

KOMFORT RoTo EC D

Air handling units with rotary heat exchanger

Features

- Air handling units for efficient supply and exhaust ventilation in flats, houses, cottages and other buildings.
- Heat recovery is provided by the rotary heat exchanger and minimizes ventilation heat losses.
- Controllable air exchange for creating the best suitable indoor microclimate.



Air flow:
up to 798 m³/h
222 l/s



Heat recovery efficiency:
up to 89 %



Design

- The unit casing is made of painted steel, internally filled with mineral wool layer for heat and sound insulation.
- The insulation is 40 mm thick.
- KOMFORT RoTo EC D ... L – left-handed unit.
- KOMFORT RoTo EC D ... R – right-handed unit.

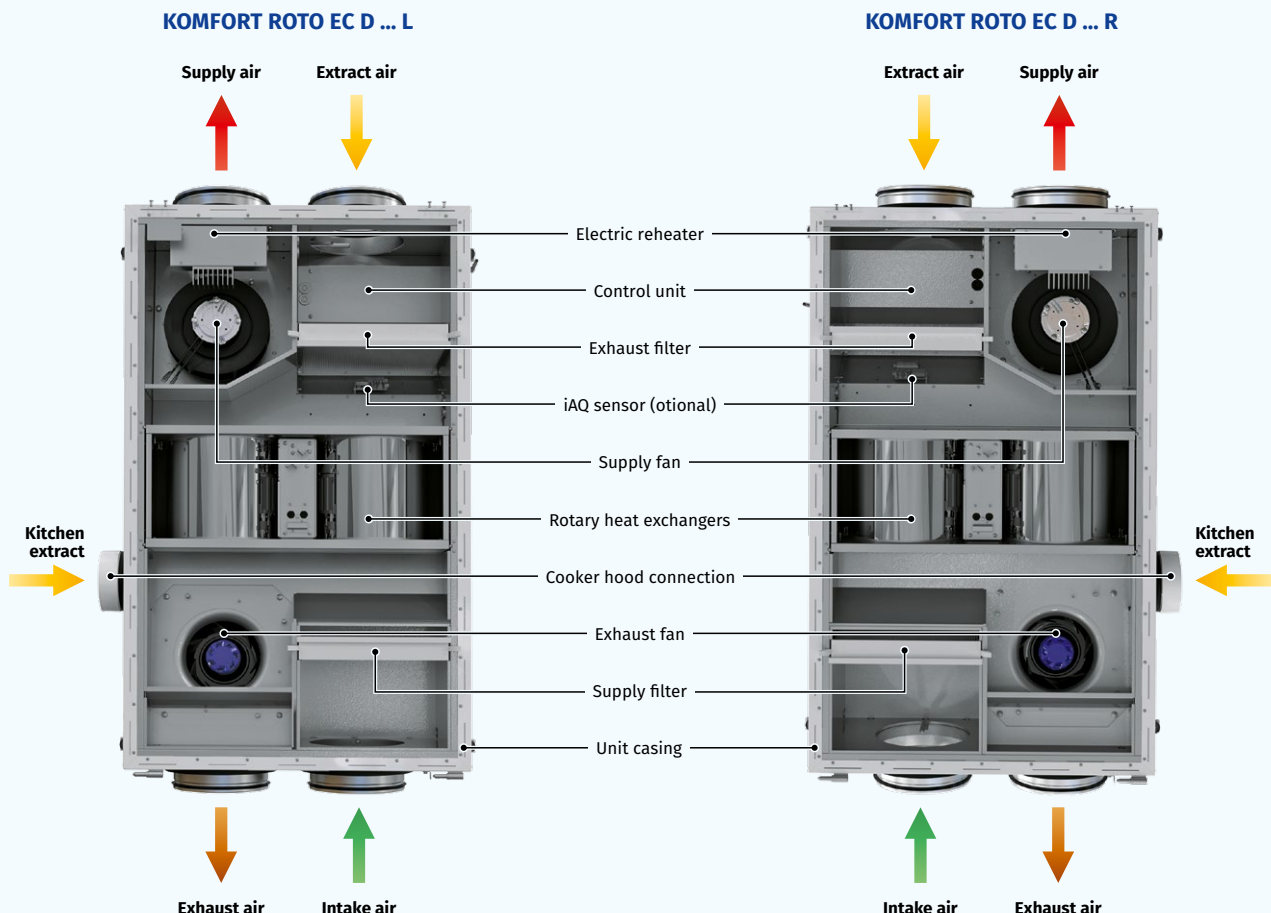
Air filtration

- Two built-in **Coarse 90% (G4)** filters provide efficient supply air filtration.
- Supply **ePM1 60% (F7)** filter available as an option.

