 °C/ 50 %; HCW – 899 m<sup>3</sup>/h

Shown as right (R1)



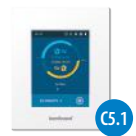
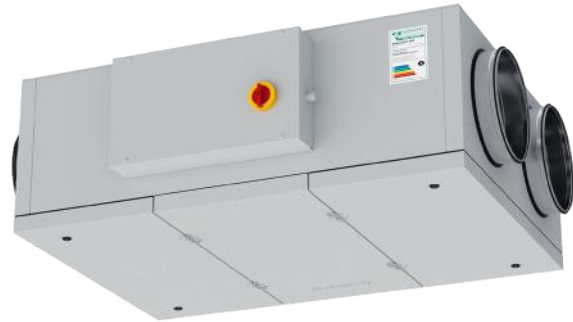
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▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

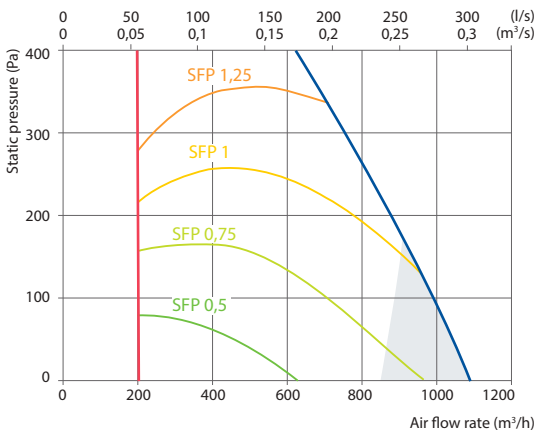
# Verso R 1000 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5x1,5
Power supply cable W, mm <sup>2</sup>	3x1,5
Electric power input of the fan drive at maximum flow rate, W	267
Noise power level, L <sub>WA</sub> , dB(A)	55
Noise pressure level, L <sub>pA</sub> , dB(A), (3 m)	44
Filters dimensions BxHxL, mm	410x420x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	940x480x1360
Panel thickness, mm	50
Maintenance space, mm	400
Unit weight, kg	140



## Performance

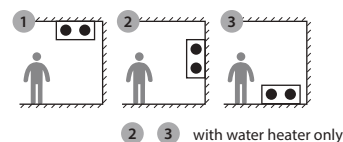
Verso R 1000 F with standard equipment



## Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	ODA/ETA AGS-315-100-900-M
	SUP/EHA 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



## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

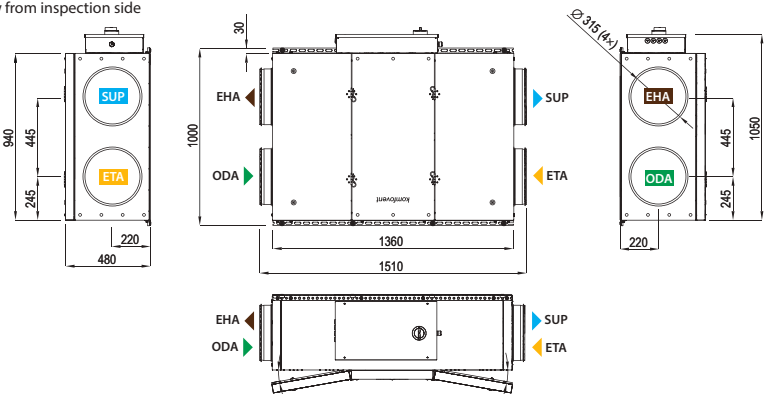
## Hot water duct air heater \*

	Winter		
	80/60	70/50	60/40
Water temperature in/out, °C			
Capacity, kW	2,4	2,4	2,4
Flow rate, dm <sup>3</sup> /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		

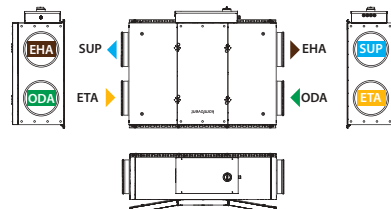
\* Option

## Shown as right (R1)

View from inspection side



## Shown as left (L1)



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

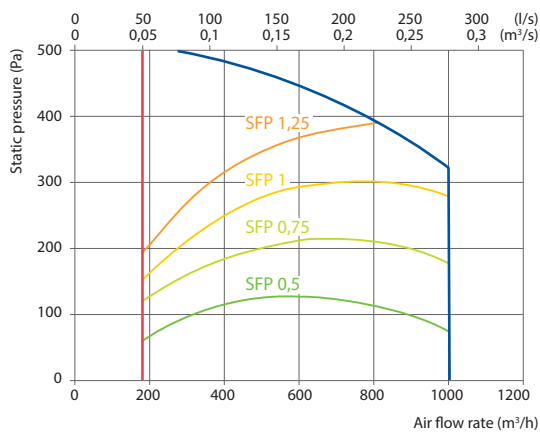
# Verso R 1000 FSA C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×1,5
Electric power input of the fan drive at maximum flow rate, W	115
Noise power level, L <sub>WA</sub> , dB(A)	43
Noise pressure level, L <sub>PA</sub> , 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



## Accessories

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

## Mounting positions

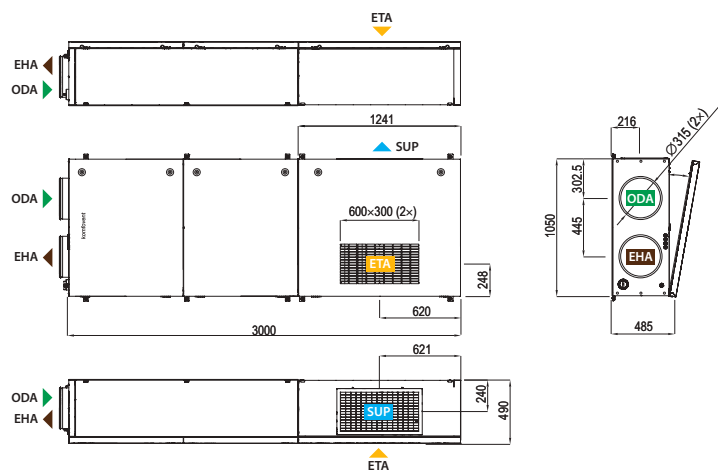


## Temperature efficiency

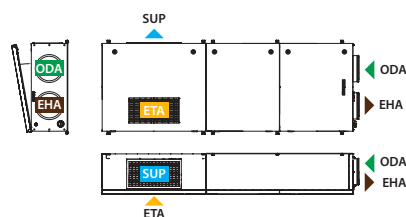
Outside temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13	14,6	15,6	16,6	17,6	22,6	23,6	24,6

Indoor +22 °C, 20 % RH

### Shown as right (R1)



### Shown as left (L1)



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

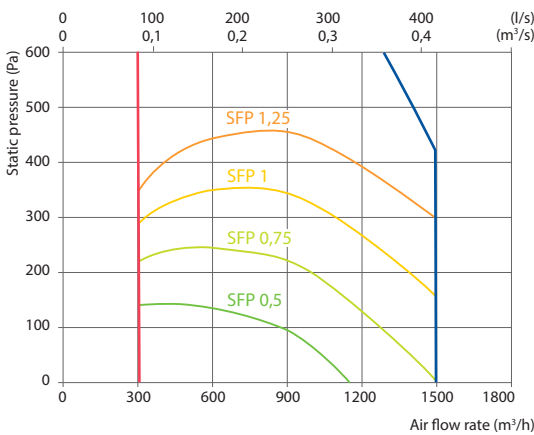
# Verso R 1300 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5x1,5
Power supply cable W, mm <sup>2</sup>	3x1,5
Electric power input of the fan drive at maximum flow rate, W	352
Noise power level, L <sub>WA</sub> , dB(A)	61
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	50
Filters dimensions BxHxL, mm	800x400x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	895x990x1345
Panel thickness, mm	45
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)

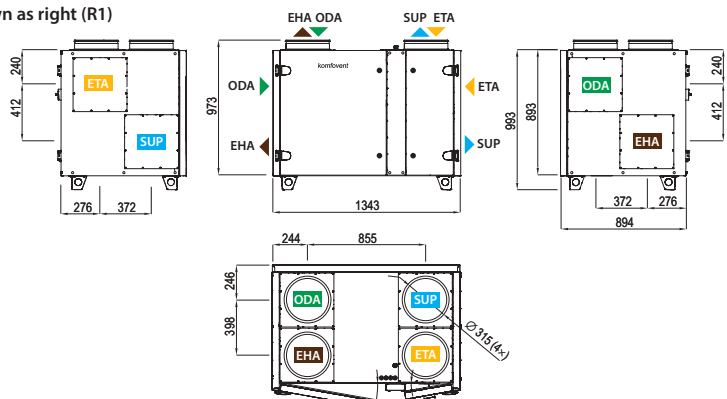
	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	4,0	8,8	4,0	10,4
Maximal capacity, kW	10,3	9,7	7,9	12,9
Pressure drop, kPa	1	8,5	–	–
Air temperature in/out, °C	14,1 / 22	30 / 18	14,1 / 22	30 / 18
Connection, "/ mm	¾		½ /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

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

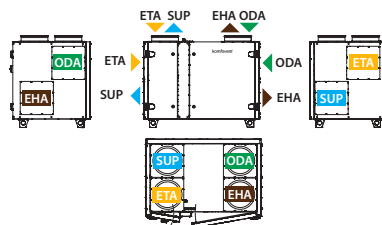
## Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	ODA/ETA AGS-315-100-900-M
	SUP/EHA 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

## Shown as right (R1)



## Shown as left (L1)



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

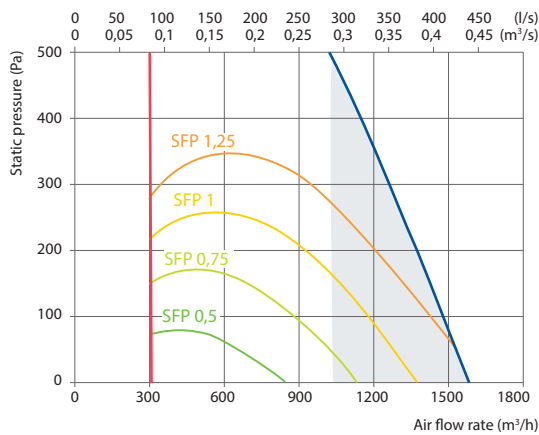
# Verso R 1300 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×1,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	533
Noise power level, L <sub>WA</sub> , dB(A)	54
Noise pressure level, L <sub>PA</sub> , 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

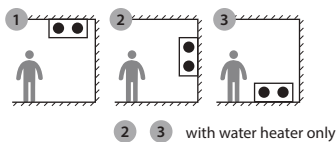


Does not conform to ErP2018 requirements

## Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	ODA/ETA AGS-315-100-900-M
	SUP/EHA 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

## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

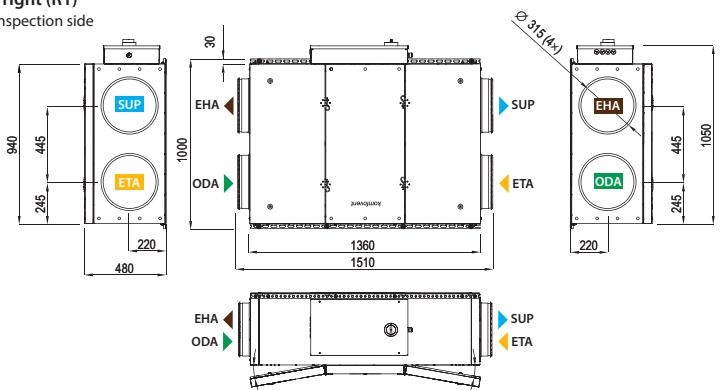
## Hot water duct air heater \*

Water temperature in/out, °C	Winter		
	80/60	70/50	60/40
Capacity, kW	3	3	3
Flow rate, dm <sup>3</sup> /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		

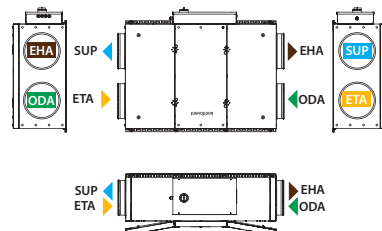
\* Option

## Shown as right (R1)

View from inspection side



## Shown as left (L1)



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

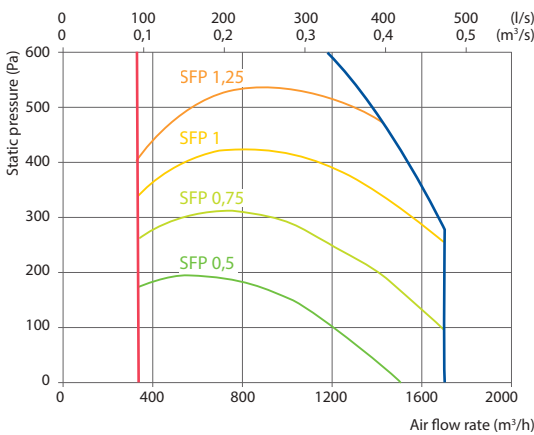
# Verso R 1500 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5x2,5
Power supply cable W, mm <sup>2</sup>	3x1,5
Electric power input of the fan drive at maximum flow rate, W	366
Noise power level, L <sub>WA</sub> , dB(A)	57
Noise pressure level, L <sub>PM</sub> , dB(A), (3 m)	45
Filters dimensions BxHxL, mm	800x400x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	895x990x1345
Panel thickness, mm	45
Maintenance space, mm	800
Unit weight, kg	206



## Performance

Verso R 1500 UH with standard equipment



## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

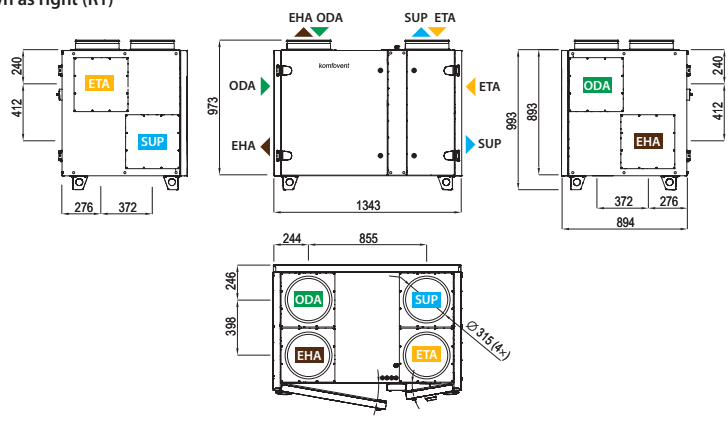
Indoor +22 °C, 20 % RH

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

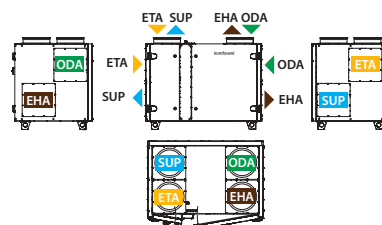
	Winter	Summer	Winter	Summer
	Water temperature in/out, °C	60/40	7/12	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	4,8	10,1	4,8	11,7
Maximal capacity, kW	11,5	10,5	8,7	13,8
Pressure drop, kPa	1	10,9	–	–
Air temperature in/out, °C	13,6 / 22	30 / 18	13,6 / 22	30 / 18
Connection, "/ mm	¾		½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

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

Shown as right (R1)



Shown as left (L1)



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

## Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	ODA/ETA AGS-315-100-900-M
	SUP/EHA 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

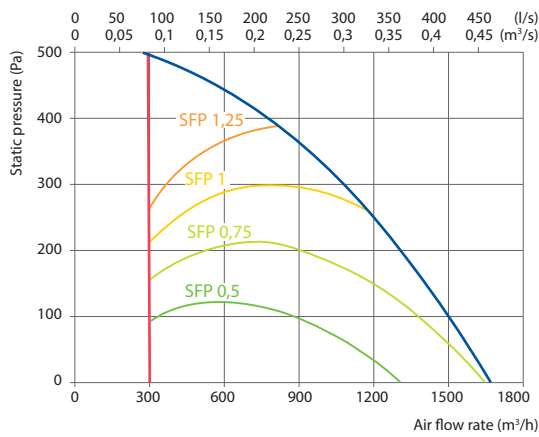
# Verso R 1500 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×2,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	350
Noise power level, L <sub>WA</sub> , dB(A)	53
Noise pressure level, L <sub>PA</sub> , 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	1039×480×1796
Panel thickness, mm	45
Maintenance space, mm	660
Unit weight, kg	195



## Performance

Verso R 1500 F with standard equipment



## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

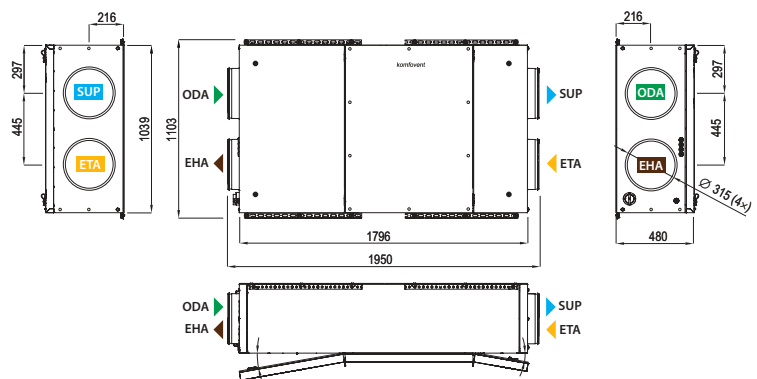
Indoor +22 °C, 20 % RH

## Hot water duct air heater \*

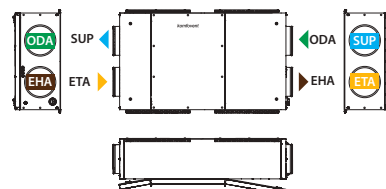
	Winter		
	80/60	70/50	60/40
Water temperature in/out, °C			
Capacity, kW	4,9	4,9	4,9
Flow rate, dm <sup>3</sup> /h	213	212	211
Pressure drop, kPa	10,9	8,9	9
Temperature in/out, °C	13,2 / 22,0		
Maximal capacity, kW	13,8	11,3	8,7
Connection, "	½		

\* Option

Shown as right (R1)  
View from inspection side



Shown as left (L1)

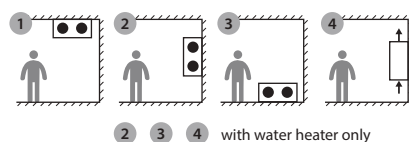


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

## Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	ODA/EHA AGS-315-100-1200-M
	SUP/ETA AGS-315-100-900-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

## Mounting positions



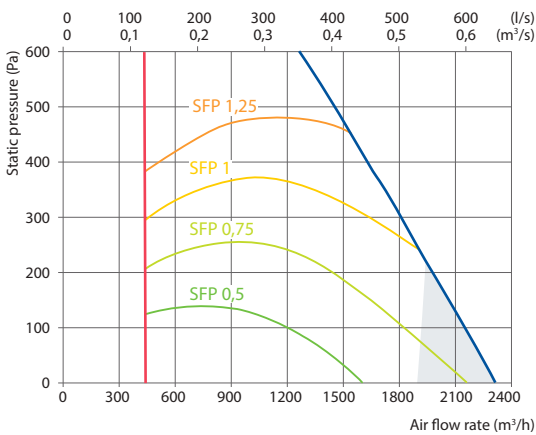
# Verso R 1700 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5x2,5
Power supply cable W, mm <sup>2</sup>	3x1,5
Electric power input of the fan drive at maximum flow rate, W	528
Noise power level, L <sub>WA</sub> , dB(A)	56
Noise pressure level, L <sub>PM</sub> , dB(A), (3 m)	44
Filters dimensions BxHxL, mm	800x450x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	900x990x1475
Panel thickness, mm	45
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-300x400+LF24/LM24
	V	SRU-M-400x300+LF24/LM24
Silencer	ODA/ETA	STS-IVR3BA-600-300-700-S
	SUP/EHA	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

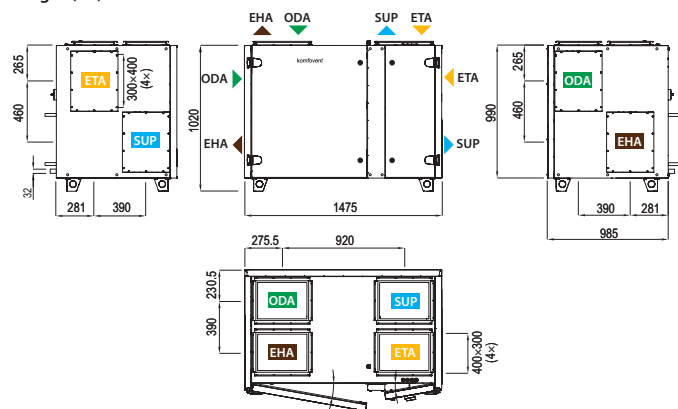
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13	14,6	15,6	16,6	17,6	22,6	23,6	24,6

Indoor +22 °C, 20 % RH

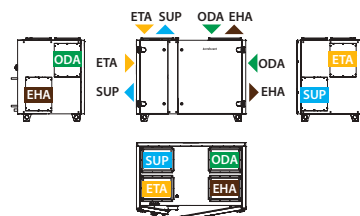
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	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	% / 22	

Shown as right (R1)



Shown as left (L1)



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

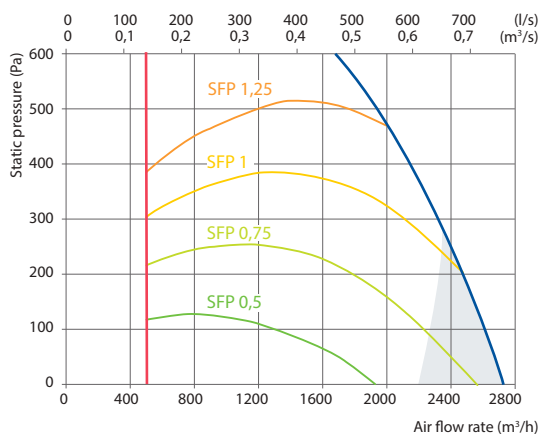
# Verso R 2000 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×2,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	649
Noise power level, L <sub>WA</sub> , dB(A)	54
Noise pressure level, L <sub>PA</sub> , 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	900×990×1475
Panel thickness, mm	45
Maintenance space, mm	800
Unit weight, kg	210



## Performance

Verso R 2000 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/ETA	STS-IVR3BA-600-400-700-S
	SUP/EHA	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

## Temperature efficiency

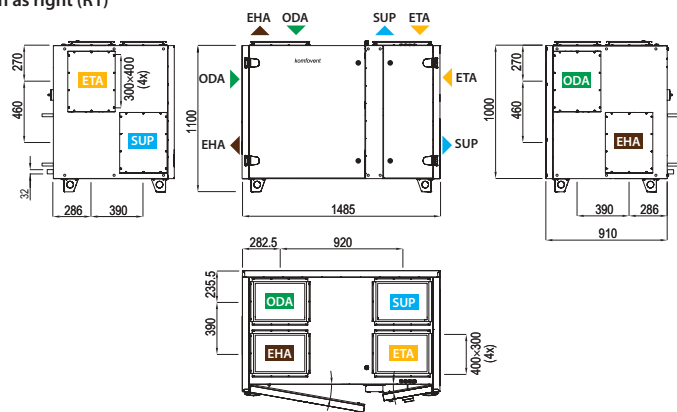
Outside temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12	13,8	14,9	16	17,1	22,7	23,8	24,9

Indoor +22 °C, 20 % RH

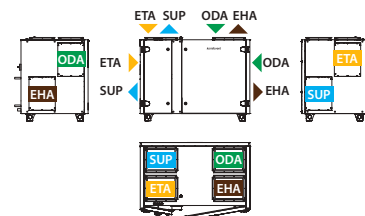
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter		Summer	
	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		5/8 / 22	

