Series

VENTS VUTR PE EC

Air handling units in heat- and sound-insulated casing.
Air flow up to **710 m³/h.**
Heat recovery efficiency up to **87 %.**

Description

The air handling units VUTR PE EC are the fully-featured ventilation units that ensure air filtration, fresh air supply and stale air extract. The units are used in ventilation systems installed in various premises that require reasonable energy saving solutions and controllable ventilation systems.

Modifications

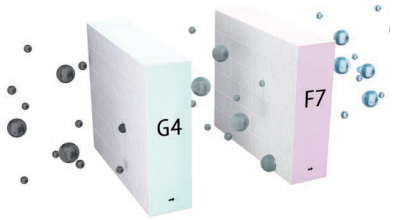
VUTR P(2)E EC models (with an electric heater).
VUTR P2E EC models with a low profile casing and 20 mm insulation.

Casing

Made of galvanized steel, internally filled with a mineral wool heat- and sound-insulating layer. The insulation thickness is 40 mm for the VUTR PE EC models and 20 mm for the VUTR P2E EC models. Unit maintenance is performed from the bottom panel side. The distinctive feature of the VUTR P2E EC units is a low profile casing.

Filter

Two built-in filters with filtering class G4 and F7 provide efficient supply air filtration. Extract air is cleaned by the integrated G4 filter.

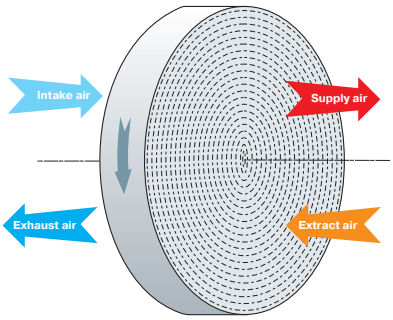


Motor

The units are equipped with high-efficient EC motors with an external rotor and a centrifugal impeller.

Rotary heat exchanger

Units equipped with a rotary heat exchanger.
As compared to plate heat exchangers, the rotary heat exchangers are distinguished with no condensate forming, ability to maintain comfortable air humidity and extremely low freezing danger.



Rotary heat exchanger operation principle

Heater

The VUTR PE EC units are equipped (with an electric heater). If heat recovery is not sufficient to reach the set supply air temperature, the heater is activated to warm up supply air. The heaters are equipped with protecting devices to ensure safe and reliable operation of the unit.

Automation

The **VUTR PE/P2E EC A21** units are equipped with an integrated control system. The **A21** controller allows integrating the unit into the **Smart Home system** or **BMS (Building Management Systems)**. To control the unit using a mobile application via Wi-Fi, you need to download the VENTS Home mobile application.

Google play
Download on the App Store

Modbus

Mounting

The unit is designed for wall or floor mounting. The access for unit and filter maintenance is available from the front panel. The service and the back panels can be rearranged allowing connection both on the right and on the left side.

Designation key

Series	Heat exchanger type	Rated air flow [m³/h]	Spigot orientation	Casing design	Heater type	Motor type	Control panel
VENTS VUT	**R**: rotary	250; 350; 650	**P**: suspended mounting	_: standard (insulation thickness 40 mm) **2**: low-profile (insulation thickness 20 mm)	**E**: (with an electric heater)	**EC**: synchronous electronically commutated motor	**A21**

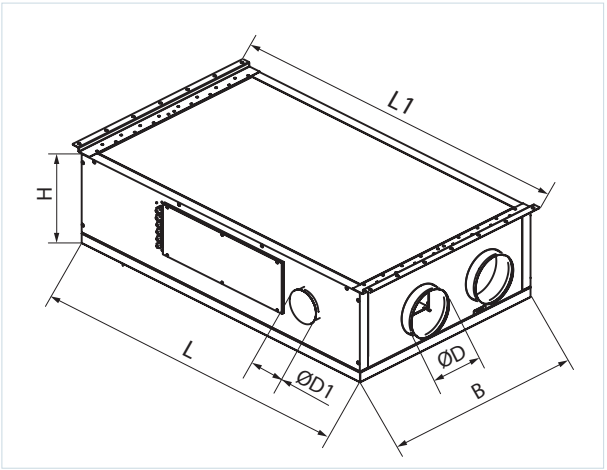
Control and automation

Functions	A21
Control via Wi-Fi using a mobile application	+
Control via a wired remote control panel	A22 (option) 
Control via a wireless remote control panel	A22 Wi-Fi (option) 
Control via a wired remote LCD control panel	A25 (option) 
BMS	RS-485
	WI-FI
	Ethernet
	MODBUS (RTU, TCP)
Service Vents Cloud Server	+
Speed selection	+
Filter replacement indication	according to hour meter readings
Alarm indication	full alarm description in the mobile application
Week-scheduled operation	+
Timers	+
Boost mode	+
Fireplace mode	+
Reheater connection	integrated in E models, external reaheater cannot be connected
Cooler connection	option
Kitchen hood connection	option
Minimum supply air temperature control	+
Humidity control	option
CO_2 controller	option
VOC controller	option
Fire alarm sensor connection	option

*Option. The functionality is available when you purchase the appropriate accessory.

