

## Heat recovery air handling units

# KOMFORT EC L

Air capacity – up to 810 m<sup>3</sup>/h

Heat recovery efficiency – up to 98 %



### Application

- Air handling units for efficient supply and exhaust ventilation in flats, houses, cottages and other buildings.
- Controllable mechanical energy saving ventilation systems.
- Heat recovery minimises ventilation heat losses.
- Regulated air exchange creates individually controlled microclimate.
- Compatible with round Ø150, 160, 200 and 250 mm air ducts.

### Design

- The casing is made of double-skinned aluzinc panels, internally filled with 25 mm mineral wool layer for heat and sound insulation.
- The casing is equipped with adjustable leveling feet on the bottom panel that enable the unit installation on the floor. **The KOMFORT EC L300 S6, L1/300 S6 and L400 S6** models include a fixing bracket for wall mounting.
- 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 service access to filters is on the side panel which can be installed on the left or on the right, seen on the supply air flow direction, during the unit mounting.

### Fans

- High-efficient external rotor EC-motors are used for air supply and exhaust.
- The **KOMFORT EC L300 S6, L1/300 S6 and L400 S6** units are equipped with constant flow fans and forward curved blades. This fan design ensures set air flow even in case of variable resistance in the ventilation system, i.e. in case of filter clogging.
- The **KOMFORT EC L600 S6** unit includes fans with backward curved blades.
- EC motors have the best power consumption to air capacity ratio and meet the latest demands concerning energy saving and high-efficient ventilation.
- EC motors are featured with high performance, low noise level and totally controllable speed range.
- Dynamically balanced impellers.

### Heat recovery

- The unit is equipped with a plate counter-flow polystyrene heat exchanger with a large surface area and high heat recovery efficiency.
- The air streams are fully separated within the heat exchanger. Odours and contaminants contained in the extract air are not transferred to the supply air flow.
- Heat recovery is based on the utilization of the heat energy contained in the extract air for heating up of supply air stream in the heat exchanger. Extract air transfers most of its heat to the intake fresh air stream. This technology significantly reduces heat losses in cold seasons. In summer

the heat exchanger performs reverse and intake air is cooled in the heat exchanger by the cool extract air. This contributes to better performance of the air conditioner in ventilated premises.

- The integrated freeze protection system is used to prevent the heat exchanger freezing. In case of a freezing danger communicated by the temperature sensor the supply fan is turned off. The warm extract air warms up the heat exchanger. After that the the supply fan is turned on and the unit reverts to the normal operation mode.
- The drain pan under the heat exchanger block is used for condensate collection and drainage.
- Heat recovery is not useful in warm season with low indoor and outdoor temperature difference. In this case the heat exchanger may be temporary replaced with a summer block (available separately).

### Air filtration

- Two built-in G4 cassette filters provide efficient supply and extract air filtration. Optionally, a F7 supply filter may be used (special accessory).

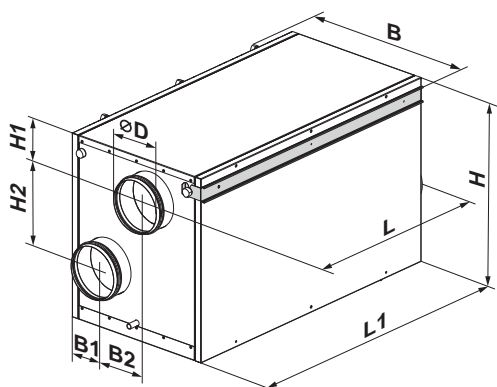
### Control and automation

- The unit incorporates an integrated control system, a wall-mounted control panel with an LCD display and a remote control.
- Automation functions:
  - Activating/deactivating the unit.
  - Setting low, medium and high speeds for the supply and extract fan. Each speed is individually adjusted during set-up.
  - Controlling supply and exhaust air dampers (available separately).
  - Unit shutdown on signal from a fire alarm panel.
  - Switching to the maximum speed in case of activation of a CO<sub>2</sub> sensor, humidity sensor, IAQ sensor or any other sensor (available separately).
  - Filter clogging control and indication by operating hours.
  - Setting week-scheduled operation of the unit.

