



Air handling unit with heat recovery

KOMFORT EC L

Air capacity – up to 600 m³/h
Recuperating efficiency – up to 95 %

Use

- Air handling unit for efficient supply and exhaust ventilation in flats, houses, cottages and other buildings.
- For controllable mechanical energy saving ventilation systems.
- Minimization of energy losses and energy saving.
- Control of air exchange for creating comfortable indoor microclimate.
- Compatible with round Ø150, 160 or 200 mm air ducts.

Design

- The compact double-skinned casing is made of aluminium profile and sandwich panels internally filled with a 20 mm mineral wool thermal and sound insulating layer.
- The casing has fixing brackets with vibration absorbing connectors for easy installation.
- The spigots for connection to the air ducts are located at the side of the unit and are equipped with rubber seals for airtight connection to the air ducts.
- The hinged side panel of the casing ensures easy access to the internals for service works including cleaning, filter replacement, etc.

Fans

- High-efficient external rotor direct current EC-motor and double-intake centrifugal impeller with forward curved blades are used for air supply and exhaust.
- EC motor technologies meet the latest engineering demands for saving energy and for high-efficient ventilation.
- EC motors have by 50% less energy demand as compared to standard motors whereas their efficiency reaches 90%.
- EC motors are featured with high performance, low noise level and well controllable total speed range.
- Dynamically balanced turbine.

Heat recovery

- The unit incorporates a plate counter-flow polystyrene heat exchanger with large surface area and high efficiency.
- The air flows 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 thermal energy of the extract air for heating up supply air. Extract air transfers most of

its heat to the intake air flow. This reduces thermal energy losses in cold seasons. In summer the heat exchanger performs reverse and transfers cold air from the cooled extract air for warming up intake air. This contributes to better performance of the air conditioner in ventilated premises.

- The built-in freezing protection system automatically switches the supply fan off in case of freezing danger to enable warming of the heat exchanger with the warm extract air flow. When the freezing danger is over the supply fan is turned on and the unit reverts to previous mode.
- The drain pan under the heat exchanger block is used for condensate collection and drainage.
- In summer when the indoor and outdoor temperature difference is low recuperating is not useful. Replace the heat exchanger with the summer block for warm seasons. Available upon separate order.

Air filtration

- Supply air filter with filtering class F7 and extract air filter with filtering class G4 provide efficient air filtration.

Control

- Speed is controlled by external 0-10 V control input, e.g. speed controller CDT E/0-10 for EC motors.
- The fan air capacity is regulated by various parameters, including temperature level, pressure, smoke, etc.
- When control parameters are changed the EC-motor changes its rotation speed to provide the best suitable air flow.

Mounting

- Mounting to floor, ceiling or wall with fixing brackets.
- When properly mounted the unit provides condensate collecting and drainage and free access to the hinged side panel for servicing and filter replacement.

