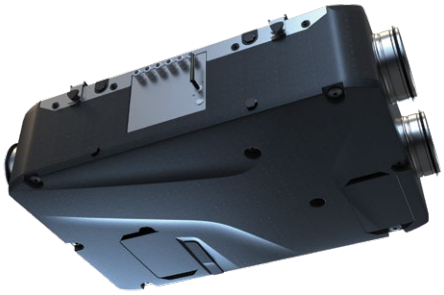
Series

VENTS Enave P



Heat recovery air handling units
in sound- and heat-insulated casings.
Air flow up to **310 m³/h**.
Heat recovery efficiency
up to **91 %**

Description

The air handling units are the fully featured ventilation units with heat recovery for air filtration, fresh air supply and stale air extraction. The units offer energy-efficient ventilation for small apartments.

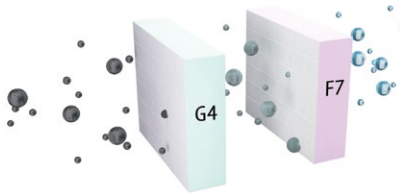
Casing



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

Filter

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

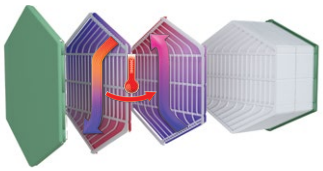


Fans

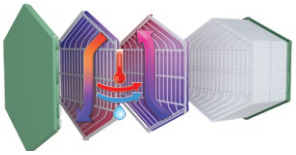
The units' fans are equipped with electronnicaly-commutated motors.

Heat exchanger

Enave units are equipped with a counter-flow polystyrene heat exchanger.



Enave-T units are equipped with an enthalpy heat exchanger.



Bypass

The units are equipped with a bypass for summer cooling.

Automation

Enave P A21 units are equipped with a built-in automation system. The **A21** controller allows to integrate the unit into the **Smart Home system** or **BMS (Building Management System)**. To control the unit via Wi-Fi, download the **Vents Home** smartphone app. **Enave P A14** units have an integrated control system with a wall-mounted control panel with a LED indication.

Google play

Download on the App Store

Modbus

Frost protection

For **Enave P** units, the frost protection is implemented by shutting down the supply fan. Optional duct pre-heater is available for units with **A21** control system.

Mounting

The unit is designed for suspended ceilling, wall and floor mounting. The mounting position of the unit must provide service access for maintenance and repair.

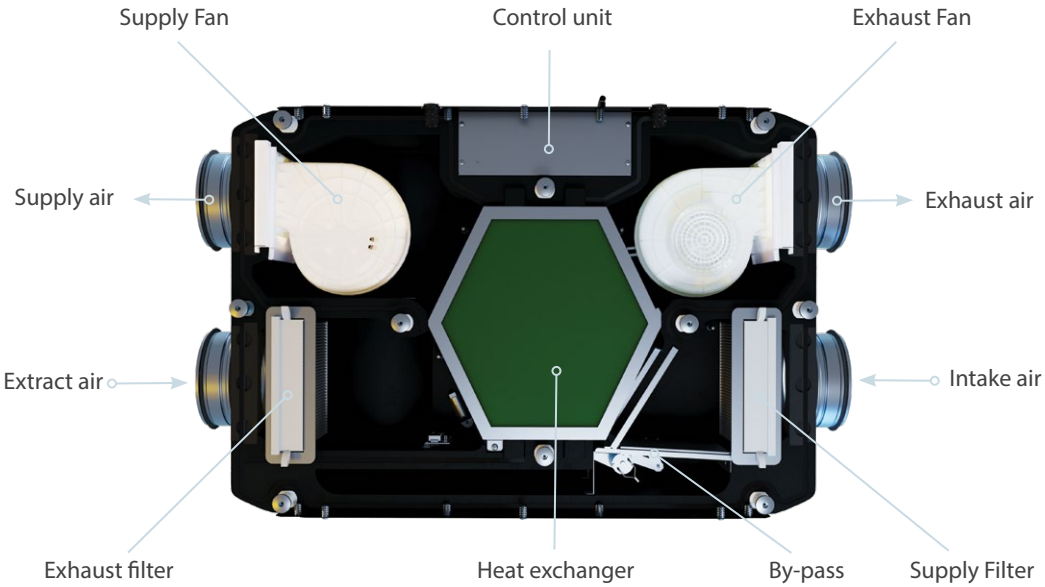
Control and automation

Functions	A14	A21
Wired remote control pane	A14	A22 (option)
Control via a wired remote LCD control panel	-	A25 (option)
Wireless remote control panel	-	A22 Wi-Fi (option)
BMS	-	ModBus RTU (RS-485) ModBus TCP/IP (Wi-Fi, Ethernet)
Vents Cloud Server service	-	+
Control via Wi-Fi using a smartphone app	-	+
Frost protection	+	+
Bypass	Manual	Auto, manual
Week-scheduled operation	-	+
Filter replacement indication	+	Filter timer
Alarm indication	+	+
Speed selection	+	+
Timer	-	+
RH% sensor	Option	Option
CO_2 sensor	Option	Option
VOC sensor	Option	Option
PM2.5 sensor	Option	Option
Boost mode	-	+
Fireplace mode	-	+
Preheater connection	-	+
Reheater connection	-	+
Fire alarm sensor connection	+	+
Minimum supply air temperature control	-	+

