

KOMFORT ULTRA D 105

Single room heat recovery air handling units

Features

- Air handling units for efficient supply and exhaust ventilation in flats, houses, cottages and other buildings.
- Heat recovery minimises ventilation heat losses.
- Controllable air exchange for creating the best suitable indoor microclimate.
- Compatible with round Ø 125 mm air ducts.



Air flow:
up to 106 m³/h
29 l/s



Heat recovery efficiency:
up to 76 %

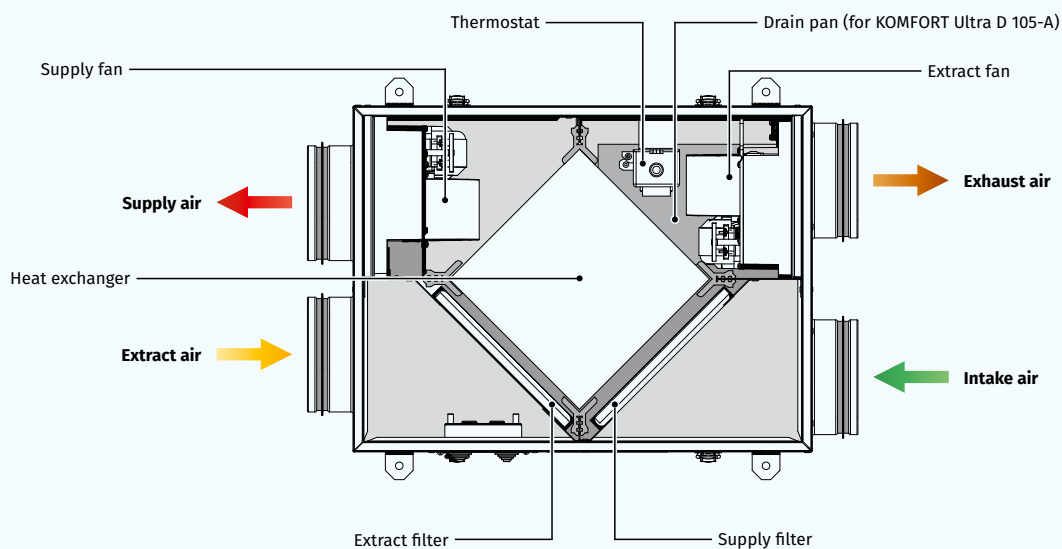


Design

- The compact casing is made of double-skinned aluzinc panels, internally filled with 15 mm PE foam film layer for heat and sound insulation.
- The casing has mounting angles for easy installation.
- The spigots for connection to the air ducts are located at the side of the unit and are rubber sealed for airtight connection to the air ducts.
- The supply and exhaust spigots are equipped with backdraft dampers.
- The hinged side panel of the casing ensures easy access to the internals for cleaning and other maintenance operations.

Fans

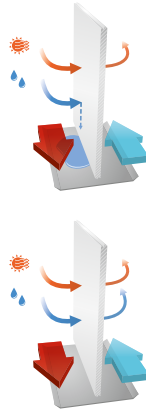
- Asynchronous motors are used for air supply and exhaust.
- Centrifugal impeller with forward curved blades ensures high pressure and low noise level.
- Integrated overheating protection.
- Dynamically balanced impellers.
- Equipped with ball bearings for longer service life.



COMPACT HEAT RECOVERY AIR HANDLING UNITS

Heat recovery

- The **KOMFORT Ultra D 105-A** unit is equipped with a plate cross-flow polystyrene heat exchanger for heat recovery. The unit condensate is collected and drained to the drain pan under the heat exchanger.
- The **KOMFORT Ultra D 105** unit is equipped with an enthalpy plate cross-flow heat exchanger for energy (heat and humidity) recovery. Due to humidity recovery condensate is not generated in the enthalpy heat exchanger.
- The air flows are completely separated in the heat exchanger. Thus smells and contaminants are not transferred from the extract air to the supply air.
- Heat recovery is based on heat and/or humidity transfer through the heat exchanger plates. In the cold season supply air is heated in the heat exchanger by transferring the heat energy of warm and humid extract air to the cold fresh air. Heat recovery minimizes ventilation heat losses and heating costs respectively.
- In the warm season the heat exchanger performs reverse and intake air is cooled in the heat exchanger by the cool extract air. That reduces operation load on air conditioners and saves electricity.
- When the indoor and outdoor temperature difference is insignificant, heat recovery is not reasonable. In this case the heat exchanger can be temporary replaced with a summer block for the warm season (available as a specially ordered accessory).



Air filtration

- The built-in G4 supply filter and G4 extract filter provide air filtration.

Control and automation

- The unit has three speeds. Air flow control by the external speed switch CDP-3/5.



Mounting

- Indoor installation in horizontal position.
- Mounting in a false ceiling is possible due to compact casing size.
- A small air distribution network for central ventilation may be arranged based on the unit.
- The correct mounted unit must provide free access to the hinged side panel for servicing and filter replacement.

