Series

VENTS
VUT/VUE 180 P5B EC

Heat recovery air handling units
in sound- and heat-insulated casings.
Air flow up to **220 m³/h**.
Heat recovery efficiency up to **98 %**

Description

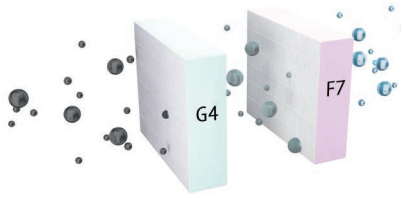
The air handling units are the fully featured ventilation units with heat recovery for air filtration, fresh air supply and stale air extract.

Casing

The casing is made of expanded polypropylene (EPP) possessing high heat- and sound-insulating properties.

Filter

Two built-in G4 and F7 filters provide efficient supply air filtration. The G4 filter is used for extract air filtration.

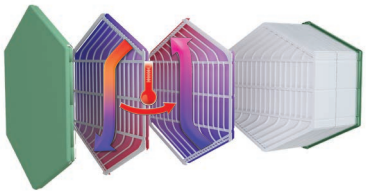


Fans

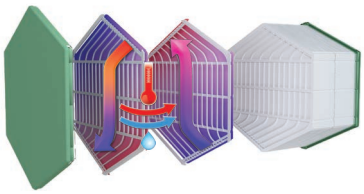
Efficient electronically commutated motors with external rotor and impeller with forward curved blades. Such motors are the most state-of-the-art energy saving solution.

Heat exchanger

The **VUT 180 P5B EC** units are equipped with a counter-flow polystyrene heat exchanger.



The **VUE 180 P5B EC** units are equipped with an enthalpy counter-flow heat exchanger.



Bypass

The **VUT/VUE 180 P5B EC A14/A21** units are equipped with a bypass for summer cooling.

Automation

The **VUT/VUE 180 P5B EC A21** units are equipped with integrated control system. The A21 controller allows integrating the unit into the Smart Home system or BMS (Building Management Systems). The unit is controlled via Wi-Fi by means of the VENTS Home mobile application that must be downloaded.

Google play

Download on the App Store

Modbus

The **VUT/VUE 180 P5B EC A14** units are equipped with integrated control system and the A14 wall-mounted control panel with LED indication.

Freeze protection

For **VUT/VUE 180 P5B EC A14** the freeze protection is realized by means of shutdown the supply fan.
For **VUT/VUE 180 P5B EC A21** the freeze protection is realized by means of turning the preheater on (available as an accessory).

Mounting

The unit is designed for suspended ceiling, wall horizontal or vertical installation using the fixing brackets. The mounting position of the unit must provide service access for maintenance and repair.

Control and automation

Functions	A21	A14
Wi-Fi control via mobile application	+	-
Control via external wired control panel	Option (A22) 	A14 
Wired remote LCD control panel	Option (A25) 	-
Control via external wireless control panel	Option (A22 Wi-Fi) 	-
BMS	RS-485 WI-FI Ethernet MODBUS (RTU, TCP)	-
Service Vents Cloud Server	+	-
Speed selection	+	+
Filter replacement indication	According to filter timer	According to filter timer
Alarm indication	Full alarm description in the mobile application	Alarm LED indication
Week scheduled operation	+	-
Bypass	Auto	-
	Manual	Manual
Timer	+	-
Boost mode	+	-
Fireplace mode	+	-
Freeze protection	Cyclic shut-down of supply fan	Cyclic shut-down of supply fan
	Preheating (option)	-
Reheater connection	Option	-
Cooler connection	Option	-
Control of minimum supply air temperature	+	-
Humidity control	Option	Option
CO_2 control	Option	Option
VOC control	Option	-
PM2.5 control	Option	-
Fire detector	Option	Option