## Shown as right (R1)



## Shown as left (L1)



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

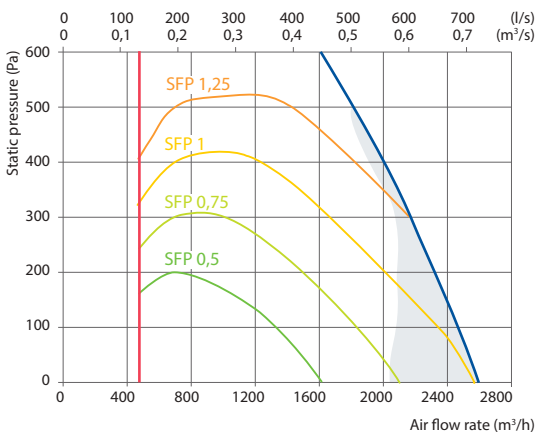
# Verso R 2000 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5x2,5
Power supply cable W, mm <sup>2</sup>	3x1,5
Electric power input of the fan drive at maximum flow rate, W	670
Noise power level, L <sub>WA</sub> , dB(A)	59
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	48
Filters dimensions BxHxL, mm	560x420x96
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	1210x527x2060
Panel thickness, mm	50
Maintenance space, mm	400
Unit weight, kg	230



## Performance

Verso R 2000 F with standard equipment

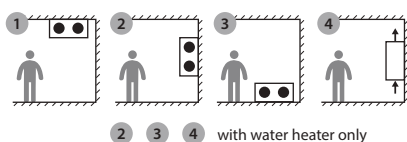


Does not conform to ErP2018 requirements

## Accessories

Closing damper	AGUJ-M-355+LF24/LM24
Silencer	ODA/ETA AGS-355-100-900-M
	SUP/EHA 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

## Mounting positions



2 3 4 with water heater only

## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

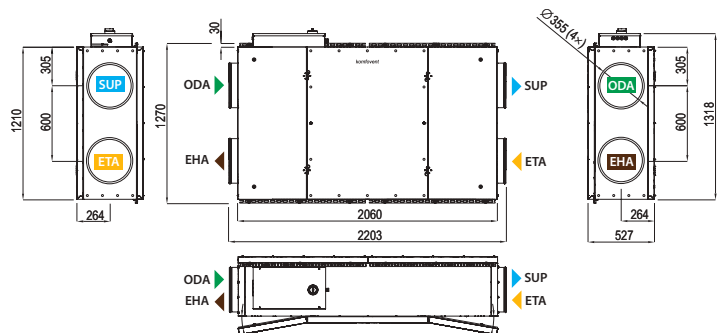
## Hot water duct air heater \*

Water temperature in/out, °C	Winter		
	80/60	70/50	60/40
Capacity, kW	5,0	5,0	5,0
Flow rate, dm <sup>3</sup> /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		

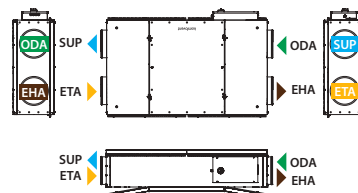
\* Option

## Shown as right (R1)

View from inspection side



## Shown as left (L1)



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

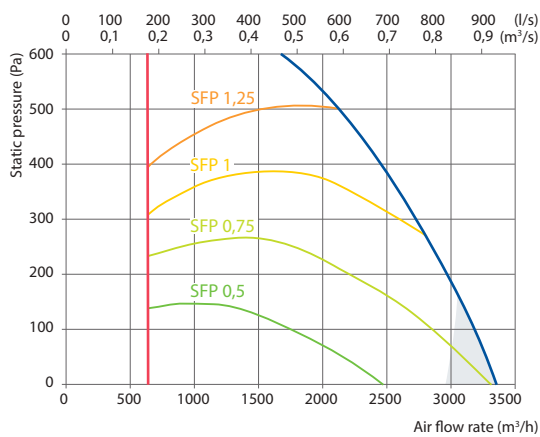
# Verso R 2500 V C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×2,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	744
Noise power level, L <sub>WA</sub> , dB(A)	59
Noise pressure level, L <sub>PA</sub> , 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

## Accessories

Closing damper	SRU-M-700×250+LF24/LM24
Silencer	ODA/ETA STS-IVR3BA-800-300-700-S
	SUP/EHA 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

## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

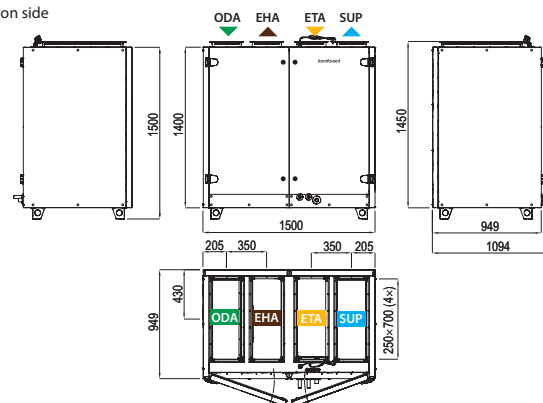
Indoor +22 °C, 20 % RH

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

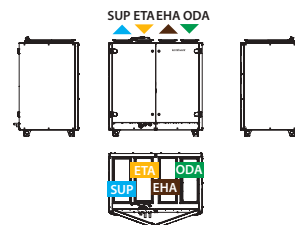
	Winter		Summer	
	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	-	-
Condensation/evaporation T, °C	-	-	45	45/5
Capacity, kW	8,3	18,6	8,3	20,6
Maximal capacity, kW	23,2	20,8	17,3	26,8
Pressure drop, kPa	1	52,7	-	-
Air temperature in/out, °C	13,8 / 22	30 / 18,0	13,8 / 22	30 / 18
Connection, " / mm	¾		½ / 22	

## Shown as right (R1)

View from inspection side



## Shown as left (L1)



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

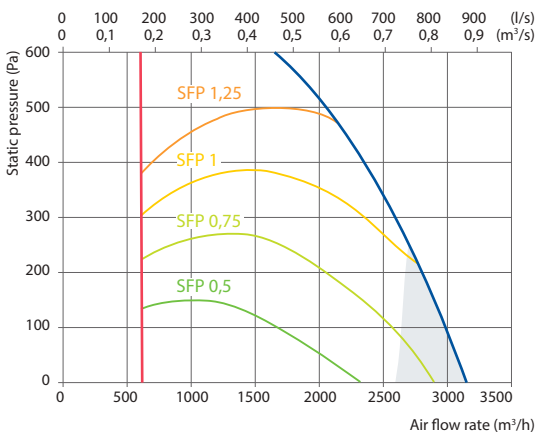
# Verso R 2500 H C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /h	2700
Nominal air flow according to ErP 2018, l/s	750
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 <sup>2</sup>	5×4
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	762
Noise power level, L <sub>WA</sub> , dB(A)	47
Noise pressure level, L <sub>pM</sub> , dB(A), (3 m)	36
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	45
Maintenance space, mm	900
Unit weight, kg	289



## Performance

Verso R 2500 H with standard equipment



Does not conform to ErP2018 requirements

## Accessories

Closing damper	SRU-M-700×300+LF24/LM24
Silencer	ODA/ETA STS-IVR3BA-800-300-700-S
	SUP/EHA 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

## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,3	14,8	15,8	16,8	17,7	22,6	23,6	24,5

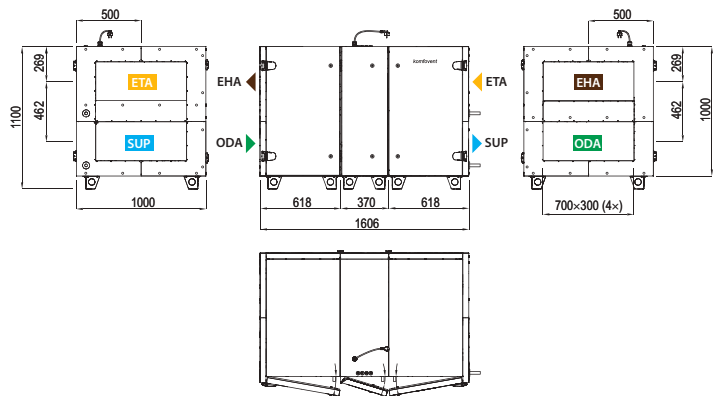
Indoor +22 °C, 20 % RH

## Hot water air heater

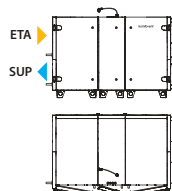
Water temperature in/out, °C	Winter		
	80/60	70/50	60/40
Capacity, kW	7,9	7,9	7,9
Flow rate, dm <sup>3</sup> /h	348	347	346
Pressure drop, kPa	1	1	1
Temperature in/out, °C	13,3 / 22,0		
Maximal capacity, kW	21,1	16,7	12
Connection, "	½		

## Shown as right (R1)

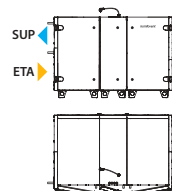
View from inspection side



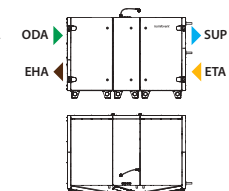
## Shown as left (L1)



## Shown as left (L2)



## Shown as right (R2)



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

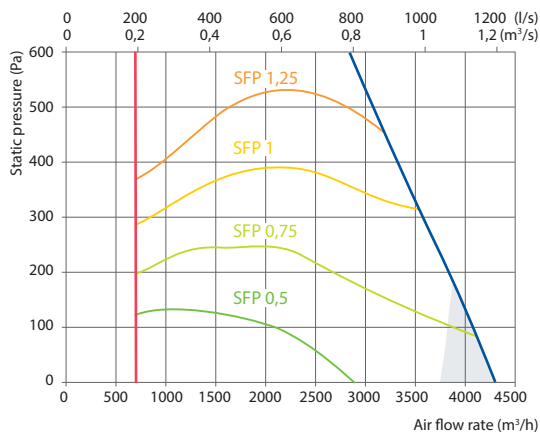
# Verso R 3000 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×2,5
Power supply cable W, mm <sup>2</sup>	5×1,5
Electric power input of the fan drive at maximum flow rate, W	862
Noise power level, L <sub>WA</sub> , dB(A)	48
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	38
Filters dimensions B×H×L, mm	525×510×92 (x2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1150×1150×2100
Panel thickness, mm	45
Maintenance space, mm	1000
Unit weight, kg	456



## Performance

Verso R 3000 UH with standard equipment



Does not conform to ErP2018 requirements

## Accessories

Closing damper	H	SRU-M-400x500+LF24/LM24
	V	SRU-M-500x400+LF24/LM24
Silencer	ODA/ETA	STS-IVR3BA-600-500-700-S
	SUP/EHA	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

## Temperature efficiency

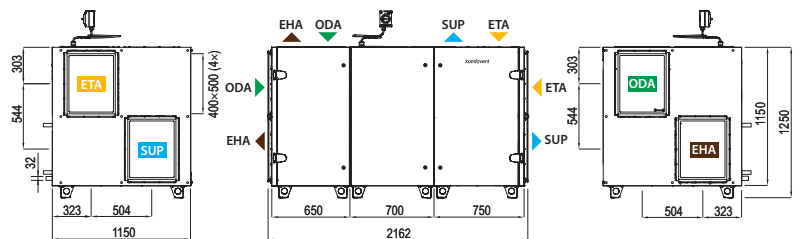
Outside temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,3	14,0	15,1	16,2	17,3	22,6	23,7	24,8

Indoor +22 °C, 20 % RH

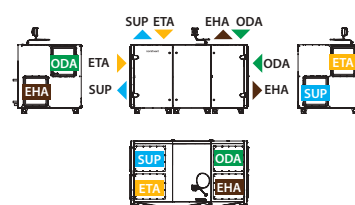
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter		Summer	
	Winter	Summer	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		2×3/8 / 2×22	

Shown as right (R1)



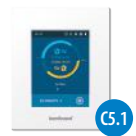
Shown as left (L1)



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

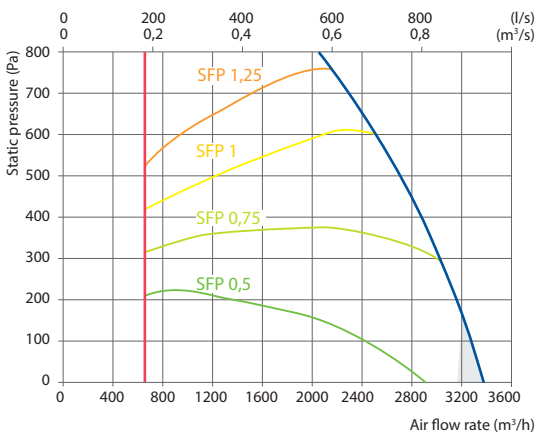
# Verso R 3000 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5x4
Power supply cable W, mm <sup>2</sup>	5x1,5
Electric power input of the fan drive at maximum flow rate, W	726
Noise power level, L <sub>WA</sub> , dB(A)	63
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	51
Filters dimensions BxHxL, mm	560x540x96
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	1210x648x2160
Panel thickness, mm	50
Maintenance space, mm	600
Unit weight, kg	289



## Performance

Verso R 3000 F with standard equipment

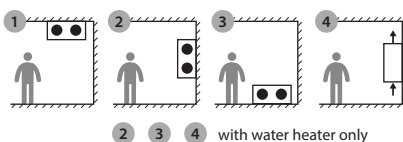


Does not conform to ErP2018 requirements

## Accessories

Closing damper	SRU-M-500x400+LF24/LM24
Silencer	ODA/ETA STS-IVR3BA-600-400-700-S
	SUP/EHA 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	2xMOU-36HFN8a+KA8142

## Mounting positions



## 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

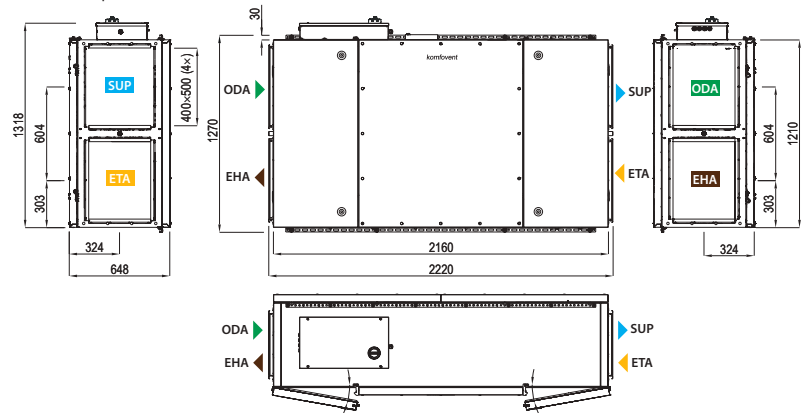
## Hot water duct air heater \*

	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	10,2	10,2	10,2
Flow rate, dm <sup>3</sup> /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		

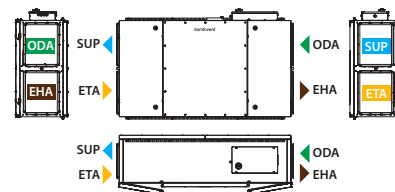
\* Option

## Shown as right (R1)

View from inspection side



## Shown as left (L1)



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

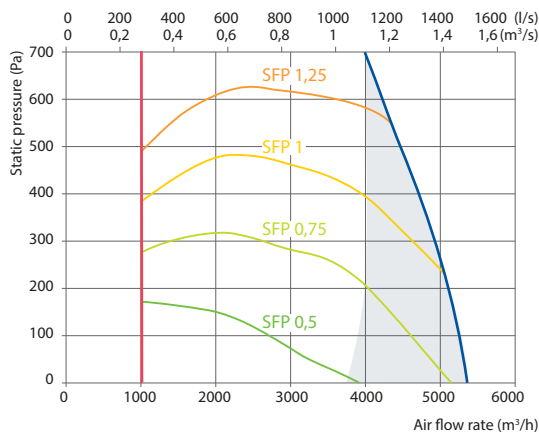
# Verso R 4000 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /h	3985
Nominal air flow according to ErP 2018, l/s	1107
Electric air heater capacity, kW / Δt, °C	15/8,4
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 <sup>2</sup>	5×6
Power supply cable W, mm <sup>2</sup>	5×1,5
Electric power input of the fan drive at maximum flow rate, W	1569
Noise power level, L <sub>WA</sub> , dB(A)	46
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	35
Filters dimensions B×H×L, mm	525×510×92 (x2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1150×1150×2100
Panel thickness, mm	45
Maintenance space, mm	1000
Unit weight, kg	470



## Performance

Verso R 4000 UH with standard equipment



Does not conform to ErP2018 requirements

## Accessories

Closing damper	H	SRU-M-400×500+LF24/LM24
	V	SRU-M-500×400+LF24/LM24
Silencer	ODA/ETA	STS-IVR3BA-800-500-700-S
	SUP/EHA	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

## Temperature efficiency

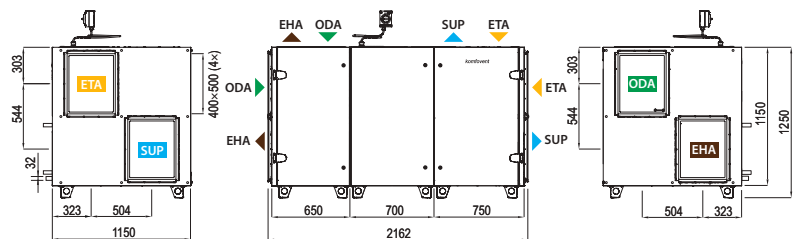
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,1	13,8	14,9	16	17,2	22,7	23,8	24,9

Indoor +22 °C, 20 % RH

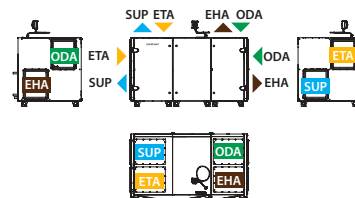
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	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 / 18,3	12,1 / 22	30 / 18,0
Connection, "/ mm		1	2× <sup>3</sup> / <sub>8</sub> / 2×22	

Shown as right (R1)



Shown as left (L1)



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

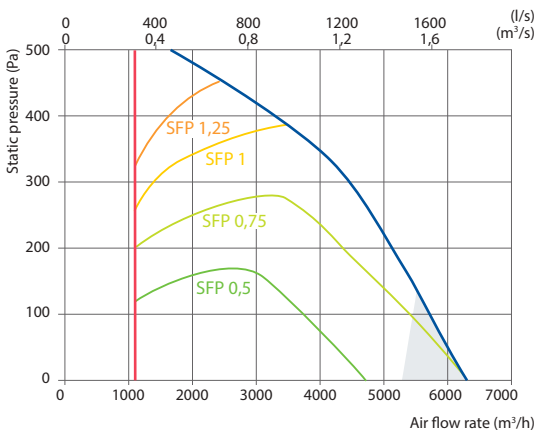
# Verso R 5000 V C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×6
Power supply cable W, mm <sup>2</sup>	5×1,5
Electric power input of the fan drive at maximum flow rate, W	1279
Noise power level, L <sub>WA</sub> , dB(A)	56
Noise pressure level, L <sub>pA</sub> , 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	1397×1514×1891
Panel thickness, mm	45
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/ETA STS-IXY5BU-1250-300-700-S
	SUP/EHA 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

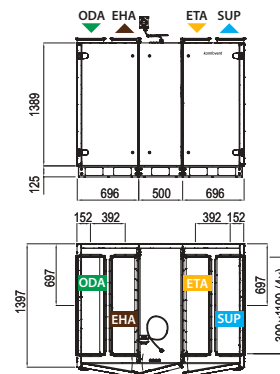
## Temperature efficiency

	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								

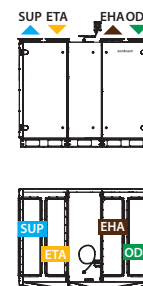
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	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	2×½ / 2×22	

### Shown as right (R1)



### Shown as left (L1)



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

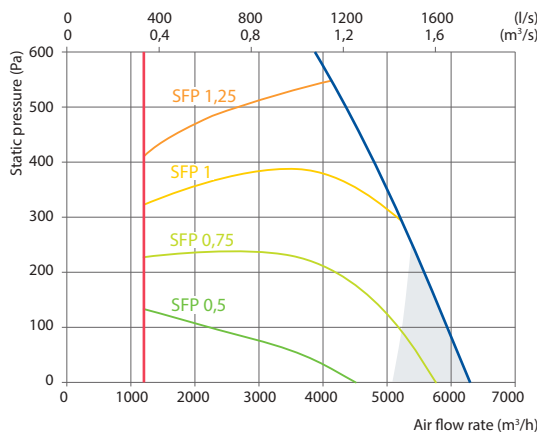
# Verso R 5000 H C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /h	5300
Nominal air flow according to ErP 2018, l/s	1472
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 <sup>2</sup>	5×10
Power supply cable W, mm <sup>2</sup>	5×2,5
Electric power input of the fan drive at maximum flow rate, W	1449
Noise power level, L <sub>WA</sub> , dB(A)	49
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	38
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	45
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/ETA STS-IVR3BA-1000-500-700-S
	SUP/EHA 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

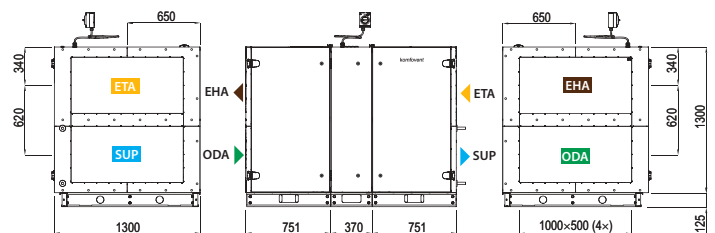
Outside temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,1	14,7	15,7	16,7	17,6	22,6	23,6	24,6

Indoor +22 °C, 20 % RH

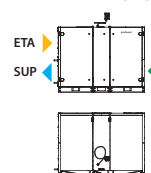
## Hot water air heater

Water temperature in/out, °C	Winter		
	80/60	70/50	60/40
Capacity, kW	15,9	15,9	15,9
Flow rate, dm <sup>3</sup> /h	700	697	694
Pressure drop, kPa	2,2	2,2	2,2
Temperature in/out, °C	13,1 / 22,0	13,1 / 22,0	13,1 / 22,0
Maximal capacity, kW	36,4	28,0	18,6
Connection, "	½		

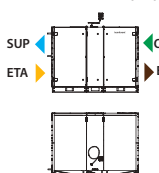
Shown as right (R1)



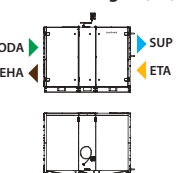
Shown as left (L1)



Shown as left (L2)



Shown as right (R2)



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

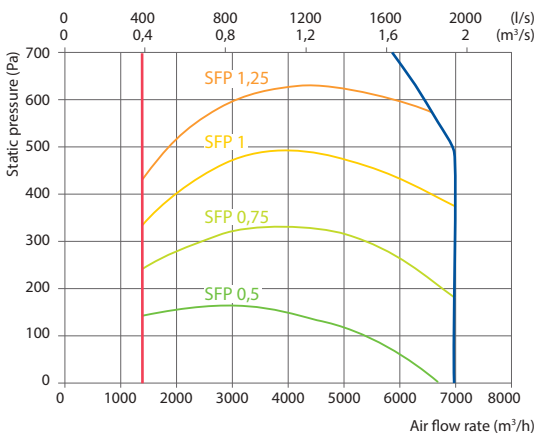
# Verso R 7000 V C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×10
Power supply cable W, mm <sup>2</sup>	5×2,5
Electric power input of the fan drive at maximum flow rate, W	1287
Noise power level, L <sub>WA</sub> , dB(A)	53
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	43
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	45
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/ETA STS-IVR3BA-1200-600-700-S
	SUP/EHA 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

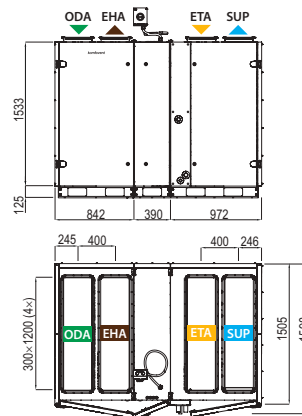
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,4	14,9	15,9	16,8	17,8	22,6	23,5	24,5

Indoor +22 °C, 20 % RH

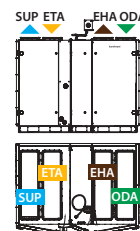
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	-	-
Condensation/evaporation T, °C	-	-	45	45/5
Capacity, kW	20,3	36,5	20,2	47,3
Maximal capacity, kW	52,4	37,2	39,9	55,8
Pressure drop, kPa	1	19,5	-	-
Air temperature in/out, °C	13,4 / 22,0	30,0 / 18,0	12,7 / 22,0	30,0 / 18,0
Connection, "/ mm	1¼		3×¾ / 3×22	

