

KOMFORT RoTo EC S

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 747 m³/h
207 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 S ... L – left-handed unit.
- KOMFORT Roto EC S ... R – right-handed unit.

Air filtration

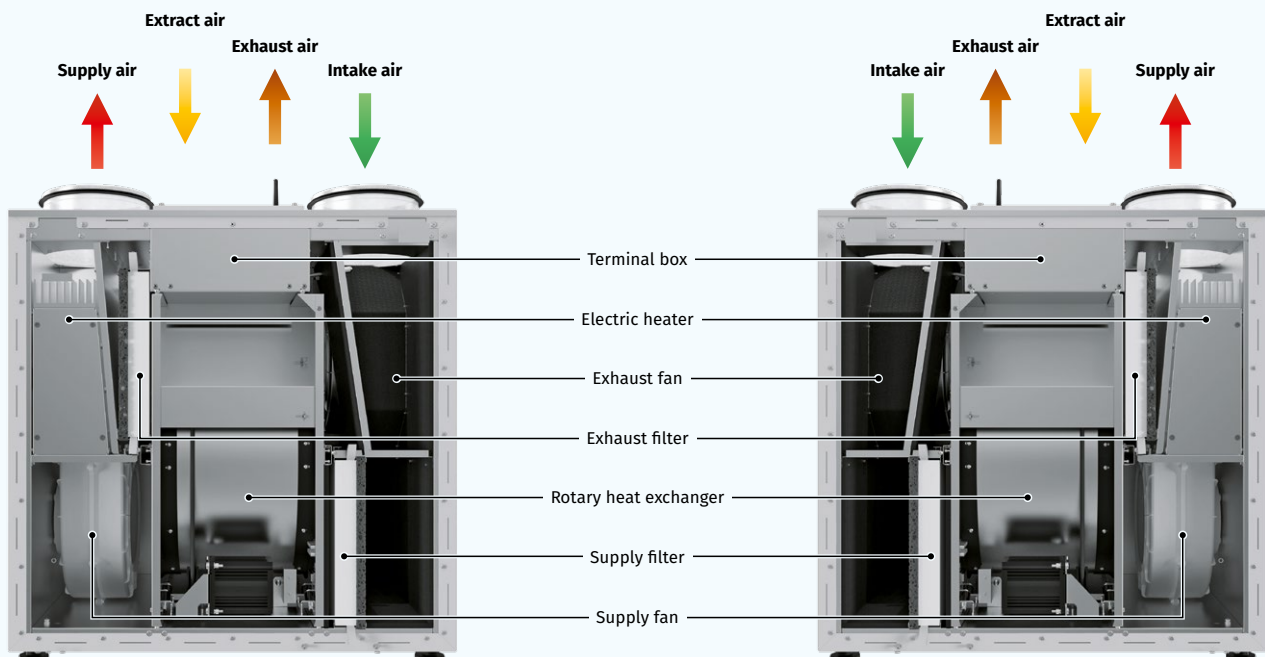
- Two built-in **Coarse 90% (G4)** filters provide efficient supply air filtration.
- Supply ePM1 65% (F7) filter available as an option.

Heater

- Units **KOMFORT Roto EC SE** are equipped with an electric heater.

KOMFORT ROTO EC S ... L

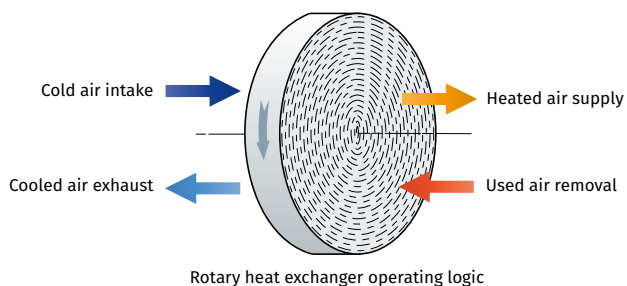
KOMFORT ROTO EC S ... R



AIR HANDLING UNITS WITH ROTARY HEAT EXCHANGER

Heat recovery

- o The unit has a high-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.



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	+
Cooler connection	+
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).