Heater

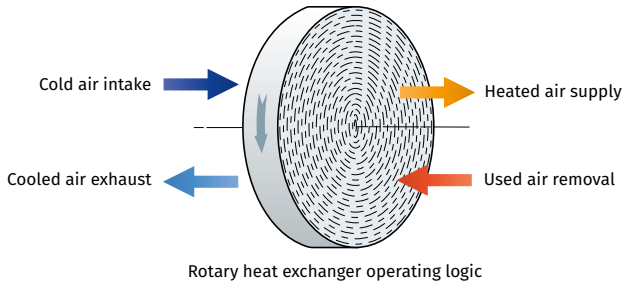
- Units **KOMFORT RoTo EC DE** are equipped with an electric heater.

AIR HANDLING UNITS WITH ROTARY HEAT EXCHANGER



Heat recovery

- o The unit has an efficient rotary heat exchanger.
- o The advantages of the rotary heat exchanger as compared to plate heat exchangers include no condensate generation, maintaining comfort air humidity and high freeze resistance.
- o **KOMFORT Roto EC D ...** – equipped with condensing rotor.
- o **KOMFORT Roto EC D ... -E** – equipped with sorption rotor.



Control and automation

- o The units are equipped with an integrated automation system. The remote control panel is not included in the delivery set (purchased separately).
- o The S21 controller allows to integrate the unit into the **Smart Home** system or **BMS (Building Management System)**.
- o Unit control is done via Wi-Fi using the mobile application **Blauberg Home**.






Download the Blaubeerg Home app for Android



Download the Blaubeerg Home app for iOS



Automation functions

Functions	Description
Unit control via Wi-Fi using a mobile application	+
Unit control via a wired remote control panel	S22 control panel (option) 
Unit control via a wireless remote control panel	S22 Wi-Fi control panel (option) 
Unit control via a wired remote LCD control panel	S25 control panel (option) 
BMS (Building Management System)	RS-485
	Wi-Fi
	Ethernet
	MODBUS (RTU, TCP)
Blauberg Cloud Server service	+
Speed selection	+
Filter replacement indication	by filter timer
Alarm indication	+
Week-scheduled operation	+
Bypass	automatic
	manual
Timer	+
Boost mode	+
Fireplace mode	+
Freeze protection	+
Minimum supply air temperature control	+
Humidity control	option
CO₂ control	option
VOC control	option
PM2.5 control	option
Fire alarm sensor connection	option

