

# 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 92 %



## 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

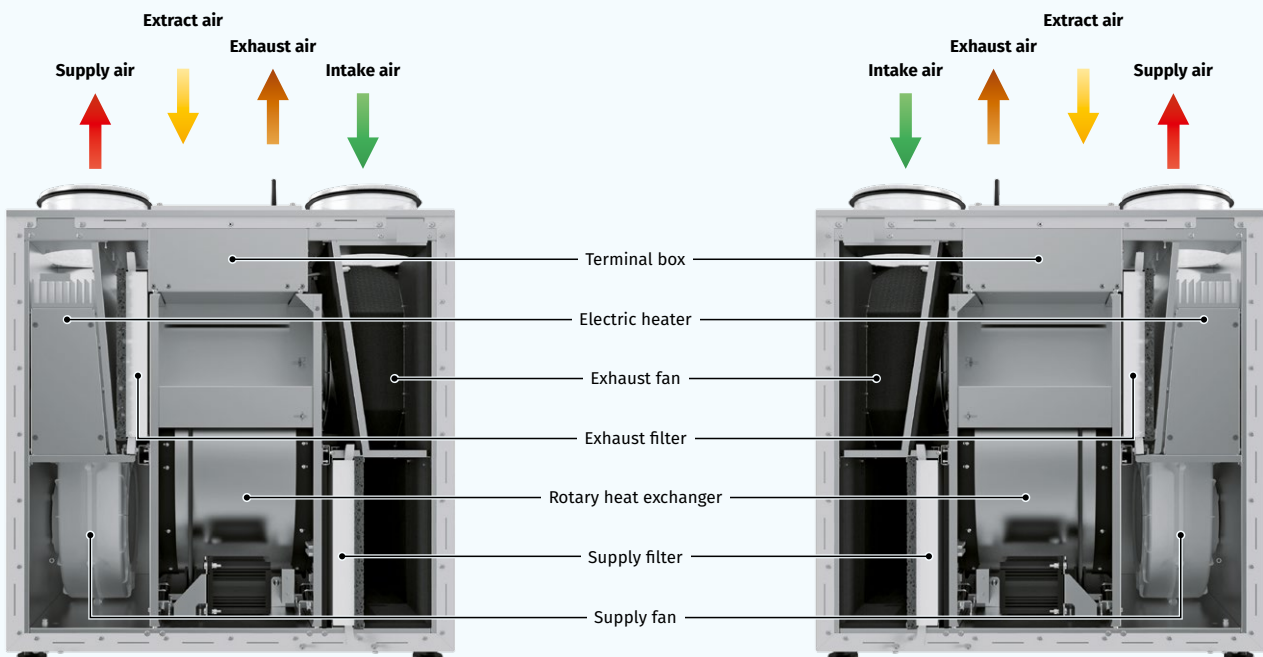
- Two built-in **Coarse 90% (G4)** filters provide efficient supply air filtration.
- Supply ePM1 65% (F7) filter available as an option.

## Heater

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

KOMFORT ROTO EC S ... L

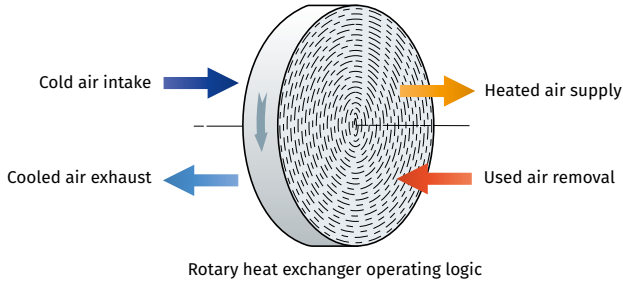
KOMFORT ROTO EC S ... R



AIR HANDLING UNITS WITH ROTARY HEAT EXCHANGER

### Heat recovery

- The unit has a high-efficient rotary heat exchanger
- 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