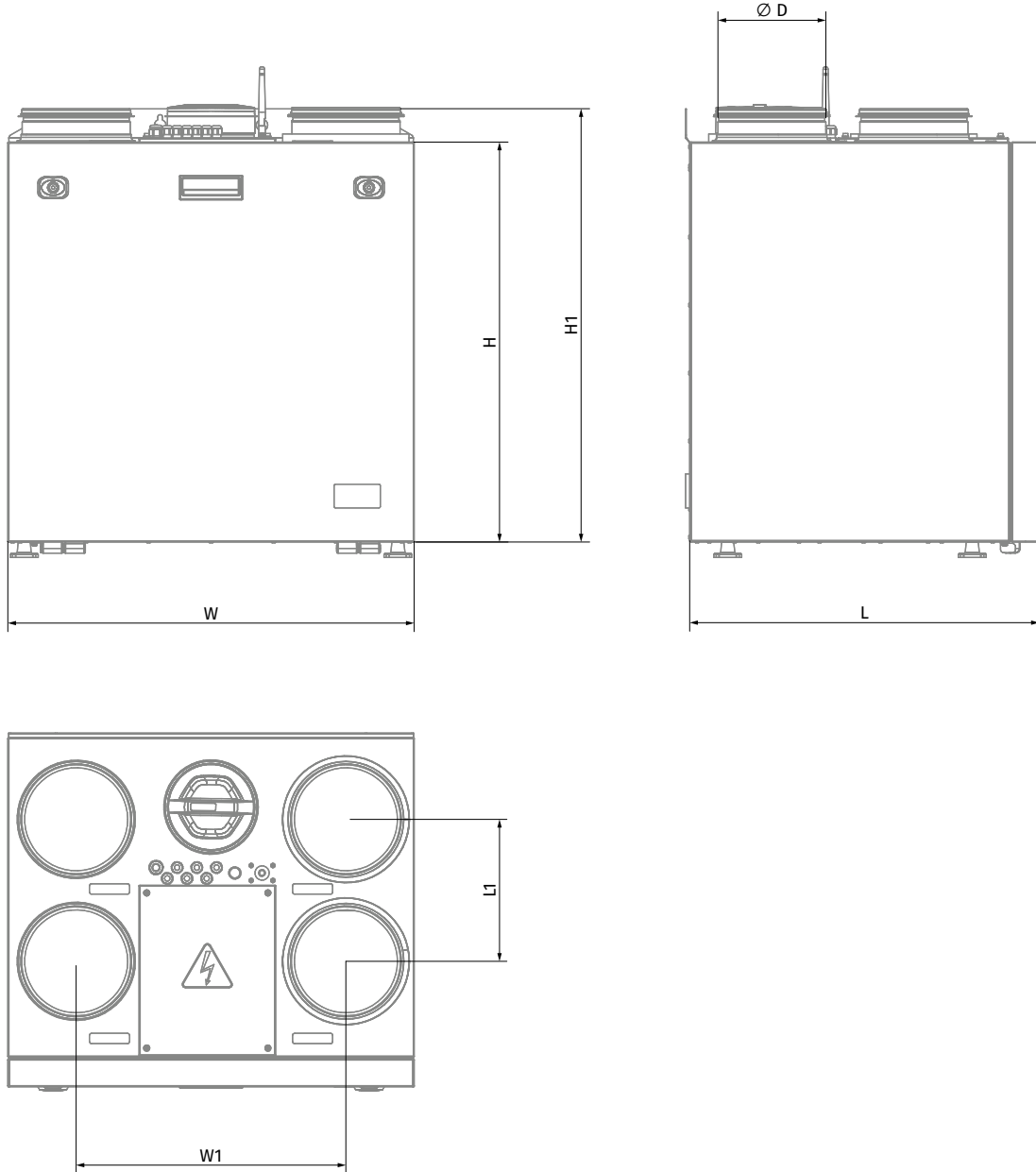
Designation key

Series	Motor	Casing type	Casing modification	Size (Nominal airflow / 10)	Modification	Heat exchanger type	Unit version	Control system
KOMFORT Roto	EC: electronically commutated motor	S: vertical	_: w/o heater E: electric reheater	28: 280 m³/h 40: 400 m³/h 60: 600 m³/h	1: by default	_: Condensing rotor -E: Sorption rotor	L: left version R: right version	S21

Dimensions [mm]