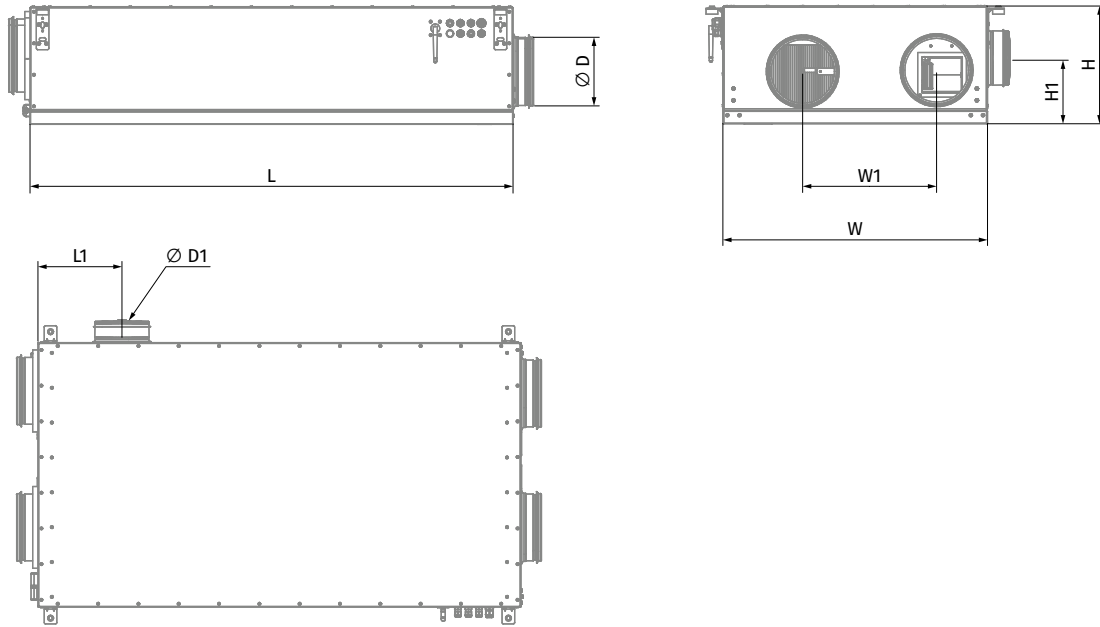
Option: the function is available when purchasing the appropriate accessory (see the "Accessories" section).

Designation key

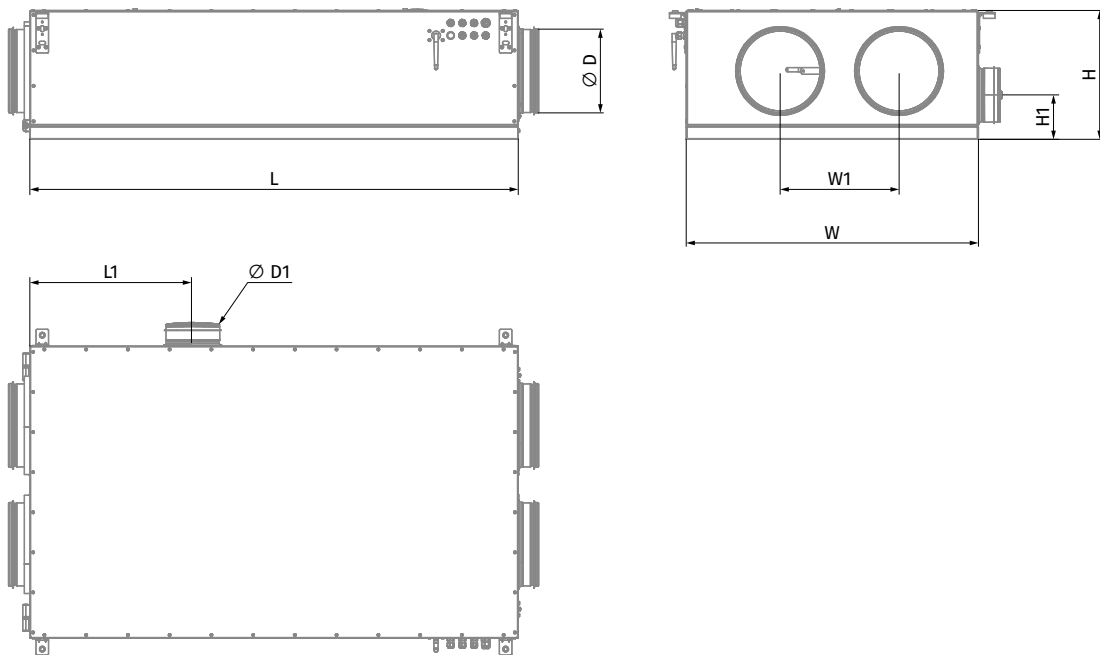
Series	Motor	Casing type	Casing modification	Size (Nominal airflow / 10)	Modification	Heat exchanger type	Unit version	Control system
KOMFORT Roto	EC: electronically commutated motor	D: suspended mounting, horizontally directed spigots	_: w/o heater E: electric reheater	25: 250 m ³ /h 35: 350 m ³ /h 65: 650 m ³ /h	1: by default	_: Condensing rotor -E: Sorption rotor	L: left version R: right version	S21