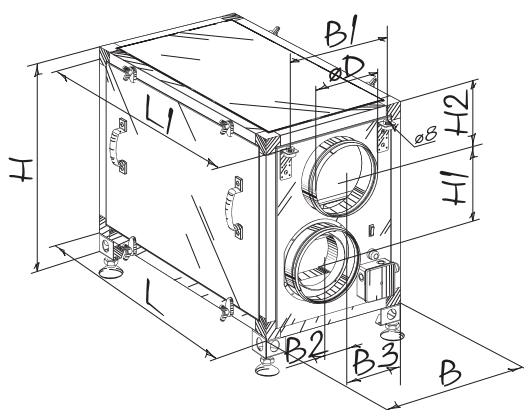
■ Specifications

Parameters	KOMFORT EC L300	KOMFORT EC L1/300	KOMFORT EC L400	KOMFORT EC L600
Voltage [V / 50 Hz]	1~230		1~230	1~230
Power [W]	2pcs. x 70		2pcs. x 175	2pcs. x 175
Current [A]	2pcs. x 0,60		2pcs. x 1,3	2pcs. x 1,3
Total unit power [W]	140		350	350
Total unit current [A]	1,2		2,6	2,6
Max. air capacity [m ³ /h]	300		400	600
RPM [min ⁻¹]	1380		1340	2150
Sound pressure level at 3 m distance [dBA]	24-45		28-47	28-47
Max. operating temperature [°C]	-25 up to +60		-25 up to +60	-25 up to +60
Casing material	aluzinc		aluzinc	aluzinc
Insulation	25 mm mineral wool		25 mm mineral wool	25 mm mineral wool
Extract filter	G4		G4	G4
Supply filter	F7 (EU7)		F7 (EU7)	F7 (EU7)
Connected air duct diameter [mm]	∅ 150	∅ 160	∅ 200	∅ 200
Weight [kg]	36		37	37
Recuperating efficiency	up to 95%		up to 95%	up to 95%
Heat exchanger type	counter-flow		counter-flow	counter-flow
Heat exchanger material	polystyrene		polystyrene	polystyrene

■ Accessories to air handling units:

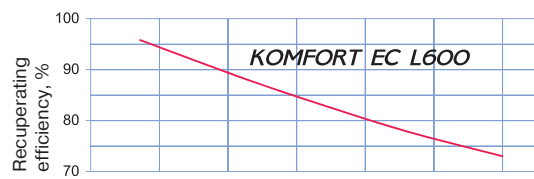
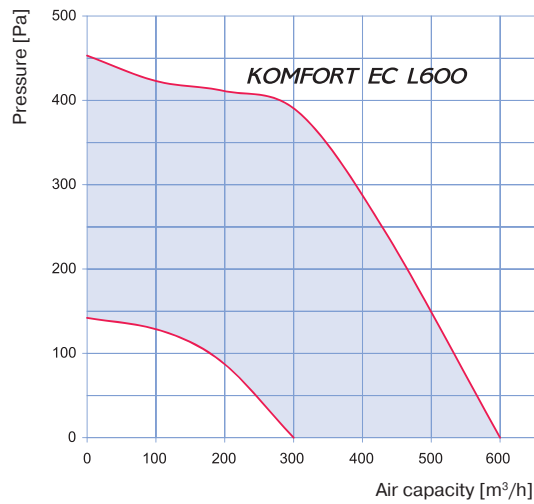
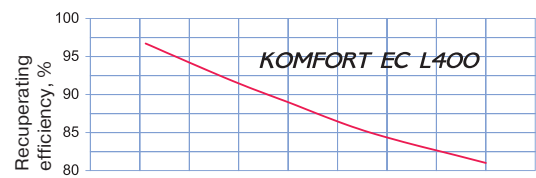
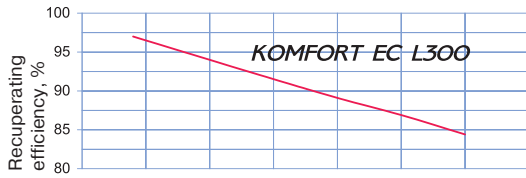
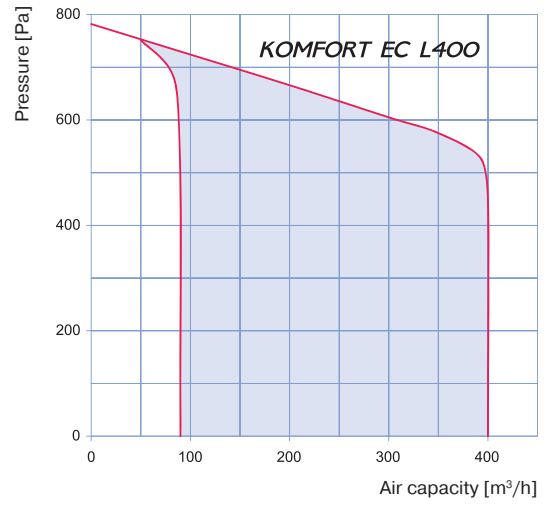
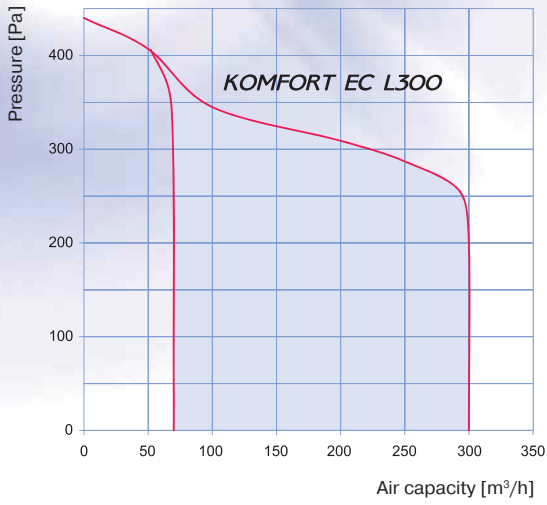
Type	G4 replaceable filter	F7 replaceable filter	Summer block
KOMFORT EC L300	FP-EC L300-600 G4	FP-EC L300-600 F7	SB-EC L300-600
KOMFORT EC L1/300			
KOMFORT EC L400			
KOMFORT EC L600			

