Heat recovery air handling units

KOMFORT LE

Air capacity – up to 2200 m³/h
Heat recovery efficiency – up to 88 %

ErP 2016

Application

- ❑ Air handling units for efficient supply and exhaust ventilation in flats, houses, cottages and other buildings.
- ❑ Heat recovery minimises ventilation heat losses.
- ❑ Control of air exchange for creating comfortable indoor microclimate.
- ❑ Compatible with round Ø125 to 315 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 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 rubber sealed for airtight connection to the air ducts.
❑ The hinged casing side panels ensure easy access to the internals for cleaning, filter replacement and other maintenance operations.

Fans

❑ Asynchronous external rotor motors and centrifugal double-intake impellers with forward curved blades are used for air supply and exhaust.
❑ Integrated motor overheating protection with automatic restart.
❑ Dynamically balanced impellers.
❑ Equipped with ball bearings for longer service life.
❑ Reliable and quiet operation.

Heat recovery

❑ The unit is equipped with a plate cross-flow aluminium heat exchanger with a large surface area and high heat recovery 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. Heat recovery 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 electronic protection system based on bypass and heater is used for freezing protection of the unit in cold seasons. The bypass damper is opened and the heater is turned on automatically according to temperature sensor readings. Cold intake air passes by the heat exchanger and is warmed up to set temperature in the heat exchanger. Synchronously extract air that passes by the heat exchanger is used for its defrosting. After a freezing danger is over the bypass damper is closed, the heater is turned off. The heat exchanger reverts to the normal operation mode.
❑ The drain pan under the heat exchanger block is used for condensate collection and drainage.

Air heater

❑ The unit is equipped with an electric heater for operation during cold seasons at low outside temperature.
❑ The integrated electric heater is activated to warm up supply air flow if set indoor air temperature may not be reached by means of heat recovery only.
❑ Smooth heat output control ensures automatic supply air temperature maintaining.
❑ Two integrated overheat protection thermostats, one actuated at +60 °C with automatic restart and the other one actuated at +90 °C with manual restart.

Air filtration

❑ The built-in F7 cassette supply filter and G4 cassette extract filter provide efficient air filtration.

Control and automation

❑ The unit incorporates an integrated control system with a wall-mounted control panel and LCD display.
❑ The standard delivery set includes a 10 m cable for connection of the unit and the control panel.
❑ Control panel functions:
- Activating/Deactivating the unit.
- Setting required fan speed.
- Setting and maintaining supply air temperature.
- Displaying indoor temperature.
- Setting week-scheduled operation of the unit.

❑ Automation functions:
- Controlling supply and exhaust air dampers (available separately).
- Filter clogging control.
- Preventing overheating of the electric heating elements.
- Disabling heater activation during the fan shutoff.

❑ The control system is short circuit protected with an automatic circuit breaker.

Mounting

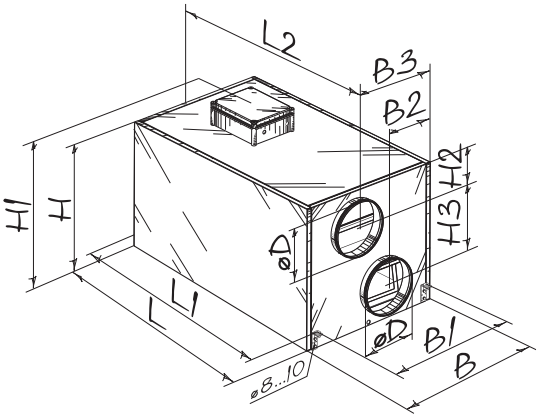
❑ Mounting to floor, ceiling or wall with fixing brackets.
❑ The correct mounted unit must provide condensate collecting and drainage and free access to the hinged side panel for servicing and filter replacement.