### Mounting

- Floor, ceiling or wall mounting with a fixing bracket.
- The proper unit mounting position provides condensate collecting and drainage and free access to the side panels for servicing and filter replacement.

## Overall dimensions



Model	Dimensions [mm]								
	ØD	B	B1	B2	H	H1	H2	L	L1
KOMFORT EC L300 S6	150	455	130	140	525	105	220	945	830
KOMFORT EC L1/300 S6	160	455	130	140	525	105	220	945	830
KOMFORT EC L400 S6	200	570	165	230	540	135	225	925	830
KOMFORT EC L600 S6	250	840	215	390	660	160	295	1010	890

## Accessories

Model	Replaceable filter G4 (cassette)	Replaceable filter F7 (cassette)	Summer block
KOMFORT EC L300 S6	FP-EC L300 G4	FP-EC L300 F7	SB-EC L300
KOMFORT EC L1/300 S6			
KOMFORT EC L400 S6	FP-EC L400 G4	FP-EC L400 F7	SB-EC L400
KOMFORT EC L600 S6	FP-EC L600 G4	FP-EC L600 F7	SB-EC L600

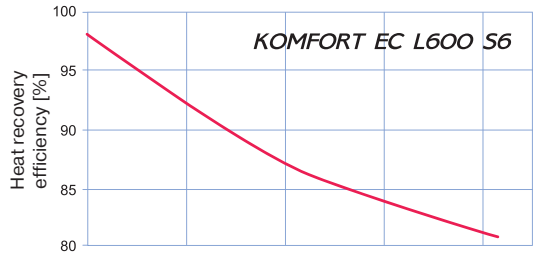
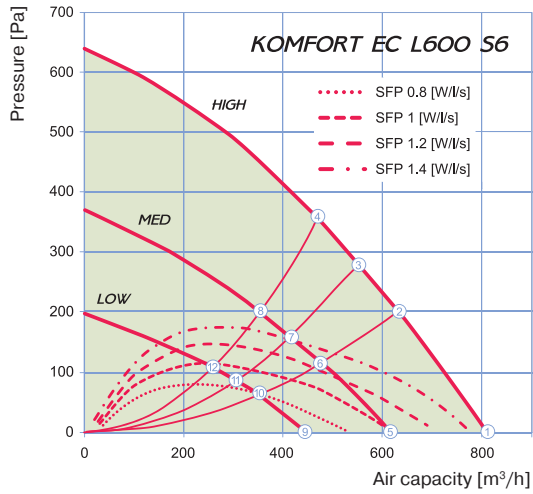
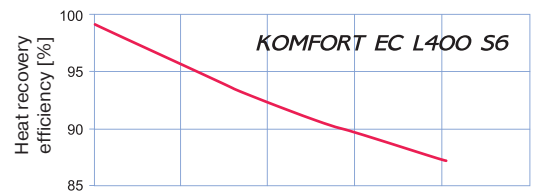
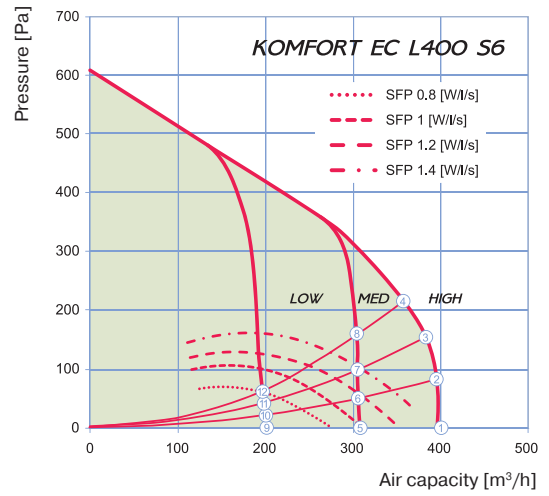
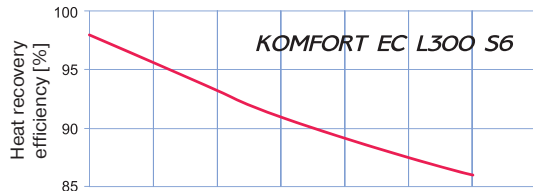
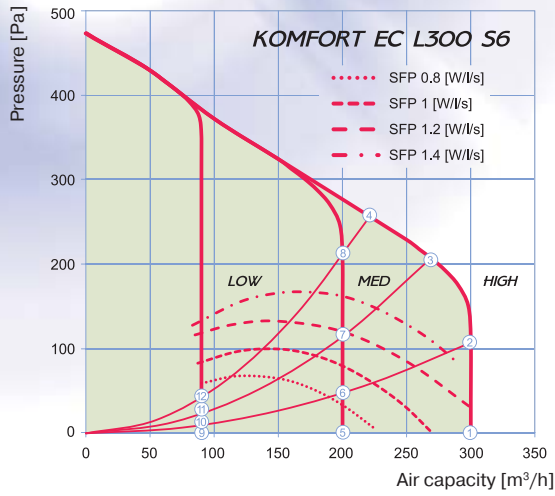
## Technical data