KOMFORT ROTO EC S 281, KOMFORT ROTO EC S 401

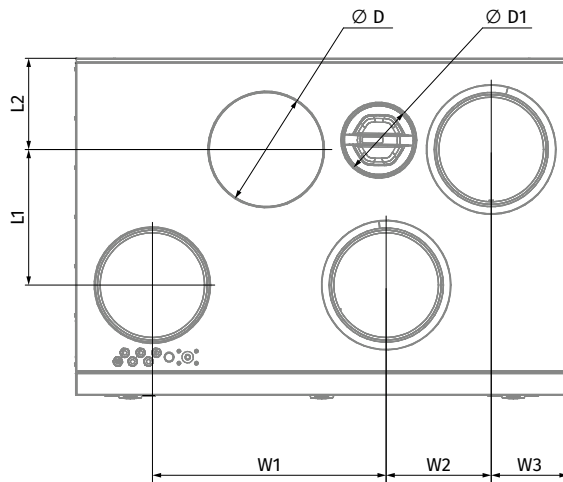
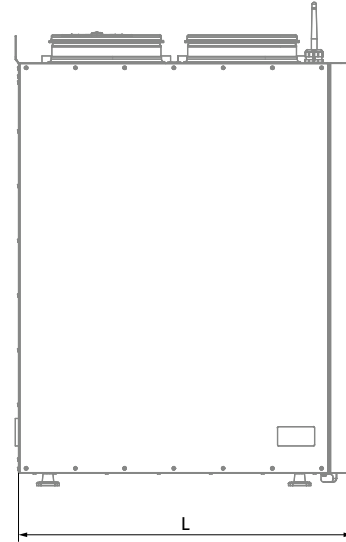
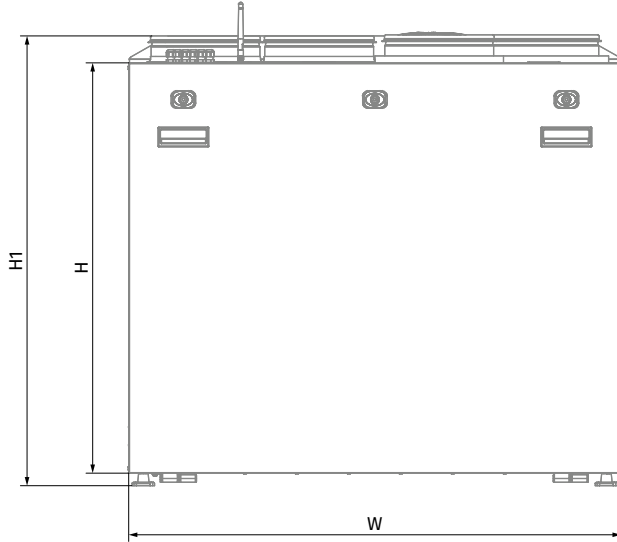
Model	Ø D	H	H1	L	L1	W	W1
KOMFORT Roto EC S 281	160	588	638	515	209	598	397
KOMFORT Roto EC S 401							



AIR HANDLING UNITS WITH ROTARY HEAT EXCHANGER

KOMFORT ROTO EC S 601

Model	Ø D	Ø D1	H	H1	L	L1	L2	W	W1	W2	W3
KOMFORT Roto EC S 601	200	125	750	828	609	248	167	900	427	192	140



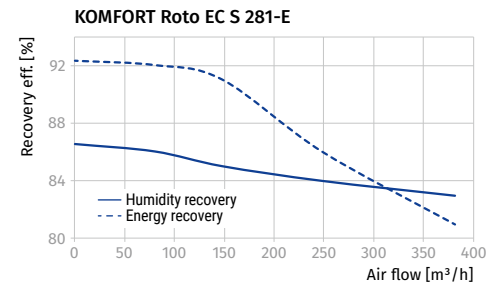
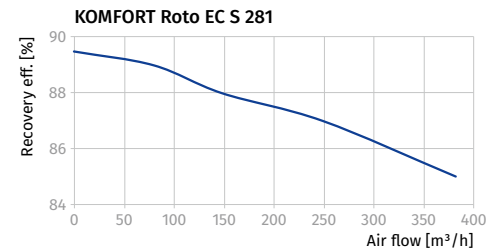
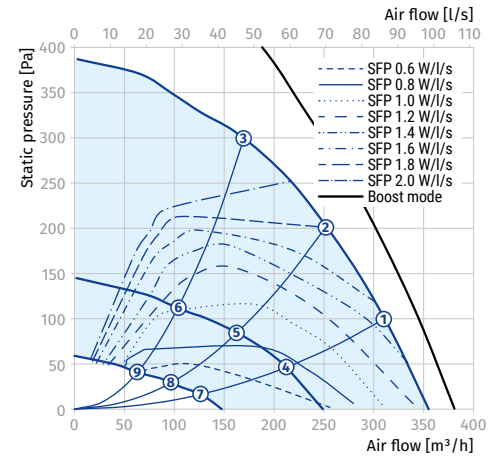
Technical data

