

komfovent[®]



KOMBI

Hybrid heating and
ventilation unit



KOMBI – comfort in your home

We work more efficiently, sleep better and feel happier when we are comfortable. The comfort at home is not only about the interior but also about the whole atmosphere. Fresh air, cosy warmth or pleasant coolness, and hot water play a significant role in comfort at home concept.

KOMBI – the hybrid heating and ventilation unit combines all functions: ventilation, heating, cooling and domestic hot water. All essential systems in one unit saves you time and space during planning phase, as you have to select the space for one unit instead of three or four devices, not to mention the reduced investment costs.

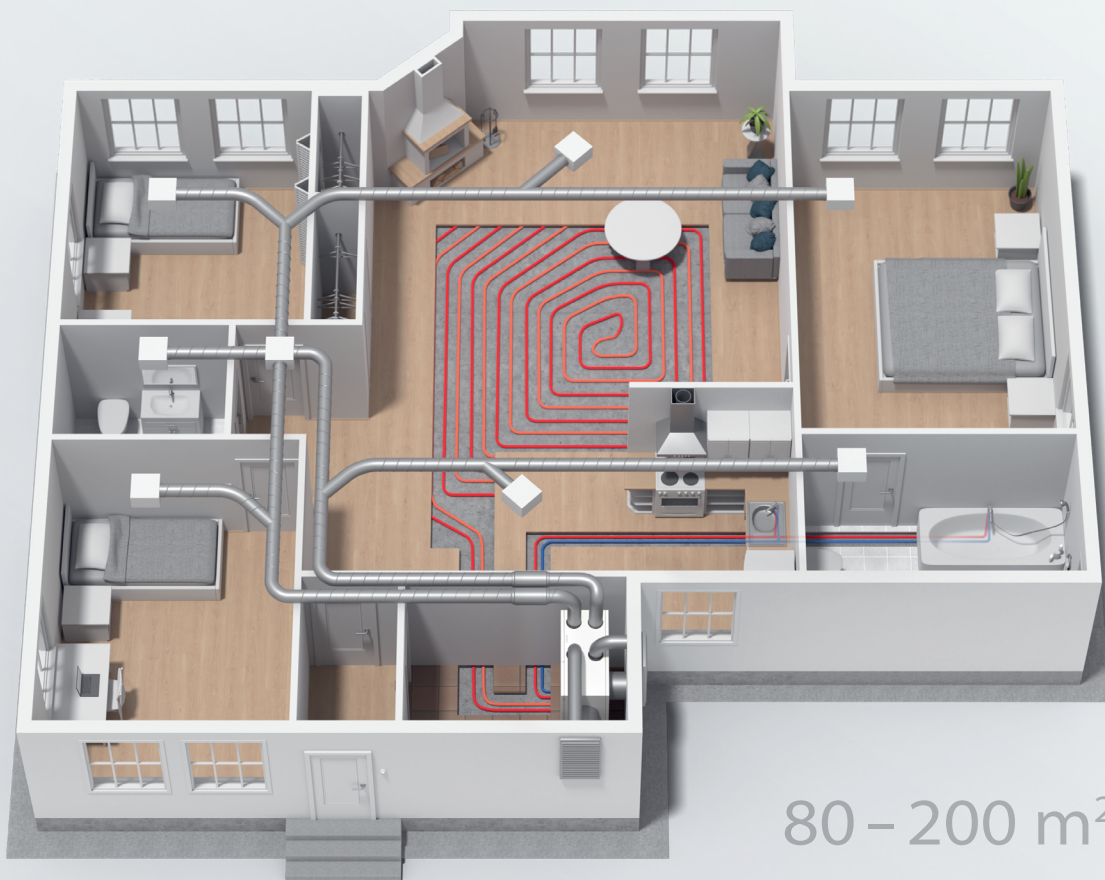
The KOMBI unit consists of three internal modules: residential ventilation with heat and humidity recovery, air to water heat pump for main heating and cooling needs, and an integrated water tank for domestic hot water preparation and storage. All the modules are controlled simultaneously via an integrated control system.





The features of a KOMBI unit:

- Ready to use hybrid ventilation and heating unit
- Simple planning / installation / maintenance
- Space saving solution
- No outdoor unit needed - minimal impact on the exterior of the building
- Large capacity domestic hot water tank
- Noise level control
- Effective heating even up to -25 °C
- Heating up to -30 °C with additional integrated electric heater
- Maximum energy saving ensured by integrated intelligent control algorithms
- Easy HVAC system control with a single remote panel
- 5-year warranty
- Option to use together with solar thermal collectors



80 – 200 m²



HEATING

Ideal for underfloor heating, but also suitable for radiator heating systems. Air heating with a ventilation system can be used to instantly improve level of comfort when needed.



COOLING

Combined cooling of the premises through underfloor and ventilation systems.



VENTILATION WITH HEAT RECOVERY

Supplies the room with fresh and clean air heated or cooled to a comfortable temperature.



HUMIDITY RECOVERY

The sorption-enthalpy heat exchanger technology allows partial control of indoor humidity. It recovers the humidity of the premises during winter and prevents humid outdoor air from entering the building in summer.



AIR FILTRATION

The room is supplied with clean and dust-free air.



DOMESTIC HOT WATER

The heat pump prepares domestic hot water, which is stored in an integrated water tank.



Transportation and installation

The KOMBI unit consists of two blocks. This simplifies transport and loading through a standard door frame.