Overall dimensions

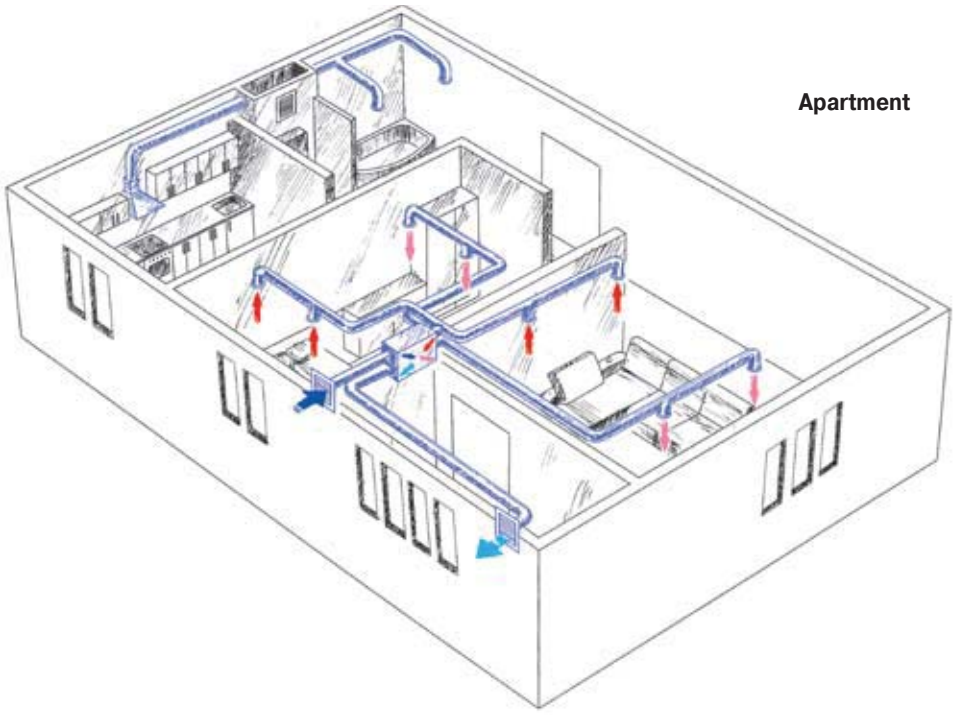
Model	Dimensions [mm]											
	ØD	B	B1	B2	B3	H	H1	H2	H3	L	L1	L2
KOMFORT LE350-3	124	497	403	248	348	554	-	111	230	954	996	1054
KOMFORT LE500-3	149	497	403	248	348	554	-	111	230	954	996	1054
KOMFORT LE530-4	159	497	403	248	348	554	-	111	230	954	996	1054
KOMFORT LE600-4	199	497	403	248	348	554	-	111	230	954	996	1054
KOMFORT LE800-9	249	613	460	306	386	698	832	154	280	1071	1117	1171
KOMFORT LE1200-9	249	613	460	306	386	698	832	154	280	1071	1117	1171
KOMFORT LE1700-18	314	842	581	320	520	814	947	201	595	1345	1388	1445
KOMFORT LE2200-18	314	842	581	320	520	814	947	201	595	1345	1388	1445

Accessories

Model	Replaceable filter G4 (cassette)	Replaceable filter F7 (cassette)
KOMFORT LE350-3	FP-LE350-600 G4	FP-LE350-600 F7
KOMFORT LE500-3		
KOMFORT LE530-4		
KOMFORT LE600-4		
KOMFORT LE800-9	FP-LE1200 G4	FP-LE1200 F7
KOMFORT LE1200-9		
KOMFORT LE1700-18	FP-LE2200 G4	FP-LE2200 F7
KOMFORT LE2200-18		