Overall dimensions

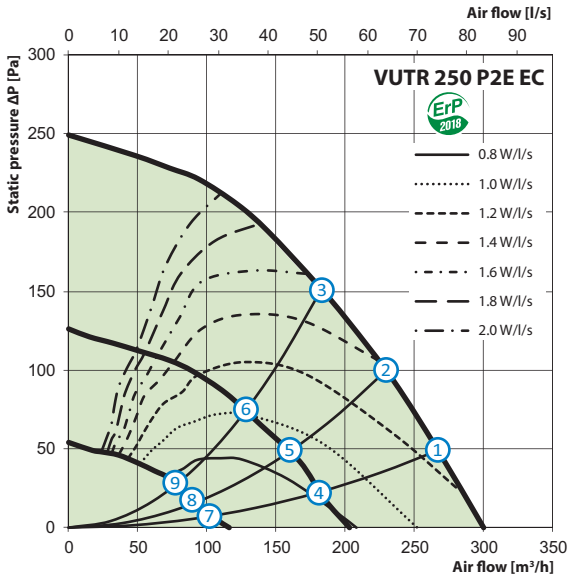
Model	Dimensions [mm]					
	Ø D	Ø D1	L1	L	B	H
VUTR 250 PE EC	160	125	1100	1003	688	345
VUTR 250 P2E EC	160	125	1097	1002	666	245
VUTR 350 PE EC	160	125	1365	1270	818	361
VUTR 350 P2E EC	160	125	1457	1362	847	245
VUTR 650 PE EC	200	125	1542	1445	932	422

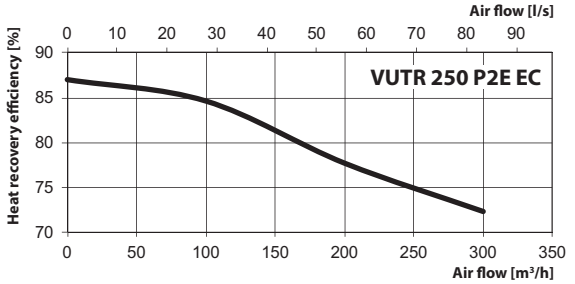


Technical data

	VUTR 250 P2E EC	VUTR 250 PE EC
Unit voltage [V/50 (60) Hz]	1~220-240	
Maximum unit power (without an electric heater) [W]	128	135
Maximum unit power (with an electric heater) [W]	828	835
Maximum unit current (without an electric heater) [A]	0.9	1.0
Maximum unit current (with an electric heater) [A]	4.0	4.1
Maximum air flow [m³/h]	300	310
Sound pressure level at 3 m distance [dBA]	23	21
Transported air temperature [°C]	-25...+40	
Casing material	galvanized steel	
Insulation	20 mm mineral wool	40 mm mineral wool
Extract filter	G4	
Supply filter	G4, F7	
Connected air duct diameter [mm]	160	
Weight [kg]	54	56
Heat recovery efficiency [%]	from 76 up to 87	from 71 up to 87
Heat exchanger type	rotary	
Heat exchanger material	aluminium	
SEC class	A	