Shown as right (R1)



Shown as left (L1)



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

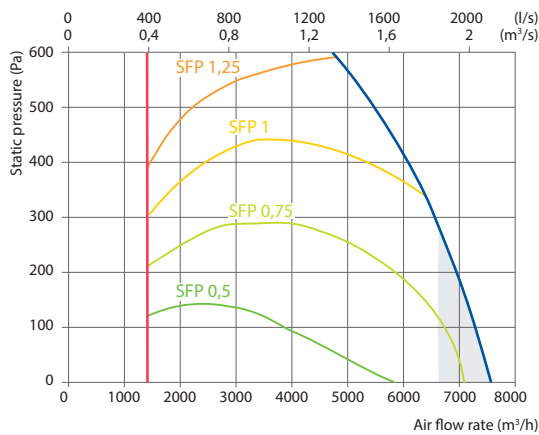
# Verso R 7000 H C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×10
Power supply cable W, mm <sup>2</sup>	5×2,5
Electric power input of the fan drive at maximum flow rate, W	1742
Noise power level, L <sub>WA</sub> , dB(A)	51
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	41
Filters dimensions B×H×L, mm	592×592-8×500 (x2)
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/ETA STS-IVR3BA-1200-600-700-S
	SUP/EHA 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

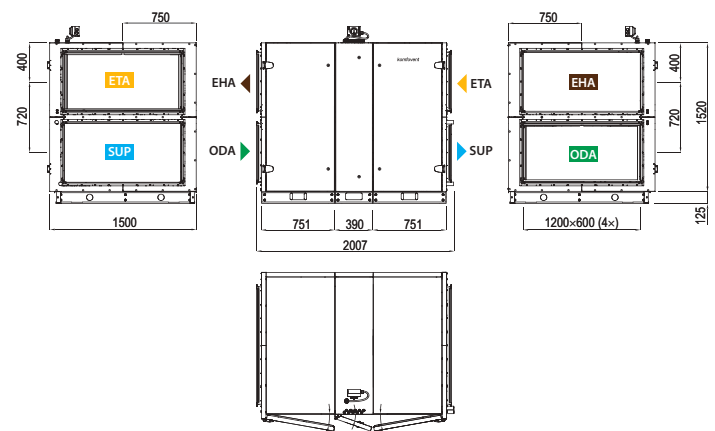
Outside temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	12,8	14,4	15,5	16,5	17,5	22,6	23,6	24,7

Indoor +22 °C, 20 % RH

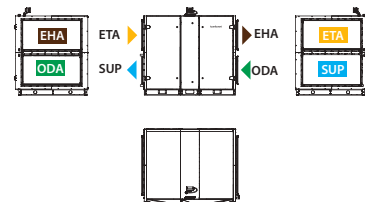
## Hot water air heater

	Winter		
	80/60	70/50	60/40
Capacity, kW	21,3	21,3	21,3
Flow rate, dm <sup>3</sup> /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)



## Shown as left (L1)

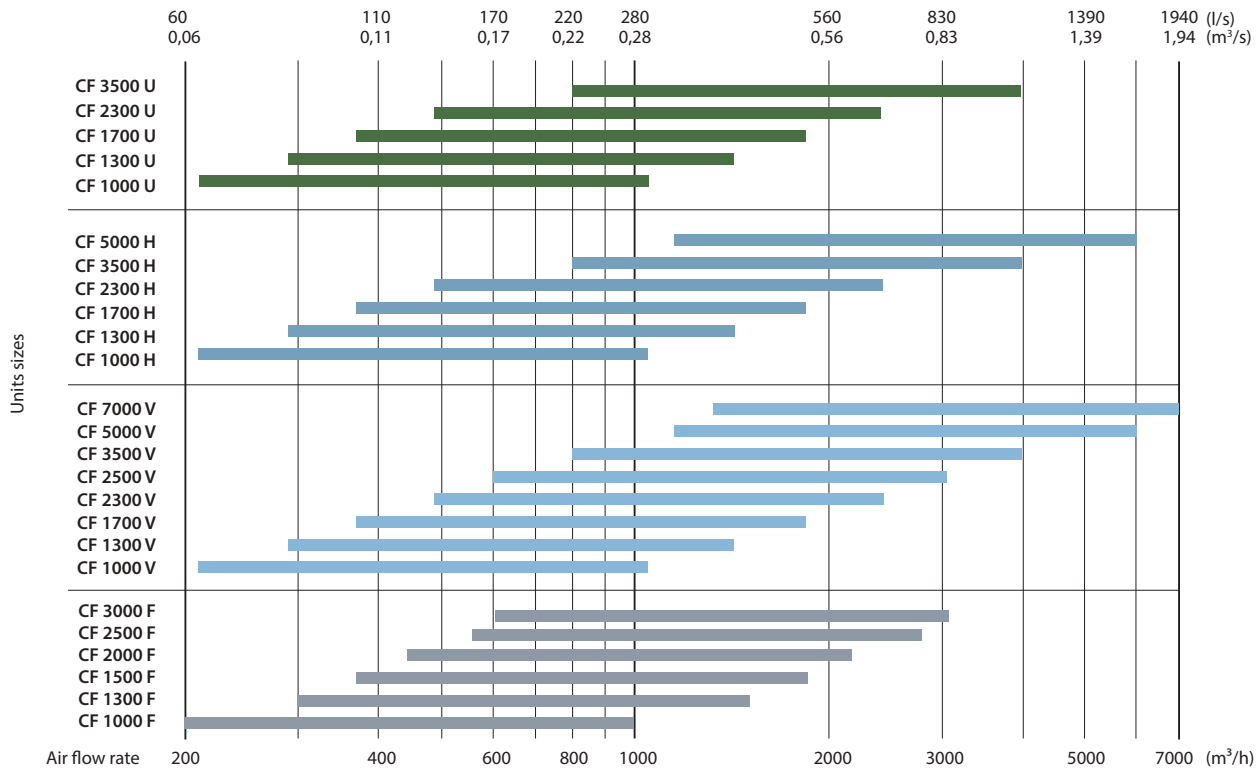


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

# 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 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	●	○	●	○	○	○	△	○	○	○
Verso CF 7000 V	●	○	●	○	○	○	△	○	○	○

● standard equipment

○ possible choice

△ ordered separately duct heater/cooler

The markings are explained on p. 153.

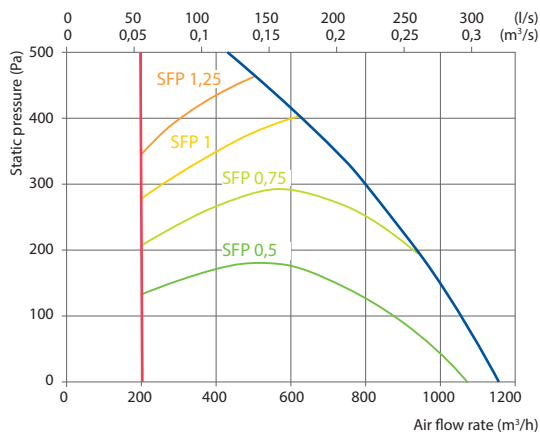
# Verso CF 1000 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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	10,2
Maximal operating current HW, A	4
Power supply cable E, mm <sup>2</sup>	5×1,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	178
Noise power level, L <sub>WA</sub> , dB(A)	54
Noise pressure level, L <sub>PA</sub> , 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	894×992×1798
Panel thickness, mm	45
Maintenance space, mm	800
Unit weight, kg	220



## Performance

Verso CF 1000 UH with standard equipment



## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

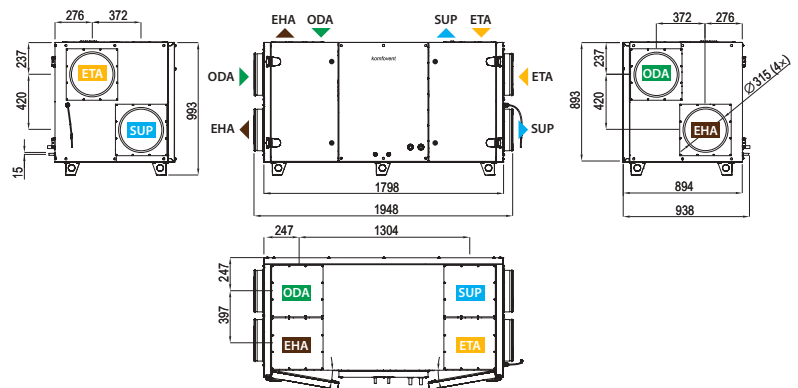
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter		Summer	
	Winter	Summer	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	

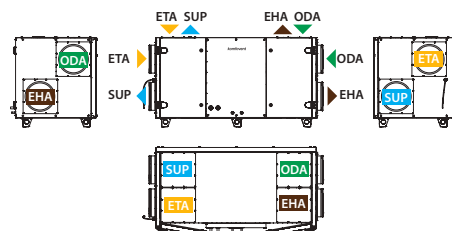
## Accessories

Closing damper	AGUJ-M-315+LF24/LM24	
Silencer	ODA/ETA	AGS-315-100-900-M
	SUP/EHA	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	

Shown as right (R1)



Shown as left (L1)

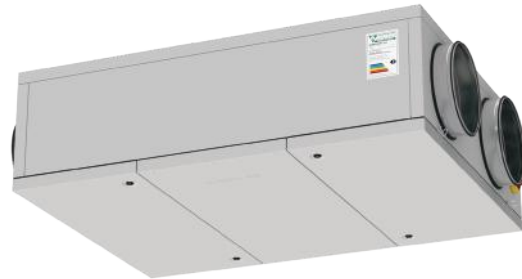


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

# Verso CF 1000 F C5

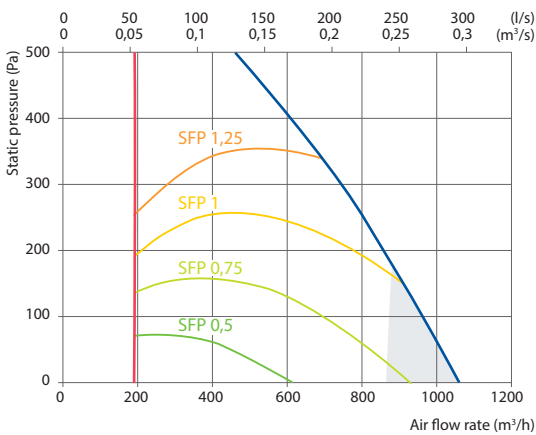
NEW

Nominal air flow according to ErP 2018, m <sup>3</sup> /h	875
Nominal air flow according to ErP 2018, l/s	243
Electric air heater capacity, kW / Δt, °C	3/8,6
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 <sup>2</sup>	5×1,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	259
Noise power level, L <sub>WA</sub> , dB(A)	48
Noise pressure level, L <sub>pA</sub> , dB(A), (3 m)	38
Filters dimensions B×H×L, mm	548×342×46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1100×440×1500
Panel thickness, mm	45
Maintenance space, mm	480
Unit weight, kg	140



## Performance

Verso CF 1000 F with standard equipment



Does not conform to ErP2018 requirements

## Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	ODA/ETA ASTS-315-600-S
	SUP/EHA ASTS-315-1200-S
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



## Temperature efficiency

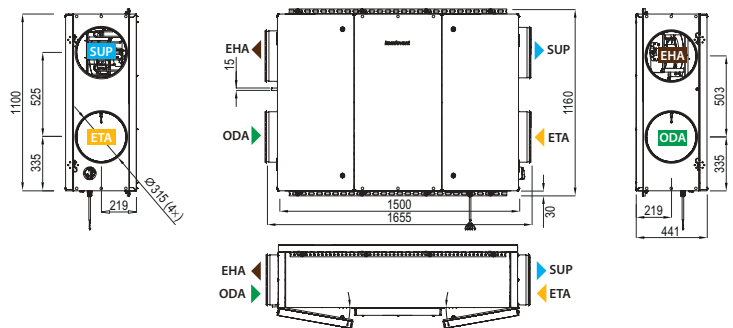
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	15,3	16,2	16,7	17,3	18,2	22,5	23,4	24,2
Indoor +22 °C, 20 % RH								

## Hot water duct air heater \*

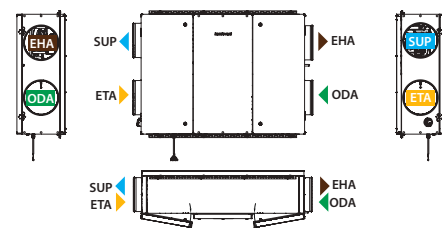
	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	2,0	2,0	2,0
Flow rate, dm <sup>3</sup> /h	87	87	86
Pressure drop, kPa	1,4	1,4	1,5
Temperature in/out, °C	15,3/22		
Maximal capacity, kW	9,5	7,7	5,8
Connection, "	½		

\* Option

Shown as right (R1)



Shown as left (L1)



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

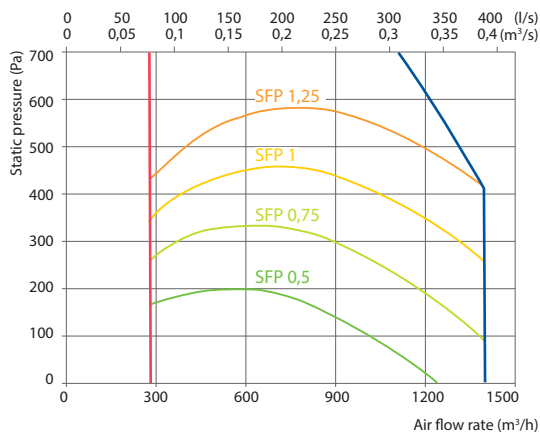
# Verso CF 1300 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×1,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	340
Noise power level, L <sub>WA</sub> , dB(A)	58
Noise pressure level, L <sub>PA</sub> , 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	894×992×1798
Panel thickness, mm	45
Maintenance space, mm	800
Unit weight, kg	225



## Performance

Verso CF 1300 UH with standard equipment



## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

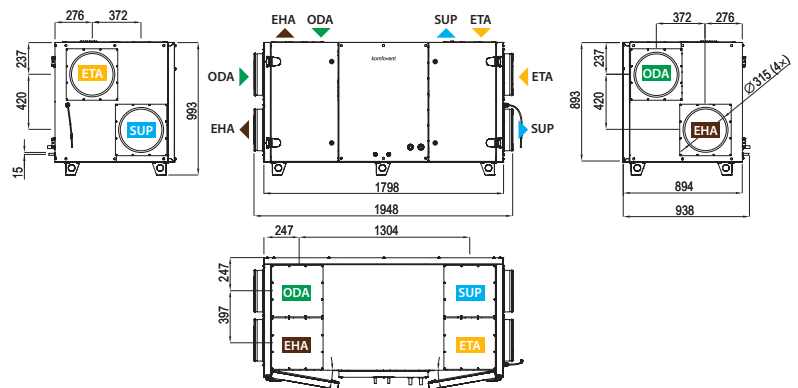
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	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	

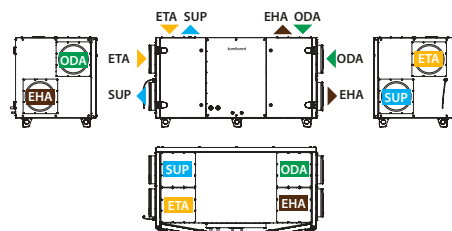
## Accessories

Closing damper	AGUJ-M-315+LF24/LM24	
Silencer	ODA/ETA	AGS-315-100-900-M
	SUP/EHA	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	

Shown as right (R1)



Shown as left (L1)



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

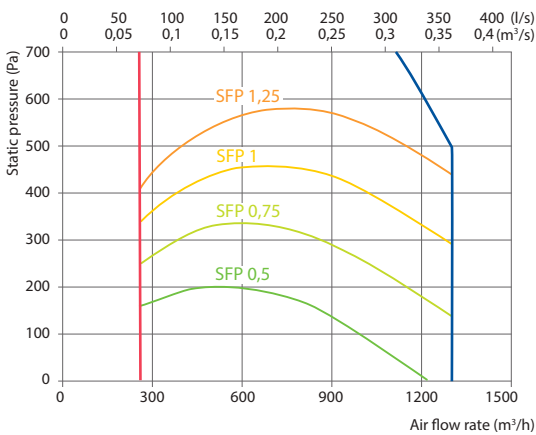
# Verso CF 1300 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5x1,5
Power supply cable W, mm <sup>2</sup>	3x1,5
Electric power input of the fan drive at maximum flow rate, W	291
Noise power level, L <sub>WA</sub> , dB(A)	60
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	49
Filters dimensions BxHxL, mm	550x420x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	1100x527x1650
Panel thickness, mm	50
Maintenance space, mm	400
Unit weight, kg	175



## Performance

Verso CF 1300 F with standard equipment



## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

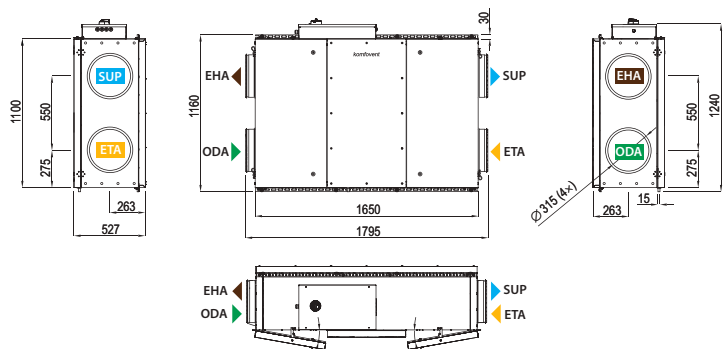
Indoor +22 °C, 20 % RH

## Hot water duct air heater \*

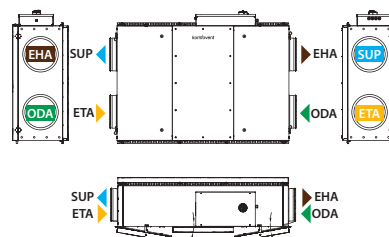
	Winter		
	80/60	70/50	60/40
Water temperature in/out, °C			
Capacity, kW	3,3	3,3	3,3
Flow rate, dm <sup>3</sup> /h	145	145	145
Pressure drop, kPa	3,9	3,9	3,9
Temperature in/out, °C	14,5 / 22,0		
Maximal capacity, kW	12,4	10	7,6
Connection, "	½		

\* Option

Shown as right (R1)



Shown as left (L1)



## Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	ODA/ETA AGS-315-100-900-M
	SUP/EHA 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



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

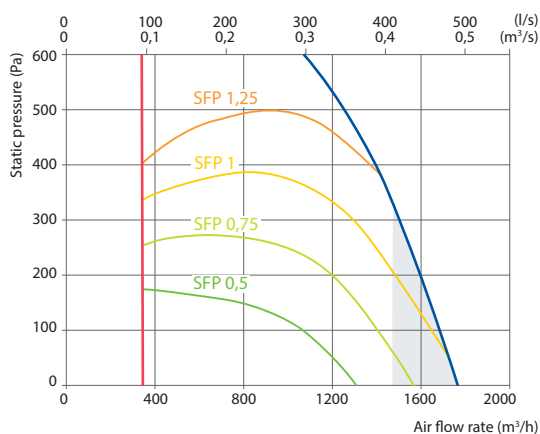
# Verso CF 1500 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×2,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	525
Noise power level, L <sub>WA</sub> , dB(A)	55
Noise pressure level, L <sub>PA</sub> , 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

## Accessories

Closing damper	AGUJ-M-315+LF24/LM24
Silencer	ODA/ETA AGS-315-100-900-M
	SUP/EHA 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



## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

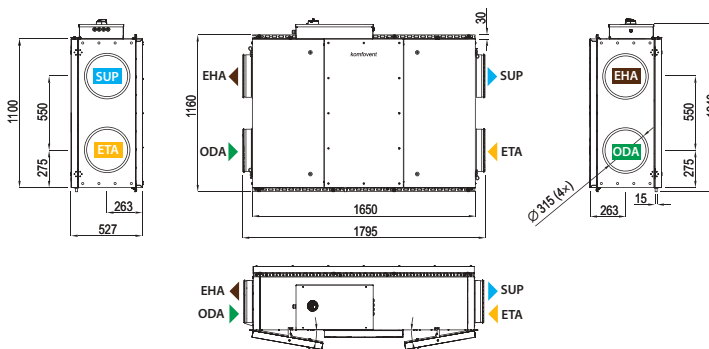
Indoor +22 °C, 20 % RH

## Hot water duct air heater \*

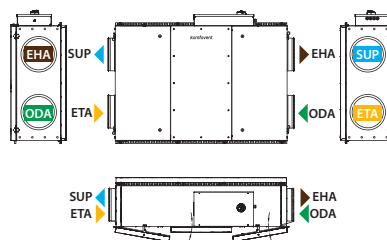
	Winter		
	80/60	70/50	60/40
Water temperature in/out, °C			
Capacity, kW	3,9	3,9	3,9
Flow rate, dm <sup>3</sup> /h	169	169	169
Pressure drop, kPa	5,1	5,1	5,2
Temperature in/out, °C	14,2 / 22,0		
Maximal capacity, kW	13,4	10,8	8,2
Connection, "	½		

\* Option

Shown as right (R1)



Shown as left (L1)



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

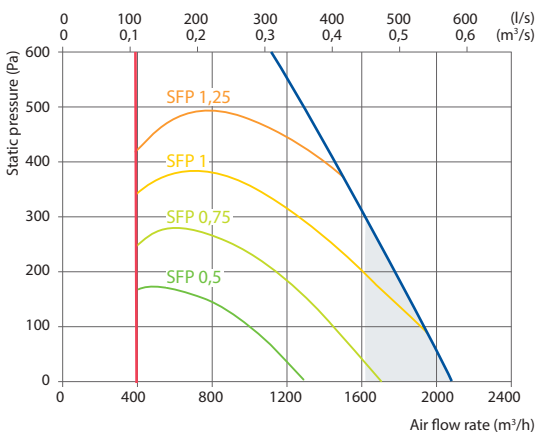
# Verso CF 1700 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×2,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	526
Noise power level, L <sub>WA</sub> , dB(A)	52
Noise pressure level, L <sub>PA</sub> , 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	894×992×1798
Panel thickness, mm	45
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/ETA AGS-315-100-900-M
	SUP/EHA 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

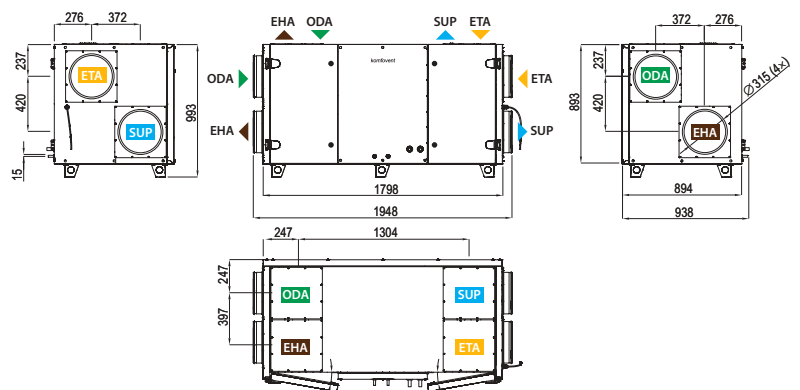
## Temperature efficiency

	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								

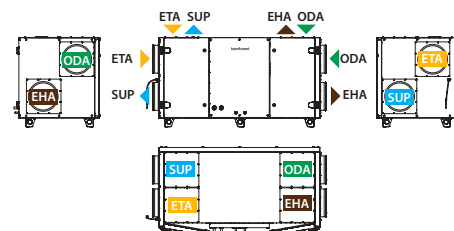
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	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	¾ / 22	

Shown as right (R1)



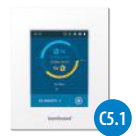
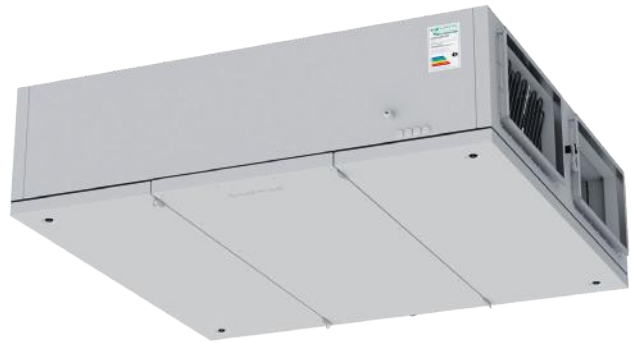
Shown as left (L1)