- The units are equipped with an integrated automation system. The remote control panel is not included in the delivery set (purchased separately).
- The S21 controller allows to integrate the unit into the **Smart Home** system or **BMS (Building Management System)**.
- 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   |

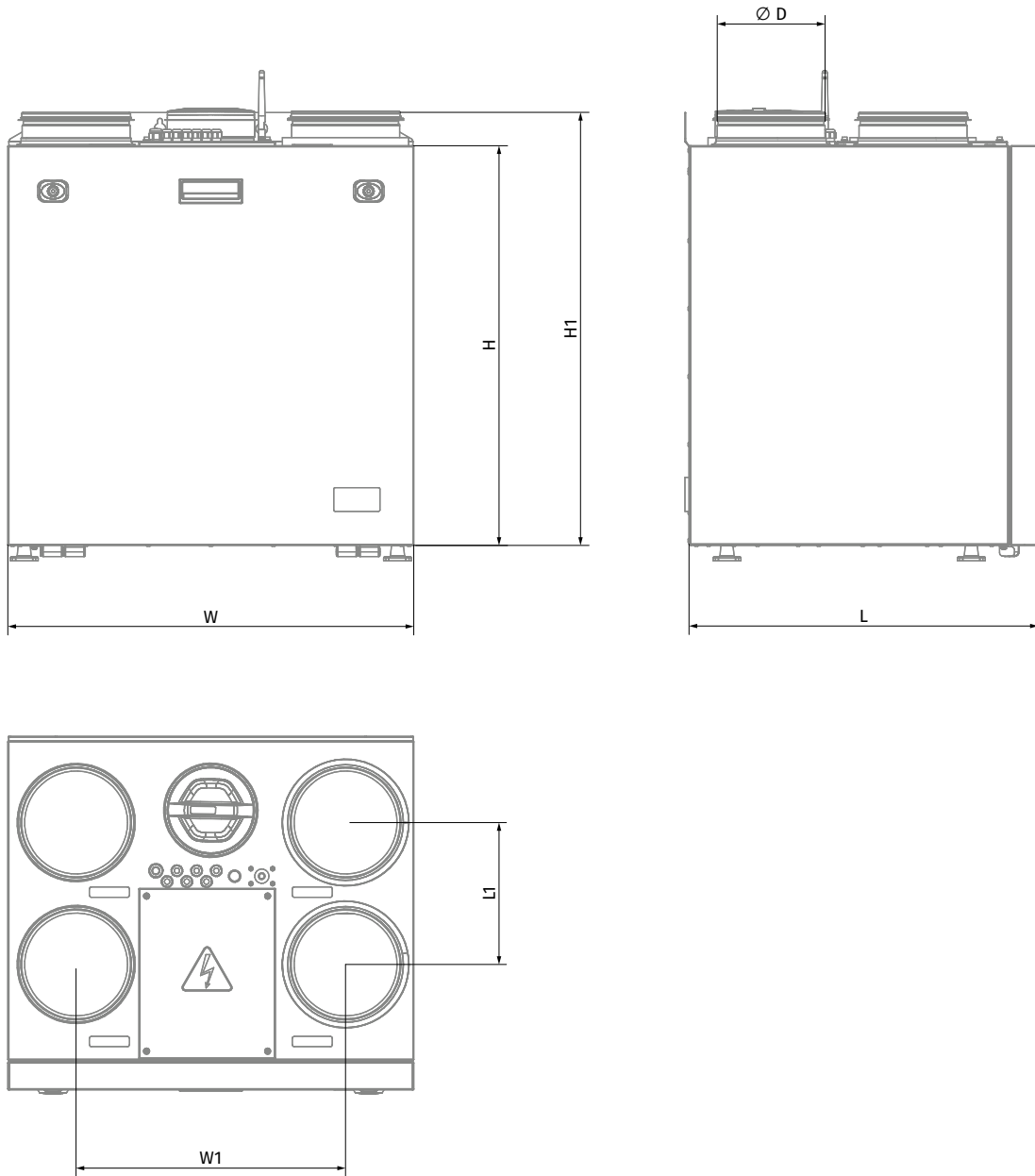
Option: the function is available when purchasing the appropriate accessory (see the "Accessories" section).

