

# 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 447 m<sup>3</sup>/h  
124 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

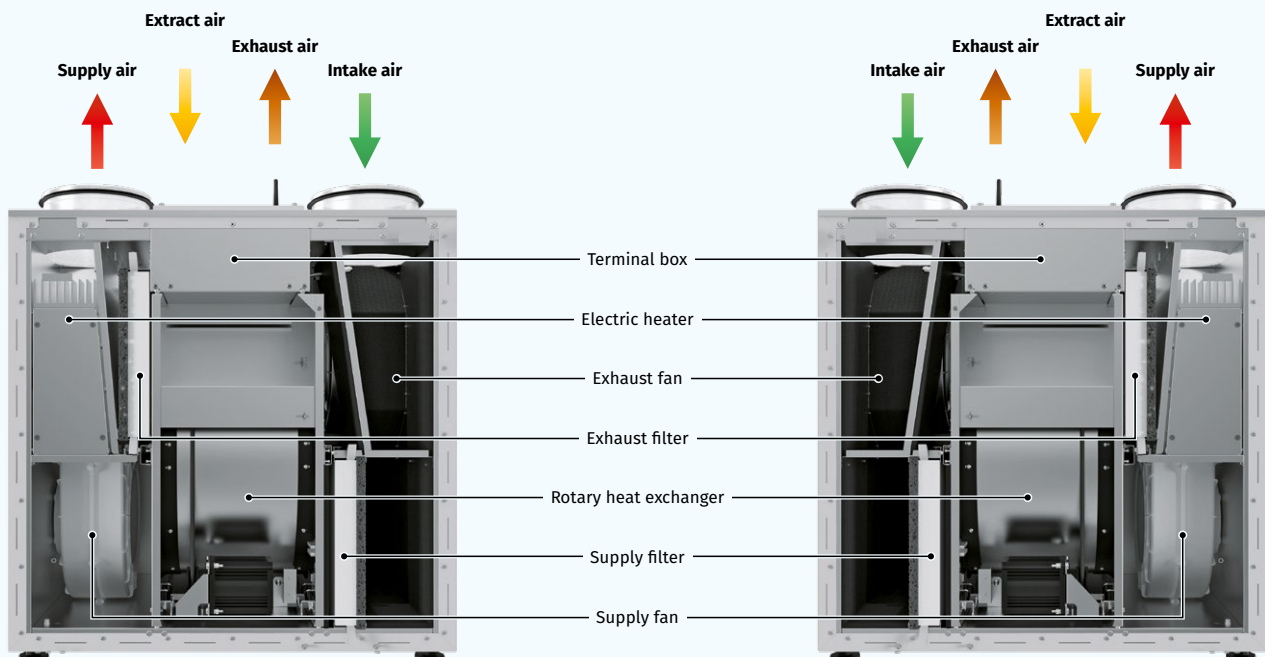
- Two built-in **Coarse 90% (G4)** filters provide efficient supply air filtration.
- Supply ePM1 65% (F7) filter available as an option.

## Heater

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

KOMFORT ROTO EC S ... L

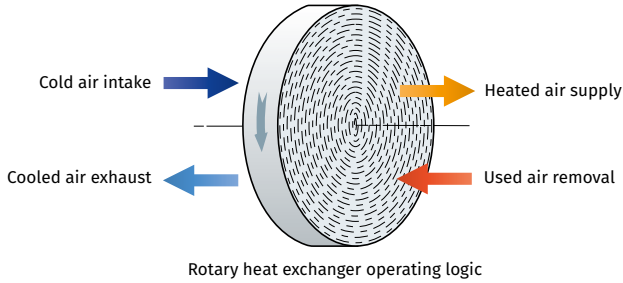
KOMFORT ROTO EC S ... R



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
CO <sub>2</sub> control	option
VOC control	option
PM2.5 control	option
Fire alarm sensor connection	option