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

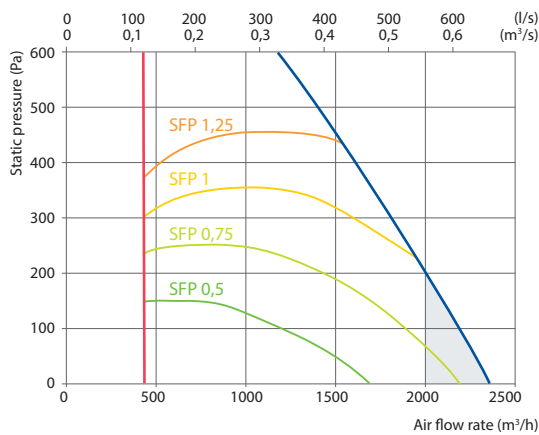
# Verso CF 2000 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×2,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	544
Noise power level, L <sub>WA</sub> , dB(A)	56
Noise pressure level, L <sub>PA</sub> , 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

## Accessories

Closing damper	SRU-M-600×300+LF24/LM24
Silencer	ODA/ETA STS-BQUNBM-700×400-700-S
	SUP/EHA STS-IB6GBC-700×400-1250-S
Water heater	SVK-700×400-2
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

## Mounting positions



## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

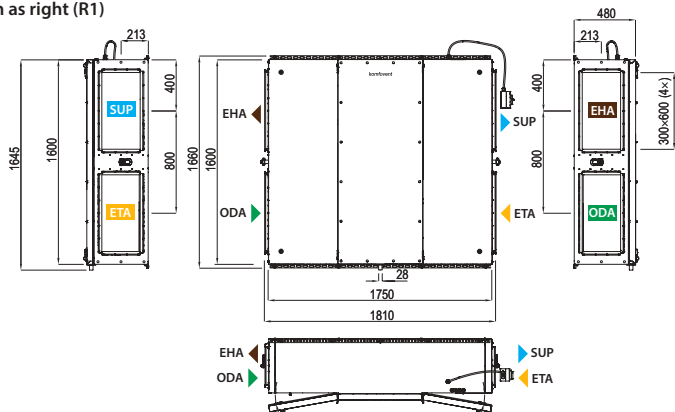
Indoor +22 °C, 20 % RH

## Hot water duct air heater \*

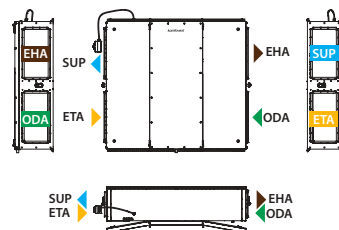
	Winter		
	80/60	70/50	60/40
Capacity, kW	5,0	5,0	5,0
Flow rate, dm <sup>3</sup> /h	221	220	219
Pressure drop, kPa	1,0	1,0	1,0
Temperature in/out, °C	14,5 / 22,0		
Maximal capacity, kW	22,5	18,0	13,4
Connection, "	¾		

\* Option

## Shown as right (R1)



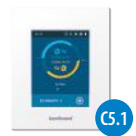
## Shown as left (L1)



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

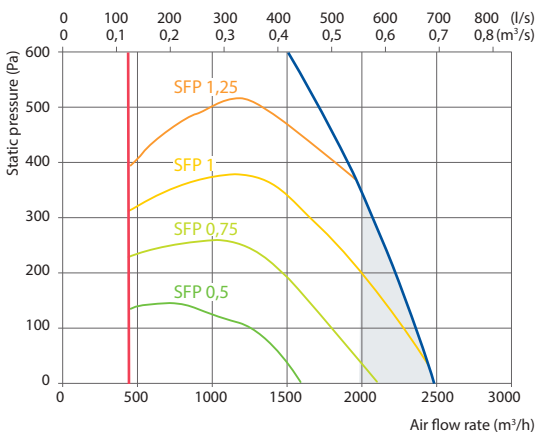
# Verso CF 2300 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×2,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	660
Noise power level, L <sub>WA</sub> , dB(A)	57
Noise pressure level, L <sub>PA</sub> , 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	894×893×1987
Panel thickness, mm	45
Maintenance space, mm	800
Unit weight, kg	250



## Performance

Verso CF 2300 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/ETA	STS-IVR3BA-600-400-700-S
	SUP/EHA	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

## 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

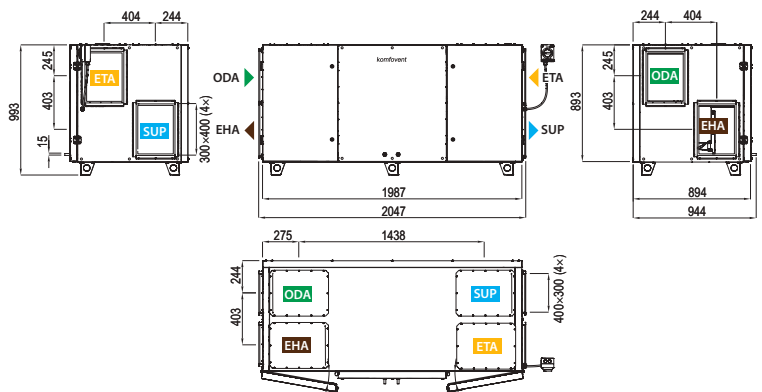
Indoor +22 °C, 20 % RH

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

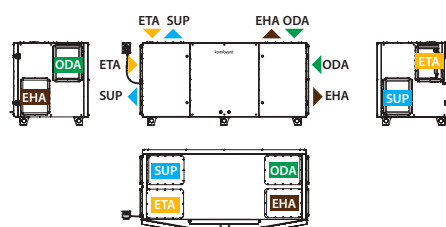
	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	4,2	12,4	3,1	10,0
Maximal capacity, kW	13,4	12,9	6,9	12,0
Pressure drop, kPa	1	50	–	–
Air temperature in/out, °C	15,7 / 22	30 / 18,0	15,7 / 22	30 / 18
Connection, "/ mm		¾	1×½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

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

Shown as right (R1)



Shown as left (L1)



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

# Verso CF 2500 V C5

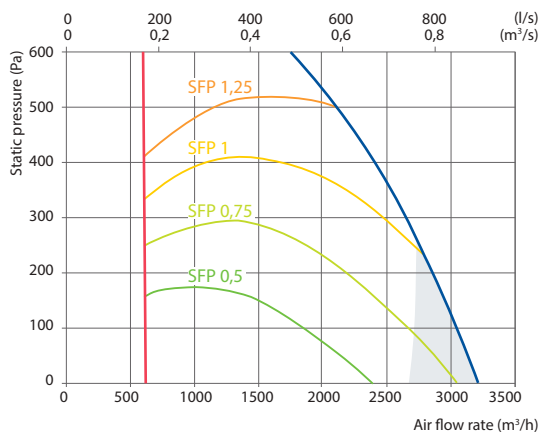
NEW

Nominal air flow according to ErP 2018, m <sup>3</sup> /h	2730
Nominal air flow according to ErP 2018, l/s	758
Electric air heater capacity, kW / Δt, °C	7,5/7,2
Supply voltage HE, V	3~400
Supply voltage HW, V	1~230
Maximal operating current HE, A	18
Maximal operating current HW, A	7,5
Power supply cable E, mm <sup>2</sup>	5x2,5
Power supply cable W, mm <sup>2</sup>	3x1,5
Electric power input of the fan drive at maximum flow rate, W	760
Noise power level, L <sub>WA</sub> , dB(A)	45
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	35
Filters dimensions BxHxL, mm	790x450x92
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	890x1100x2050
Panel thickness, mm	45
Maintenance space, mm	950
Unit weight, kg	347



## Performance

Verso CF 2500 V with standard equipment



Does not conform to ErP2018 requirements

## Accessories

Closing damper	SRU-M-700x300+LF24/LM24
Silencer	ODA/ETA STS-IVR3BA-800-300-700-S
	SUP/EHA STS-IVR3BA-800-300-1250-S
PPU	PPU-HW-3R-20-4-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-280HFN6+AHUKZ-02D

## Temperature efficiency

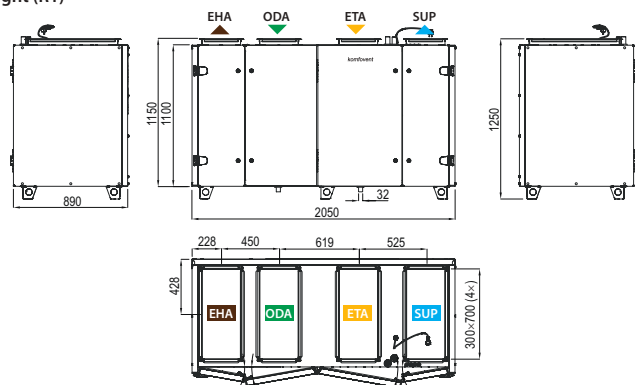
Outside temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,1	15	15,6	16,5	17,5	22,6	23,6	24,6

Indoor +22 °C, 20 % RH

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

	Winter		Summer	
	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	-	-
Condensation/evaporation T, °C	-	-	45	45/5
Capacity, kW	7,3	17	7,3	18,7
Maximal capacity, kW	20,7	18,7	15,5	22,6
Pressure drop, kPa	1	40,2	-	-
Air temperature in/out, °C	14,1 / 22	30 / 18	14,1 / 22	30 / 18
Connection, " / mm	¾		½ / 22	

Shown as right (R1)



Shown as left (L1)

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

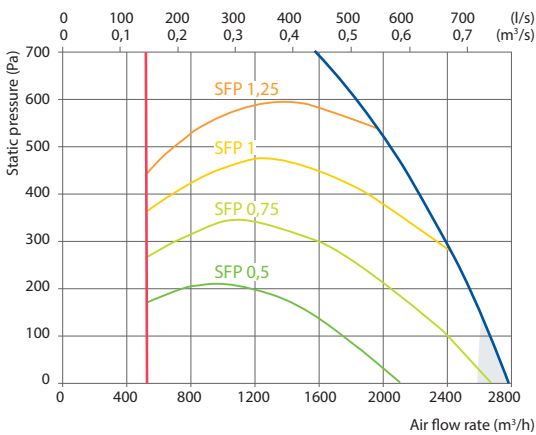
# Verso CF 2500 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5x2,5
Power supply cable W, mm <sup>2</sup>	3x1,5
Electric power input of the fan drive at maximum flow rate, W	640
Noise power level, L <sub>WA</sub> , dB(A)	62
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	51
Filters dimensions BxHxL, mm	888x430x96
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	2000x528x1850
Panel thickness, mm	45
Maintenance space, mm	620
Unit weight, kg	340



## Performance

Verso CF 2500 F with standard equipment



Does not conform to ErP2018 requirements

## Accessories

Closing damper	SRU-M-700x300+LF24/LM24
Silencer	ODA/ETA STS-IVR3BA-800-300-700-S
	SUP/EHA STS-IVR3BA-800-300-1250-S
Water heater	SVK-700x400-2R
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

## Mounting positions



## 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

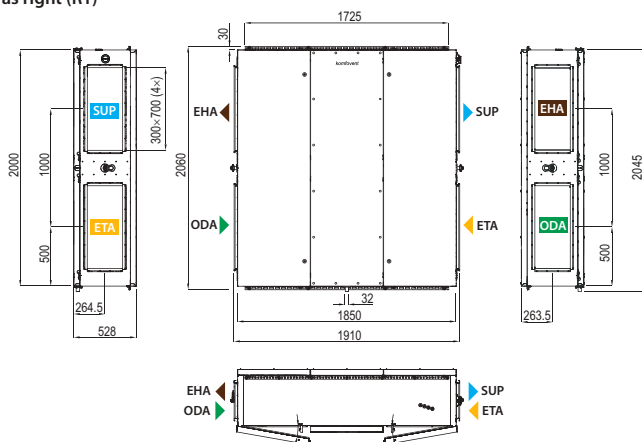
Indoor +22 °C, 20 % RH

## Hot water duct air heater \*

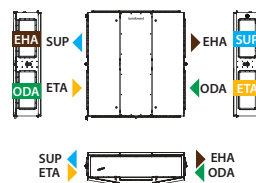
	Winter		
Water temperature in/out, °C	80/60	70/50	60/40
Capacity, kW	7,0	7,0	7,0
Flow rate, dm <sup>3</sup> /h	311	309	308
Pressure drop, kPa	4,8	4,8	4,9
Temperature in/out, °C	13,9 / 22		
Maximal capacity, kW	22,3	18,0	13,6
Connection, "	½		

\* Option

## Shown as right (R1)



## Shown as left (L1)



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

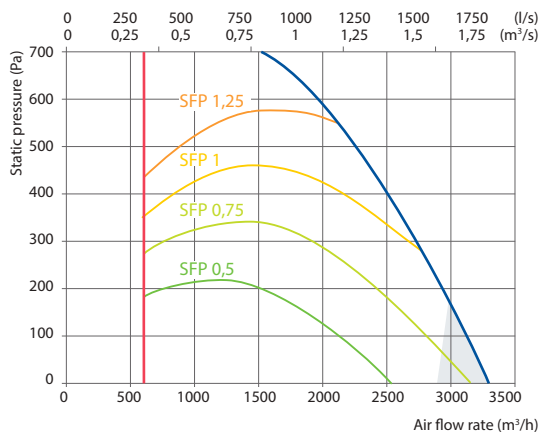
# Verso CF 3000 F C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×2,5
Power supply cable W, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	752
Noise power level, L <sub>WA</sub> , dB(A)	48
Noise pressure level, L <sub>PA</sub> , 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

## Accessories

Closing damper	SRU-M-750×400+LF24/LM24
Silencer	ODA/ETA STS-B6SD8W-750-400-500-S
	SUP/EHA 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

## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

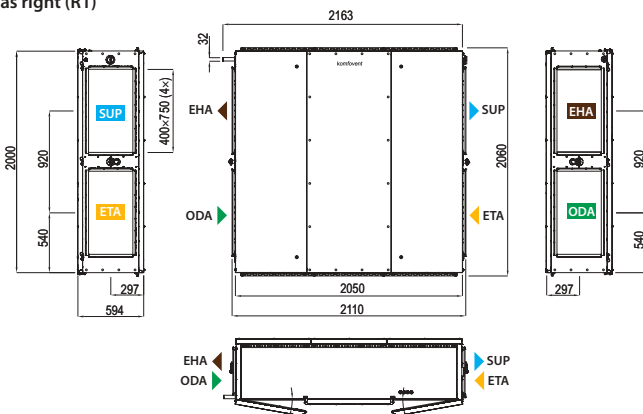
Indoor +22 °C, 20 % RH

## Hot water duct air heater \*

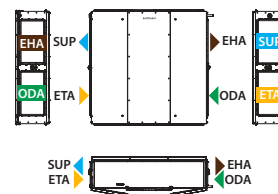
Water temperature in/out, °C	Winter		
	80/60	70/50	60/40
Capacity, kW	4	4	4
Flow rate, dm <sup>3</sup> /h	178	177	176
Pressure drop, kPa	1	1	1
Temperature in/out, °C	18 / 22		
Maximal capacity, kW	24,9	19,5	14
Connection, "	¾		

\* Option

## Shown as right (R1)



## Shown as left (L1)



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

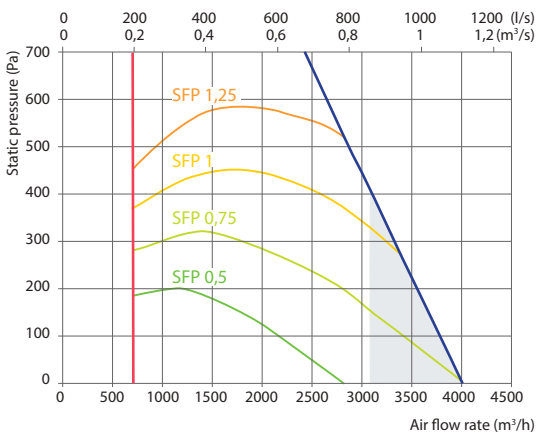
# Verso CF 3500 U C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×4
Power supply cable W, mm <sup>2</sup>	5×1,5
Electric power input of the fan drive at maximum flow rate, W	960
Noise power level, L <sub>WA</sub> , dB(A)	44
Noise pressure level, L <sub>pA</sub> , dB(A), (3 m)	34
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

## Accessories

Closing damper	H	SRU-M-400×500+LF24/LM24
	V	SRU-M-500×400+LF24/LM24
Silencer	ODA/ETA	STS-IVR3BA-800-500-700-S
	SUP/EHA	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

## 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

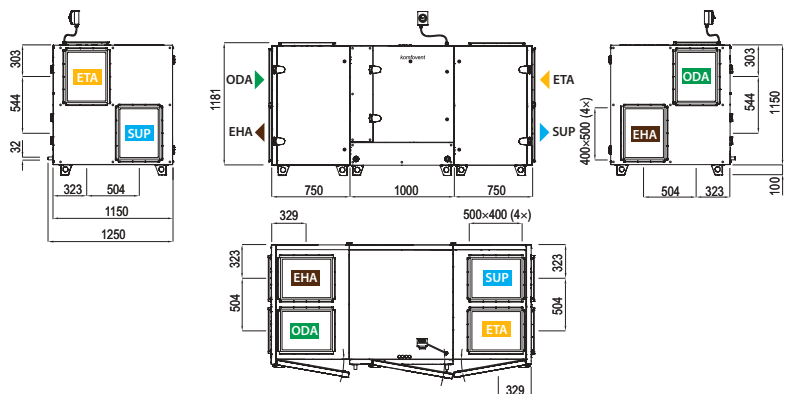
Indoor +22 °C, 20 % RH

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

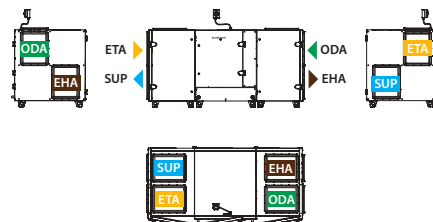
	Winter		Summer	
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	9,5	8,4	8,2	21,8
Maximal capacity, kW	18,7	10,0	18,3	30,9
Pressure drop, kPa	3,6	25,1	–	–
Air temperature in/out, °C	14,0 / 22	30 / 24	14,0 / 22	30 / 18
Connection, "/ mm	¾		2×¾/2×22	

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

Shown as right (R1)



Shown as left (L1)



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

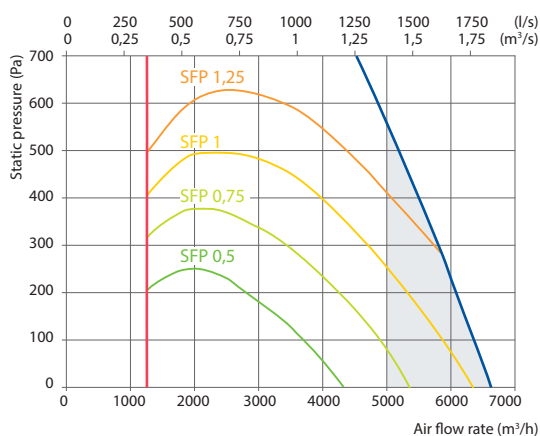
# Verso CF 5000 V C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×6
Power supply cable W, mm <sup>2</sup>	5×1,5
Electric power input of the fan drive at maximum flow rate, W	1850
Noise power level, L <sub>WA</sub> , dB(A)	46
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	35
Filters dimensions B×H×L, mm	650×450×92 (x2)
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	1500
Unit weight, kg	640



## 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/ETA STS-IXY5BU-1250-300-700-S
	SUP/EHA 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

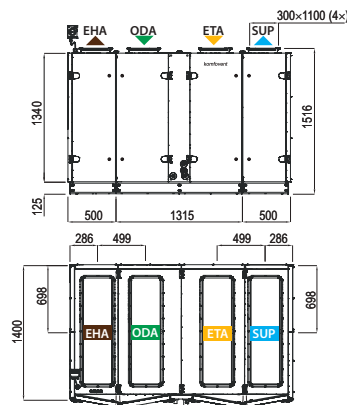
Outside temperature, °C	Winter					Summer		
	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,8	15,7	16,2	17	17,9	22,6	23,5	24,4

Indoor +22 °C, 20 % RH

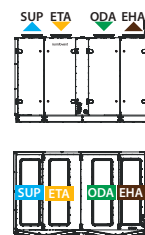
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter		Summer	
	Winter	Summer	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		2×¾/2×22	

Shown as right (R1)



Shown as left (L1)



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

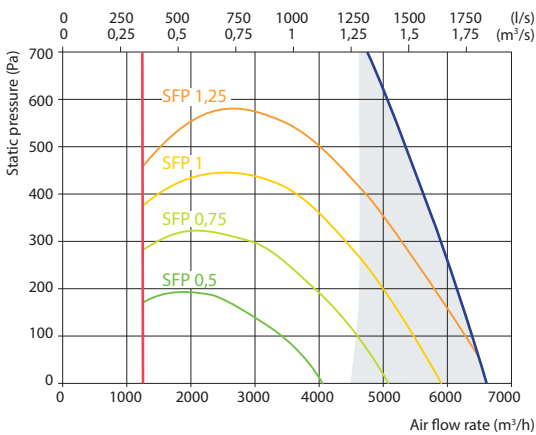
# Verso CF 5000 H C5

Nominal air flow according to ErP 2018, m <sup>3</sup> /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 <sup>2</sup>	5×6
Power supply cable W, mm <sup>2</sup>	5×1,5
Electric power input of the fan drive at maximum flow rate, W	2263
Noise power level, L <sub>WA</sub> , dB(A)	52
Noise pressure level, L <sub>PA</sub> , 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	592



## 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/ETA STS-BJIM8G-1100-400-700-S
	SUP/EHA STS-IJKBO-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

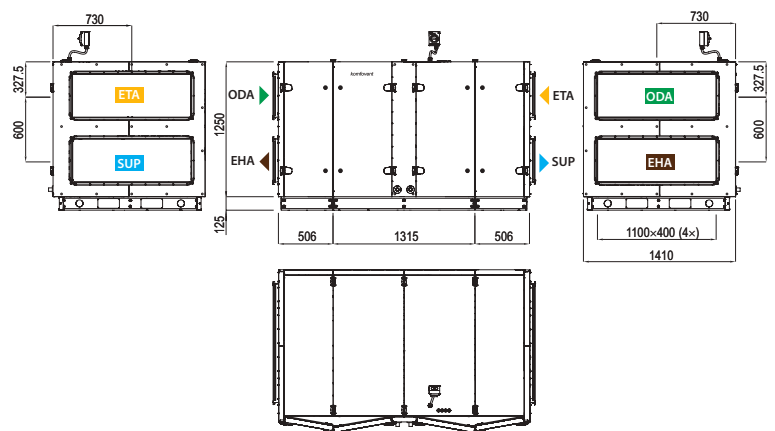
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,9	15,8	16,3	17	18	22,5	23,5	24,3

Indoor +22 °C, 20 % RH

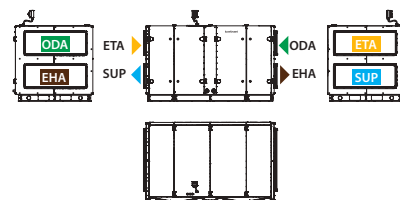
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	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		2×¾/2×22	

Shown as right (R1)



Shown as left (L1)