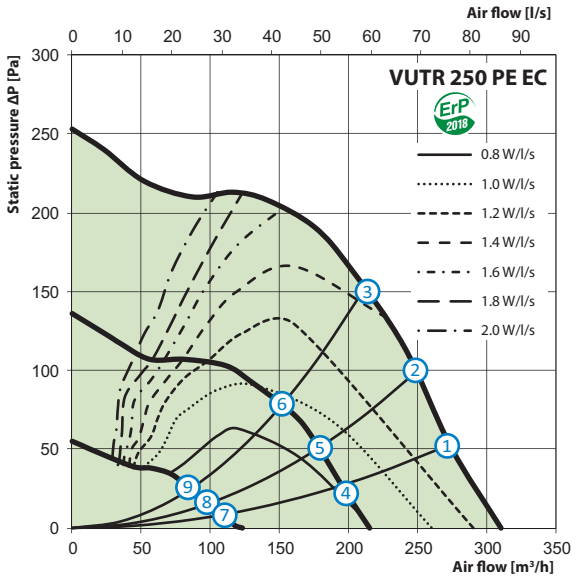
VENTS VUTR PE EC

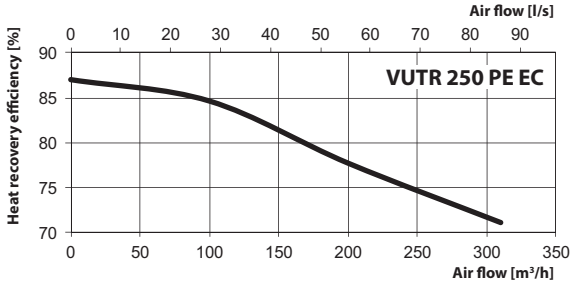




A-weighted sound power level		Gen.	Octave frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
		dBA	63	125	250	500	1000	2000	4000	8000		
L_{wA} to supply air inlet	dBA	55	18	39	42	53	50	40	30	19		
L_{wA} to exhaust air inlet	dBA	50	17	34	39	49	41	34	27	17		
L_{wA} to exhaust air outlet	dBA	65	30	41	55	64	57	52	51	40		

VENTS VUTR PE EC

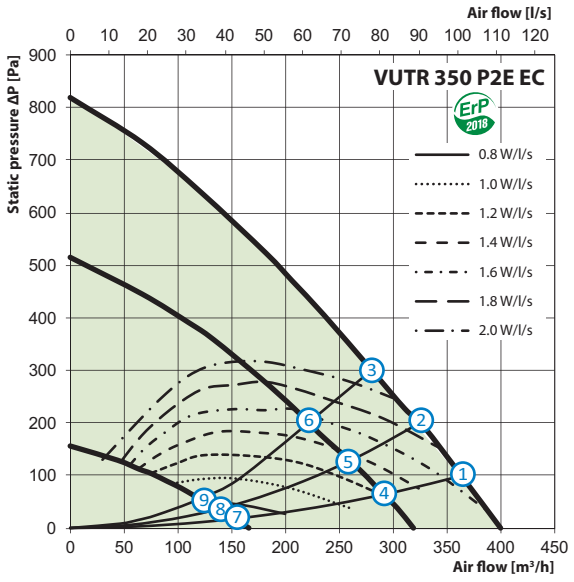


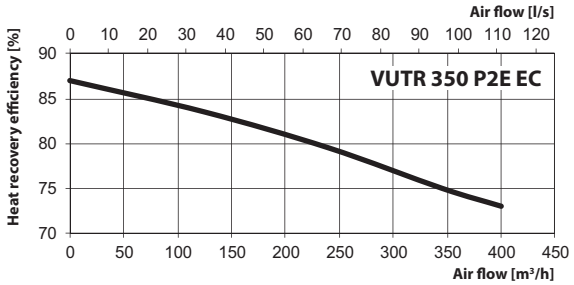


A-weighted sound power level		Gen.	Octave frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
		dBA	63	125	250	500	1000	2000	4000	8000		
L_{wA} to supply air inlet	dBA	58	21	42	45	56	53	42	32	21		
L_{wA} to supply air outlet	dBA	59	21	43	45	56	53	42	32	21		
L_{wA} to exhaust air inlet	dBA	53	20	38	42	52	44	36	29	18		
L_{wA} to exhaust air outlet	dBA	54	20	38	43	53	44	36	29	18		
L_{wA} to environment	dBA	43	10	28	39	38	35	32	31	29	23	33

	VUTR 350 P2E EC	VUTR 350 PE EC
Unit voltage [V/50 (60) Hz]	1~220-240	
Maximum unit power (without an electric heater) [W]	200	185
Maximum unit power (with an electric heater) [W]	1600	1585
Maximum unit current (without an electric heater) [A]	1.3	
Maximum unit current (with an electric heater) [A]	6.9	6.9
Maximum air flow [m³/h]	400	430
Sound pressure level at 3 m distance [dBA]	33	31
Transported air temperature [°C]	-25...+40	
Casing material	galvanized steel	
Insulation	20 mm mineral wool	40 mm mineral wool
Extract filter	G4	
Supply filter	G4, F7	
Connected air duct diameter [mm]	160	
Weight [kg]	79	82
Heat recovery efficiency [%]	from 73 up to 87	from 72 up to 87
Heat exchanger type	rotary	
Heat exchanger material	aluminium	
SEC class	A	