Application example

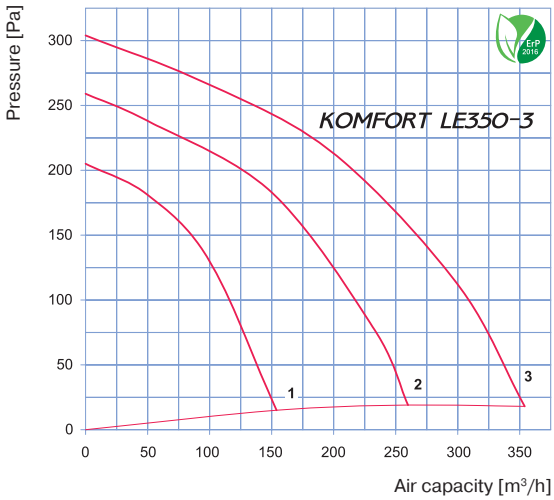


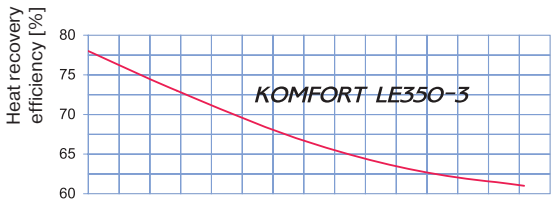
Apartment

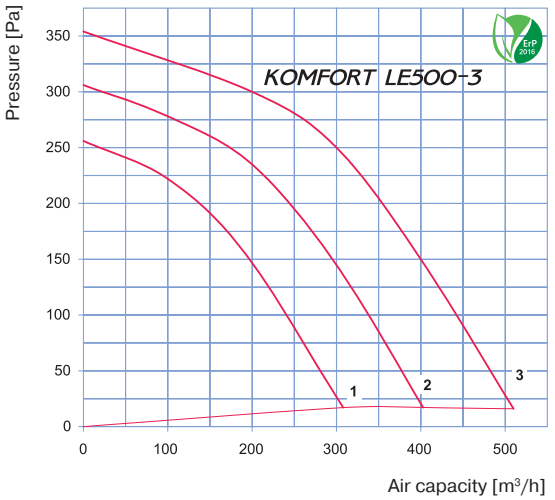
Technical data

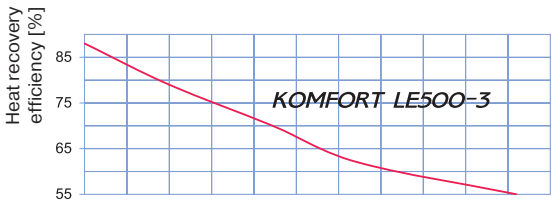
Parameters	KOMFORT LE350-3	KOMFORT LE500-3
Voltage [V]	1 ~ 230 / 50-60 Hz	
Fan power [kW]	0.26	0.3
Fan current [A]	1.2	1.32
Electric heater power [kW]	3	
Electric heater current [A]	13	
Total unit power [kW]	3.26	3.3
Total unit current [A]	14.2	14.32
Maximum air capacity [m³/h]	350	500
RPM	1150	1100
Sound pressure level at 3 m distance [dB(A)]	24-45	28-47
Transported air temperature [°C]	-25 up to +55	-25 up to +50
Casing material	aluzinc	
Insulation	25 mm mineral wool	
Extract filter	cassette G4	
Supply filter	cassette F7	
Connected air duct diameter [mm]	125	150
Weight [kg]	45	49
Heat recovery efficiency [%]*	up to 78	up to 88
Heat exchanger type	cross-flow	
SEC class	E	
Heat exchanger material	aluminum	