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

# Verso CF 7000 V C5

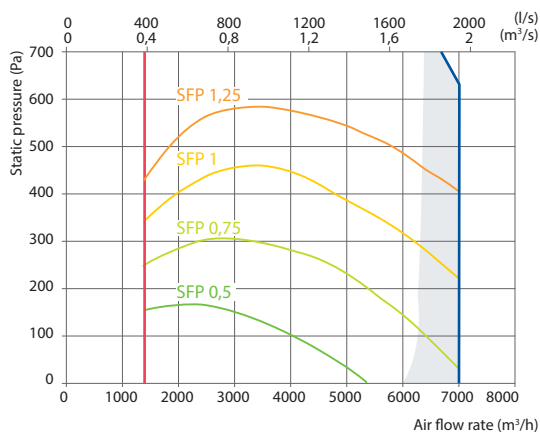
NEW

Nominal air flow according to ErP 2018, m <sup>3</sup> /h	6210
Nominal air flow according to ErP 2018, l/s	1725
Electric air heater capacity, kW / Δt, °C	24/10
Supply voltage HE, V	3~400
Supply voltage HW, V	3~400
Maximal operating current HE, A	44
Maximal operating current HW, A	9,5
Power supply cable E, mm <sup>2</sup>	5×10
Power supply cable W, mm <sup>2</sup>	5×1,5
Electric power input of the fan drive at maximum flow rate, W	1635
Noise power level, L <sub>WA</sub> , dB(A)	52
Noise pressure level, L <sub>PA</sub> , dB(A), (3 m)	41
Filters dimensions B×H×L, mm	800×492×92 (x2)
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions B×H×L, mm	1700×1676×2720
Panel thickness, mm	45
Maintenance space, mm	1800
Unit weight, kg	828



## Performance

Verso CF 7000 V with standard equipment



Does not conform to ErP2018 requirements

## Accessories

Closing damper	SRU-M-1200x500+LF24/LM24
Silencer	ODA/ETA STS-IBREBC-1200-500-700-S SUP/EHA STS-B7OV8F-1200-500-1250-S
PPU	PPU-HW-3R-25-6.3-W3
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×MOU48HFN8a+KA8142

## Temperature efficiency

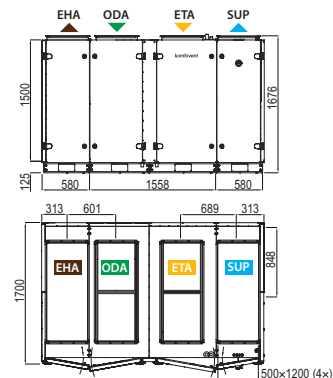
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,9	15,8	16,3	17	18	22,5	23,5	24,3

Indoor +22 °C, 20 % RH

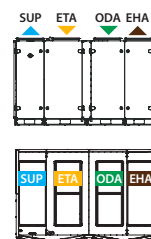
## Changeover water/ DX heating – cooling exchanger (HCW/HCDX)

	Winter	Summer	Winter	Summer
Water temperature in/out, °C	60/40	7/12	–	–
Condensation/evaporation T, °C	–	–	45	45/5
Capacity, kW	14,8	35,2	14,78	42,4
Maximal capacity, kW	39,8	39,3	37,1	47,9
Pressure drop, kPa	1,0	16,1	–	–
Air temperature in/out, °C	14,9 / 22,0	30,0 / 18,0	14,9 / 22,0	30,0 / 18,0
Connection, " / mm	1 ¼		3×½/3×22	

Shown as right (R1)



Shown as left (L1)

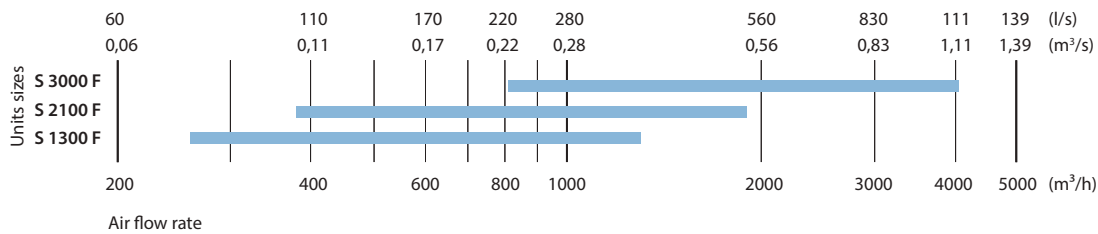


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

# Verso S Standard

## False ceiling supply air handling units

### Sizes and capacities of Verso S Standard units



### Technical data

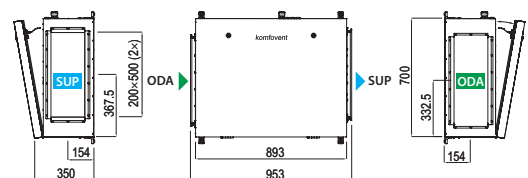
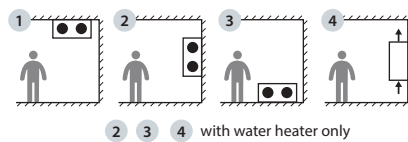
Unit	Verso S 1300 F	Verso S 2100 F	Verso S 3000 F
Nominal air flow, m³/h	1350	2210	3800
Electric power input of the fan drive at reference flow rate, W	236	337	680
Sound pressure level $L_{pA}$ , dB(A), distance from casing – 3 m	58	55	53
Filters dimensions BxHxL, mm	558x287x46	858x287x46	450x480x96 (x2)
Unit weight, kg	46	73	130

### Modifications of Verso S Standard units

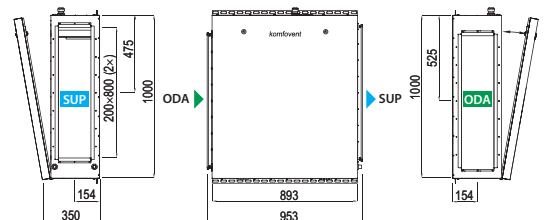
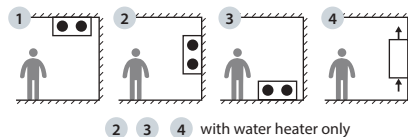
Unit	Supply air filter class ePM1 60 (F7)	Heater		Cooler	
		HE	HW	HCW	HCDX
Verso S 1300 F	●	○	○	△	△
Verso S 2100 F	●	○	○	△	△
Verso S 3000 F	●		●	△	△

● standard equipment  
○ possible choice  
△ ordered separately duct heater/cooler  
The markings are explained on p. 153.

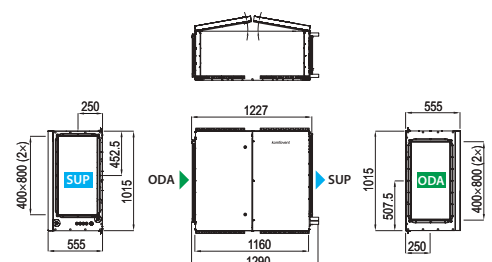
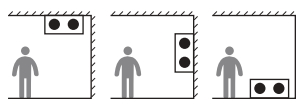
## Verso S 1300 F C5



## Verso S 2100 F C5



## Verso S 3000 F C5



▶ ODA – outdoor intake ▶ SUP – supply air

## VERSO Pro, VERSO Pro2



### VERSO Pro

Modular air handling units for commercial ventilation

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

Quality approach to professional ventilation

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, logistics centres and industrial buildings.



### Hygienic application air handling units

Selection of VERSO Pro and Pro2 air handling units also available for hygienic and medical applications. These features make VERSO units suitable for environments where infection control and air hygiene are critical – such as hospitals, clinics, laboratories, and pharmaceutical spaces.

# 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.



Rotary heat exchanger

### 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.

### 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.



Counter flow 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.



Heat exchanger frost prevention

## 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.

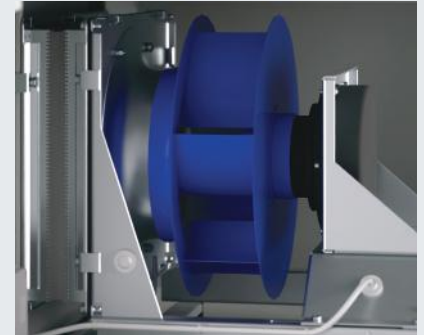
When running, fans exhibit the following qualities:

- 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.
- The shortest payback time.

## Air heaters

### 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.

### 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.



Water air heaters

## 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.

## 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



## Air dampers

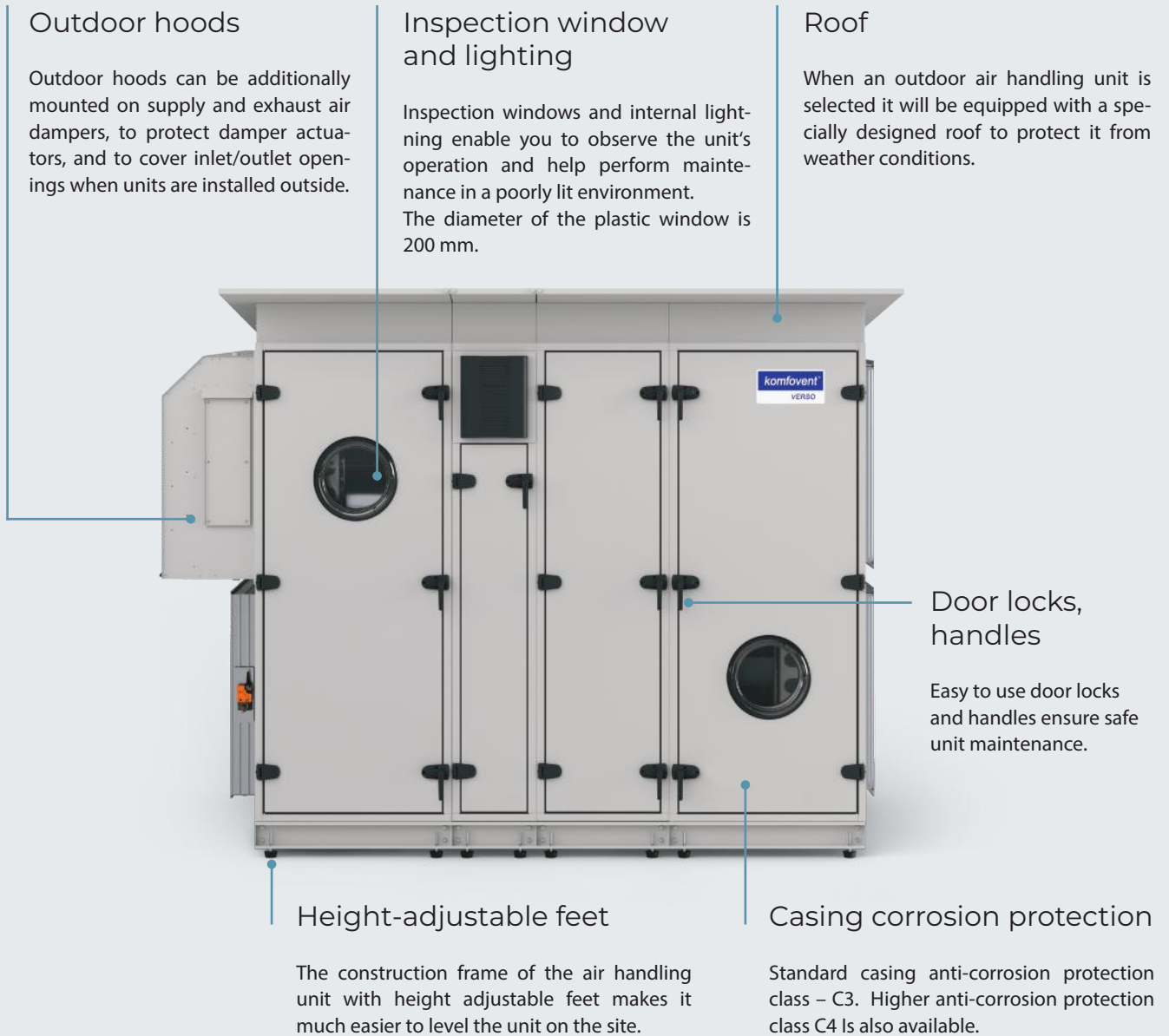
Closing air dampers installed in the air handling units are produced from aluminium with rubber sealing.

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<sup>2</sup>. Higher tightness Class 3 dampers actuator torque – 15 Nm/m<sup>2</sup>.





VERSO Pro/VERSO Pro2 casing – superior performance

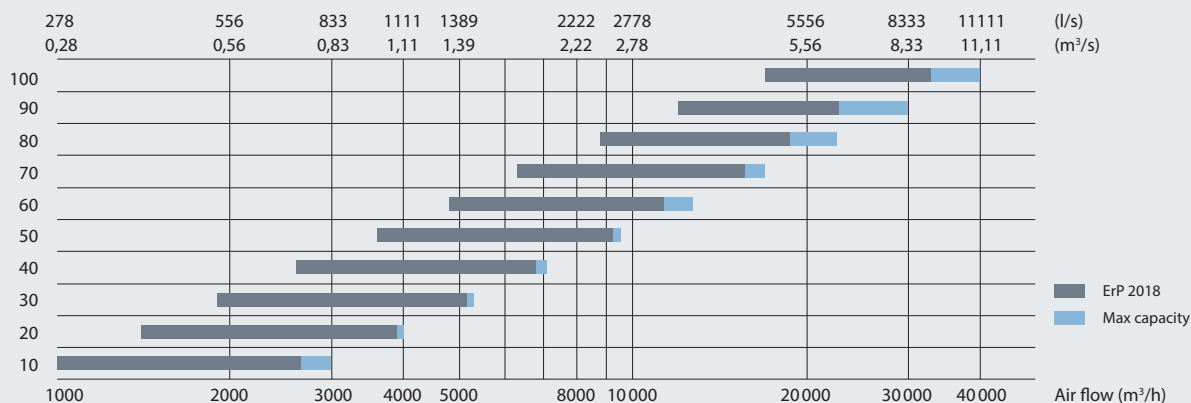
<b>TB1</b> Thermal bridging	<b>L1</b> Leakage	<b>T1</b> Thermal transmittance	<b>D1</b> Mechanical strength	Casing sound insulation

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	-

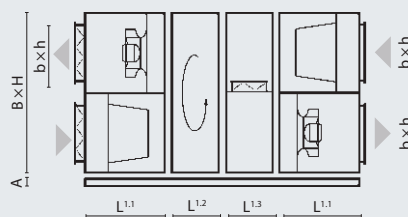
\* L1 at -400 Pa and L2 at +700 Pa

# Sizes and capacities of VERSO Pro, Pro2 units

## Verso R Pro

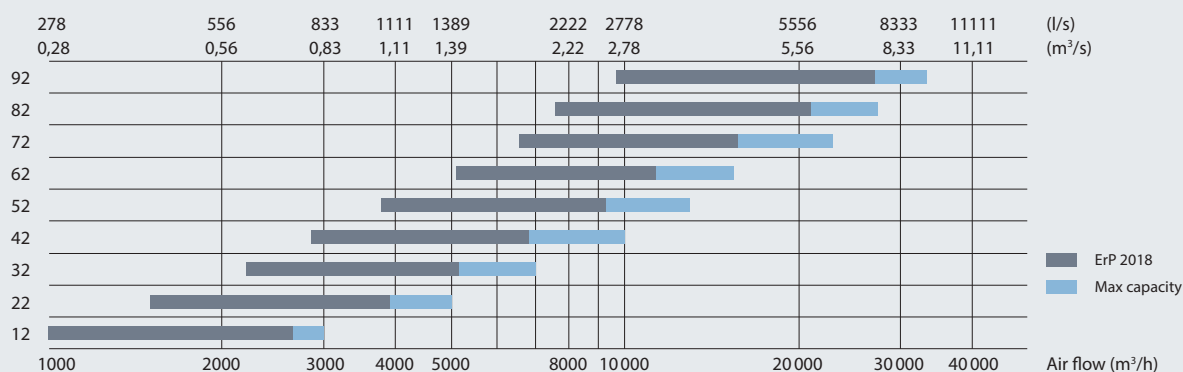


Size	B	H	L <sup>1.1</sup>	L <sup>1.2</sup>	L <sup>1.3</sup>	b	h	A
10	1000	1000	618	370	435	700	300	125
20	1150	1150	751	370	435	900	400	125
30	1300	1300	751	370	435	1000	500	125
40	1500	1520	751	390	435	1200	600	125
50	1700	1715	885	390	435	1400	700	125
60	1900	1920	885	390	570	1600	800	125
70	2100	2100	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

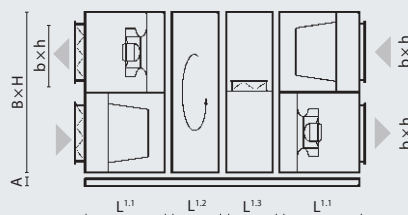


Note: electric air heater, water heater and cooler section length and configuration is noted in KOMFOVENT Select.

## Verso R Pro2

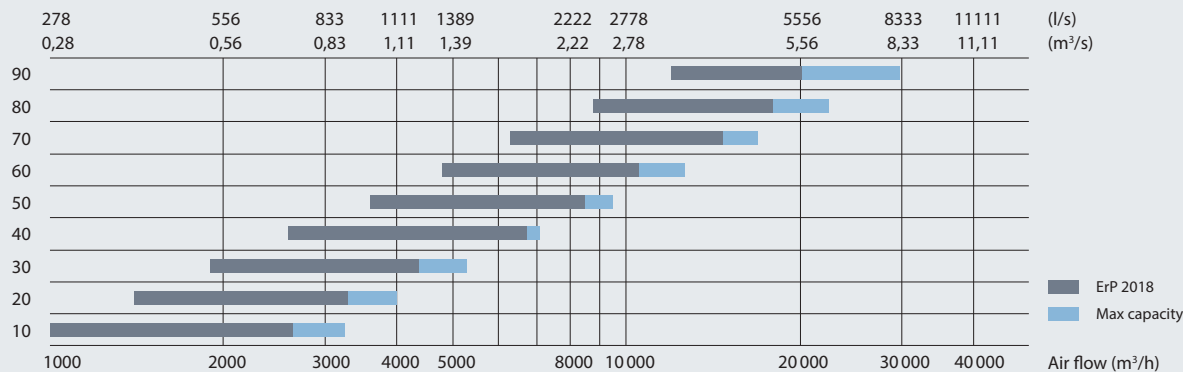


Size	B	H	L <sup>1.1</sup>	L <sup>1.2</sup>	L <sup>1.3</sup>	b	h	A
12	1054	1054	751	380	515	700	300	150
22	1204	1204	751	380	515	900	400	150
32	1354	1354	751	380	515	1000	500	150
42	1554	1574	751	380	515	1200	600	150
52	1754	1769	885	380	515	1400	600	150
62	1954	1974	885	380	640	1600	700	150
72	2154	2154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

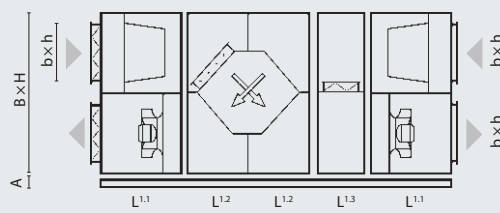


Note: electric air heater, water heater and cooler section length and configuration is noted in KOMFOVENT Select.

**Verso CF Pro**

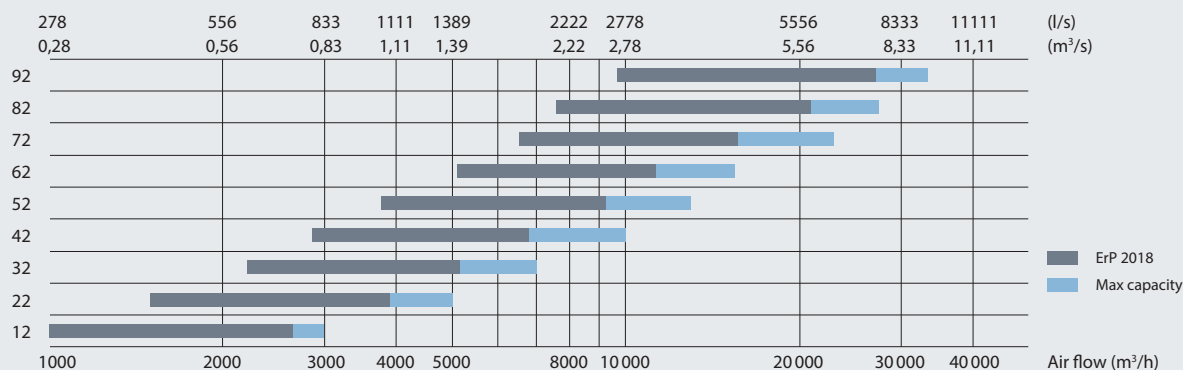


Size	B	H	L <sup>1.1</sup>	L <sup>1.2</sup>	L <sup>1.3</sup>	b	h	A
10	1000	1000	618	570	435	700	300	125
20	1150	1150	751	645	435	900	400	125
30	1300	1300	751	720	435	1000	500	125
40	1500	1520	751	720	435	1200	600	125
50	1700	1715	885	720	435	1400	700	125
60	1900	1920	885	930	570	1600	800	125
70	2100	2100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

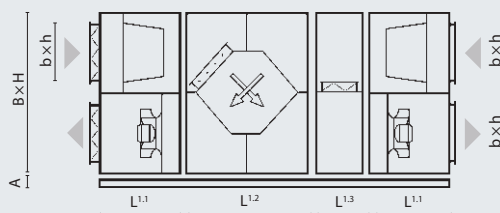


Note: size 20+70 plate heat exchanger section is made of two parts. Size 10, 80 and 90 – of one part. The electric air heater section length is noted in KOMFOVENT Select.

**Verso CF Pro2**

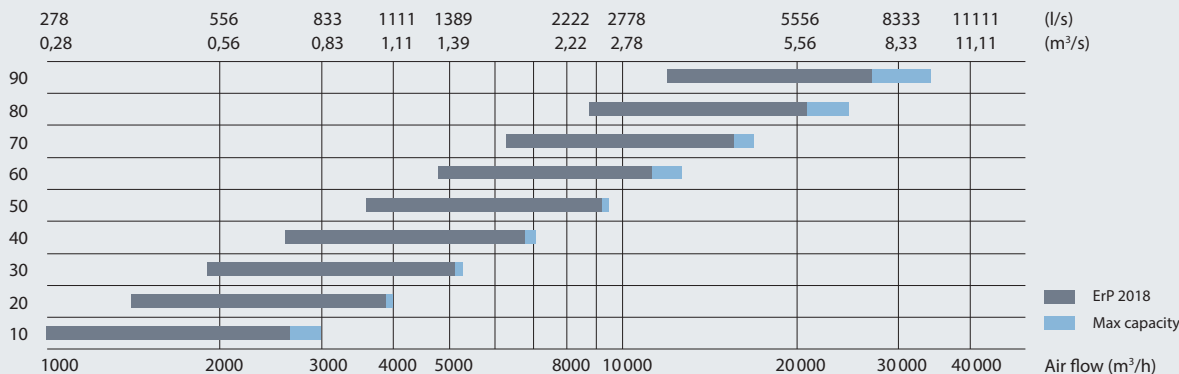


Size	B	H	L <sup>1.1</sup>	L <sup>1.2</sup>	L <sup>1.3</sup>	b	h	A
12	1054	1204	751	1428	515	700	300	150
22	1204	1354	751	1548	515	900	400	150
32	1354	1574	751	1648	515	1000	500	150
42	1554	1769	751	1934	515	1200	600	150
52	1754	1974	885	2102	515	1400	600	150
62	1954	2154	885	2102	640	1600	700	150
72	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

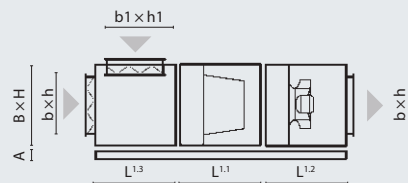


Note: if data do not correspond to data in the selection software, please refer to data shown in software.