### 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<br>E: electric reheater | 28: 280 m <sup>3</sup> /h<br>40: 400 m <sup>3</sup> /h | 1: by default | _: Condensing rotor<br>-E: Sorption rotor | L: left version<br>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 |

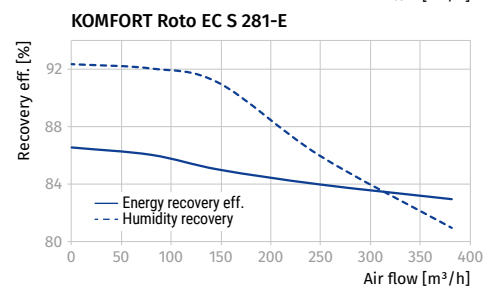
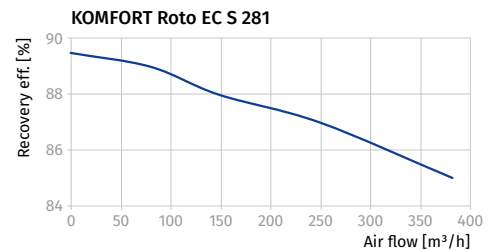
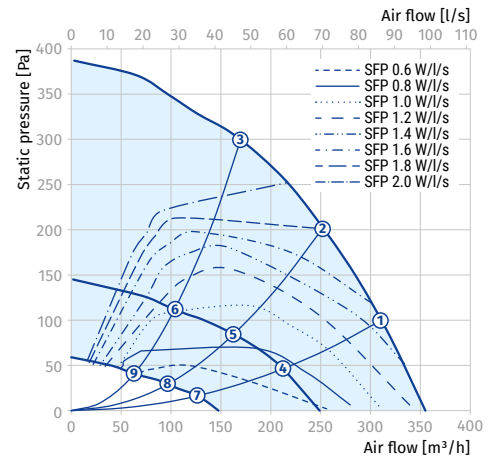


AIR HANDLING UNITS WITH ROTARY HEAT EXCHANGER

### 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]   | 176                                      | 176                                      | 176                                      | 176                                      |
| Max. power of electric heater [W]             | -  | -  | 1200                                     | 1200                                     |
| Max. unit power [W]                           | 176                                      | 176                                      | 1376                                     | 1376                                     |
| 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 [m³/h]                          | 382                                      | 382                                      | 382                                      | 382                                      |
| 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]                                   | 67                                       | 68                                       | 67                                       | 68                                       |
| Heat recovery efficiency [%]                  | 89                                       | 86                                       | 89                                       | 86                                       |
| Heat exchanger type                           | Condensing                               | Sorption                                 | Condensing                               | Sorption                                 |
| SEC class                                     | A+                                       | A+                                       | A+                                       | A+                                       |