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





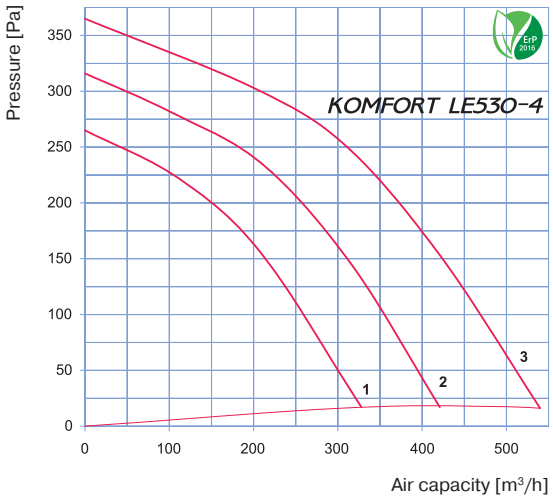


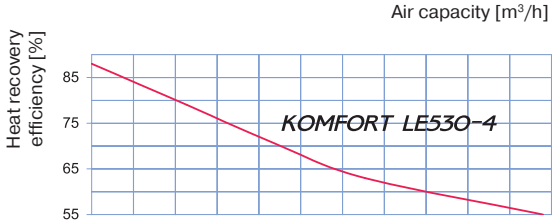


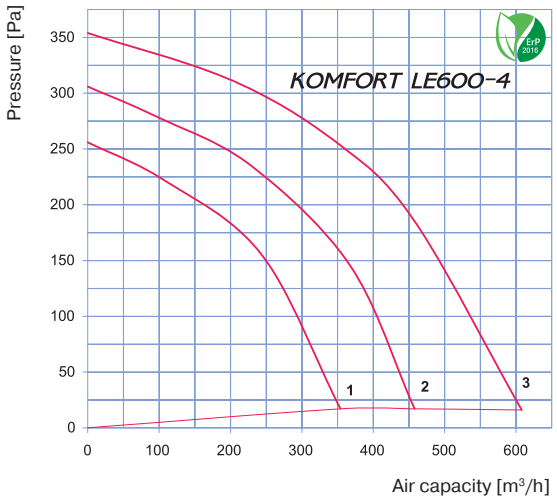
Technical data

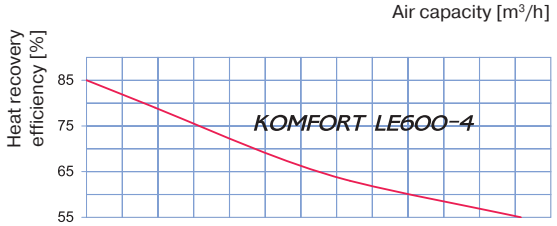
Parameters	KOMFORT LE530-4	KOMFORT LE600-4
Voltage [V]	1 ~ 230 / 50-60 Hz	
Fan power [kW]	0.3	0.39
Fan current [A]	1.32	1.72
Electric heater power [kW]	4	
Electric heater current [A]	17.4	
Total unit power [kW]	4.3	4.39
Total unit current [A]	18.72	19.1
Maximum air capacity [m³/h]	530	600
RPM	1100	1350
Sound pressure level at 3 m distance [dB(A)]	28-47	32-48
Transported air temperature [°C]	-25 up to +50	-25 up to +55
Casing material	aluzinc	
Insulation	25 mm mineral wool	
Extract filter	cassette G4	
Supply filter	cassette F7	
Connected air duct diameter [mm]	160	200
Weight [kg]	49	54
Heat recovery efficiency [%]*	up to 88	up to 85
Heat exchanger type	cross-flow	
SEC class	E	
Heat exchanger material	aluminum	

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





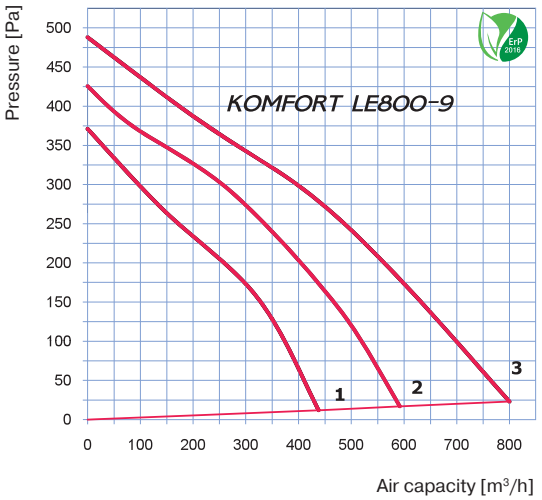


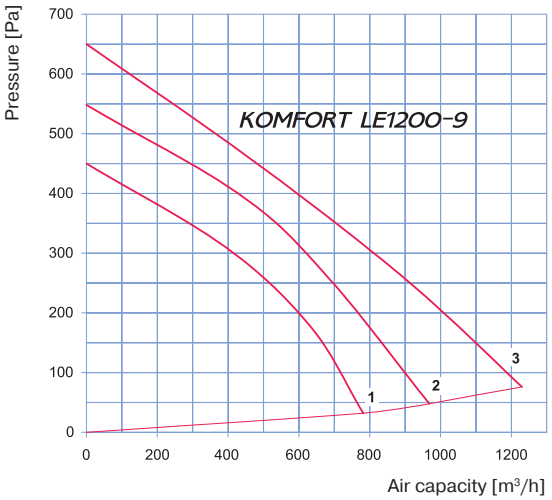


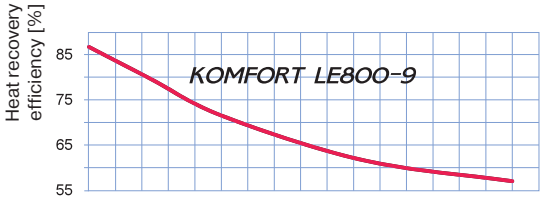
Technical data

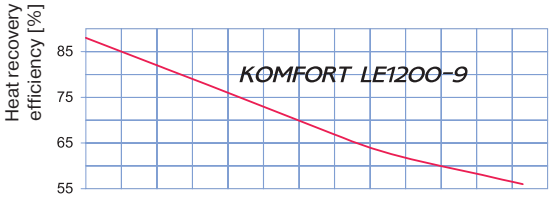
Parameters	KOMFORT LE800-9	KOMFORT LE1200-9
Voltage [V]	3 ~ 400 / 50-60 Hz	3 ~ 400 / 50 Hz
Fan power [kW]	0.49	0.82
Fan current [A]	2.16	3.6
Electric heater power [kW]	9.0	
Electric heater current [A]	13.0	
Total unit power [kW]	9.49	9.80
Total unit current [A]	15.16	16.6
Maximum air capacity [m^3/h]	800	1200
RPM	1650	1850
Sound pressure level at 3 m distance [dB(A)]	48	60
Transported air temperature [°C]	-25 up to +45	-25 up to +40
Casing material	aluzinc	
Insulation	25 mm mineral wool	
Extract filter	cassette G4	
Supply filter	cassette F7	
Connected air duct diameter [mm]	250	
Weight [kg]	85	
Heat recovery efficiency [%]*	up to 78	
Heat exchanger type	cross-flow	
SEC class**	E	-
Heat exchanger material	aluminum	