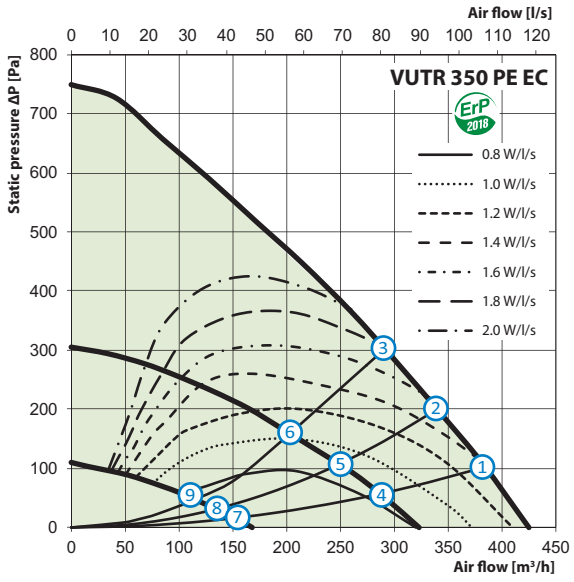
VENTS VUTR PE EC

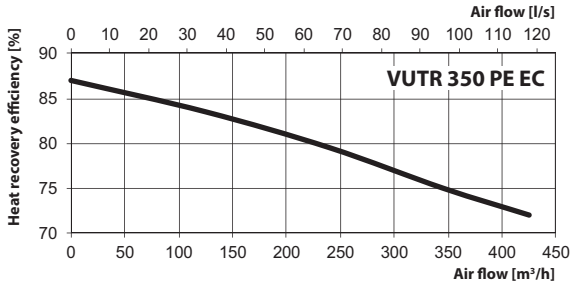




A-weighted sound power level		Gen.	Octave frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
		dBA	63	125	250	500	1000	2000	4000	8000		
L_{wA} to supply air inlet	dBA	59	26	45	53	54	52	48	43	34		
L_{wA} to supply air outlet	dBA	83	44	58	67	75	75	79	75	71		
L_{wA} to exhaust air inlet	dBA	54	25	40	50	50	43	41	38	30		
L_{wA} to exhaust air outlet	dBA	74	42	52	63	70	63	68	66	62		
L_{wA} to environment	dBA	53	18	35	46	49	48	43	37	33	33	43

VENTS VUTR PE EC



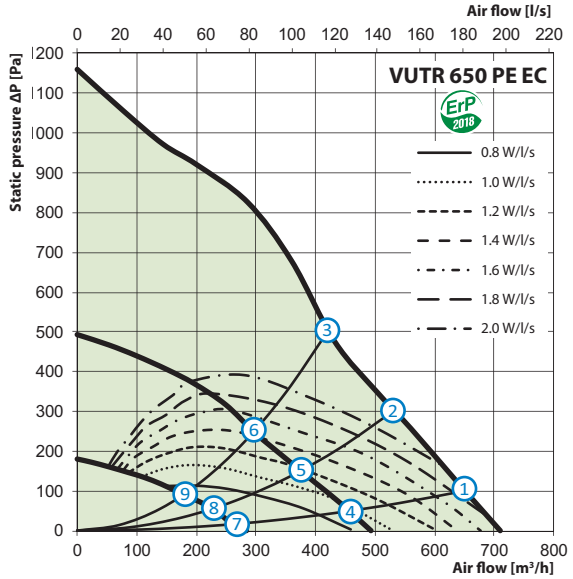


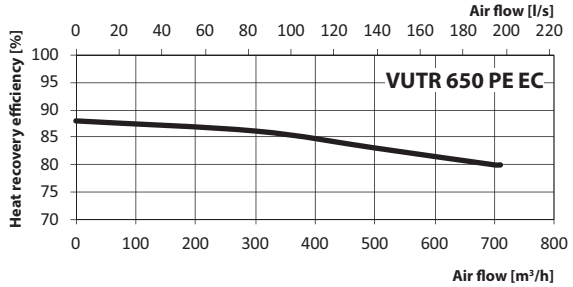
A-weighted sound power level		Gen.	Octave frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
		dBA	63	125	250	500	1000	2000	4000	8000		
L_{wA} to supply air inlet	dBA	56	24	43	51	52	50	46	42	33		
L_{wA} to supply air outlet	dBA	80	41	55	65	72	72	76	72	69		
L_{wA} to exhaust air inlet	dBA	52	23	38	47	48	42	39	37	29		
L_{wA} to exhaust air outlet	dBA	72	40	50	61	67	61	65	64	60		
L_{wA} to environment	dBA	51	16	33	44	47	46	41	36	32	31	41