FROST PROTECTION

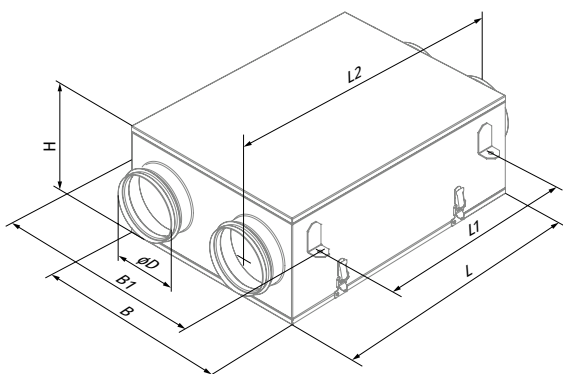
- The integrated electronic frost protection system in **KOMFORT Ultra D 105-A** is used to prevent the heat exchanger freezing in cold seasons. In case of heat exchanger freezing danger communicated by the temperature sensor the supply fan is stopped to let warm extract air warm up the heat exchanger. After that the the supply fan is turned on and the unit reverts to the normal operation mode.

Designation key

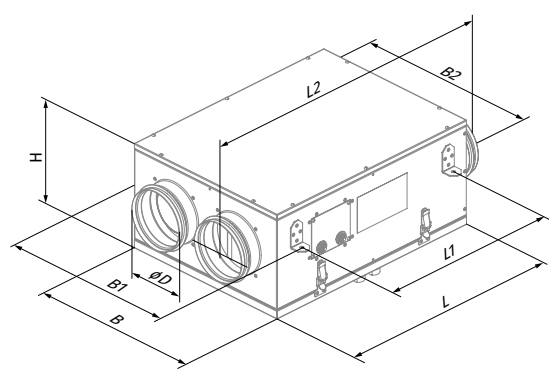
Series	Unit type	Mounting type	Rated air flow [m³/h]	Heat exchanger material
KOMFORT	Ultra: compact unit	D: suspended mounting, horizontally directed spigots	105	-: enthalpy -A: polystyrene

Overall dimensions [mm]

Model	D	B	B1	B2	H	L	L1	L2
KOMFORT Ultra D 105	125	374	404	-	125	497	397	595
KOMFORT Ultra D 105-A	125	374	404	112.6	224	497	397	595



KOMFORT Ultra D 105

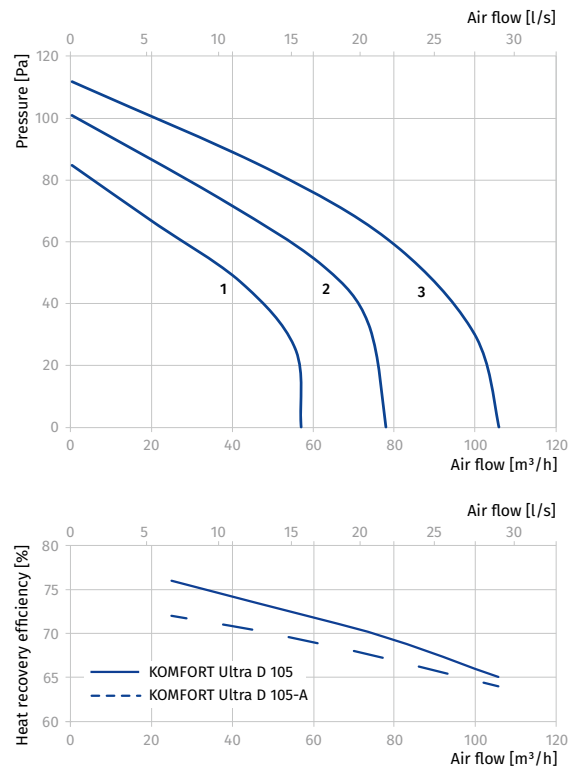


KOMFORT Ultra D 105-A






Technical data

Parameters	KOMFORT Ultra D 105			KOMFORT Ultra D 105-A			
	I	II	III	I	II	III	
Speed							
Voltage [V / 50 Hz]		1 ~ 230			1 ~ 230		
Power [W]	30	38	56	30	38	56	
Current [A]	0.18	0.23	0.34	0.18	0.23	0.34	
Maximum air flow [m³/h (l/s)]	57 (16)	78 (22)	106 (29)	57 (16)	78 (22)	106 (29)	
RPM [min⁻¹]	1300	1950	2500	1300	1950	2500	
Sound pressure level at 3 m [dBA]	24	32	41	24	32	41	
Transported air temperature [°C]		-25...+40			-25...+40		
Casing material		aluzinc			aluzinc		
Insulation		15 mm polyethylene foam			15 mm polyethylene foam		
Extract / supply filter		G4			G4		
Connected air duct diameter [mm]		125			125		
Weight [kg]		10			13		
Heat recovery efficiency [%]		65–76			64–72		
Humidity recovery efficiency [%]		up to 45			-		
Heat exchanger type		cross-flow			cross-flow		
Heat exchanger material		enthalpy			polystyrene		
SEC class		D			D		
ErP		2016, 2018			2016, 2018		

COMPACT HEAT RECOVERY AIR HANDLING UNITS



Accessories

		KOMFORT Ultra D 105	KOMFORT Ultra D 105-A
G4 panel filter		FP 240x202x8 G4	FP 205x198x8 G4
Silencer		SD 125	SD 125
Backdraft air damper		VRV 125	VRV 125
Air damper		VK 125	VK 125
Summer block		SB C4 200/190	SB C4 200/190