

KOMFORT ERV D S20

Suspended heat and energy recovery air handling units

Features

- Air handling unit for efficient supply and exhaust ventilation in flats, houses, cottages and other buildings.
- Heat and humidity recovery minimizes ventilation heat losses during cold season and reduce air conditioner load during hot season.
- Controllable air exchange ensures the best suitable indoor microclimate.
- Compatible with round Ø 100 or 150 mm air ducts.



Air flow:
up to 400 m³/h
111 l/s



Heat recovery efficiency:
up to 87 %

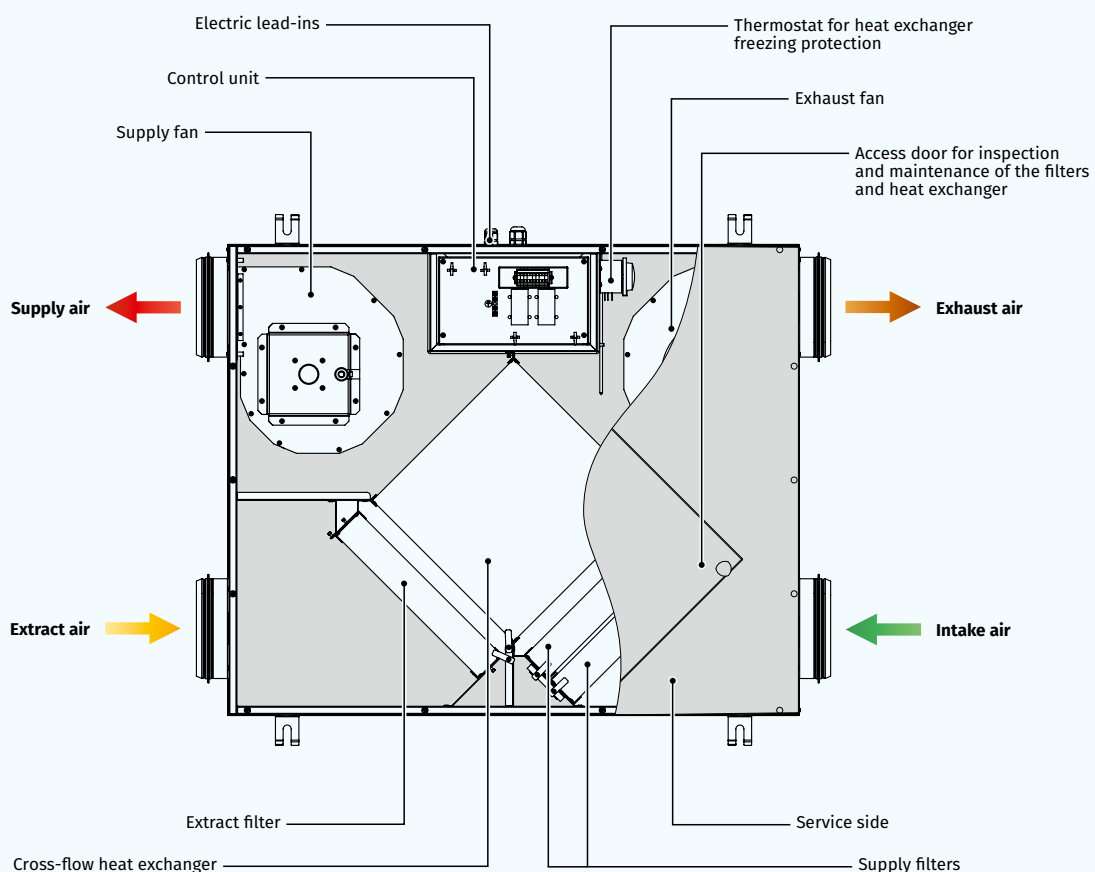


Design

- The casing is made of polymer coated steel panels, internally heat- and sound-insulated with 5–10 mm (depend on modification) polyurethane foam.
- The bottom service panel provides easy access for maintenance of the filters and the heat exchanger.
- The spigots for connection to the air ducts are located at the sides of the unit and are rubbed sealed for airtight connection to the air ducts.
- The mounting brackets on the casing ensure easy installation under the ceiling.