■ Overall dimensions of the unit

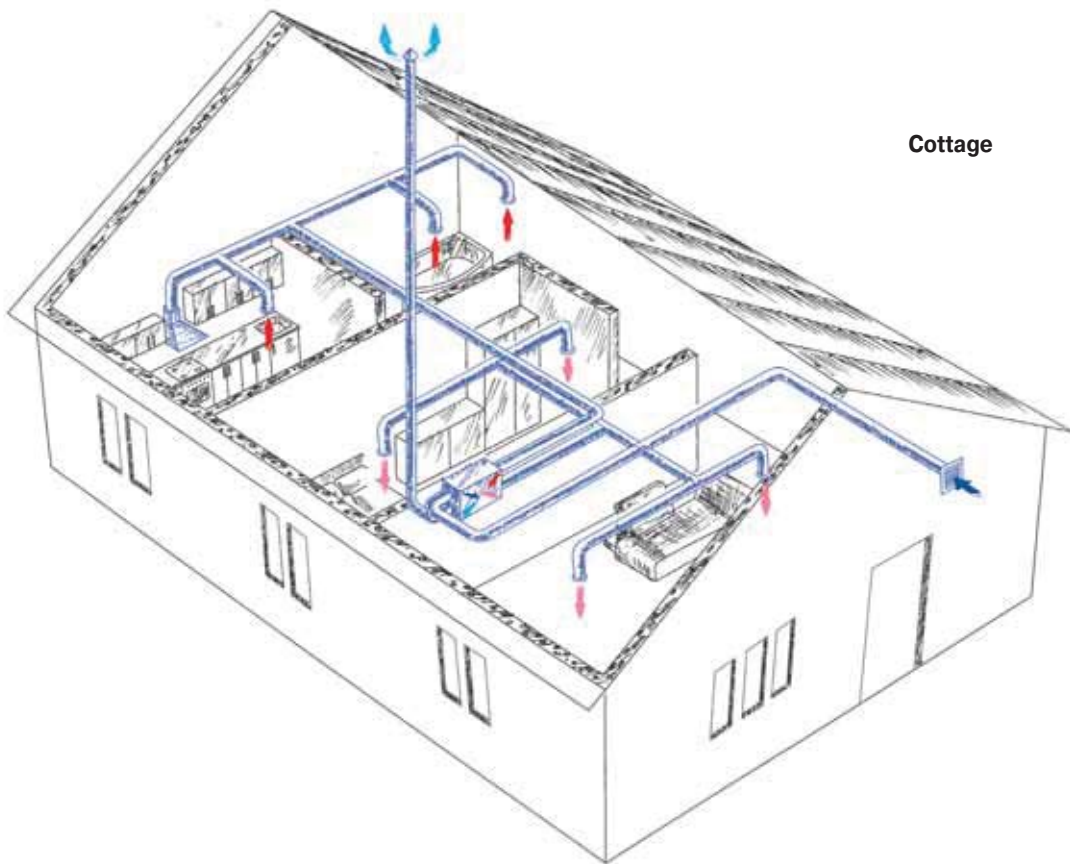


Type	Dimensions, mm									
	∅D	B	B1	B2	B3	H	H1	H2	L	L1
KOMFORT EC L300	149	420	390	100	159	562	215	147	829	876
KOMFORT EC L1/300	159	420	390	100	159	562	215	147	829	876