### Verso S Pro

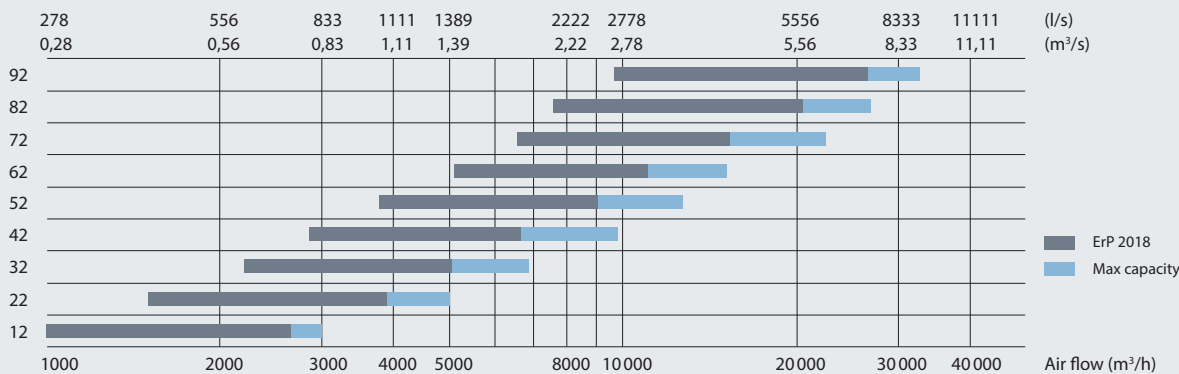


Size	B	H	L <sup>1.1</sup>	L <sup>1.2</sup>	L <sup>1.3</sup>	b	h	b1	h1	A
10	1000	490	750	705	430	900	400	700	300	125
20	1150	585	750	705	430	1100	500	1000	300	125
30	1300	660	750	705	470	1200	600	1100	400	125
40	1500	740	750	842	470	1400	700	1200	400	125
50	1700	890	750	842	470	1600	800	1400	400	125
60	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

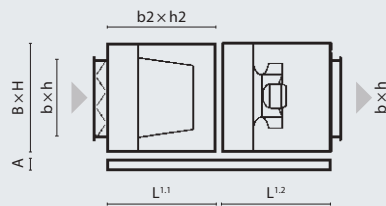


Note: the electric air heaters, water heaters and coolers section length and configuration is noted in KOMFOVENT Select.

### Verso S Pro2

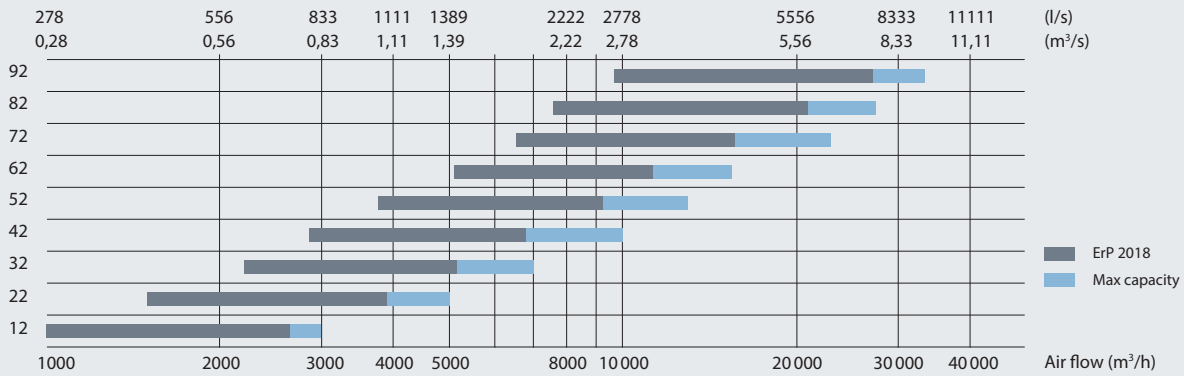


Size	B	H	L <sup>1.1</sup>	L <sup>1.2</sup>	b	h	A
12	1054	540	650	1000	700	300	150
22	1204	635	650	1000	900	400	150
32	1354	710	650	1000	1000	500	150
42	1554	790	650	1000	1200	600	150
52	1754	940	650	1000	1400	600	150
62	1954	1040	650	1000	1600	700	150
72	2154	1125	650	1000	1800	800	150
82	2360	1200	705	1250	2000	1000	125
92	2660	1400	705	1400	2300	1100	125

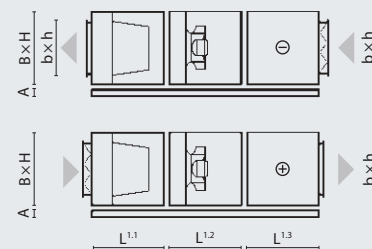


Note: the electric air heaters, water heaters and coolers section length and configuration is noted in KOMFOVENT Select.

**Verso RA Pro2**



Size	B	H	L <sup>1.1</sup>	L <sup>1.2</sup>	L <sup>1.3</sup>	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	1040	650	1000	840	1600	700	150
72	2154	1125	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



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

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# 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 R454C), 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.

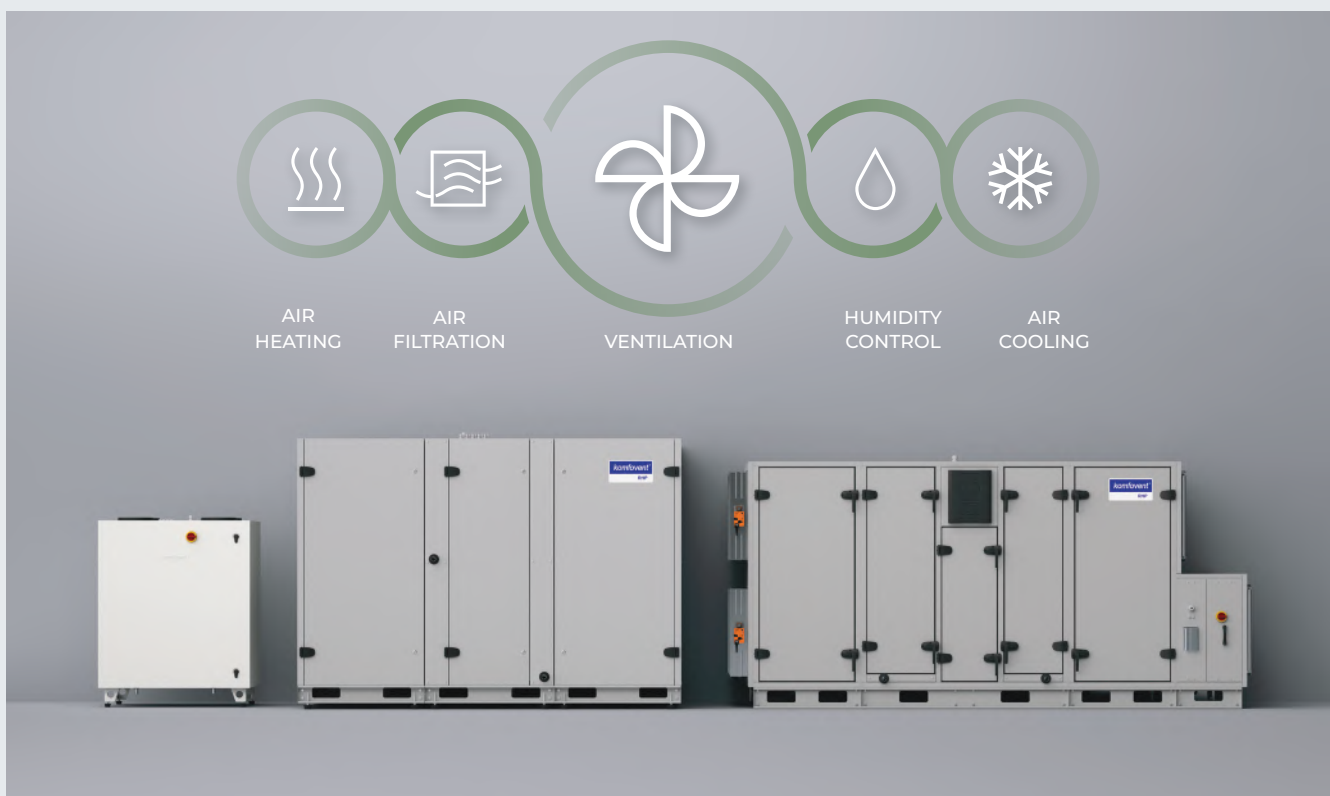
## Wide possibilities with RHP:

- 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

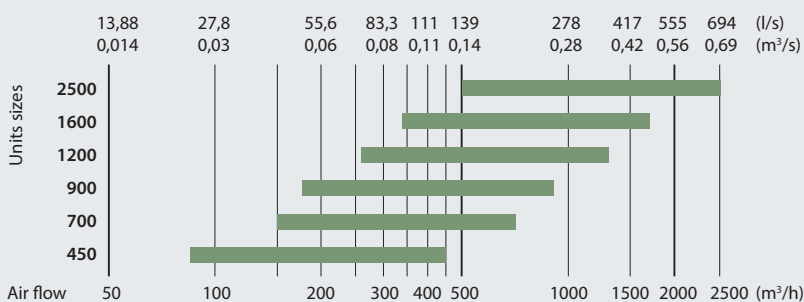
Efficient and quiet operation of the heat pump is achieved through the latest generation of double-rotor inverter compressors and an electronic expansion valve, ensuring optimal performance across the unit's entire airflow range.



### 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.

### Sizes and capacities of RHP Standard units



<sup>1</sup> Rotary heat exchanger + heat pump at -7°C outdoor temperature.

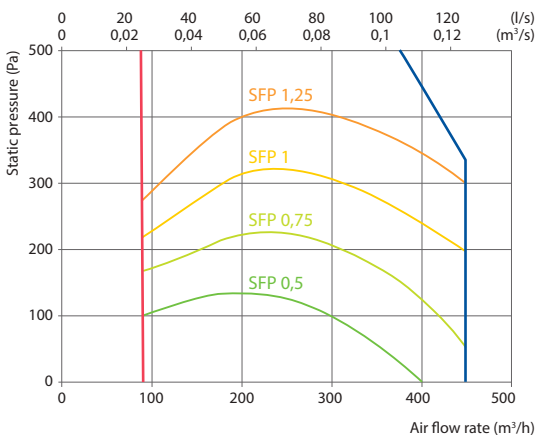
# RHP 450 V C5

Nominal air flow, m <sup>3</sup> /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, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	116
Noise power level, L <sub>WA</sub> , dB(A)	52
Noise pressure level, L <sub>pM</sub> , 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	0,7
Unit weight, kg	121



## Performance

Unit with standard equipment

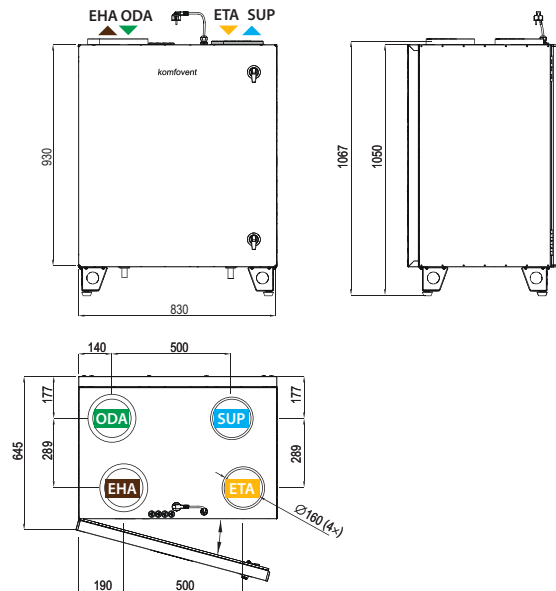


## Temperature efficiency

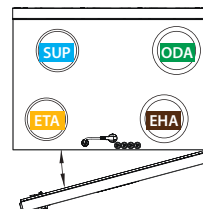
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,5	15	16	16,9	17,9	22,6	23,5	24,4

Indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)

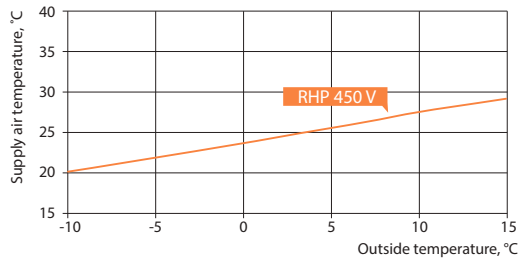


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

## Accessories

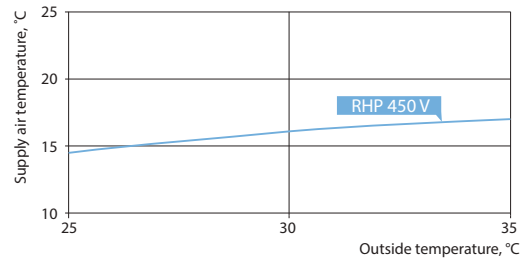
Closing damper	AGUJ-M-160+TF24/CM24
Silencer	ODA/ETA AGS-160-50-600-M SUP/EHA AGS-160-50-900-M
Siphon	MINI

## 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

	Heating			Cooling	
	7	2	-7	35	27
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 <sup>1,2,3</sup> , Average climate / System SEER <sup>1,2,3</sup>	8,15			3,97	
COP/EER	3,91	3,91	3,76	2,89	3,41

<sup>1</sup> Rotary heat exchanger wave size "ML"<sup>2</sup> Rotary heat exchanger + heat pump<sup>3</sup> According to EN 14825 standard

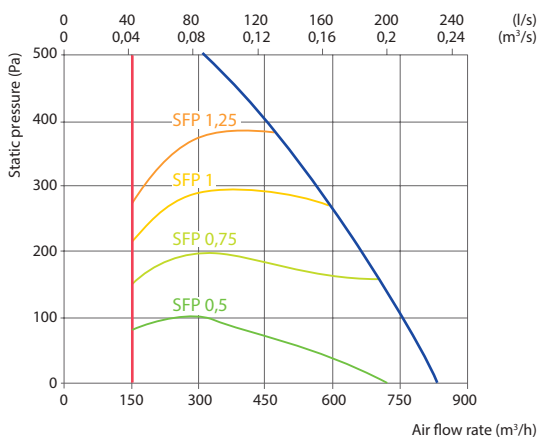
# RHP 700 V C5

Nominal air flow, m <sup>3</sup> /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, mm <sup>2</sup>	3×1,5
Electric power input of the fan drive at maximum flow rate, W	154
Noise power level, L <sub>WA</sub> , dB(A)	46
Noise pressure level, L <sub>pM</sub> , dB(A) (3 m)	35
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	1,35
Unit weight, kg	150



## Performance

Unit with standard equipment

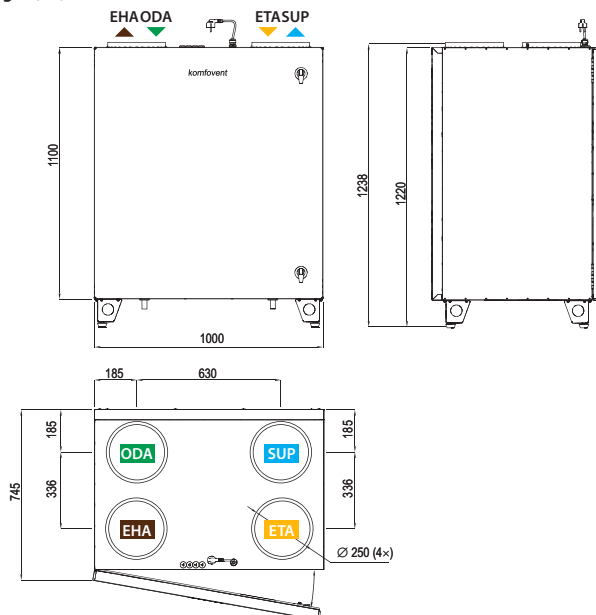


## Temperature efficiency

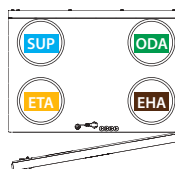
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,1	15,5	16,4	17,3	18,1	22,5	23,4	24,3

Indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)

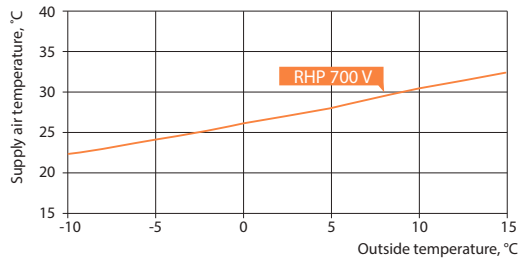


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

## Accessories

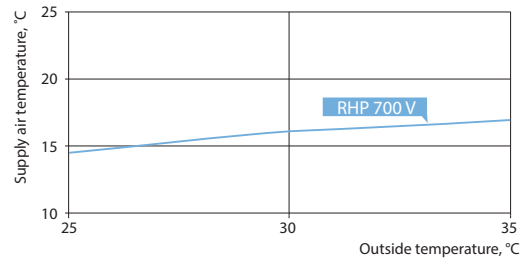
Closing damper	AGUJ-M-250+TF24/CM24
Silencer	ODA/ETA AGS-250-50-600-M
	SUP/EHA AGS-250-50-900-M
Siphon	MINI

## 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.

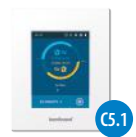
## Heat pump parameters

	Heating			Cooling	
	7	2	-7	35	27
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 <sup>1,2,3</sup> , Average climate / System SEER <sup>1,2,3</sup>	9,18			4,95	
COP/EER	5,46	5,31	5	3,74	4,36

<sup>1</sup> Rotary heat exchanger wave size "ML"<sup>2</sup> Rotary heat exchanger + heat pump<sup>3</sup> According to EN 14825 standard

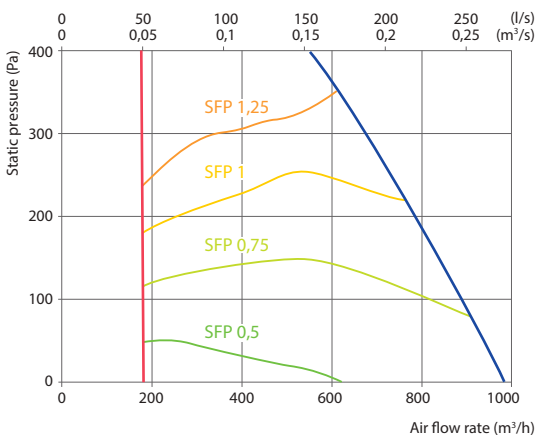
# RHP 900 V C5

Nominal air flow, m <sup>3</sup> /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, mm <sup>2</sup>	5x1,5
Electric power input of the fan drive at maximum flow rate, W	200
Noise power level, L <sub>WA</sub> , dB(A)	48
Noise pressure level, L <sub>pA</sub> , dB(A) (3 m)	39
Filters dimensions BxHxL, mm	695x330x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	800x1300x1070
Panel thickness, mm	45
Maintenance space, mm	1100
Refrigerant R1234YF, kg	1,4
Unit weight, kg	195



## Performance

Unit with standard equipment

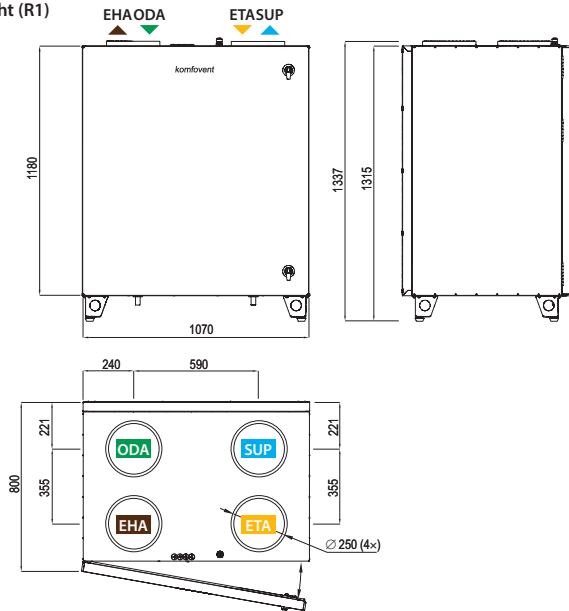


## Temperature efficiency

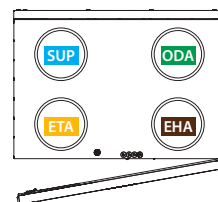
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,2	15,6	16,4	17,3	18,2	22,5	23,4	24,3

Indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)

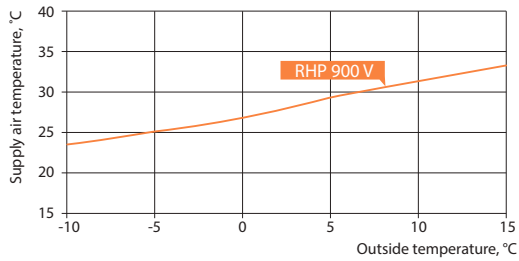


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

## Accessories

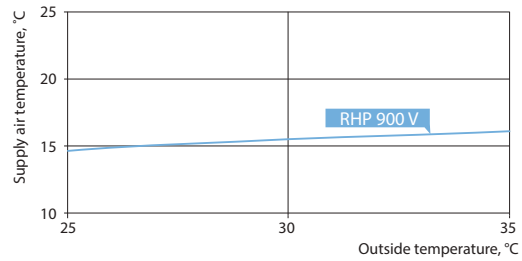
Closing damper	AGUJ-M-250+TF24/CM24
Silencer	ODA/ETA    ASTS-250-600-M
	SUP/EHA    AGS-250-100-900-M
Siphon	MINI

**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**

	Heating			Cooling	
	7	2	-7	35	27
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 <sup>1,2,3</sup> , Average climate / System SEER <sup>1,2,3</sup>	9,61			5,47	
COP/EER	6,12	5,88	5,53	4,38	5,06

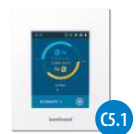
<sup>1</sup> Rotary heat exchanger wave size "ML"

<sup>2</sup> Rotary heat exchanger + heat pump

<sup>3</sup> According to EN 14825 standard

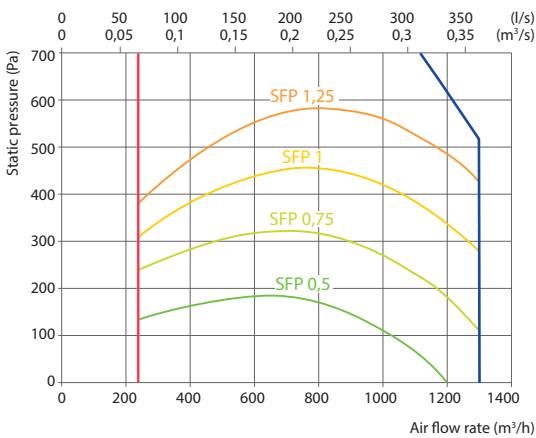
# RHP 1200 U C5

Nominal air flow, m <sup>3</sup> /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	12,8
Power supply cable, mm <sup>2</sup>	5x2,5
Electric power input of the fan drive at maximum flow rate, W	295
Noise power level, L <sub>WA</sub> , dB(A)	51
Noise pressure level, L <sub>pM</sub> , dB(A) (3 m)	41
Filters dimensions BxHxL, mm	805x400x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	905x905x1505
Panel thickness, mm	45
Maintenance space, mm	850
Refrigerant R454C, kg	1,6
Unit weight, kg	270



## Performance

Unit with standard equipment

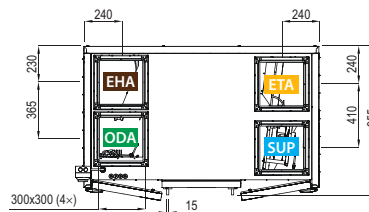
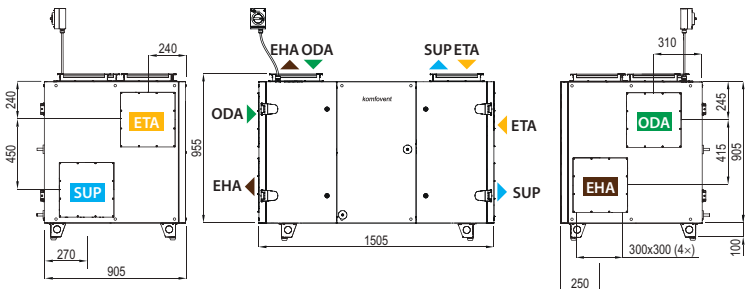


## Temperature efficiency

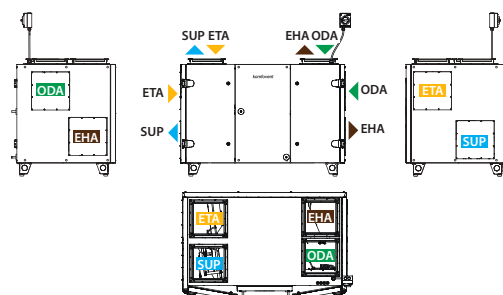
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	14,3	15,7	16,5	17,4	18,2	22,5	23,4	24,2

Indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)