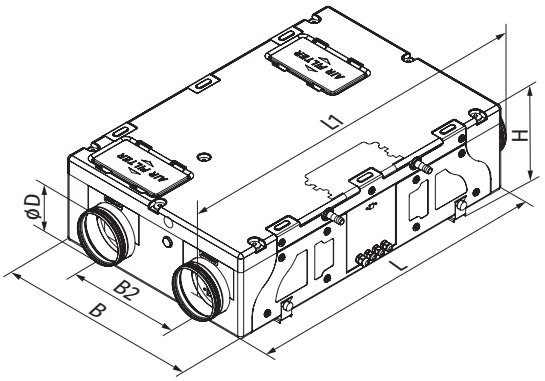
**Option. The function is available in case of mounting a respective accessory.*

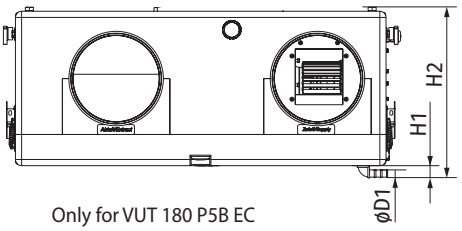
Designation key

Series	Rated air flow [m³/h]	Mounting type	Casing design	Bypass	Motor type	Control
VUT: ventilation with heat recovery **VUE**: ventilation with energy recovery	180	**P**: suspended mounting	**5**: expanded polypropylene	**B**: integrated bypass	**EC**: synchronous electronically commutated motor	**A14** **A21**

Overall dimensions

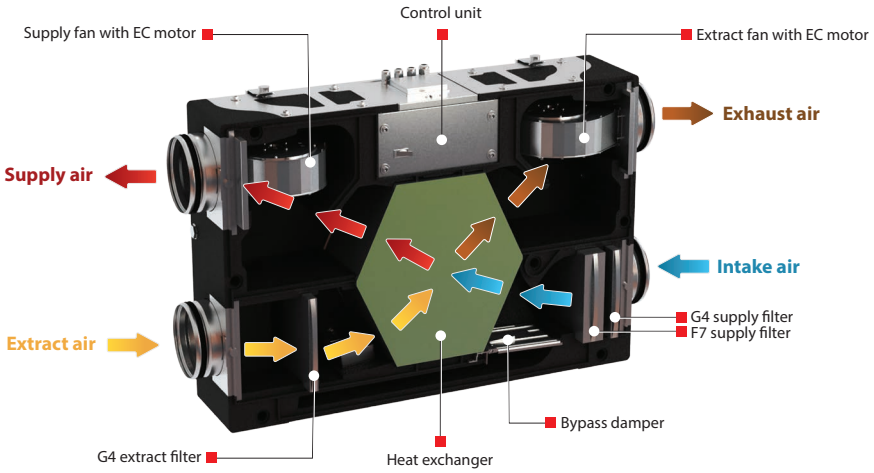
Model	Dimensions [mm]								
	Ø D	Ø D1	B	B2	L	L1	H	H1	H2
VUT 180 P5B EC	150	19	600	326	900	1009	264	38	302
VUT 180 P5B EC	150	-	600	326	900	1009	264	-	-





Only for VUT 180 P5B EC

VUT 180 P5B EC unit design



Accessories for air handling units

Model	G4 panel filter	F7 panel filter	LCD control panel	Control panel	Wi-Fi controllable control panel	Internal humidity sensor	CO_2 sensor with indication	CO_2 sensor	Humidity sensor	VOC sensor (0-10 V)	CO_2 sensor (0-10 V)	Humidity sensor (0-10 V)	Reheater	Preheater	Syphon kit	Air damper	Electric actuator
																	
VUT 180 P5B EC A21	SF 214x186x18 G4	SF 214x186x48 F7	A25	A22	A22 Wi-Fi	HV2	CO2-1	CO2-2	HR-S	DPWQ 30600	DPWQ 40200	DPWC 11200	NKD 150	NKP 150	SH-32	KRV 150	LF230
VUE 180 P5B EC A21															-		
VUT 180 P5B EC A14			-	-	-					-	-	-	-	-	SH-32		
VUE 180 P5B EC A14			-	-	-					-	-	-	-	-	-		