Dimensions [mm]

Model	Ø D	Ø D1	H	H1	L	L1	W	W1
KOMFORT Roto EC D 251	160	125	280	155	1150	200	630	319
KOMFORT Roto EC D 351	200	125	308	106	1170	387	700	285

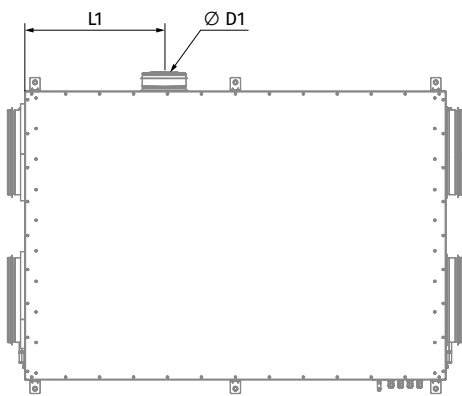
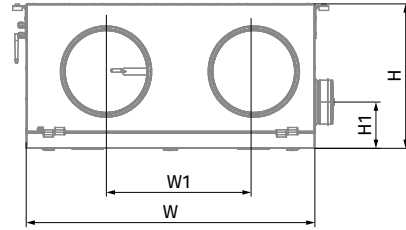
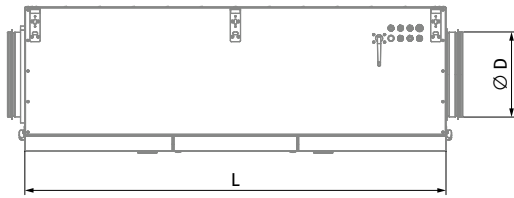


KOMFORT Roto EC D 251



KOMFORT Roto EC D 351

Model	Ø D	Ø D1	H	H1	L	L1	W	W1
KOMFORT Roto EC D 651	250	125	425	136	1240	410	850	435



KOMFORT Roto EC D 651

Technical data

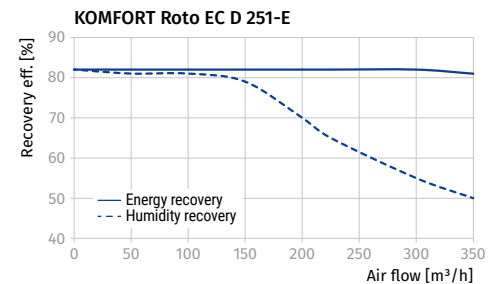
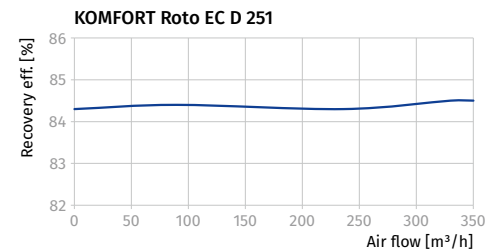
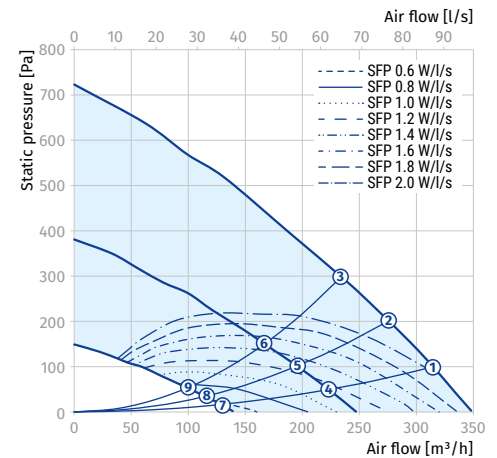
Parameters	KOMFORT Roto EC D 251	KOMFORT Roto EC D 251-E	KOMFORT Roto EC DE 251	KOMFORT Roto EC DE 251-E
Voltage [V / 50-60 Hz]	230	230	230	230
Max. unit power without electric heater [W]	183	183	183	183
Integrated electric heater power [W]	-	-	800	800
Max. unit power [W]	183	183	983	983
Max. unit current without electric heater [A]	1.4	1.4	1.4	1.4
Integrated electric heater current [A]	-	-	3.55	3.55
Max. unit current [A]	1.4	1.4	4.95	4.95
Max air flow [m ³ /h]	348	348	348	348
Sound pressure level at 3 m distance* [dBA]	23	23	23	23
Max. operating temperature [°C]	-25...+40	-25...+40	-25...+40	-25...+40
Case material	Painted steel	Painted steel	Painted steel	Painted steel
Insulation	40	40	40	40
Extract filter	G4 / Coarse > 60%	G4 / Coarse > 60%	G4 / Coarse > 60%	G4 / Coarse > 60%
Supply filters	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)
Connected air duct diameter [mm]	160	160	160	160
Weight [kg]	61.5	62	61.5	62
Heat recovery efficiency [%]	84	82	84	82
Heat exchanger type	Condensing	Sorption	Condensing	Sorption
SEC class	A	A	A	A