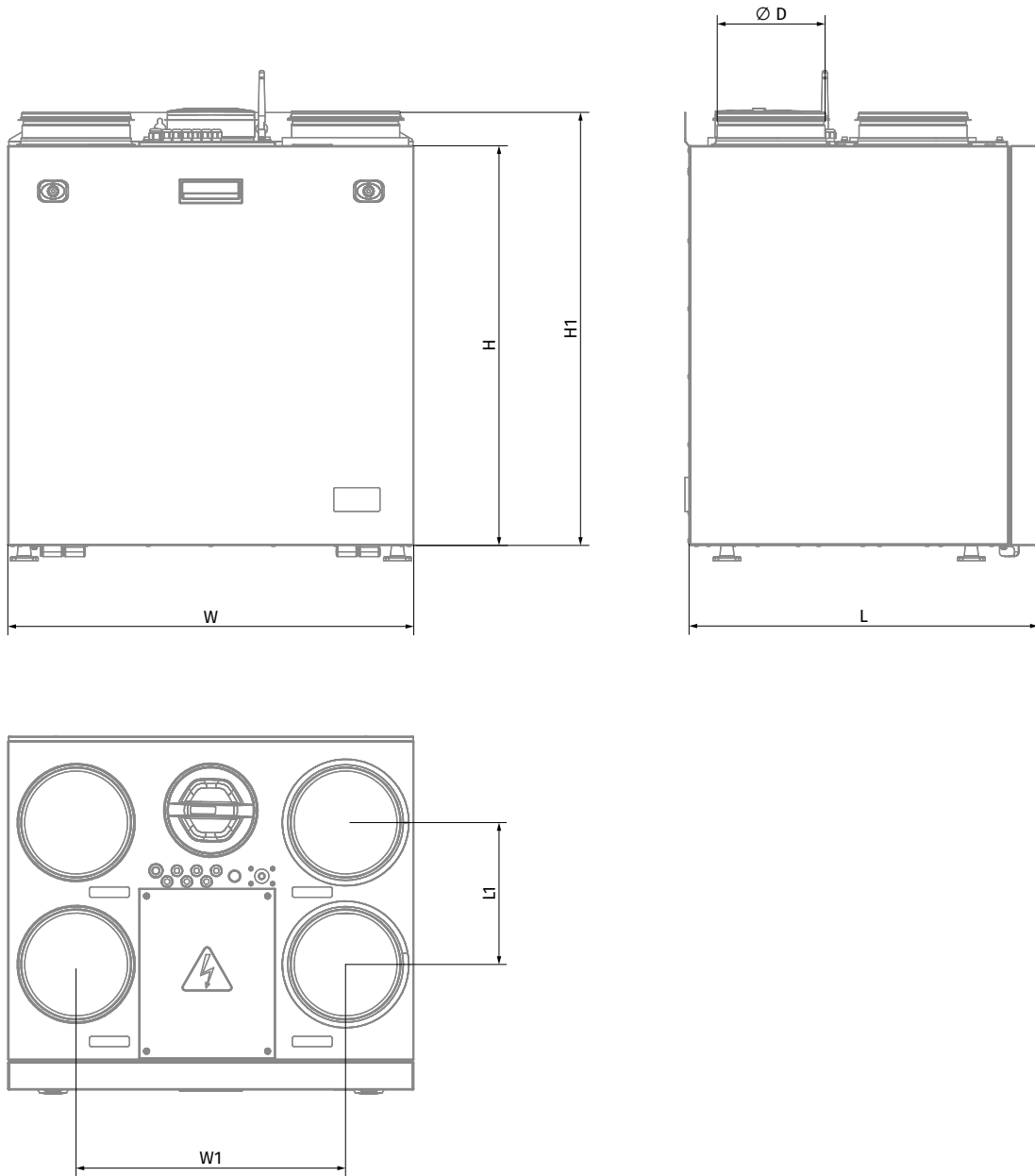
Option: the function is available when purchasing the appropriate accessory (see the "Accessories" section).

### 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 m <sup>3</sup> /h 40: 400 m <sup>3</sup> /h	1: by default	_: Condensing rotor -E: Sorption rotor	L: left version R: right version	S21

**Overall dimensions [mm]**

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



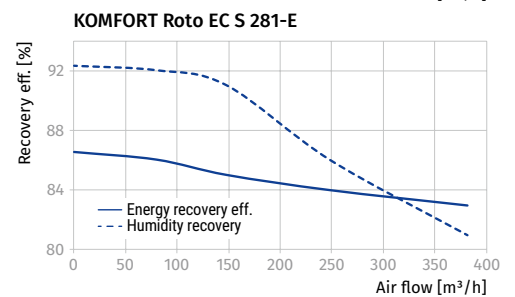
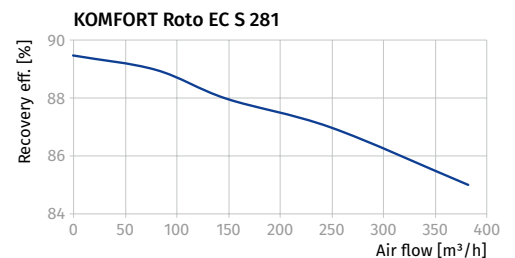
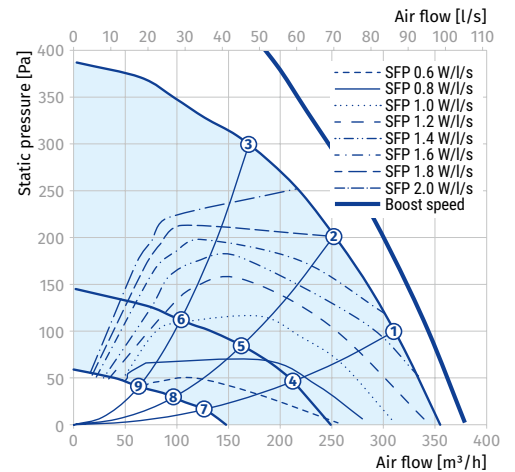
AIR HANDLING UNITS WITH ROTARY HEAT EXCHANGER

### 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 <sup>3</sup> /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 [dBA].

