

# RENEO-FIT D 100 / 120

## Heat and energy recovery air handling units

### Features

- Air handling units for efficient supply and exhaust ventilation in flats and apartments.
- Heat recovery minimizes ventilation heat losses during cold season and reduce air conditioner load during hot season.
- Controllable air exchange for creating the best suitable indoor microclimate.



**Air flow:**  
up to 156 m<sup>3</sup>/h  
43.3 l/s



**Heat recovery efficiency:**  
up to 94 %



### Design

- The casing is made of expanded polypropylene (EPP) with high heat- and sound-insulating properties.
- **Reneo-Fit D 100/120 L** – left-handed unit.
- **Reneo-Fit D 100/120 R** – right-handed unit.

### Fans

- High-efficient external rotor EC motors and centrifugal impellers with forward curved blades are used for air supply and exhaust.

### Air filtration

- Two built-in **Coarse > 60% (G4)** and **ePM1 60% (F7)** filters provide efficient supply air filtration.
- The **Coarse > 60% (G4)** filter is used for extract air filtration.

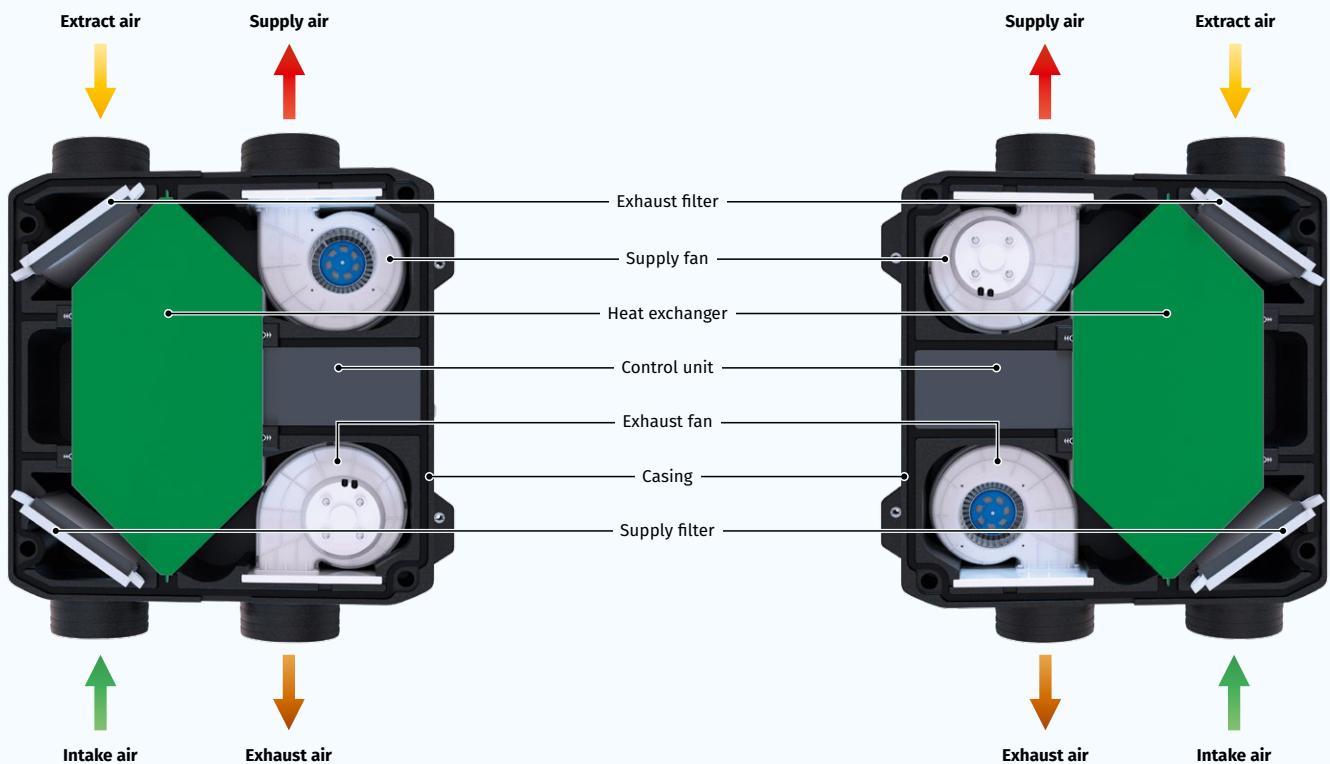
### Mounting

- The units are designed for suspended ceiling mounting.
- Service access for maintenance and filter replacement must be provided.