Fans

- Asynchronous motors are used for air supply and exhaust.
- The units are equipped with a centrifugal impeller with forward curved blades.
- Integrated overheating protection with automatic restart.
- Ball bearings for longer service life.
- Dynamically balanced impellers.
- Featured with reliable and low-noise operation.



Heat recovery

- The 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.



Control and automation

- Integrated control system based on triac speed controller CDT1 E.



Air filtration

- Two built-in G4 and F8 filters provide efficient supply air filtration.
- The G4 filter is used for extract air filtration.

Mounting

- Due to the low casing height the unit is the ideal solution for mounting in the limited space behind the suspended ceiling.
- The installation place must be easily accessible for servicing.

FROST PROTECTION

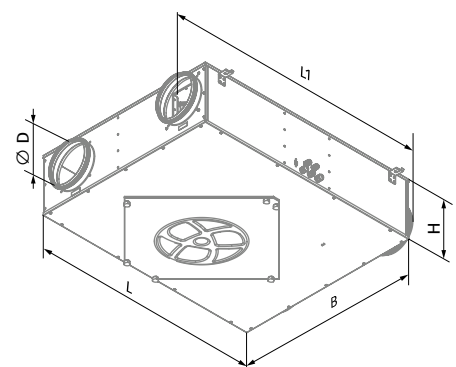
- The integrated automatic freeze protection is used to prevent freezing of the heat exchanger in the cold season. The supply fan turns off according to the temperature sensor to get the heat exchanger warmed up with extract air. After that the supply fan turns on and the unit continues to run in the standard mode.

Designation key

Series	Unit type	Mounting type	Rated air flow [m³/h]	Service side	Control
KOMFORT	ERV: energy recovery ventilation	D: suspended mounting, horizontally directed spigots	150; 250; 350	R: right L: left	S20: speed controller CDT1 E

Overall dimensions [mm]