* Sound pressure level at 3 m distance is specified at point 4

KOMFORT ROTO EC D 251

Sound power level, A-weighted	Total	Octave frequency band [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Point 1											
LWA to supply inlet [dBA]	67	43	46	49	58	60	52	49	49	48	57
LWA to supply outlet [dBA]	71	45	48	52	61	63	55	52	52	50	60
LWA to exhaust inlet [dBA]	49	34	37	41	39	30	31	26	25	29	38
LWA to exhaust outlet [dBA]	51	36	39	43	41	32	33	27	26	30	40
LWA to environment [dBA]	51	33	41	40	42	40	38	33	36	31	40
Point 4											
LWA to supply inlet [dBA]	62	37	40	44	50	55	44	41	41	41	50
LWA to supply outlet [dBA]	64	39	42	46	53	58	46	43	43	43	53
LWA to exhaust inlet [dBA]	42	27	30	34	32	23	23	20	24	22	31
LWA to exhaust outlet [dBA]	44	28	32	36	34	24	24	21	25	23	33
LWA to environment [dBA]	44	26	34	33	34	34	29	25	27	23	33

Point	Total power of the unit [W]	Sound pressure level at 3 m (1 m) [dBA]
1	178	31 (40)
2	178	31 (41)
3	178	32 (42)
4	69	23 (33)
5	69	24 (34)
6	69	25 (34)
7	21	13 (22)
8	21	13 (23)
9	21	13 (23)



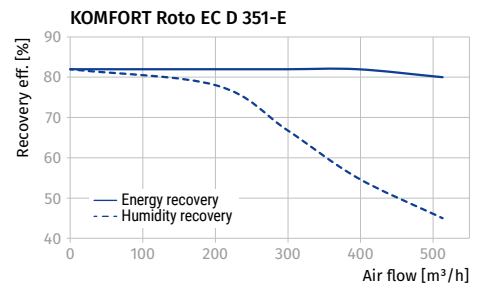
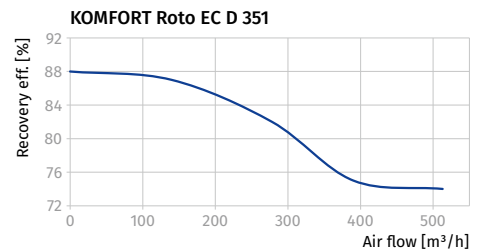
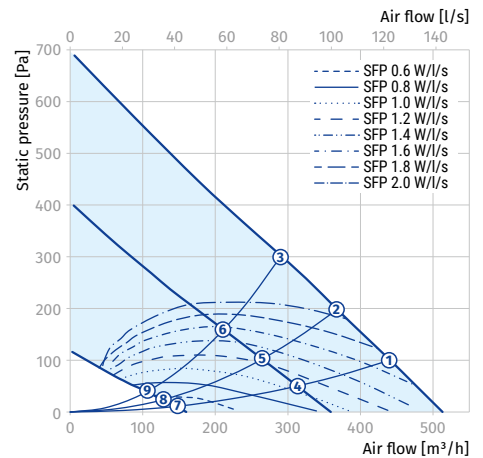
Parameters	KOMFORT Roto EC D 351	KOMFORT Roto EC D 351-E	KOMFORT Roto EC DE 351	KOMFORT Roto EC DE 351-E
Voltage [V / 50-60 Hz]	230	230	230	230
Max. unit power without electric heater [W]	247	247	247	247
Integrated electric heater power [W]	-	-	1200	1200
Max. unit power [W]	247	247	1447	1447
Max. unit current without electric heater [A]	1.62	1.62	1.62	1.62
Integrated electric heater current [A]	-	-	5.32	5.32
Max. unit current [A]	1.62	1.62	6.94	6.94
Max air flow [m³/h]	513	513	513	513
Sound pressure level at 3 m distance* [dBA]	31	31	31	31
Max. operating temperature [°C]	-25...+40	-25...+40	-25...+40	-25...+40
Case material	Painted steel	Painted steel	Painted steel	Painted steel
Insulation	40	40	40	40
Extract filter	G4 / Coarse > 60%	G4 / Coarse > 60%	G4 / Coarse > 60%	G4 / Coarse > 60%
Supply filters	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)
Connected air duct diameter [mm]	200	200	200	200
Weight [kg]	72	72	72	72
Heat recovery efficiency [%]	88	82	88	82
Heat exchanger type	Condensing	Sorption	Condensing	Sorption
SEC class	A	A	A	A