Designation key

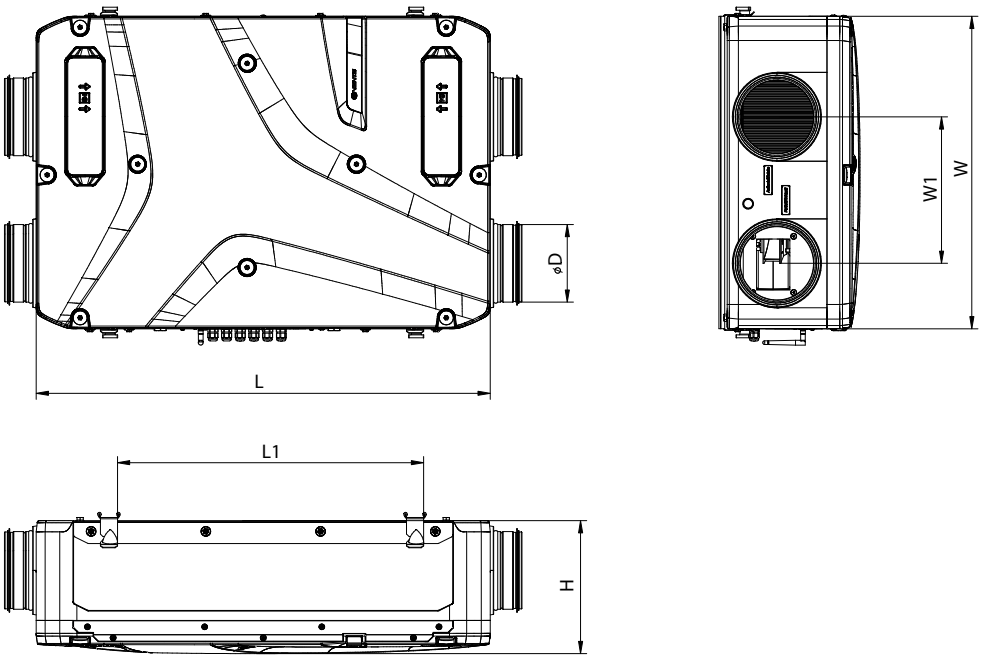
TM	Model	Heat exchanger type	Nominal size	Modification	Casing type	Controller
VENTS	Enave	_ – heat recovery T – energy recovery	Airflow m³/h /10	0 – standart 1 – flat service hatch suitable for decorative panel installation	P – suspended	A21, A14

Unit design



Overall dimensions

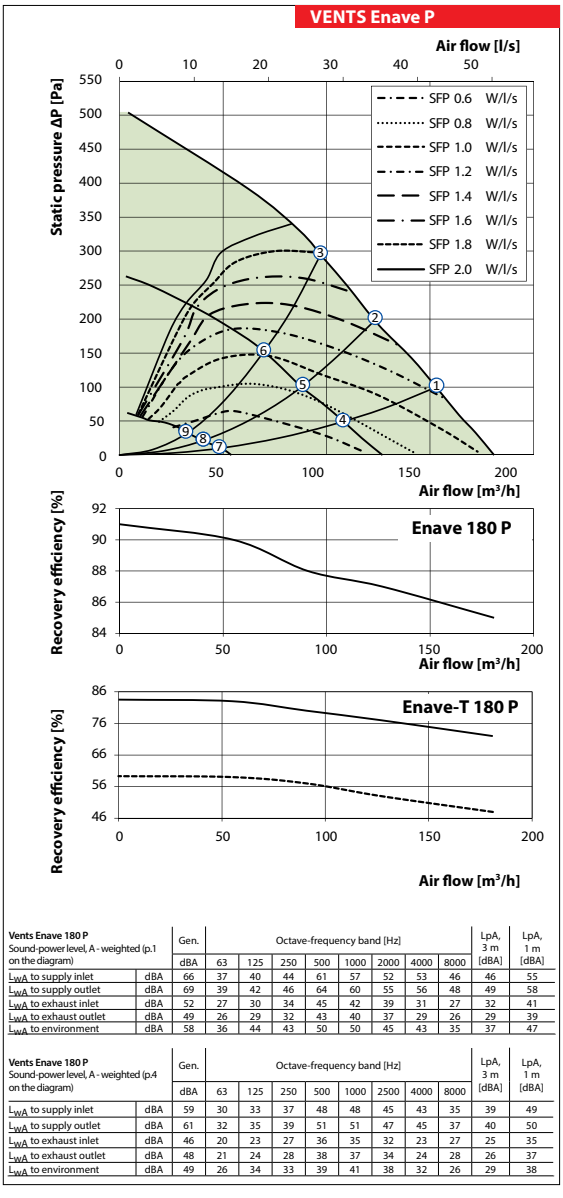
Model	Dimensions [mm]					
	H	W	L	ØD	W1	L1
Vents Enave P	272	640	930	160	300	617