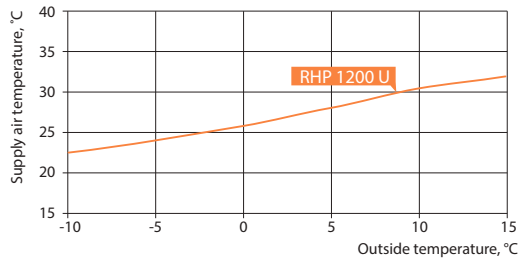


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

## Accessories

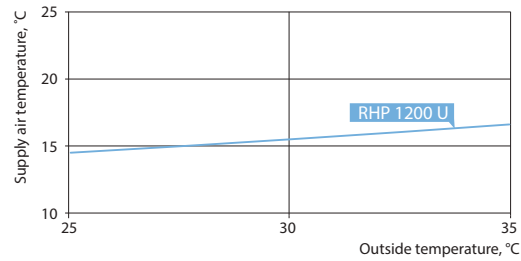
Closing damper	SRU-M-300x300+LF24/CM24
Silencer	ODA/ETA AGS-315-100-900-M SUP/EHA AGS-315-100-1200-M
Siphon	HL136.N DN40

### 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

	Heating			Cooling	
	7	2	-7	35	27
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 <sup>1,2,3</sup> , Average climate / System SEER <sup>1,2,3</sup>	10,45			4,08	
COP/EER	5,32	5,18	4,8	3,53	4,09

<sup>1</sup> Rotary heat exchanger wave size "ML"

<sup>2</sup> Rotary heat exchanger + heat pump

<sup>3</sup> According to EN 14825 standard

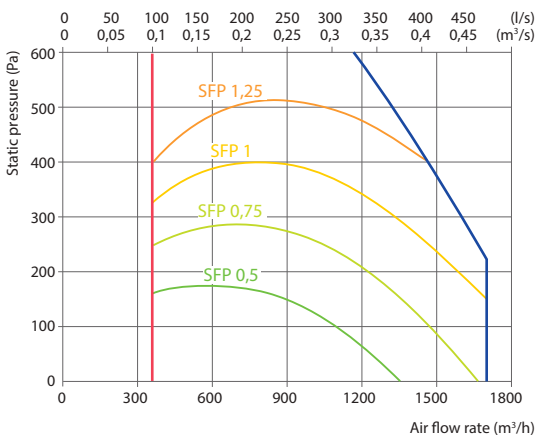
# RHP 1600 U C5

Nominal air flow, m <sup>3</sup> /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	12,8
Power supply cable, mm <sup>2</sup>	5x2,5
Electric power input of the fan drive at maximum flow rate, W	393
Noise power level, L <sub>WA</sub> , dB(A)	50
Noise pressure level, L <sub>pA</sub> , dB(A) (3 m)	41
Filters dimensions BxHxL, mm	805x400x46
Supply filter class	ePM1 60 (F7)
Exhaust filter class	ePM10 50 (M5)
Unit dimensions BxHxL, mm	905x905x1505
Panel thickness, mm	45
Maintenance space, mm	850
Refrigerant R454C, kg	1,6
Unit weight, kg	270



## Performance

Unit with standard equipment

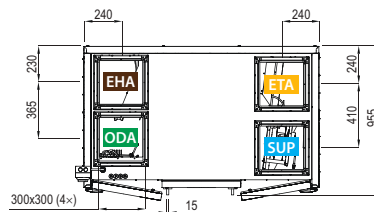
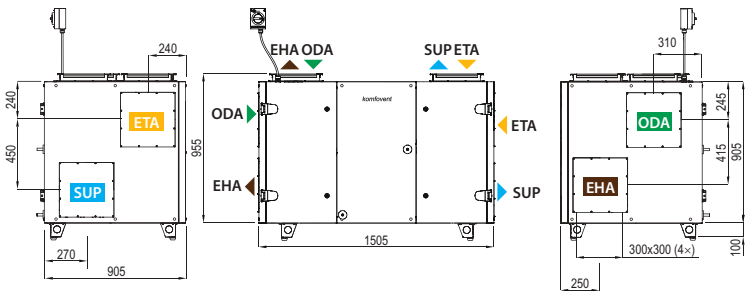


## Temperature efficiency

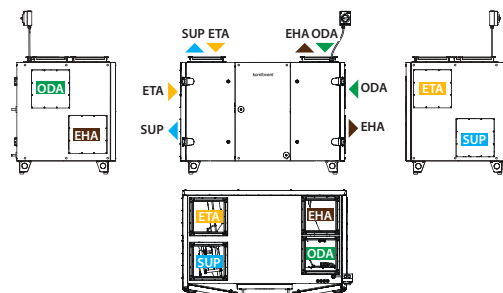
	Winter					Summer		
Outside temperature, °C	-23	-15	-10	-5	0	25	30	35
After heat exchanger, °C	13,4	14,9	15,9	16,8	17,8	22,6	23,5	24,5

Indoor +22°C, 20 % RH

Shown as right (R1)



Shown as left (L1)

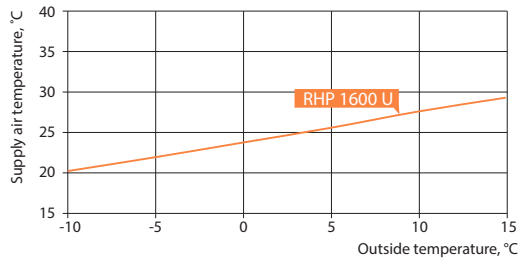


▶ ODA – outdoor intake    ▶ SUP – supply air    ▶ ETA – extract indoor    ▶ EHA – exhaust air

## Accessories

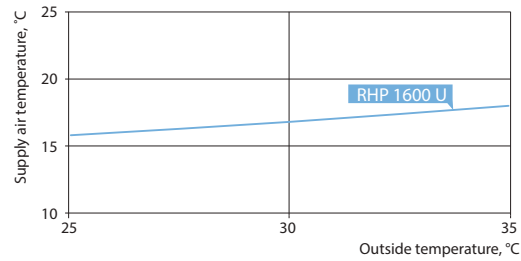
Closing damper	SRU-M-300x300+LF24/CM24
Silencer	ODA/ETA AGS-315-100-900-M
	SUP/EHA AGS-315-100-1200-M
Siphon	HL136.N DN40

### 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

	Heating			Cooling	
	7	2	-7	35	27
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 <sup>1,2,3</sup> , Average climate / System SEER <sup>1,2,3</sup>	11,9			4,1	
COP/EER	6	5,73	5,41	3,99	4,7

<sup>1</sup> Rotary heat exchanger wave size "ML"

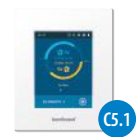
<sup>2</sup> Rotary heat exchanger + heat pump

<sup>3</sup> According to EN 14825 standard

# RHP 2500 V C5

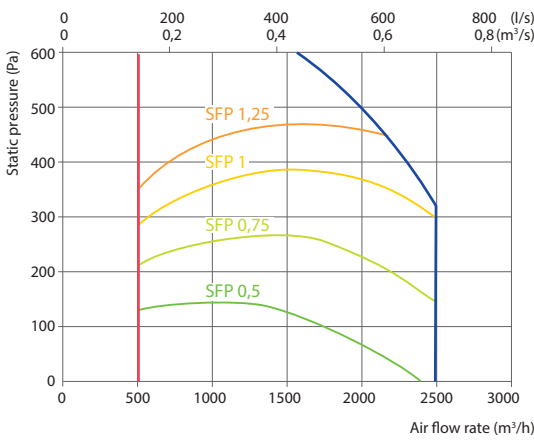
NEW

Nominal air flow, m <sup>3</sup> /h	2500
Nominal air flow, l/s	694
Electric air heater capacity, kW / Δt, °C	4,5 / 5,0
Supply voltage, V	3~400
Maximal operating current, A	19,2
Power supply cable, mm <sup>2</sup>	5×2,5
Electric power input of the fan drive at maximum flow rate, W	534
Noise power level, L <sub>WA</sub> , dB(A)	45
Noise pressure level, L <sub>pM</sub> , dB(A) (3 m)	34
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	940×1585×1500
Panel thickness, mm	45
Maintenance space, mm	840
Refrigerant R454C, kg	1,9
Unit weight, kg	346



## Performance

Unit with standard equipment



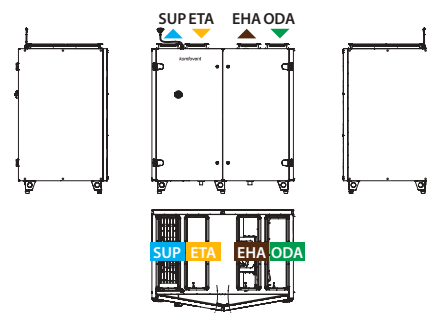
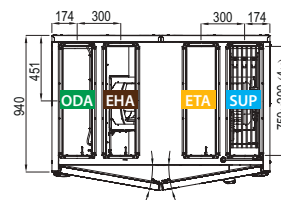
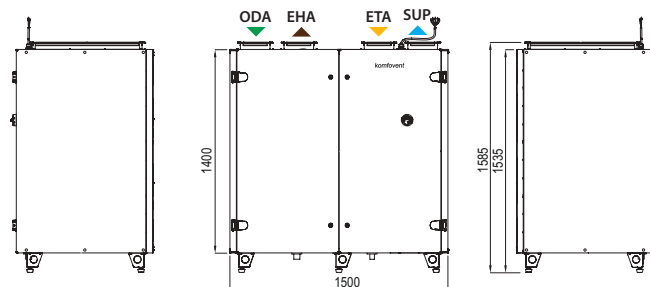
## Temperature efficiency

Outside temperature, °C	Winter					Summer		
	-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

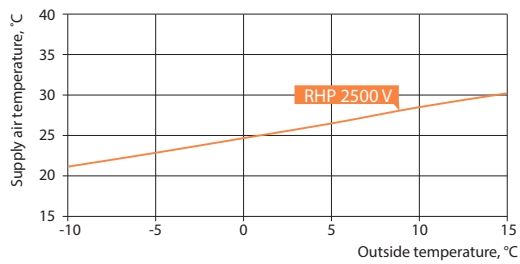
Indoor +22°C, 20 % RH

## Accessories

Closing damper	SRU-M-750x200+LF24/LM24
Silencer	ODA/ETA STS-12Z6M6-800-200-700-S
	SUP/EHA STS-IPLQIB-800-200-1250-S
Siphon	HL136.N DN40
	ERI

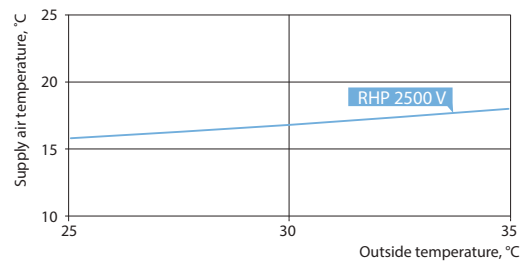


### Heating mode



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

	Heating			Cooling	
	7	2	-7	35	27
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	27,4	25,6	22,4	19,1	13,8
Heat pump heating/cooling power, kW	8,18	7,44	6,15	8,18	7,81
Heat pump heating/cooling power consumption, kW	1,41	1,33	1,18	2,04	1,68
System SCOP <sup>1,2,3</sup> , Average climate / System SEER <sup>1,2,3</sup>	9,83			5,18	
COP/EER	5,79	5,6	5,2	4,02	4,66

<sup>1</sup> Rotary heat exchanger wave size "ML"

<sup>2</sup> Rotary heat exchanger + heat pump

<sup>3</sup> According to EN 14825 standard

# RHP Pro, RHP Pro2



## "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

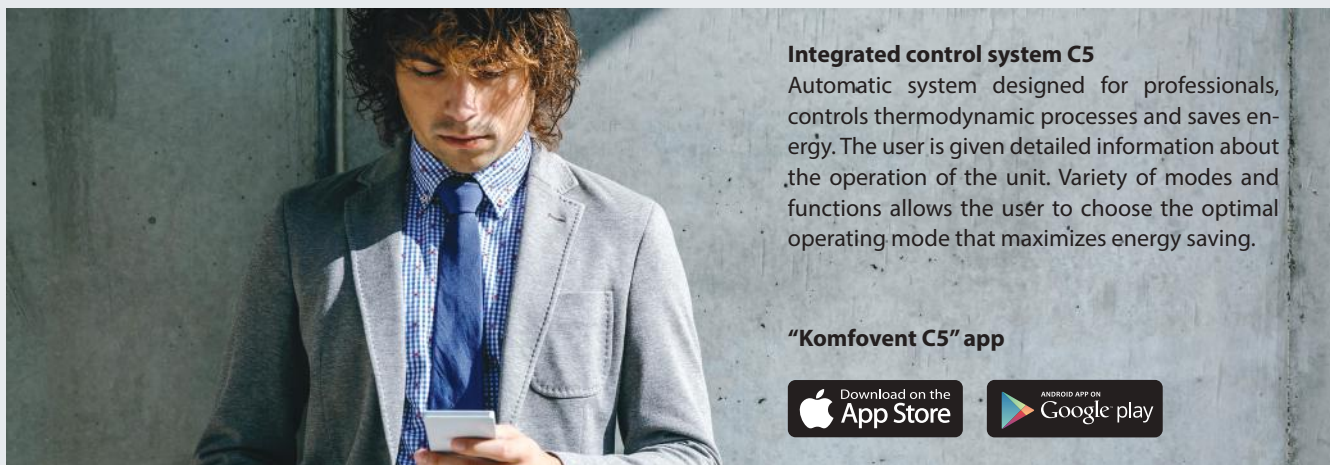
For power adjustment of the integrated heat pump use an electronic EXV (electronic expansion valve), which ensures a stable supply air temperature and allows a wide range of regulation of device performance and heating/cooling capacity.

## 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.



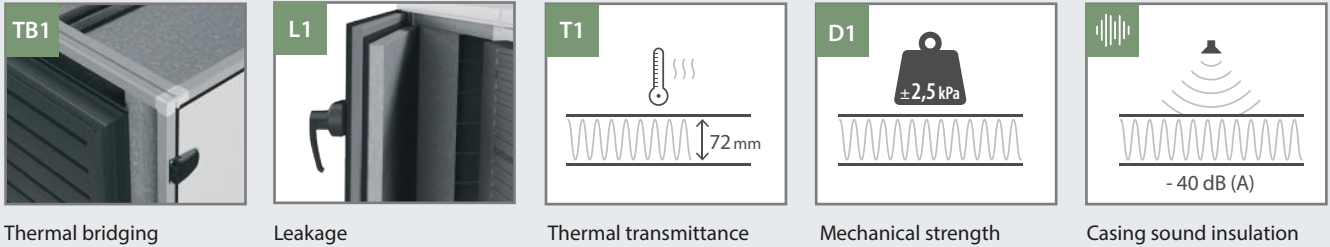
## Integrated control system C5

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.

## "Komfovent C5" app



VERSO RHP Pro/Pro2 casing – superior performance



Thermal bridging

Leakage

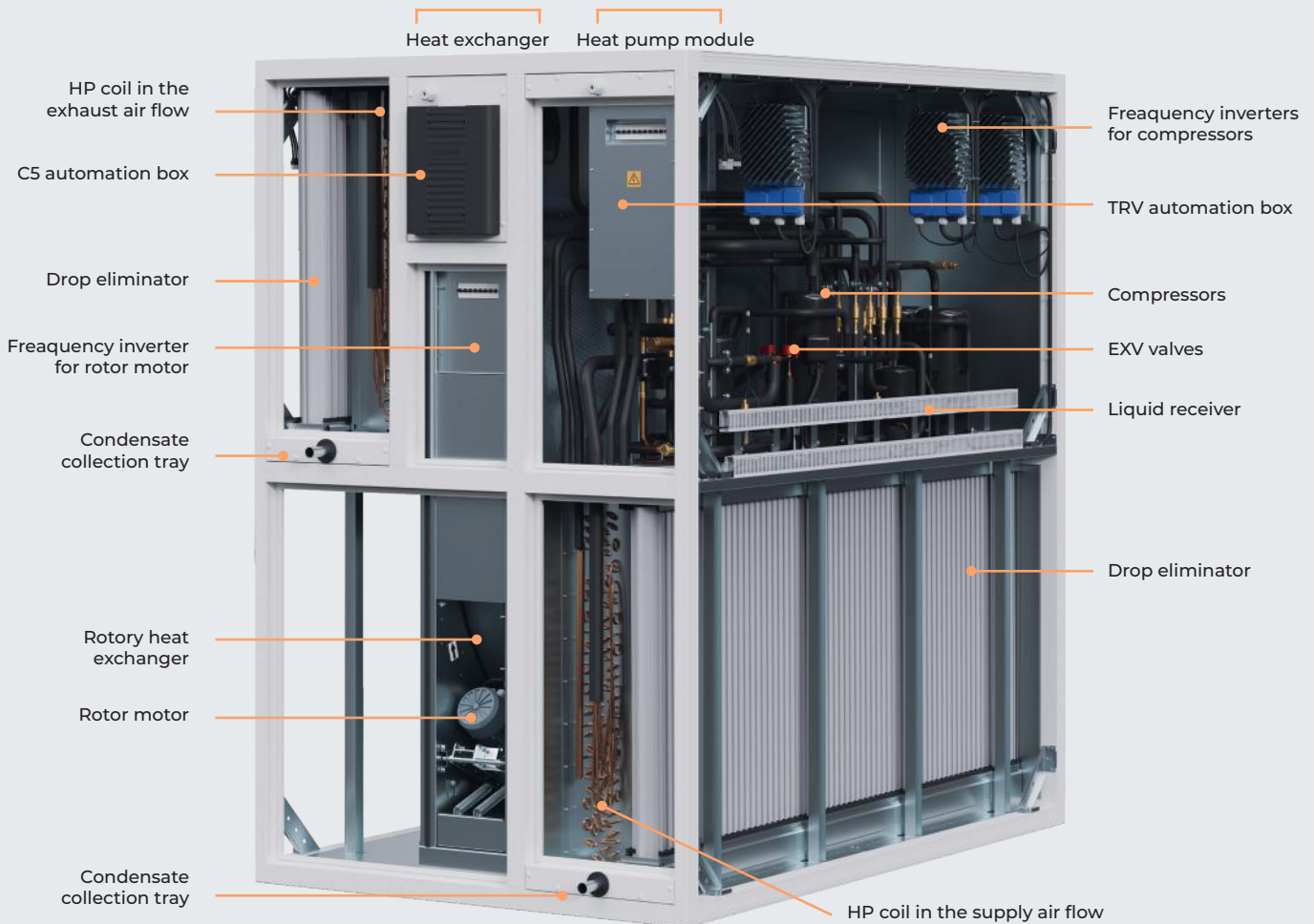
Thermal transmittance

Mechanical strength

Casing sound insulation

Unit size	VERSO RHP Pro								VERSO RHP Pro2							
	RHP Pro 10-70				RHP Pro 80-90				RHP Pro 12-72				RHP Pro 82-112			
	Standart5				Standart2				Standart6				Standart2 TB			
Casing name	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4
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	-

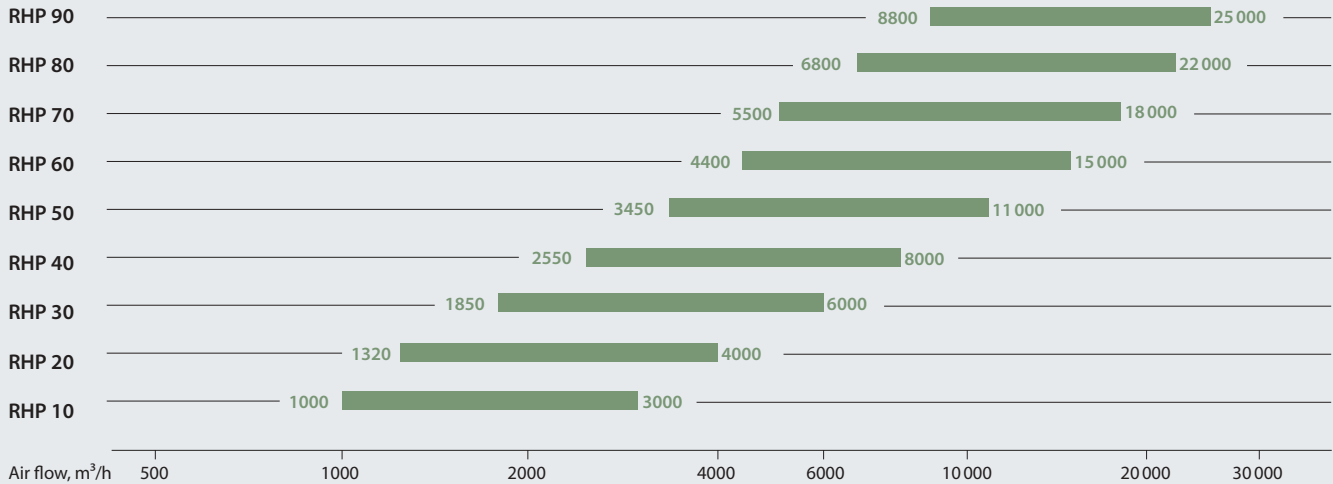
Processional air handling units with integrated heat pump



# RHP Pro

for larger area premises and required air flows from 1000 m<sup>3</sup>/h to 25 000 m<sup>3</sup>/h

## Air flow



Size	RHP 10	RHP 20	RHP 30	RHP 40	RHP 50	RHP 60	RHP 70	RHP 80	RHP 90
Max air flow, m <sup>3</sup> /h	3000	4000	6000	8000	11000	15000	18000	22000	25000
Min air flow, m <sup>3</sup> /h	1000	1320	1850	2550	3450	4400	5500	6800	8800

## HEATING mode<sup>1</sup>

Total heating capacity, kW	34	48	68	96	123	161	197	234	277
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

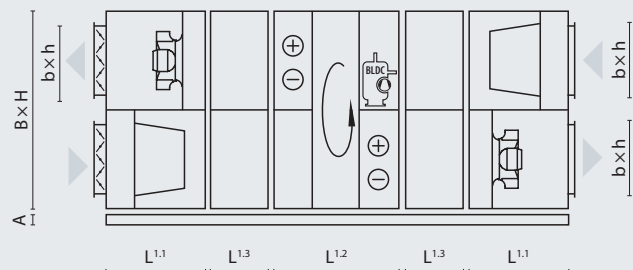
## COOLING mode<sup>2</sup>

Total cooling capacity, kW	18	26	50	54	73	93	115	127	154
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

<sup>1</sup> L rotary heat exchanger+heatpump. Conditions according EN 14511: Outdoor -7 °C/ 90 %RH, Indoor 20 °C/40 %RH

<sup>2</sup> L rotary heat exchanger+heatpump. Conditions according EN 14511: Outdoor 35 °C/ 40 %RH, Indoor 27 °C/50 %RH

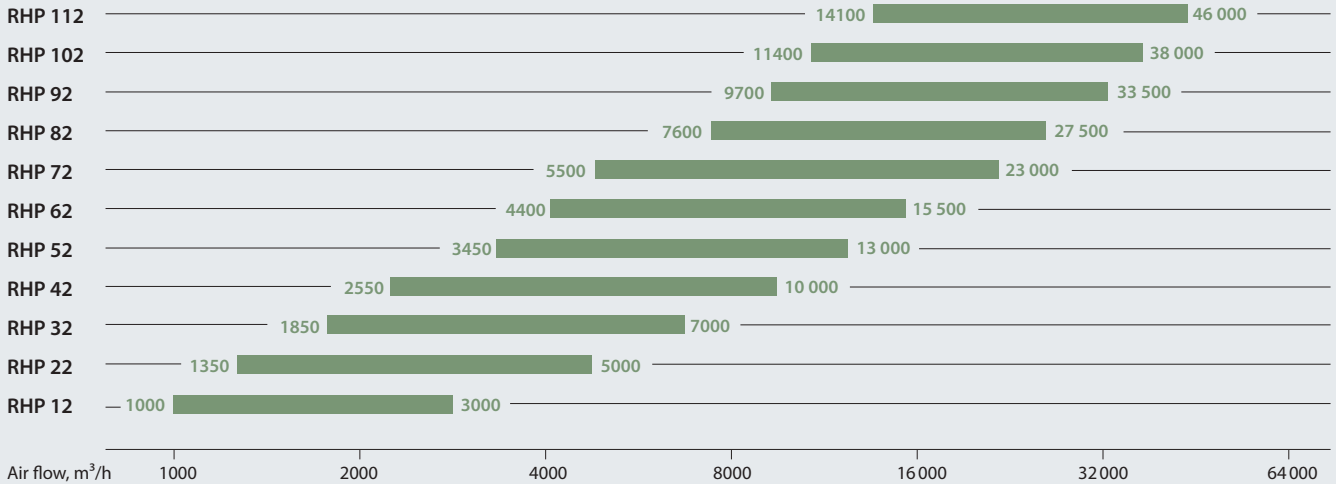
Size	B	H	L <sup>1.1</sup>	L <sup>1.2</sup>	L <sup>1.3</sup>	b	h	A
RHP 10	1000	1000	618	900	250	700	300	125
RHP 20	1150	1150	751	900	250	900	400	125
RHP 30	1300	1300	751	900	250	1000	500	125
RHP 40	1500	1520	751	900	250	1200	600	125
RHP 50	1700	1715	885	900	250	1400	700	125
RHP 60	1900	1920	885	900	250	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