KOMFORT EC L400	199	420	390	100	159	562	215	147	829	876
KOMFORT EC L600	199	420	390	100	159	562	215	147	829	876

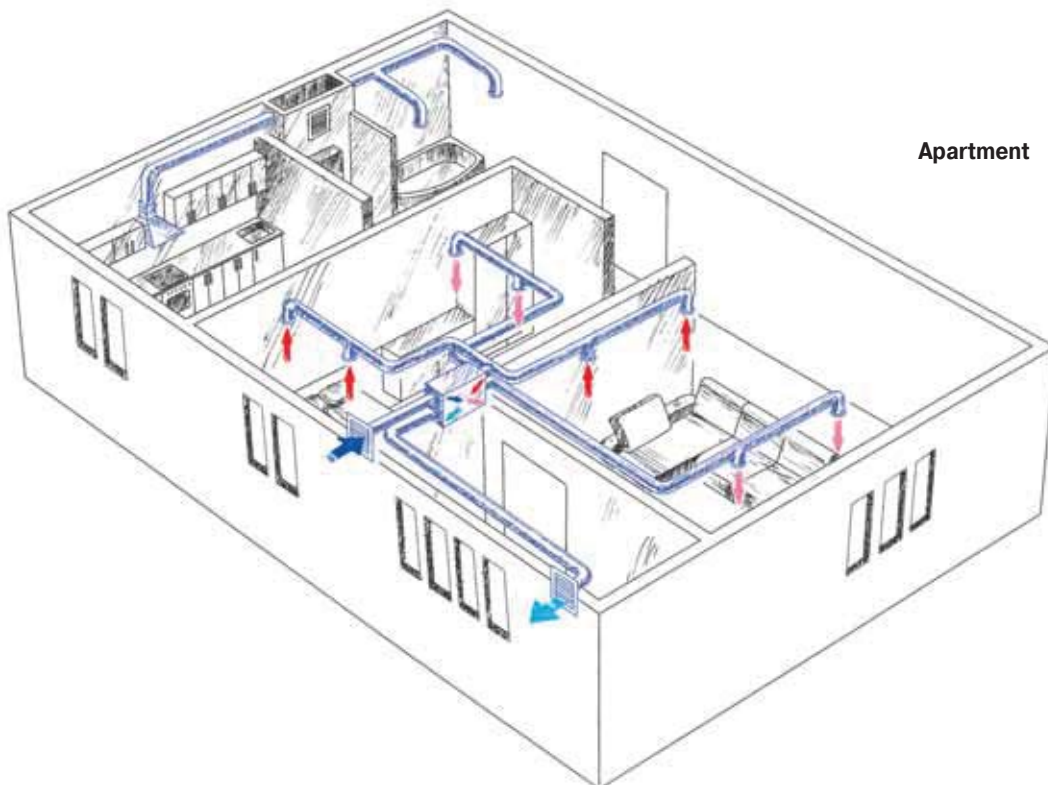
■ Specifications



■ Variants of application



Cottage



Apartment