Technical data

	VUTR 650 PE EC
Unit voltage [V/50 (60) Hz]	1~220-240
Maximum unit power (without an electric heater) [W]	367
Maximum unit power (with an electric heater) [W]	3167
Maximum unit current (without an electric heater) [A]	2.5
Maximum unit current (with an electric heater) [A]	13.7
Maximum air flow [m³/h]	710
Sound pressure level at 3 m distance [dBA]	36
Transported air temperature [°C]	-25...+40
Casing material	galvanized steel
Insulation	40 mm mineral wool
Extract filter	G4
Supply filter	G4, F7
Connected air duct diameter [mm]	200
Weight [kg]	104
Heat recovery efficiency [%]	from 80 up to 87
Heat exchanger type	rotary
Heat exchanger material	aluminium
SEC class	A

VENTS VUTR PE EC





A-weighted sound power level		Gen.	Octave frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
		dBA	63	125	250	500	1000	2000	4000	8000		
L_{wA} to supply air inlet	dBA	79	56	62	64	74	72	74	71	66		
L_{wA} to supply air outlet	dBA	68	48	51	57	67	52	49	42	30		
L_{wA} to exhaust air inlet	dBA	81	55	60	64	77	73	75	71	66		
L_{wA} to exhaust air outlet	dBA	67	47	51	58	65	58	57	48	39		
L_{wA} to environment	dBA	57	30	46	45	55	46	47	39	38	36	46

Technical data

Point	Power [W]				
	VUTR 250 P2E EC	VUTR 250 PE EC	VUTR 350 P2E EC	VUTR 350 PE EC	VUTR 650 PE EC
1	93	101	172	154	342
2	89	115	171	151	342
3	77	80	167	149	342
4	41	45	125	116	122
5	39	42	124	116	122
6	38	40	122	115	122
7	17	17	98	76	34
8	17	17	97	75	33
9	16	16	97	63	33

Sound pressure level at 3 m distance [dBA]				
VUTR 250 P2E EC	VUTR 250 PE EC	VUTR 350 P2E EC	VUTR 350 PE EC	VUTR 650 PE EC
23 (33)	21 (31)	33 (43)	31 (41)	36 (46)
23 (33)	21 (31)	33 (43)	31 (41)	36 (46)
22 (32)	20 (30)	32 (42)	30 (40)	35 (45)
21 (31)	18 (28)	31 (41)	27 (37)	31 (41)
19 (29)	17 (27)	28 (38)	26 (36)	29 (39)
18 (28)	17 (27)	27 (37)	26 (36)	29 (39)
18 (28)	16 (26)	27 (37)	24 (34)	27 (37)
17 (27)	16 (26)	23 (33)	21 (31)	24 (34)
17 (27)	16 (26)	23 (33)	21 (31)	24 (34)

Accessories

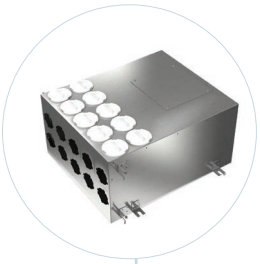
Model	G4 panel filter	F7 panel filter	LCD control panel	Control panel	Control panel with Wi-Fi
					
VUTR 250 P2E EC A21	SF 280x180x48 G4	SF 280x180x48 F7	A25	A22	A22 Wi-Fi
VUTR 250 PE EC A21	SF 260x220x48 G4	SF 260x220x48 F7			
VUTR 350 P2E EC A21	SF 372x180x48 G4	SF 372x180x48 F7			
VUTR 350 PE EC A21	SF 320x235x48 G4	SF 320x235x48 F7			
VUTR 650 PE EC A21	SF 378x295x48 G4	SF 378x295x48 F7			