# RHP Pro2

for larger area premises and higher heating / cooling capacity from 1000 m<sup>3</sup>/h to 46 000 m<sup>3</sup>/h

## Air flow



Size	RHP 12		RHP 22		RHP 32		RHP 42		RHP 52		RHP 62		RHP 72		RHP 82		RHP 92		RHP 102		RHP 112	
HP type	11/11	16/15	18/17	20/19	25/23	38/34	28/26	41/40	29/27	45/45	47/47	59/58	49/49	83/84	52/52	89/90	54/54	104/102	56/56	90/90	124/122	126/126

## HEATING mode<sup>1</sup>

Total heating capacity, kW	34	38	56	62	82	90	110	118	138	147	170	175	235	259	277	311	333	373	376	395	434	509
Supply temperature, °C	20,1	23,9	19,9	22	21,4	24,4	19,2	21,5	18	20,1	18,8	19,8	16,7	19,9	16,3	20,1	16,1	19,4	15,9	18,5	20,3	19
Nominal compressor power consumption, kW	1,1	2,2	1,9	3,5	3,9	7,4	3,4	6,6	3,1	6,4	6,9	8,7	6,3	12,6	6,2	13,2	6,1	15,0	6,0	12,5	19,1	18,5
System COP, kW/kW	6,23	4,76	6,17	4,74	5,13	3,64	6,37	4,40	7,12	4,92	4,31	4,02	4,94	4,44	5,33	5,13	5,45	4,70	5,73	4,24	4,86	5,05

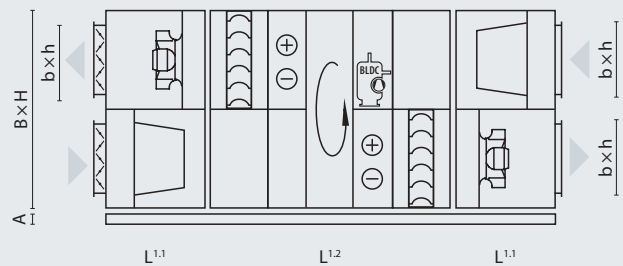
## COOLING mode<sup>2</sup>

Total cooling capacity, kW	21	25	35	38	53	59	68	76	81	91	97	118	128	162	147	199	172	237	191	233	272	304
Supply temperature, °C	20	18,5	20,3	19,3	19,8	18,9	20,5	19,8	21,7	20,4	22,9	20	23,9	21	24,3	20,6	25	20,4	25,4	22,4	19,8	21
Nominal compressor power consumption, kW	1,97	3,90	3,38	5,39	6,75	11,48	6,02	10,31	5,66	9,71	10,47	14,80	9,53	19,44	9,18	23,01	8,86	24,80	8,74	19,09	29,03	28,50
System EER, kW/kW	4,92	3,48	4,81	3,57	3,96	2,88	5,07	3,74	5,80	4,37	3,70	4,06	4,48	3,96	4,95	4,25	5,33	4,51	5,57	4,73	4,46	4,60

<sup>1</sup> ML rotary heat exchanger+heatpump. Conditions according EN 14511: Outdoor -7 °C/ 90 %RH, Indoor 20 °C/40 %RH

<sup>2</sup> ML rotary heat exchanger+heatpump. Conditions according EN 14511: Outdoor 35 °C/ 40 %RH, Indoor 27 °C/50 %RH

Size	B	H	L <sup>1.1</sup>	L <sup>1.2</sup>	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
RHP 102	2860	2860	1450	1500	2500	1200	125
RHP 112	3160	3160	1450	1500	2800	1300	125



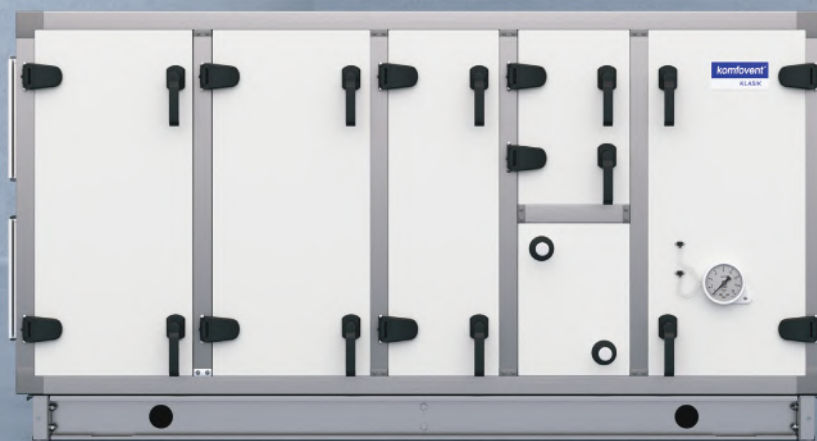
# KLASIK

Unique Custom-made Solutions



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

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# KLASIK range review



## 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.

## 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 heat exchanger, a counterflow plate heat exchanger, run-around coils, Super Premium IE4 class EC fans or Ultra Premium IE5 class PM fans.

## 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.

## 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<sub>2</sub> or air quality sensors).

## Conformity with international standards

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.

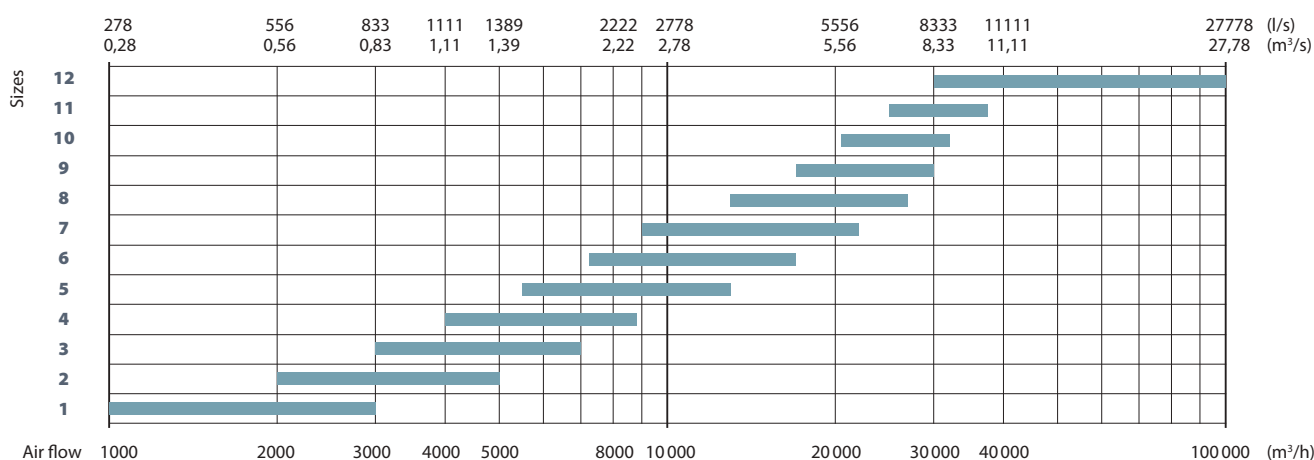
## Quality certificates

KLASIK selection software and units are tested in the largest independent laboratories: EUROVENT, RLT, TÜV SÜD.



## Unit types

### Sizes and capacities of KLASIK units



### 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 ... 10V.

#### Performance of the LCHX units

Connection pipe diameter (DN, mm)	Liquid flow (m³/h)
20	1,8
25	3,6
32	6,8
40	11
50	18
65	25



## KLASIK design



## 01 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.

## 02 Heat exchangers

### Rotary heat exchanger

Temperature efficiency – up to 86 %. Depending on required temperature efficiency  $\eta$  (%), 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 wateryglycol 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.

## 03 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.

## 04 Filters

KLASIK units pocket synthetic or fiberglass filters with a class of filtration from Coarse 65 to ePM1 85 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.

## 05 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 Expansion 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<sup>3</sup>/h.
- Efficiency – up to 97 % RH.

## 06 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/50Hz) 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.

## 07 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.

## 08 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.

## 09 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.

## 10 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.

## KLASIK units for hygienic and medical application



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

### 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.

**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.

**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<sup>2</sup> for 1 m<sup>2</sup> 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.

**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.

RLT01 general requirements for hygienic application units

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



## Accessories

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## Filters

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)		
	1	2	3	4	5	6	7

- 1 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

---

- 2 The percentage (50/60/65/70/75/80/85) indicates the proportion of the biggest size particles captured

---

- 3 Filter width, mm

---

- 4 Filter height, mm

---

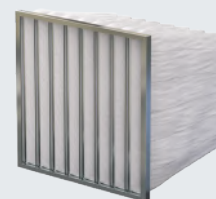
- 5 The number of pockets of the bag filter, which is usually from 3 to 12 pcs.

---

- 6 Filter length, mm

---

- 7 Filtration class according to EN 779:2012



Bag filters



Compact filters



Panel pre-filter

## Silencers

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.

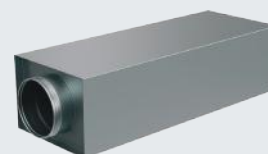
Their design allows adaptation to the available space. An appropriate silencer can be selected using the selection program "Komfovent Silencer", which can be found on [www.komfovent.com](http://www.komfovent.com).



AGS – round silencer



STS – rectangular silencer



ASTS – rectangular silencer with round connections

STS	-	IVR3BA	-	1200-900	-	-	1200	-	S	
AGS				250	-	50	-	900	-	M
ASTS				100	-	-	600	-	M	
	1	2	3	4	5	6				

- 1 STS – rectangular silencer  
ASTS – rectangular silencer with round connections  
AGS – round silencer

---

- 2 Unique construction code

---

- 3 Connection diameter or width and height, mm

---

- 4 AGS silencer insulation thickness, mm

---

- 5 Silencer length, mm

---

- 6 M – inside of galvanized perforated sheet steel, S – fiberglass

## Shut-Off Dampers

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.



AGUJ – circular air shut-off damper

SRU	-	M	-	300-300	+LF	24
AGUJ	-	M		250	+CM	230
1		2		3	4	5

- 1 AGUJ – circular air shut-off damper  
SRU – rectangular shut-off damper

---

- 2 M – actuator powered control  
R – manual control

---

- 3 Connection diameter or width and height, mm

---

- 4 TF..., LF... – actuators with return spring  
CM..., LM... – actuators without return spring

---

- 5 24 or 230 – voltage, V



SRU – rectangular shut-off damper

## Air Coolers (Water/Freon)

For cooling in summer, standalone air coolers can be 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 AHU's automation system. Coolers are selected considering the airflow, cooling capacity, dimensions and pressure losses. Currently, you can choose coolers with a supply air volume of 200 to 7000 m<sup>3</sup>/h and a capacity of 1,3 to 48,7 kW.

DCF	-	3,0	-	20	-	2
1		2		3		4

- 1 DCW – water cooler  
DCF – freon cooler

---

- 2 Air supply, m<sup>3</sup>/h /1000

---

- 3 Capacity, kW

---

- 4 Number of stages (indicated only if more than one)



DCW – water cooler



DCF – freon cooler

## Water Duct Heaters and Coolers

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<sup>3</sup>/h, power from 1 to 12,2 kW.

Coolers supply air volumes from 250 to 1600 m<sup>3</sup>/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
①	②	③

- ① DH – round water duct heater  
DHCW – round water duct heater-cooler  
SVK – rectangular water heater

---

- ② Connection diameter or width and height, mm

---

- ③ Number of rows



DHCW – round water duct heater-cooler



SVK – rectangular water heater

## Pipework package

Pipework Package Units (PPU) are used for water heater capacity 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 arrangement of elements used in the unit are ideally suited for optimal water circuit operation. When choosing the type of pipework unit, it is important to pay attention to temperature of the heat carrier flowing through the circuit. For easier selection of the unit, it is recommended to use the selection program.



PPU – pipework package unit

PPU	-	HW	-	3R	-	40	-	25	-	W2
①	②	③	④	⑤	⑥					

- ① PPU – pipework package unit

---

- ② HW – used for heating  
CW – used for cooling

---

- ③ Three-way mixing valve  
R – heating/cooling medium connection from the right  
L – heating/cooling medium connection from the left

---

- ④ Nominal piping diameter DN, mm

---

- ⑤ Amount of flow (Kvs) through the mixing valve, m<sup>3</sup>/h

---

- ⑥ Circulation pump size

## Electric Duct Heaters

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 over-heat 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 – round electric duct heater

<b>EHC</b>	<b>-</b>	<b>160</b>	<b>-</b>	<b>1.0</b>	<b>-</b>	<b>1f</b>	<b>SI/FC</b>
<b>EHR</b>	<b>-</b>	<b>400 × 200</b>	<b>-</b>	<b>6.0</b>	<b>-</b>	<b>3f</b>	<b>CE/FC (0...+30)</b>
<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>	<b>5</b>
<b>6</b>							

- 1 EHC – round electric duct heater  
EHR – rectangular electric duct heater
- 2 Connection diameter or width and height, mm
- 3 Heater power, kW
- 4 Phases
- 5 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)
- 6 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 coolers and heaters requires an outdoor unit, the control of which is linked to the ventilation unit. DX heat pumps operates as a heating and cooling source for AHU, using high-efficiency compressors, smart defrost defrost technology and R32 refrigerant.

Cooling capacities from 3,5 to 33,5 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 – outdoor unit

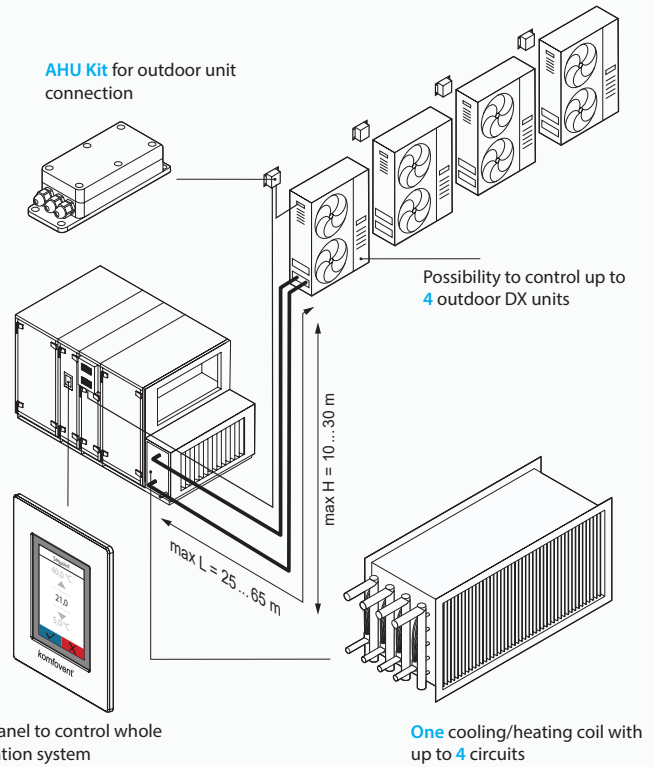
<b>MOU</b>	<b>-</b>	<b>48</b>	<b>HFN8a</b>
<b>1</b>		<b>2</b>	<b>3</b>

- 1 MOU – outdoor unit
- 2 Model number
- 3 Inverter compressor, HFN8 – R32 refrigerant; HFN6 – R410A refrigerant

## DX heat pumps/outdoor units



Fresh air + heating,  
cooling,  
dehumidification



**Advantages:**

- R-32 eco-friendly refrigerant (MOU-12 ... 55).
- Simple connectivity and control.
- DC Inverter – high performance rotary compressors.
- Smart defrost technology.
- High performance sigma type heat exchanger.
- Compact design – effective use of space.

**Protective functions:**

- Overvoltage protection.
- Compressor overload protection.
- Compressor thermal protection.
- Pressure protection.
- Fan motor thermal protection.

**DX heat pump technical data**

MODEL	MOU-12HFN8a	MOU-18HFN8a	MOU-24HFN8a	MOU-36HFN8a	MOU-48HFN8a	MOU-55HFN8a	MOU-280-HFN6	MOU-335-HFN6
Cooling capacity, kW	3,5 (1,1~4,2)	5,3 (3,4~5,83)	7,03 (3,28~8,16)	10,55 (2,73~11,78)	14,07 (3,52~15,53)	15,24 (4,1~17,29)	28 (14,14~36,08)	33,5 (16,92~43,17)
EER	2,89	3,42	2,54	2,79	2,57	2,58	2,33	2,19
SEER	6,1	7	6,2	6,1	6,1	6,1	6,35	6,42
Energy Efficiency Class	A++	A++	A++	A++	A++	A++	A+	A++
Heating capacity, kW	3,8 (1,1~4,2)	5,6 (3,1~5,85)	7,62 (2,81~8,49)	11,72 (2,78~12,84)	16,12 (4,10~18,17)	18,17 (4,4~20,52)	31,5 (15,80~40,89)	37,5 (18,81~48,68)
COP	3,45	3,57	3,01	3,27	2,82	2,79	3,71	3,3
SCOP	4,0	4,0	4,0	4,0	4,0	4,0	4,56	4,13
Energy Efficiency Class	A+	A+	A+	A+	A+	A+	A+	A+
Max input power, kW	2,15	2,5	3,7	5	6,9	7,5	12,02	15,3
Max pipe length, m	25	30	50	75	75	75	120	120
Max difference in level, m	10	20	25	30	30	30	40	40
Sound pressure, dB(A)	56	57	60	63	64	64	60	61
Dimension (W x D x H), mm	720x270x495	874x330x554	890x342x673	946x410x810	952x415x1333	952x415x1333	1120x528x1558	1120x528x1558
Net / Gross weight, kg	23,2/25,0	33,5/36,1	43,9/46,9	80,5/85	103,7/118,3	107,0/121,2	144 / 160	157/ 173
Refrigerant/charged volume, kg	R32/0,55	R32/1,1	R32/1,5	R32/2,4	R32/2,9	R32/3,0	R410A/6,5	R410A/8,0
Power supply, V	1 x 230	1 x 230	1 x 230	3 x 400	3 x 400	3 x 400	3 x 400	3 x 400
Pipe diameter, "	1/4" / 3/8"	1/4" / 1/2"	3/8" / 5/8"	3/8" / 5/8"	3/8" / 5/8"	3/8" / 5/8"	3/8" / 7/8"	1/2" / 1"
Operating temperature heating/cooling, °C	-20...+24/ -15...+50	-20...+24/ -15...+50	-20...+24/ -15...+50	-20...+24/ -15...+50	-20...+24/ -15...+50	-20...+24/ -15...+50	-20...+24/ -5...+48	-20...+24/ -5...+48
AHU kit model	KA8142	KA8142	KA8142	KA8142	KA8142	KA8142	AHUKZ-02D	AHUKZ-02D

## Hoods and Roof

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
1	2	3

- 1 Name of the accessories

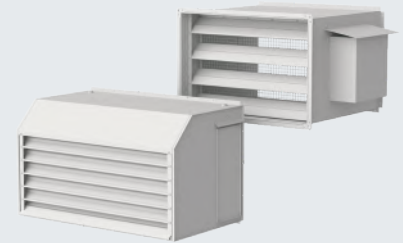
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- 2 ODA – outdoor intake hood  
EHA – exhaust air hood

---

- 3 Model or models of the ventilation unit for which the specified accessory is suitable

---

Hoods



Roof

## Outdoor Intake/Exhaust 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
1	2	3	

- 1 LD – outdoor box

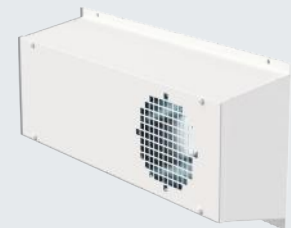
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- 2 Duct connection diameter, mm

---

- 3 RAL 9003 – white colour, RAL 9005 – black colour

---

LD – outdoor box

## 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.



Kitchen hoods

## 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<sub>2</sub>, 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.



- 1 Sensor

---

- 2 C – CO<sub>2</sub>, humidity and temperature  
Q – air quality, humidity and temperature

---

- 3 R – wall mounted in the room  
D – duct mounted



- 1 Differential pressure switch

---

- 2 Pressure range from 50 to 500 Pa

## 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.



Pressure sensor



- 1 Pressure sensor

---

- 2 50 – pressure sensor for single air flow control  
55 – pressure sensor for pressure control in the supply and exhaust ducts independently

## 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.



Wireless Router

## 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

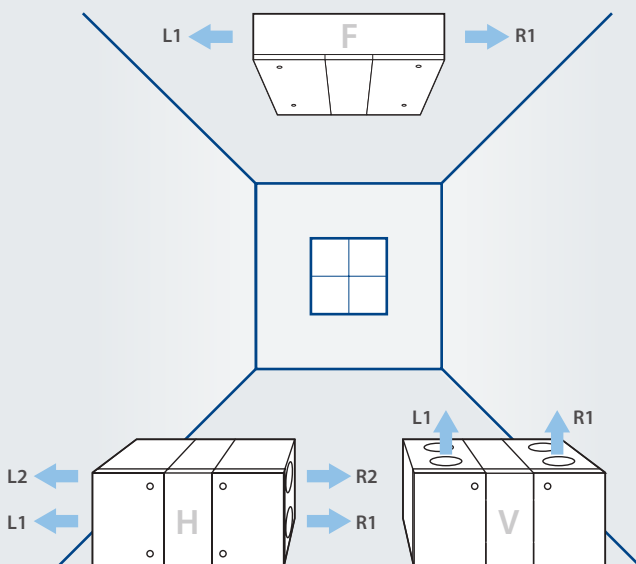
**EHA** – exhaust air

**ETB** – by-pass extraction without heat recovery

**ETH** – kitchen hood connection (without heat recovery)

**L<sub>war</sub> dBA** – A-weighted sound power level at reference flow rate

**L<sub>par</sub> dBA** – A-weighted sound pressure level in 10 m<sup>2</sup> 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.

## Unit marking and ordering samples

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

1 2 3 4 5 6 7 8

- 1 Series: **DOMEKT**
- 2 Type of heat exchanger: **R** – rotary; CF – counterflow; S – supply unit
- 3 Unit size: 150, 200, 250, 300, **350**, 400, 450, 500, 600, 650, 700, 800, 900, 1000
- 4 Duct connection: **V** – vertical; H – horizontal; F – ceiling
- 5 Inspection side: **R1**; **L1**
- 6 Air filter class: **F7/M5** (ePM1 60%/ePM10 50%)
- 7 Control system: **C6M**, **C8**
- 8 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

1 2 3 4 5 6 7 8 9

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

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

1 2 3 4 5 6 7 8 9

- 1 Series: **VERSO**
- 2 Type: **RHP**
- 3 Unit size: 450, 700, 900, 1200, **1600**, 2500
- 4 Heating / cooling capacity: **11.2/9.4**
- 5 Duct connection: **UH** – universal/horizontal; UV – universal/vertical; V – vertical
- 6 Inspection side: **L1**; **R1**
- 7 Air filter class: **F7/M5** (ePM1 60%/ePM10 50%)
- 8 Control system: **C5**
- 9 Rotary characteristic: **ML/AZ**

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

1 2 3 4 5 6 7

- 1 Series: **KOMBI**
- 2 Heat pump heating power: A5; A7; **A9** [kW]
- 3 DHW boiler: **W** – standard, stainless steel
- 4 Electric heater power: 3; 4,5; **6** [kW]
- 5 Inspection side: **R**; **L**
- 6 Control system: **C9**
- 7 Options: **CP** – DHW recirculation



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