Parameters	KOMFORT EC L300 S6	KOMFORT EC L1/300 S6	KOMFORT EC L400 S6	KOMFORT EC L600 S6
Voltage [V / 50-60 Hz]	1 ~ 230			
Power [kW]	0.14		0.21	0.334
Current [A]	1.2		1.6	2.2
Maximum air capacity [m <sup>3</sup> /h]	300		400	810
RPM	2300		2600	2860
Sound pressure level at 3 m [dBA]	24-45		30-45	
Transported air temperature [°C]	-25 up to +60			
Casing material	aluzinc			
Insulation	25 mm mineral wool			
Extract filter	panel G4			
Supply filter	panel G4 (F7)*			
Connected air duct diameter [mm]	150	160	200	250
Weight [kg]	36		67	83
Heat recovery efficiency [%]**	86 up to 98			81 up to 98
Heat exchanger type	counter-flow			
SEC class	A+	A+	A	A
Heat exchanger material	polystyrene			

\* Option.

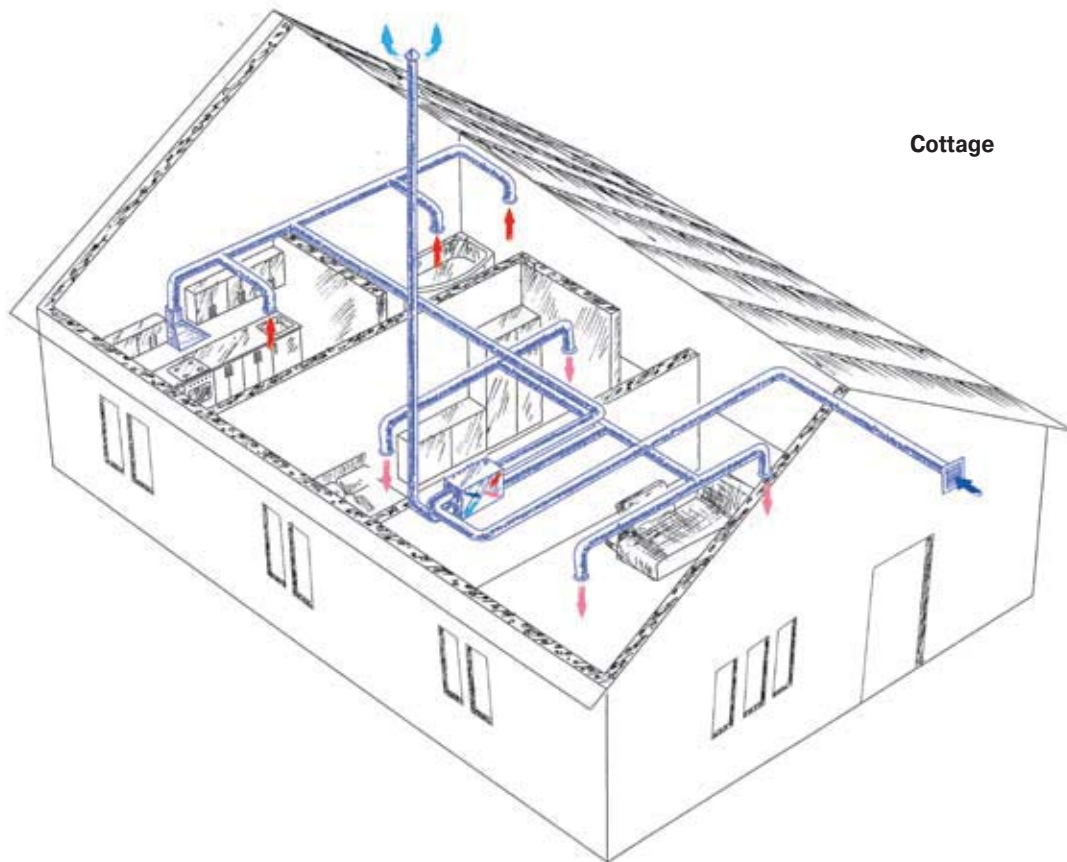
\*\* Heat recovery efficiency is specified in compliance with the EN308 EU norms.