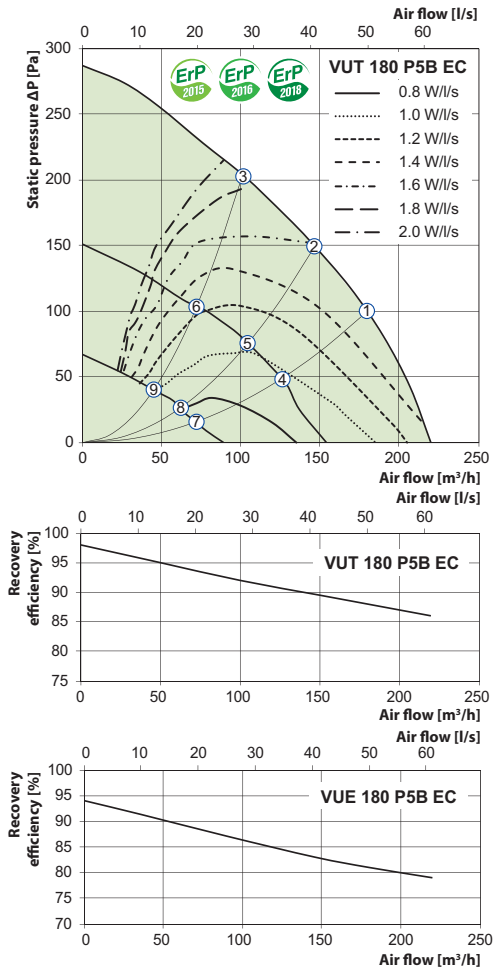
Technical data

	VUT 180 P5B EC	VUE 180 P5B EC
Voltage 50 (60) Hz [V]	1~230	
Maximum power [W]	87	
Maximum current [A]	0.71	
Maximum air flow [m³/h]	220	
RPM [min⁻¹]	2200	
Sound pressure level at 3 m distance [dBA]	33	
Transported air temperature [°C]	-25...+40	
Casing mater	Expanded polypropylene (EPP)	
Insulation	EPP 30-15 mm	
Extract filter	G4	
Supply filter	G4, F7	
Connected air duct diameter [mm]	Ø150	
Weight [kg]	14	14
Recovery efficiency [%]	86 up to 98	79 up to 94
Heat exchanger type	Counter-flow	
Heat exchanger material	Polystyrene	Enthalpy
SEC class for A14, A21	A+	A+
SEC class for A2	A	A

Point	Power, W	Sound pressure level at 3 m (1 m) distance [dBA]
	VUT/VUE 180 P5B EC	VUT/VUE 180 P5B EC
1	77	33 (43)
2	64	33 (43)
3	53	32 (42)
4	31	29 (39)
5	30	28 (38)
6	26	27 (37)
7	14	23 (33)
8	13	21 (31)
9	12	19 (29)

Exhaust air spigot configuration	Air flow [l/s]	Specific fan power [W/l/s]	Recovery efficiency [%]
Kitchen + 1 additional wet room	21	0.90	88
Kitchen + 2 additional wet rooms	29	1.00	86
Kitchen + 3 additional wet rooms	37	1.20	85

VENTS VUT/VUE 180 P5B 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		59	27	46	54	55	53	48	44	35		
L_{wA} to supply air outlet	dBA	60	27	46	54	55	52	49	44	35		
L_{wA} to exhaust air inlet	dBA	55	25	41	50	51	44	42	39	30		
L_{wA} to exhaust air outlet	dBA	55	26	41	51	51	44	42	39	31		
L_{wA} surrounding	dBA	54	18	36	47	49	48	43	37	33	33	43

Calculation of air temperature downstream of the heat exchanger:

$$t=t_{outd}+k_{hr}*(t_{extr}-t_{outd})/100,$$

where

t_{outd} is outdoor air temperature [°C]

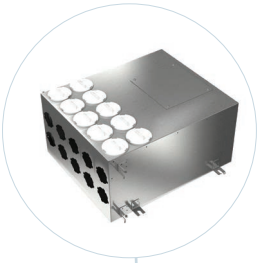
t_{extr} is extract air temperature [°C]