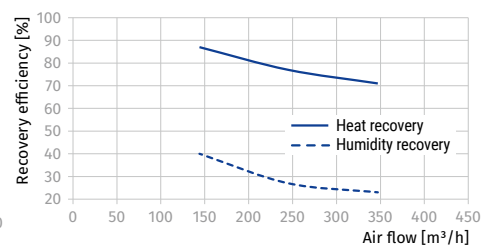
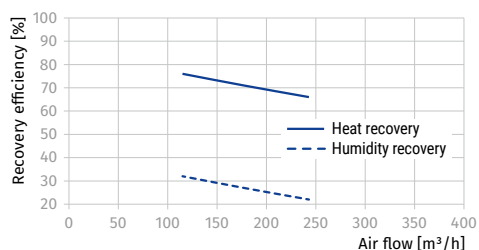
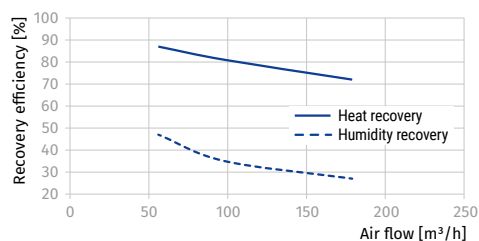
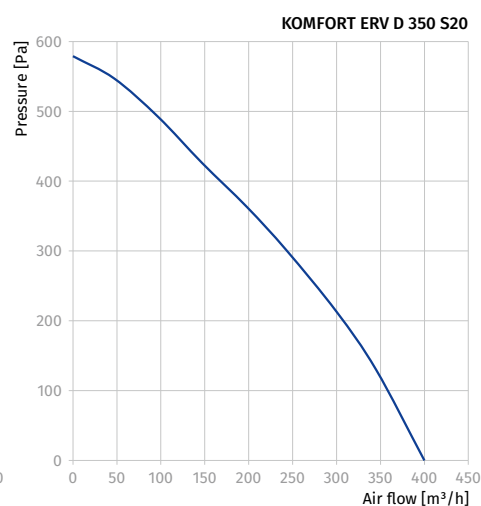
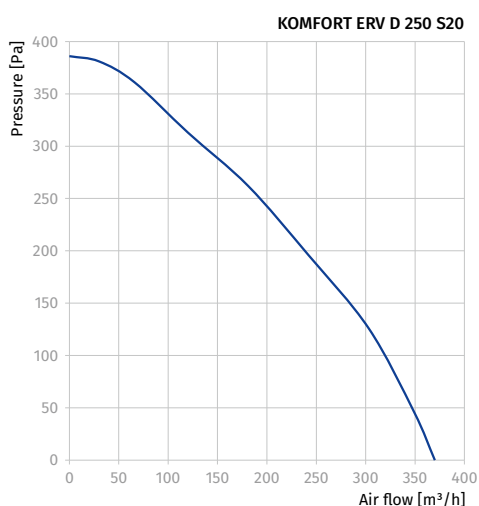
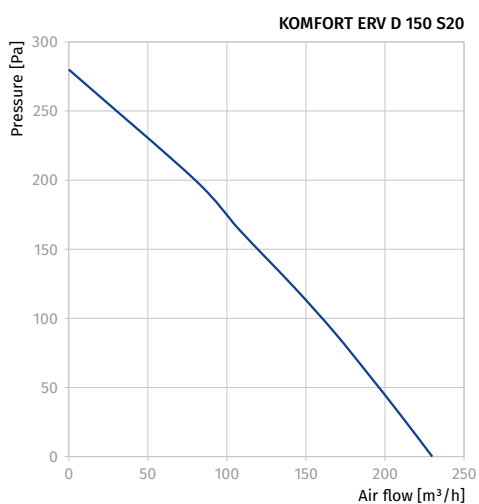
Model	Ø D	B	H	L	L1
KOMFORT ERV D 150 S20	99	704	227	854	947
KOMFORT ERV D 250 S20	149	704	227	854	947
KOMFORT ERV D 350 S20	149	754	277	1024	1117



Technical data

Parameters	KOMFORT ERV D 150 S20	KOMFORT ERV D 250 S20	KOMFORT ERV D 350 S20
Voltage [V / 50 (60) Hz]	1 ~ 230	1 ~ 230	1 ~ 230
Power [W]	125	250	310
Current [A]	0.6	1.1	1.4
Maximum air flow [m³/h (l/s)]	230 (64)	370 (103)	400 (111)
RPM [min⁻¹]	2235	2400	2150
Sound pressure level at 3 m [dBA]	49	52	57
Transported air temperature [°C]	-5...+40	-5...+40	-5...+40
Insulation [mm]	5 – 10	5 – 10	5 – 10
Extract filter	G4	G4	G4
Supply filter	G4 and F8 (PM2.5 93 %)	G4 and F8 (PM2.5 93 %)	G4 and F8 (PM2.5 93 %)
Connected air duct diameter [mm]	100	150	150
Weight [kg]	26	29	42
Heat recovery efficiency [%]*	72–87	66–76	71–87
Humidity recovery efficiency [%]	27–47	22–32	23–40
Heat exchanger type	cross-flow	cross-flow	cross-flow
Heat exchanger material	enthalpy	enthalpy	enthalpy
SEC class	D	E	E
ErP	2016	2016	2016

*Heat recovery efficiency is specified in compliance with EN 13141-7.



Accessories

		KOMFORT ERV D 150 S20	KOMFORT ERV D 250 S20	KOMFORT ERV D 350 S20
G4 panel filter		FP 300x220x48 G4	FP 300x220x48 G4	FP 300x270x48 G4
F8 panel filter		FP 300x220x48 F8	FP 300x220x48 F8	FP 300x270x48 F8