* Sound pressure level at 3 m distance is specified at point 4

KOMFORT ROTO EC D 351

Sound power level, A-weighted	Total	Octave frequency band [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Point 1											
L _{WA} to supply inlet [dBA]	59	42	45	48	49	42	36	28	24	40	48
L _{WA} to supply outlet [dBA]	62	44	47	51	52	44	38	29	25	42	51
L _{WA} to exhaust inlet [dBA]	62	44	47	51	52	44	38	28	24	42	51
L _{WA} to exhaust outlet [dBA]	59	42	45	48	49	42	36	27	23	40	48
L _{WA} to environment [dBA]	59	42	50	49	46	47	45	36	31	39	48
Point 4											
L _{WA} to supply inlet [dBA]	49	33	36	40	38	31	26	21	23	29	39
L _{WA} to supply outlet [dBA]	51	35	38	42	40	33	27	22	24	30	40
L _{WA} to exhaust inlet [dBA]	50	35	38	42	40	33	25	21	23	30	39
L _{WA} to exhaust outlet [dBA]	53	37	40	44	42	35	26	22	24	32	41
L _{WA} to environment [dBA]	51	39	47	46	39	39	36	27	25	31	40

Point	Total power of the unit [W]	Sound pressure level at 3 m (1 m) [dBA]
1	211	39 (48)
2	211	38 (48)
3	211	38 (48)
4	92	31 (40)
5	92	30 (40)
6	92	30 (40)
7	19	19 (29)
8	19	19 (29)
9	19	19 (29)