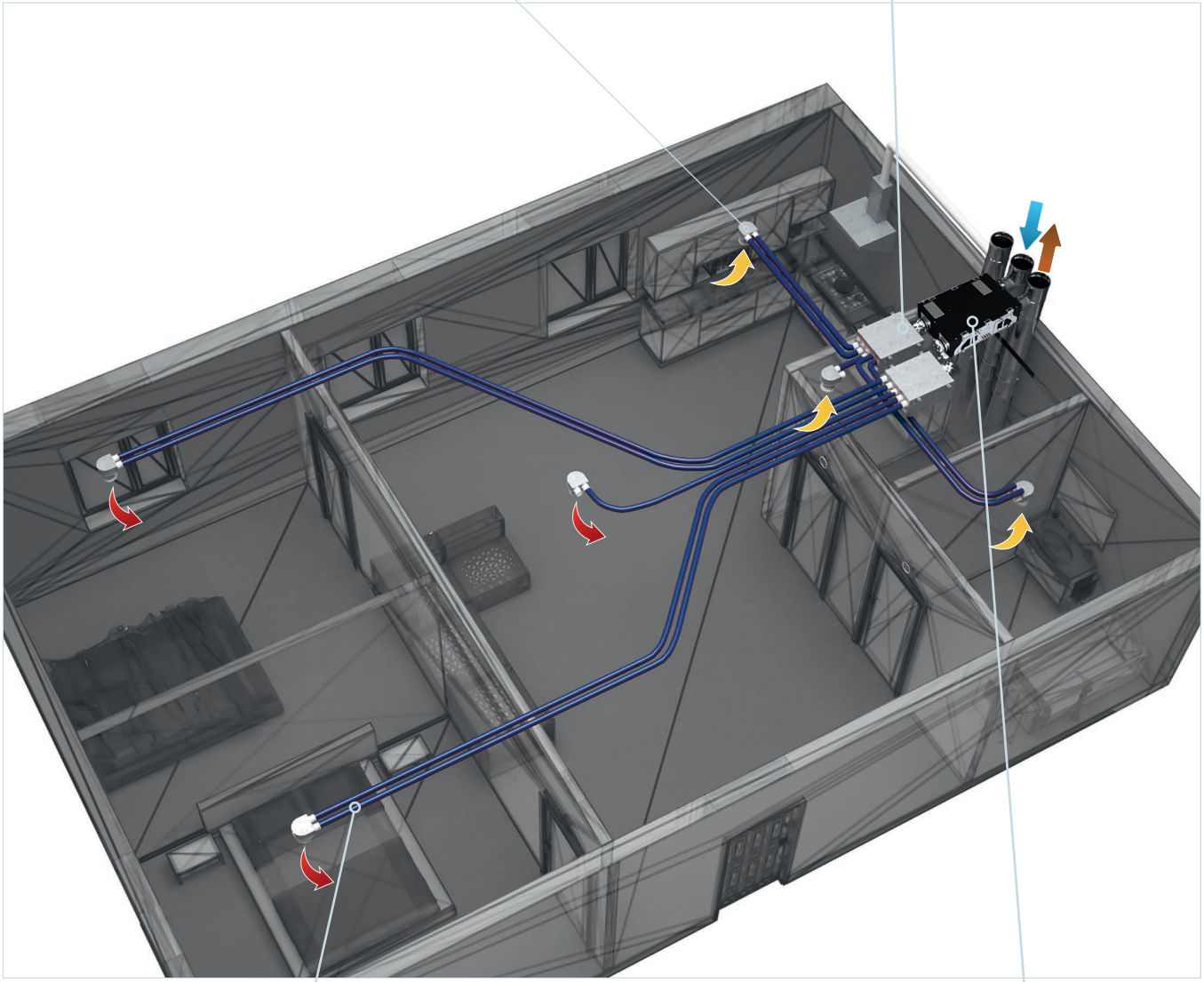
k_{hr} is heat exchanger efficiency (according to the diagram) [%]

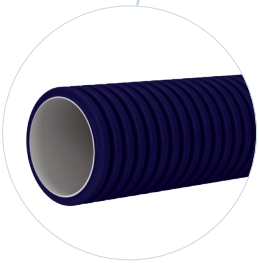
Application options

Ceiling connector with disc valve

Air distribution box







FlexiVent air duct

Air handling unit