COUNTERFLOW RESIDENTIAL AHU IN EPP CASING

RENEO-FIT D 100/120 L

RENEO-FIT D 100/120 R



### Heat recovery

- o The **Reneo-Fit D 100/120** unit is equipped with a counter-flow polysterene heat exchanger for heat recovery. The unit condensate is collected and drained to the drain pan under the heat exchanger.
- o The **Reneo-Fit D 100/120-E** unit is equipped with an enthalpy counter-flow heat exchanger for heat and humidity recovery.



### Control and automation

- o **Reneo-Fit D 100/120 S21** units are equipped with an integrated automation system. The remote control panel is not included in the delivery set.
- 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 **Blauberg Home** app for Android







Download the **Blauberg Home** app for iOS



- o The **Reneo-Fit D 100/120 S14** units are equipped with an integrated automation system and an S14 wall-mounted sensor control panel.

### Automation functions

Functions	Reneo-Fit D S21	Reneo-Fit D S14
Unit control via Wi-Fi using a mobile application	+	-
Unit control via a wired remote control panel	S22 control panel (option) 	S14 control panel 
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	by filter timer
	by filter clogging differential pressure switch	-
Alarm indication	full alarm description in the mobile application	LED alarm indication
Week-scheduled operation	+	-
Bypass	-	-
Timer	+	-
Boost mode	+	-
Fireplace mode	+	-
Freeze protection	through cyclic stops of the supply fan	through cyclic stops of the supply fan
	through preheating (option)	-
Preheater connection	option	-
Reheater connection	option	-
Minimum supply air temperature control	+	-
Humidity control	option	option
CO <sub>2</sub> control	option	option
VOC control	option	-
PM2.5 control	option	-
Fire alarm sensor connection	option	option

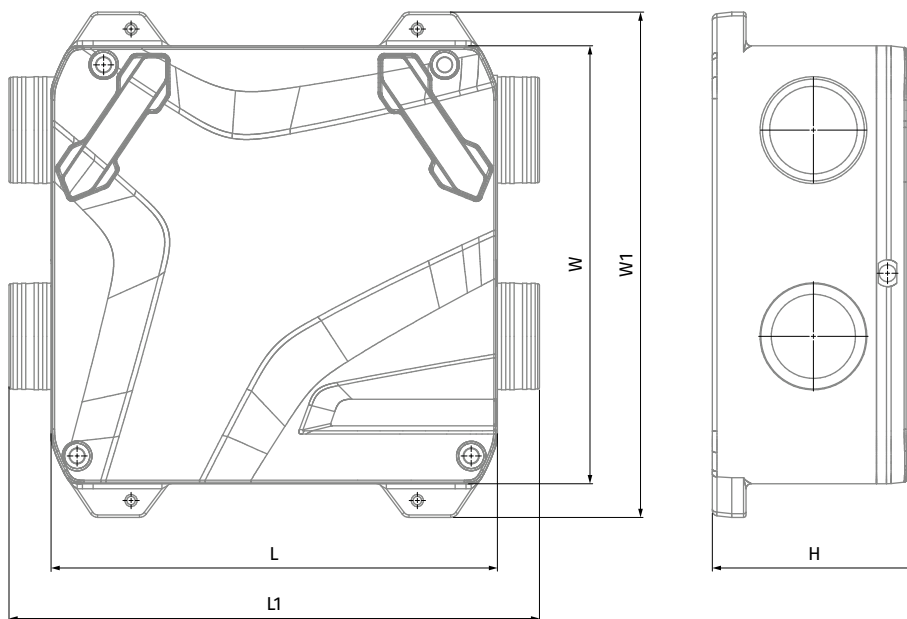
Option: the function is available when purchasing the appropriate accessory (see the "Accessories" section).

### Designation key

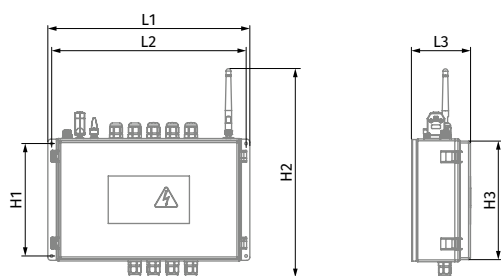
Series	Casing modification	Casing type	Heater	Nominal size	Modification	Heat exchanger type	Unit version	Controller type
Reneo	- Fit: compact	D: suspended	-: w/o heater	10: Nominal airflow	0: by default	-: heat recovery E: energy recovery	L: left-handed R: right-handed	S21, S14

### Dimensions [mm]

Model	H	L	L1	W	W1
Reneo-Fit D 100/120(-E)	242	530	630	520	600



	L1	L2	L3	H1	H2	H3
External automation unit (only units with S21 automation)	324	313	93	180	330	196