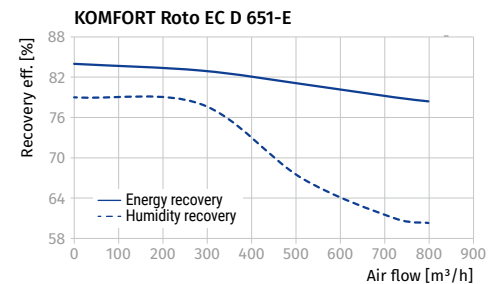
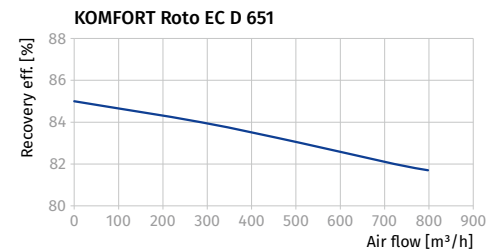
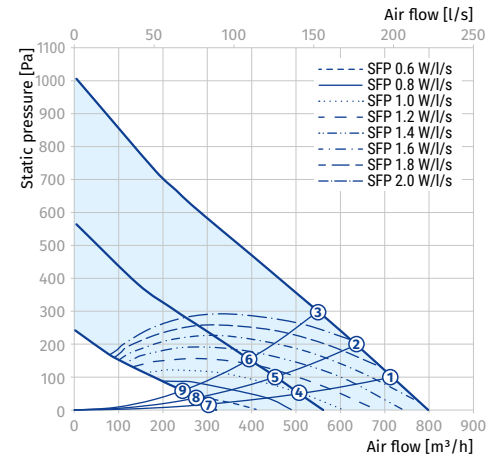
Parameters	KOMFORT Roto EC D 651	KOMFORT Roto EC D 651-E	KOMFORT Roto EC DE 651	KOMFORT Roto EC DE 651-E
Voltage [V / 50-60 Hz]	230	230	230	230
Max. unit power without electric heater [W]	377	377	377	377
Integrated electric heater power [W]	-	-	1400	1400
Max. unit power [W]	377	377	1777	1777
Max. unit current without electric heater [A]	2.58	2.58	2.58	2.58
Integrated electric heater current [A]	-	-	6.21	6.21
Max. unit current [A]	2.58	2.58	8.79	8.79
Max air flow [m ³ /h]	798	798	798	798
Sound pressure level at 3 m distance* [dBA]	31	31	31	31
Max. operating temperature [°C]	-25...+40	-25...+40	-25...+40	-25...+40
Case material	Painted steel	Painted steel	Painted steel	Painted steel
Insulation	40	40	40	40
Extract filter	G4 / Coarse > 60%	G4 / Coarse > 60%	G4 / Coarse > 60%	G4 / Coarse > 60%
Supply filters	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)
Connected air duct diameter [mm]	250	250	250	250
Weight [kg]	103	103	104	104
Heat recovery efficiency [%]	85	84	85	84
Heat exchanger type	Condensing	Sorption	Condensing	Sorption
SEC class	A	A	A	A

* Sound pressure level at 3 m distance is specified at point 4













KOMFORT ROTO EC D 651

Sound power level, A-weighted	Total	Octave frequency band [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Point 1											
LWA to supply inlet [dBA]	67	45	48	51	57	57	50	48	43	47	56
LWA to supply outlet [dBA]	71	47	50	54	60	60	53	51	45	51	60
LWA to exhaust inlet [dBA]	63	44	47	51	50	46	43	36	28	43	52
LWA to exhaust outlet [dBA]	60	42	45	48	48	44	41	34	27	40	49
LWA to environment [dBA]	61	38	46	45	51	50	50	43	38	41	50
Point 4											
LWA to supply inlet [dBA]	58	42	45	48	48	48	41	35	28	38	47
LWA to supply outlet [dBA]	60	44	47	51	50	50	43	37	29	40	49
LWA to exhaust inlet [dBA]	54	44	47	51	41	36	32	23	23	34	43
LWA to exhaust outlet [dBA]	57	46	49	54	43	38	34	24	24	37	46
LWA to environment [dBA]	51	38	46	45	40	39	40	28	25	31	40

Point	Total power of the unit [W]	Sound pressure level at 3 m (1 m) [dBA]
1	345	41 (50)
2	345	41 (50)
3	345	40 (50)
4	139	31 (40)
5	139	30 (40)
6	139	30 (40)
7	44	21 (31)
8	44	21 (31)
9	44	21 (31)



Accessories

		KOMFORT Roto EC D 251	KOMFORT Roto EC D 351	KOMFORT Roto EC D 651
G4 panel filter		FP 266x222x48 Coarse 90% G4	FP 302x256x48 Coarse 90% G4	FP 377x330x48 Coarse 90% G4
F7 panel filter		FP 266x222x48 ePM1 60% F7	FP 302x256x48 ePM1 60% F7	FP 377x330x48 ePM1 60% F7
LCD Control panel		S25	S25	S25
Control panel		S22	S22	S22
Wireless control panel		S22 Wi-Fi	S22 Wi-Fi	S22 Wi-Fi
Internal humidity sensor		FS2	FS2	FS2
Internal CO ₂ sensor		CD-3	CD-3	CD-3
CO ₂ sensor with indication		CD-1	CD-1	CD-1
Humidity sensor		HR-S	HR-S	HR-S
Silencer		SD 160	SD 200	SD 250
Air damper		VKA 160	VKA 200	VKA 250
Electric actuator		TF230	TF230	TF 230