Parameters	KOMFORT Roto EC S 281	KOMFORT Roto EC S 281-E	KOMFORT Roto EC SE 281	KOMFORT Roto EC SE 281-E
Voltage [V / 50-60 Hz]	230	230	230	230
Max. unit power without electric heater [W]	179	179	179	179
Max. power of electric heater [W]	-	-	1200	1200
Max. unit power [W]	179	179	1379	1379
Max. unit current without electric heater [A]	1.34	1.34	1.34	1.34
Max. unit current of electric heater [A]	-	-	5.32	5.32
Max. unit current [A]	1.34	1.34	6.66	6.66
Max. air flow [m ³ /h]	382	382	382	382
Sound pressure level at 3 m distance* [dBA]	26	26	26	26
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 filter	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]	57	57	57	57
Heat recovery efficiency [%]	89	86	89	86
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 S 281

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]	67	43	46	49	53	58	54	50	51	47	56
L _{WA} to supply outlet [dBA]	70	45	48	52	56	61	57	53	54	49	59
L _{WA} to exhaust inlet [dBA]	50	29	32	36	40	41	32	28	26	29	39
L _{WA} to exhaust outlet [dBA]	48	28	30	34	38	39	30	27	25	28	37
L _{WA} to environment [dBA]	54	30	38	37	41	44	42	38	34	33	43
Point 4											
L _{WA} to supply inlet [dBA]	63	38	41	45	49	54	48	45	46	43	52
L _{WA} to supply outlet [dBA]	65	40	43	47	52	57	51	47	48	44	54
L _{WA} to exhaust inlet [dBA]	46	24	27	31	34	37	26	23	24	25	35
L _{WA} to exhaust outlet [dBA]	48	25	28	33	36	39	27	24	25	26	37
L _{WA} to environment [dBA]	47	24	32	31	34	41	33	30	26	26	36

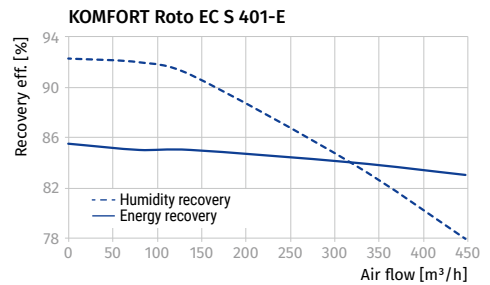
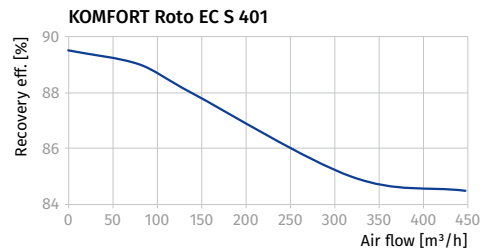
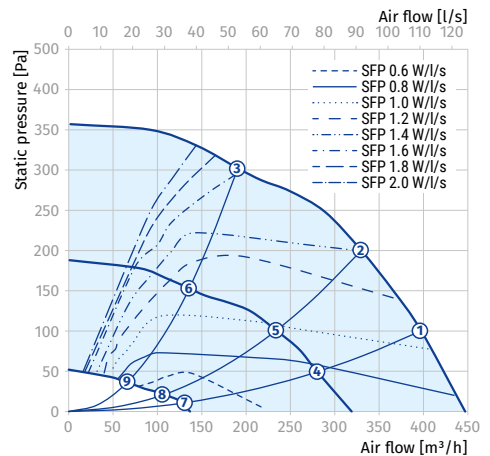


Parameters	KOMFORT Roto EC S 401	KOMFORT Roto EC S 401-E	KOMFORT Roto EC SE 401	KOMFORT Roto EC SE 401-E
Voltage [V / 50-60 Hz]	230	230	230	230
Max. unit power without electric heater [W]	257	257	257	257
Max. power of electric heater [W]	-	-	1200	1200
Max. unit power [W]	257	257	1457	1457
Max. unit current without electric heater [A]	1.76	1.76	1.76	1.76
Max. unit current of electric heater [A]	-	-	5.32	5.32
Max. unit current [A]	1.76	1.76	7.08	7.08
Max. air flow [m³/h]	447	447	447	447
Sound pressure level at 3 m distance* [dBA]	28	28	28	28
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 filter	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]	58	58	58	58
Heat recovery efficiency [%]	89	85	89	85
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 S 401

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]	61	42	45	48	51	52	45	42	44	42	50
LWA to supply outlet [dBA]	64	44	47	51	54	55	47	44	46	44	53
LWA to exhaust inlet [dBA]	56	38	41	45	46	47	39	35	29	36	45
LWA to exhaust outlet [dBA]	53	36	39	43	44	45	37	33	28	34	43
LWA to environment [dBA]	57	35	43	42	45	44	44	43	38	37	46
Point 4											
LWA to supply inlet [dBA]	56	33	36	40	44	51	36	32	31	37	46
LWA to supply outlet [dBA]	58	35	38	42	46	54	38	34	33	38	47
LWA to exhaust inlet [dBA]	47	28	31	35	37	40	26	23	24	26	36
LWA to exhaust outlet [dBA]	49	29	33	37	39	42	27	24	25	27	38
LWA to environment [dBA]	48	29	37	36	38	37	35	33	26	28	37