* Heat recovery efficiency is specified in compliance with the EN308 EU norms.
** The EC norm 1254/2014 does not apply if maximum air capacity is >1000 m^3/h

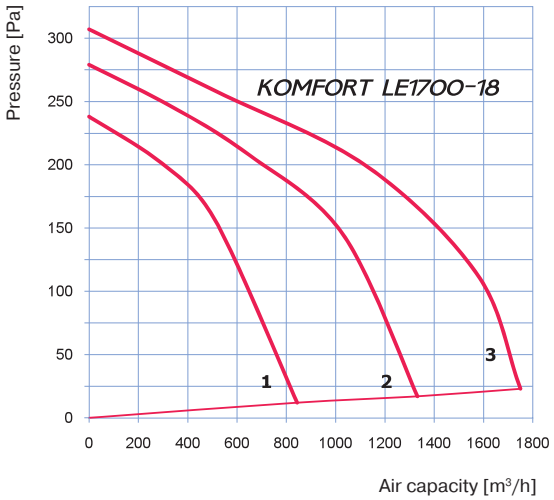
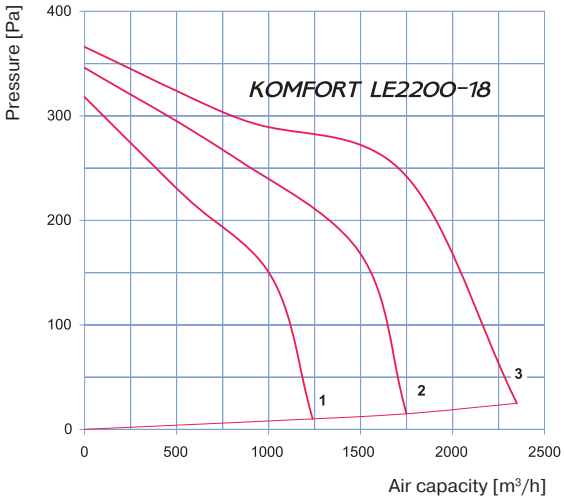
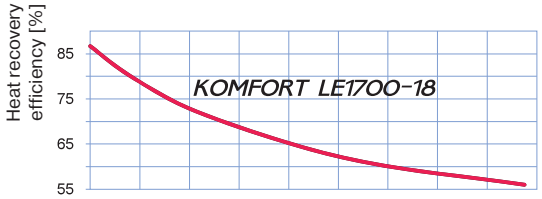
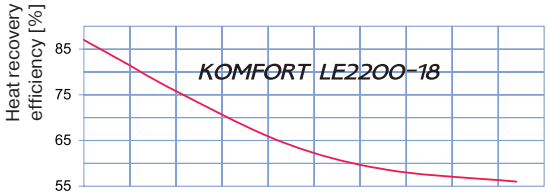








Technical data

Parameters	KOMFORT LE1700-18	KOMFORT LE2200-18
Voltage [V]	3 ~ 400 / 50-60 Hz	
Fan power [kW]	0.98	1.3
Fan current [A]	4.3	5.68
Electric heater power [kW]	18.0	
Electric heater current [A]	26.0	
Total unit power [kW]	18.98	19.30
Total unit current [A]	30.3	31.7
Maximum air capacity [m³/h]	1750	2200
RPM	1100	1150
Sound pressure level at 3 m distance [dB(A)]	49	65
Transported air temperature [°C]	-25 up to +45	-25 up to +40
Casing material	aluzinc	
Insulation	25 mm mineral wool	
Extract filter	cassette G4	
Supply filter	cassette F7	
Connected air duct diameter [mm]	315	
Weight [kg]	96	
Heat recovery efficiency [%]*	up to 77	
Heat exchanger type	cross-flow	
SEC class**	-	
Heat exchanger material	aluminum	

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** The EC norm 1254/2014 does not apply if maximum air capacity is >1000 m³/h