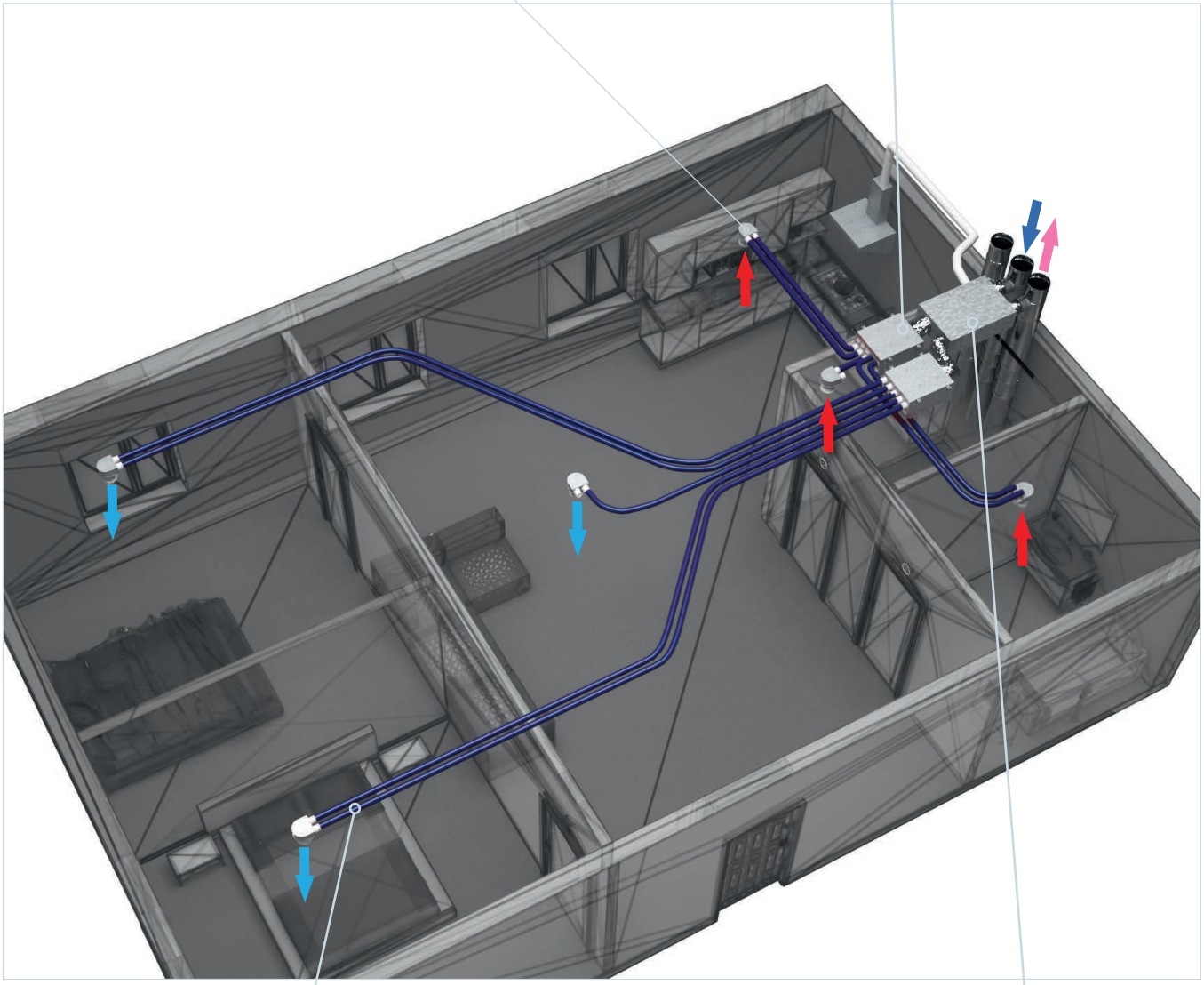
Model	Humidity sensor (NO)	Humidity sensor (0-10 V)	Kitchen hood	Back valves	Air dampers	Electric actuator
						
VUTR 250 P2E EC A21	HR-S	HV-2	KH-1	KOM 160	KRV 160	TF230
VUTR 250 PE EC A21						
VUTR 350 P2E EC A21						
VUTR 350 PE EC A21						
VUTR 650 PE EC A21				KOM 200	KRV 200	

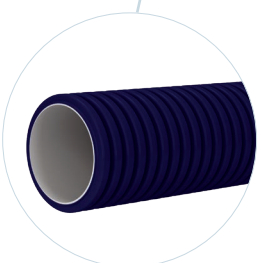
Application options

Ceiling connector with a disc valve

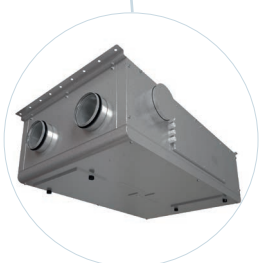
Manifold







FlexiVent air duct



Air handling unit