### Technical data

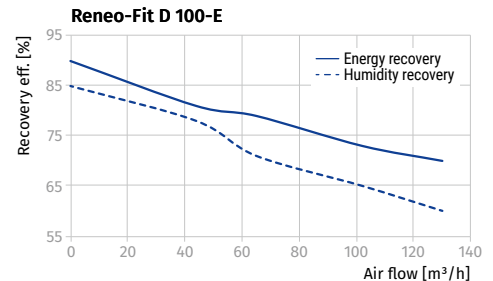
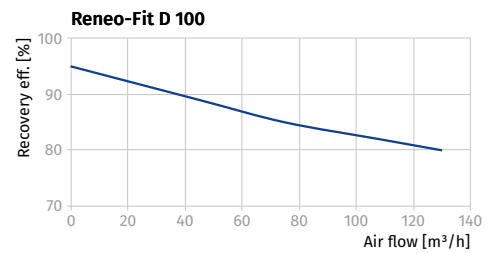
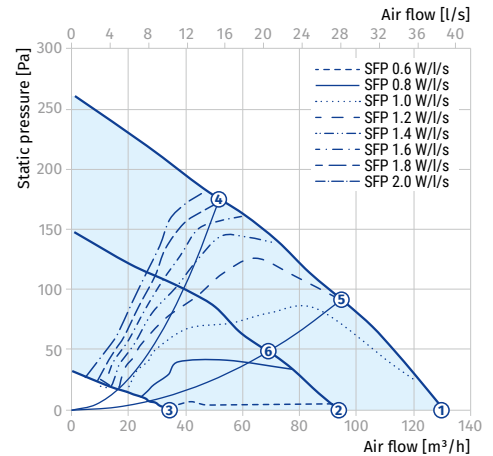
Parameters	Reneo-Fit D 100	Reneo-Fit D 100-E
Voltage [V / 50 (60) Hz]	1 ~ 230	1 ~ 230
Power [W]	45	45
Current [A]	0.34	0.34
Maximum air flow [m³/h (l/s)]	130 (36)	130 (36)
Sound pressure level at 3 m* [dBA]	25	25
Transported air temperature [°C]	-23...+40	-23...+40
Casing material	EPP	EPP
Insulation [mm]	25	25
Extract filter	G4 / Coarse >60 %	G4 / Coarse >60 %
Supply filter	G4 / Coarse >60 % (option: F7 / ePM1 60 %)	G4 / Coarse >60 % (option: F7 / ePM1 60 %)
Connected air duct diameter [mm]	100 / 125	100 / 125
Weight [kg]	8	8
Heat recovery efficiency [%]	82-94	73-88
Heat exchanger type	counter-flow	counter-flow
Heat exchanger material	polystyrene	enthalpy membrane
SEC class	A+	A

\* Sound pressure level at 3 m distance is specified at point 4 [dBA] in average spherical free-field, for comparative use only.

Sound power level, A-weighted	Total	Octave frequency band [Hz]							LpA 3 m	LpA 1 m
		200	400	800	1000	2000	4000	8000		
L <sub>WA</sub> to supply outlet [dBA]	59	44	45	49	51	44	37	38	38	48
L <sub>WA</sub> to exhaust inlet [dBA]	47	41	36	33	31	29	22	24	27	36
L <sub>WA</sub> to environment [dBA]	53	37	41	43	42	38	34	29	33	42

Sound data provided for point 5 on the diagram.

Point	Air flow [m³h (l/s)]	Total sound pressure level (breakout) at 3 m (1 m) distance [dB(A)]
1	130 (36) @ 0 Pa	32 (42)
2	91 (25) @ 0 Pa	25 (35)
3	52 (14) @ 0 Pa	16 (26)
4	52 (14) @ 171 Pa	31 (41)
5	96 (27) @ 92 Pa	33 (42)
6	68 (19) @ 50 Pa	25 (34)