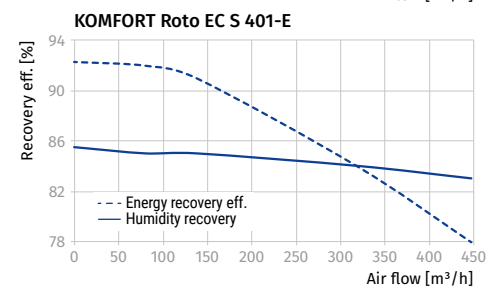
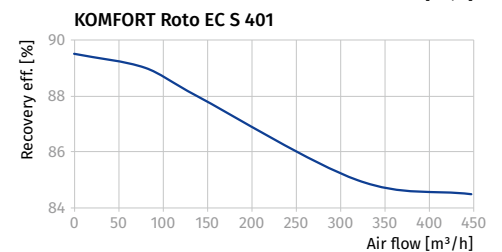
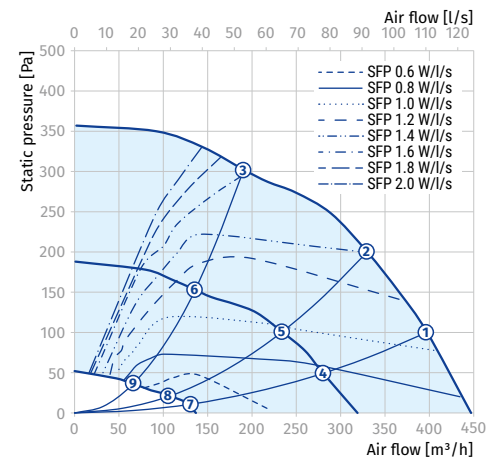
| Sound power level, A-weighted        | Total     | Octave frequency band [Hz] |     |     |     |      |      |      |      | LpA 3 m   | LpA 1 m   |
|--------------------------------------|-----------|----------------------------|-----|-----|-----|------|------|------|------|-----------|-----------|
|                                      |           | 63                         | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |           |           |
| <b>Point 1</b>                       |           |                            |     |     |     |      |      |      |      |           |           |
| L <sub>WA</sub> to environment [dBA] | <b>49</b> | 31                         | 39  | 38  | 36  | 38   | 37   | 35   | 28   | <b>28</b> | <b>38</b> |
| <b>Point 4</b>                       |           |                            |     |     |     |      |      |      |      |           |           |
| L <sub>WA</sub> to environment [dBA] | <b>39</b> | 19                         | 27  | 26  | 26  | 22   | 22   | 20   | 24   | <b>17</b> | <b>27</b> |















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]   | 222                                      | 222                                      | 222                                      | 222                                      |
| Max. power of electric heater [W]             | -  | -  | 1200                                     | 1200                                     |
| Max. unit power [W]                           | 222                                      | 222                                      | 1422                                     | 1422                                     |
| Max. unit current without electric heater [A] | 1.6                                      | 1.6                                      | 1.6                                      | 1.6                                      |
| Max. unit current of electric heater [A]      | -  | -  | 5.32                                     | 5.32                                     |
| Max. unit current [A]                         | 1.6                                      | 1.6                                      | 6.92                                     | 6.92                                     |
| Max. air flow [m <sup>3</sup> /h]             | 447                                      | 447                                      | 447                                      | 447                                      |
| Sound pressure level at 3 m distance [dBA]    | 37                                       | 37                                       | 37                                       | 37                                       |
| 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]                                   | 69                                       | 70                                       | 69                                       | 70                                       |
| Heat recovery efficiency [%]                  | 89                                       | 85                                       | 89                                       | 85                                       |
| Heat exchanger type                           | Condensing                               | Sorption                                 | Condensing                               | Sorption                                 |
| SEC class                                     | A+                                       | A  | A+                                       | A  |

| Sound power level, A-weighted        | Total     | Octave frequency band [Hz] |     |     |     |      |      |      |      | LpA 3 m   | LpA 1 m   |
|--------------------------------------|-----------|----------------------------|-----|-----|-----|------|------|------|------|-----------|-----------|
|                                      |           | 63                         | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |           |           |
| <b>Point 1</b>                       |           |                            |     |     |     |      |      |      |      |           |           |
| L <sub>WA</sub> to environment [dBA] | <b>57</b> | 35                         | 43  | 42  | 45  | 44   | 44   | 43   | 38   | <b>37</b> | <b>46</b> |
| <b>Point 4</b>                       |           |                            |     |     |     |      |      |      |      |           |           |
| L <sub>WA</sub> to environment [dBA] | <b>48</b> | 29                         | 37  | 36  | 38  | 37   | 35   | 33   | 26   | <b>28</b> | <b>37</b> |



## 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                       |