Usually, installation of all HVAC sources consists of mounting separate devices and hiring different qualified specialists. This is not the case with the KOMBI unit. Since all the HVAC sources are integrated in one housing, installation on-site is sim-

ple and quick. KOMBI unit is designed to be as much a "Plug and Play" solution as possible. The heat pump system is already factory prefilled with the proper amount of refrigerant, operation of all functions is fully tested and software is fully pre-programmed before shipping, thus worry-free installation and start-up are ensured.

High-tech solution

The KOMBI hybrid heating and ventilation unit is equipped with the latest technologies – a twin-rotor inverter compressor, an electronic expansion valve, extremely efficient and quiet electronically commutated EC fans, and a sorption-enthalpy rotary heat exchanger which regenerates heat and ensures the humidity balance. These components, together with an intuitive, intelligent control system, guarantees efficient and smooth operation of all HVAC systems.

Ventilation unit

- Integrated rotary sorption-enthalpy heat exchanger.
- Supplies the room with fresh air, filters it, regenerates heat, cold, and humidity while maintaining an optimal indoor climate.

Water tank

- Capacity of 186 litres.
- Insulation reduces heat loss over time; periodic sterilization function ensures hygiene standards.



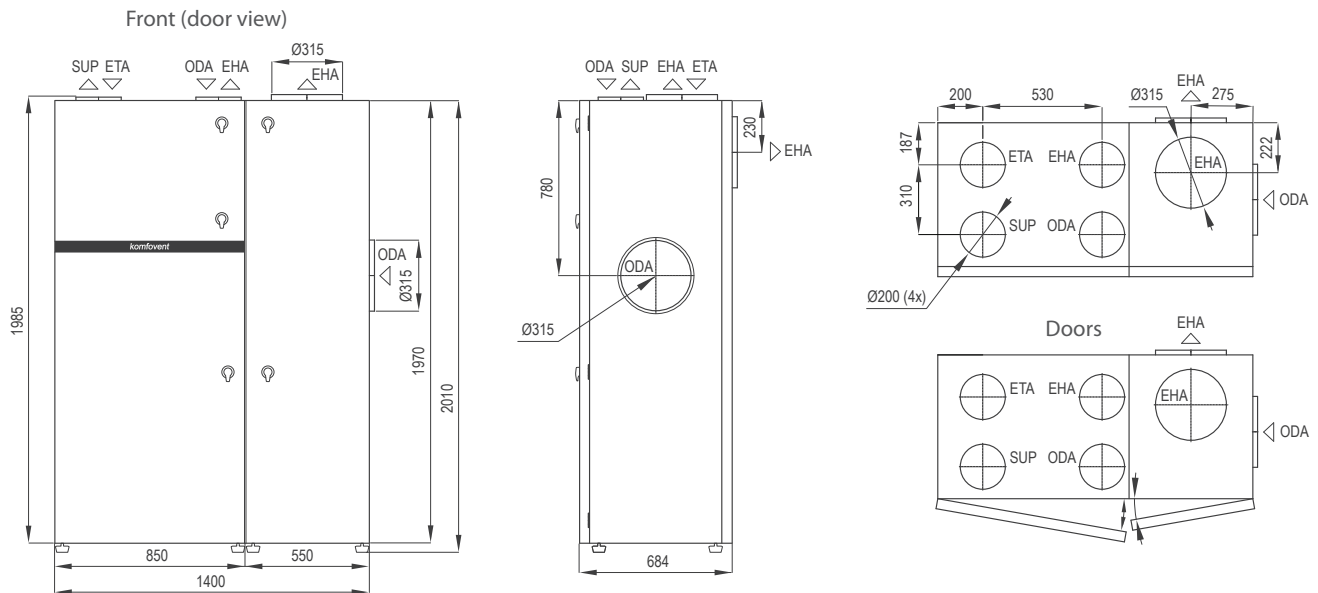
Heat pump

- Heats the premises during winter, cools them in summer and prepares the domestic hot water all year long in an efficient way.
- Twin-rotor inverter compressor ensures quiet and economical operation, reliability, and durability.

Control System

- Ensures smooth control of all processes.
- Ensures reliable and safe operation of the unit, maintains the set parameters with minimal energy consumption.

Technical specifications



ODA – outdoor intake air | SUP – air supplied to the premises | ETA – air extracted from the premises | EHA – outdoor exhaust air

KOMBI-A7-W-E4.5-RT-C9		KOMBI-A9-W-E6-RT-C9
Heat pump data		
Heating / cooling capacity, kW	7 / 7	9 / 7
Backup electric heater, kW	4,5	6
Capacity of domestic hot water tank, l	186	
The maximum water temperature in heating mode, °C	55	
Water temperature in cooling mode, °C	7	
COP A7W30 / capacity, kW	5,41 / 7,0	5,45 / 9,0
SCOP W35	4,89	4,86
EER A35W18 / capacity, kW	5,14 / 7,0	5,07 / 7,0
SEER W18	5,22	5,11
Air filter: class / dimensions, mm	Coarse 65 % / 585x505	
Refrigerant type	R410A	
Duct connection, mm	2 × Ø315	
Air handling unit data		
Heating / cooling capacity, kW	3,4 / 2,4	
Rotary heat exchanger type	Sorptions-Enthalpie	
Heat recovery efficiency, %	86	
Fresh airflow, m³/h / 100 Pa	517	
Specific electrical power input SPI, W/(m³/h)	0,31	
Specific fan power SFP, kW/(m³/s)	0,95	
Air filters: supply / extract – class / dimensions	ePM1 55 % / ePM10 50 % – 585x258x46	
Duct connection, mm	4 × Ø200	
General data		
Voltage, V	3~400	
Maximum current, A	20	24
Dimensions: width × depth × height, mm	1400 (550+850) × 684 × 2010 (inc.feet)	
Weight, kg	440	

Unified control system

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.



- 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.