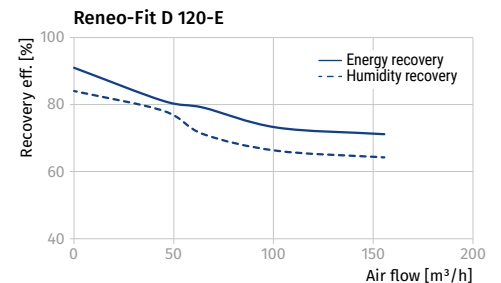
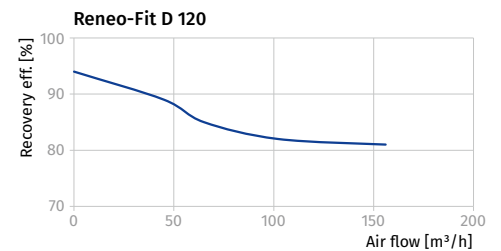
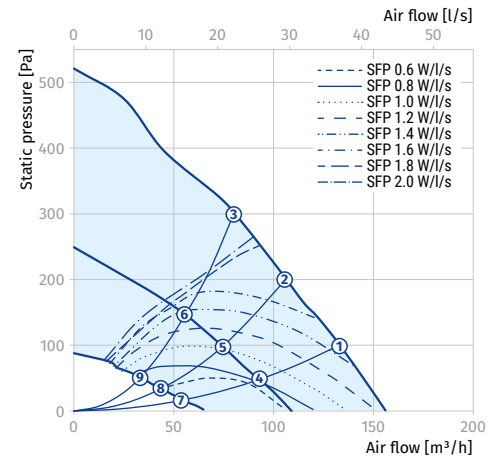
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Parameters	Reneo-Fit D 120	Reneo-Fit D 120-E
Voltage [V / 50 (60) Hz]	1 ~ 230	1 ~ 230
Power [W]	59	59
Current [A]	0.5	0.5
Maximum air flow [m <sup>3</sup> /h (l/s)]	156 (43)	156 (43)
Sound pressure level at 3 m* [dBA]	27	27
Transported air temperature [°C]	-23...+40	-23...+40
Casing material	EPP	EPP
Insulation [mm]	25	25
Extract filter	G4 / Coarse >60 %	G4 / Coarse >60 %
Supply filter	G4 / Coarse >60 % (option: F7 / ePM1 60 %)	G4 / Coarse >60 % (option: F7 / ePM1 60 %)
Connected air duct diameter [mm]	100 / 125	100 / 125
Weight [kg]	8	8
Heat recovery efficiency [%]	94	81
Heat exchanger type	counter-flow	counter-flow
Heat exchanger material	polystyrene	enthalpy membrane
SEC class	A	A

\* Sound pressure level at 3 m distance is specified at point 4 [dBA] in average spherical free-field, for comparative use only.

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>											
LWA to supply inlet [dBA]	62	33	36	40	50	53	49	47	45	43	51
LWA to supply outlet [dBA]	65	35	38	42	53	56	52	49	47	45	54
LWA to exhaust inlet [dBA]	51	30	33	37	42	38	31	26	24	31	40
LWA to exhaust outlet [dBA]	54	32	35	39	44	40	33	27	25	33	42
LWA to environment [dBA]	59	30	38	37	41	44	41	38	32	38	48
<b>Point 4</b>											
LWA to supply inlet [dBA]	55	28	30	34	43	48	41	37	32	35	44
LWA to supply outlet [dBA]	57	29	32	36	45	50	43	39	34	37	46
LWA to exhaust inlet [dBA]	44	24	27	31	35	33	24	21	24	24	33
LWA to exhaust outlet [dBA]	46	25	28	33	37	35	25	22	25	25	35
LWA to environment [dBA]	48	30	38	37	40	39	32	29	24	27	37

Point	Total power of the unit [W]	Total sound pressure level (breakout) at 3 m (1 m) distance [dB(A)]
1	55	38 (48)
2	55	36 (45)
3	55	35 (44)
4	21	27 (37)
5	21	28 (37)
6	21	29 (39)
7	7	17 (27)
8	7	17 (27)
9	7	16 (26)



## Accessories

		Reneo-Fit D 100 S21 Reneo-Fit D 100-E S21	Reneo-Fit D 100 S14 Reneo-Fit D 100-E S14	Reneo-Fit D 120 S21 Reneo-Fit D 120-E S21	Reneo-Fit D 120 S14 Reneo-Fit D 120-E S14
G4 panel filter		FP 176x150x22 Coarse >60% G4	FP 176x150x22 Coarse >60% G4	FP 176x150x22 Coarse >60% G4	FP 176x150x22 Coarse >60% G4
F7 panel filter		FP 176x150x22 ePM1 60% F7	FP 176x150x22 ePM1 60% F7	FP 176x150x22 ePM1 60% F7	FP 176x150x22 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	FS2	FS2
Internal CO <sub>2</sub> sensor		CD-3	-	CD-3	-
CO <sub>2</sub> sensor with indication		CD-1	CD-1	CD-1	CD-1
CO <sub>2</sub> sensor		CD-2	CD-2	CD-2	CD-2
Humidity sensor		HR-S	HR-S	HR-S	HR-S
Electric preheater		EVH 125 S21 V.2	-	EVH 125 S21 V.2	-
Electric reheater		ENH 125 S21 V.2	-	ENH 125 S21 V.2	-
Syphon kit (for the units without an enthalpy heat exchanger)		SFK 20x32	SFK 20x32	SFK 20x32	SFK 20x32
Silencer		SD 125	SD 125	SD 125	SD 125
Air damper		VKA 125	VKA 125	VKA 125	VKA 125
Electric actuator		TF230	TF230	TF230	TF230