■ Technical data

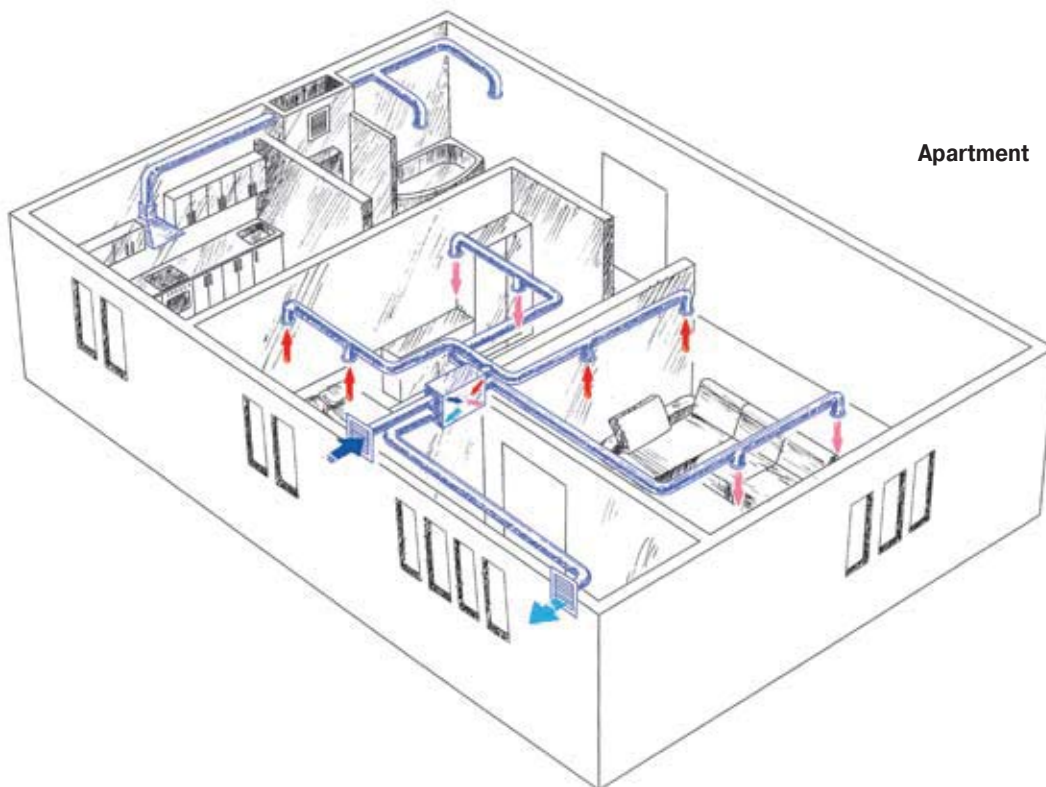


Point	Power [W]		
	KOMFORT EC L300 S6 KOMFORT EC L1/300 S6	KOMFORT EC L400 S6	KOMFORT EC L600 S6
1	93	139	333
2	120	187	334
3	137	219	333
4	122	226	327
5	36	87	179
6	42	101	178
7	60	116	174
8	90	135	167
9	10	32	77
10	12	37	77
11	14	42	75
12	18	47	69

■ Application example



Cottage



Apartment