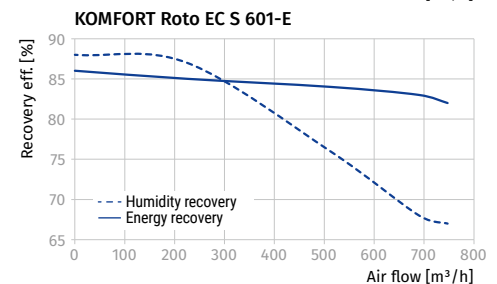
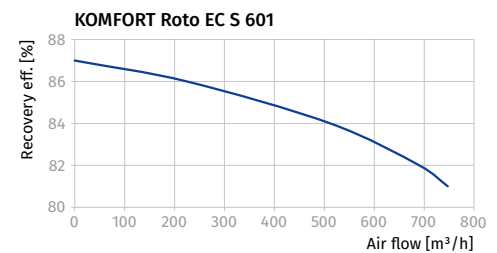
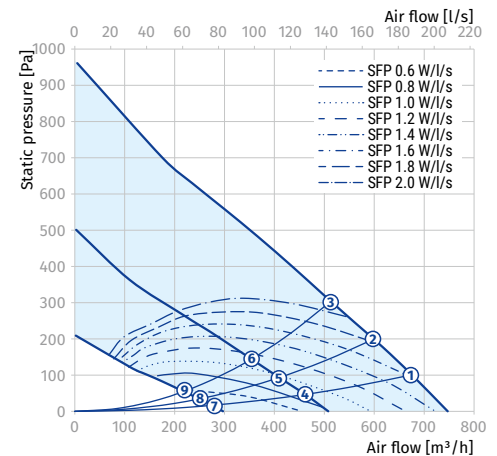
AIR HANDLING UNITS WITH ROTARY HEAT EXCHANGER

Parameters	KOMFORT Roto EC S 601	KOMFORT Roto EC S 601-E	KOMFORT Roto EC SE 601	KOMFORT Roto EC SE 601-E
Voltage [V / 50-60 Hz]	230	230	230	230
Max. unit power without electric heater [W]	336	336	336	336
Max. power of electric heater [W]	-	-	1400	1400
Max. unit power [W]	336	336	1736	1736
Max. unit current without electric heater [A]	2.3	2.3	2.3	2.3
Max. unit current of electric heater [A]	-	-	6.21	6.21
Max. unit current [A]	2.3	2.3	8.51	8.51
Max. air flow [m ³ /h]	747	747	747	747
Sound pressure level at 3 m distance* [dBA]	29	29	29	29
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 filter	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]	90	90	90	90
Heat recovery efficiency [%]	87	86	87	86
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 S 601

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]	68	43	46	49	55	55	55	52	46	47	57
LWA to supply outlet [dBA]	72	45	48	52	58	58	58	55	48	51	61
LWA to exhaust inlet [dBA]	57	38	41	45	42	44	41	36	28	36	46
LWA to exhaust outlet [dBA]	54	36	39	43	40	42	39	34	27	33	43
LWA to environment [dBA]	61	38	46	45	44	49	47	40	36	40	50
Point 4											
LWA to supply inlet [dBA]	59	42	45	48	50	48	44	40	33	38	48
LWA to supply outlet [dBA]	61	44	47	51	53	50	46	42	35	40	50
LWA to exhaust inlet [dBA]	50	39	42	46	37	37	33	25	24	29	39
LWA to exhaust outlet [dBA]	53	41	44	48	39	39	35	26	25	32	42
LWA to environment [dBA]	50	36	44	43	35	37	39	29	27	29	39



Accessories

		KOMFORT Roto EC S 281	KOMFORT Roto EC S 401	KOMFORT Roto EC S 601
G4 panel filter		FP 428x220x40 Coarse 90% G4	FP 428x220x40 Coarse 90% G4	FP 522x240x48 Coarse 90% G4
F7 panel filter		FP 428x220x40 ePM1 60% F7	FP 428x220x40 ePM1 60% F7	FP 522x240x48 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	-
Humidity sensor		HR-S	HR-S	HR-S
Silencer		SD 125	SD 125	SD 200
Air damper		VKA 125	VKA 125	VKA 200
Electric actuator		TF230	TF230	TF230