Komfort Roto EC S 281 Sound-power level, A - weighted	General dB(A)	Octave frequency band, Hz								LpA, 3m dB(A)	LpA, 1m dB(A)	
		63	125	250	500	1000	2000	4000	8000			
<b>Point 1</b>												
L <sub>WA</sub> to supply inlet	dB(A)	67	43	46	49	53	58	54	50	51	47	56
L <sub>WA</sub> to supply outlet	dB(A)	70	45	48	52	56	61	57	53	54	49	59
L <sub>WA</sub> to exhaust inlet	dB(A)	50	29	32	36	40	41	32	28	26	29	39
L <sub>WA</sub> to exhaust outlet	dB(A)	48	28	30	34	38	39	30	27	25	28	37
L <sub>WA</sub> to environment	dB(A)	54	30	38	37	41	44	42	38	34	33	43
<b>Point 4</b>												
L <sub>WA</sub> to supply inlet	dB(A)	63	38	41	45	49	54	48	45	46	43	52
L <sub>WA</sub> to supply outlet	dB(A)	65	40	43	47	52	57	51	47	48	44	54
L <sub>WA</sub> to exhaust inlet	dB(A)	46	24	27	31	34	37	26	23	24	25	35
L <sub>WA</sub> to exhaust outlet	dB(A)	48	25	28	33	36	39	27	24	25	26	37
L <sub>WA</sub> to environment	dB(A)	47	24	32	31	34	41	33	30	26	26	36

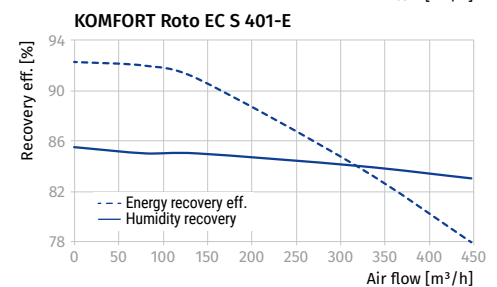
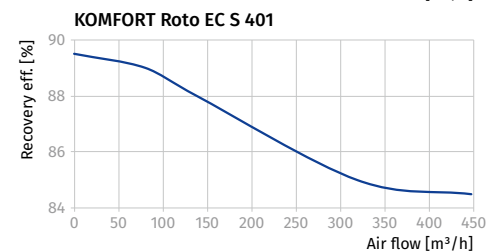
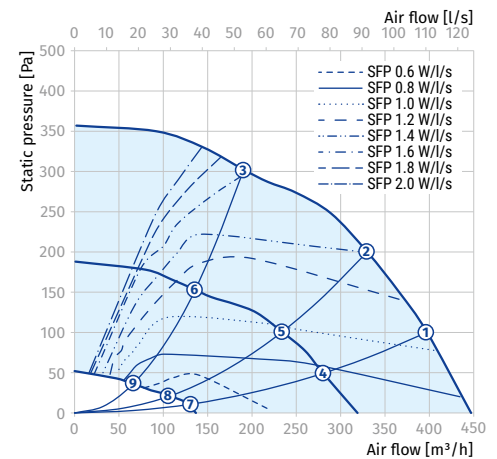


AIR HANDLING UNITS WITH ROTARY HEAT EXCHANGER













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 [dBA].

Komfort Roto EC S 401 Sound-power level, A - weighted	General dB(A)	Octave frequency band, Hz								LpA, 3m dB(A)	LpA, 1m dB(A)	
		63	125	250	500	1000	2000	4000	8000			
<b>Point 1</b>												
LWA to supply inlet	dB(A)	61	42	45	48	51	52	45	42	44	42	50
LWA to supply outlet	dB(A)	64	44	47	51	54	55	47	44	46	44	53
LWA to exhaust inlet	dB(A)	56	38	41	45	46	47	39	35	29	36	45
LWA to exhaust outlet	dB(A)	53	36	39	43	44	45	37	33	28	34	43
LWA to environment	dB(A)	57	35	43	42	45	44	44	43	38	37	46
<b>Point 4</b>												
LWA to supply inlet	dB(A)	56	33	36	40	44	51	36	32	31	37	46
LWA to supply outlet	dB(A)	58	35	38	42	46	54	38	34	33	38	47
LWA to exhaust inlet	dB(A)	47	28	31	35	37	40	26	23	24	26	36
LWA to exhaust outlet	dB(A)	49	29	33	37	39	42	27	24	25	27	38
LWA to environment	dB(A)	48	29	37	36	38	37	35	33	26	28	37



## Accessories

		KOMFORT Roto EC S 281	KOMFORT Roto EC S 401
G4 panel filter		FP 428x220x40 Coarse 90% G4	FP 428x220x40 Coarse 90% G4
F7 panel filter		FP 428x220x40 ePM1 60% F7	FP 428x220x40 ePM1 60% F7
LCD Control panel		S25	S25
Control panel		S22	S22
Wireless control panel		S22 Wi-Fi	S22 Wi-Fi
Internal humidity sensor		FS2	FS2
Internal CO <sub>2</sub> sensor		CD-3	CD-3
CO <sub>2</sub> sensor with indication		CD-1	CD-1
Humidity sensor		HR-S	HR-S
Silencer		SD 125	SD 125
Air damper		VKA 125	VKA 125
Electric actuator		TF230	TF230