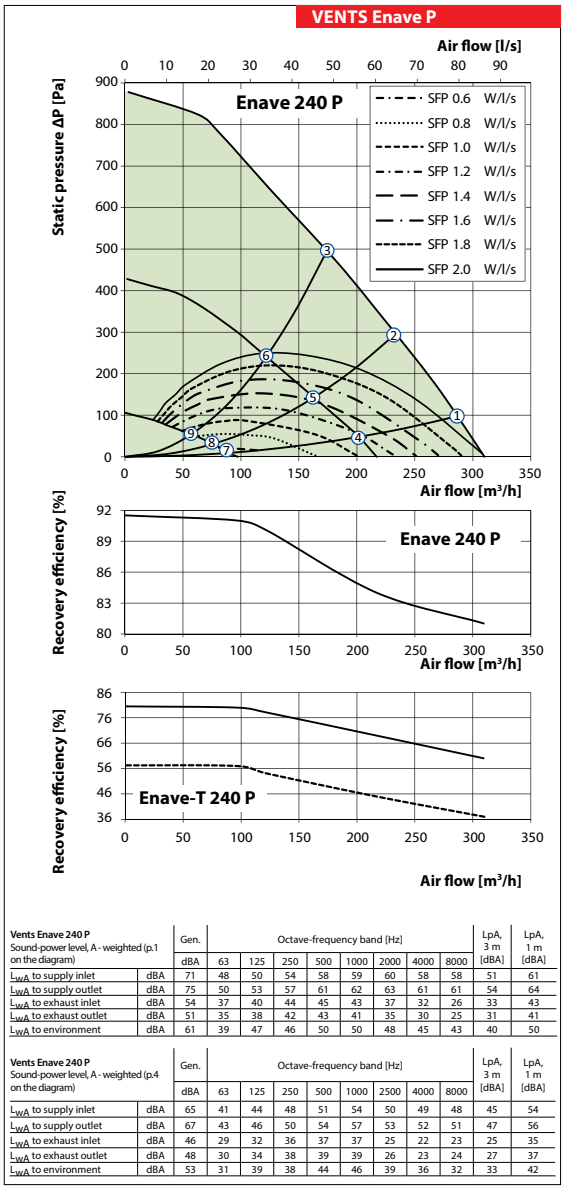


Technical data

	Vents Enave 180 P	Vents Enave-T 180 P	Vents Enave 240 P	Vents Enave-T 240 P
Voltage [V / 50-60 Hz]	230	230	230	230
Max. unit power [W]	53	53	171	171
Max. unit current [A]	0.49	0.49	1.34	1.34
Max air flow [m³/h]	181	181	310	310
Sound pressure level at 3 m distance* [dBA]	29	29	33	33
Max. operating temperature [°C]	45	45	45	45
Case material	EPP	EPP	EPP	EPP
Insulation	25 mm	25 mm	25 mm	25 mm
Extract filter	Coarse >60 %	Coarse >60 %	Coarse >60 %	Coarse >60 %
Supply filters	Coarse >60 % (option ePM1 60 %)	Coarse >60 % (option ePM1 60 %)	Coarse >60 % (option ePM1 60 %)	Coarse >60 % (option ePM1 60 %)
Connected air duct diameter [mm]	160	160	160	160
Weight [kg]	12	15	13	16
Heat recovery efficiency [%]	91	84	91	81
Heat exchanger type	Counterflow	Counterflow	Counterflow	Counterflow
Heat exchanger material	Polysterene	Enthalpy	Polysterene	Enthalpy
SEC class	A+	A	A	A

*Sound pressure level at 3 m distance is specified at point 4 [dBA].





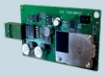
Vents Enave 180 P Sound-power level, A - weighted (p.1 on the diagram)		Gen.	Octave-frequency band [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		dBA	63	125	250	500	1000	2000	4000	8000		
L_{WA} to supply inlet	dBA	66	37	40	44	61	57	52	53	46	46	55
L_{WA} to supply outlet	dBA	69	39	42	46	64	60	55	56	48	49	58
L_{WA} to exhaust inlet	dBA	52	27	30	34	45	42	39	31	27	32	41
L_{WA} to exhaust outlet	dBA	49	26	29	32	43	40	37	29	26	29	39
L_{WA} to environment	dBA	58	36	44	43	50	50	45	43	35	37	47

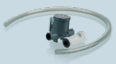
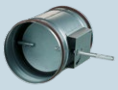
Vents Enave 180 P Sound-power level, A - weighted (p.4 on the diagram)		Gen.	Octave-frequency band [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		dBA	63	125	250	500	1000	2500	4000	8000		
L_{WA} to supply inlet	dBA	59	30	33	37	48	48	45	43	35	39	49
L_{WA} to supply outlet	dBA	61	32	35	39	51	51	47	45	37	40	50
L_{WA} to exhaust inlet	dBA	46	20	23	27	36	35	32	23	27	25	35
L_{WA} to exhaust outlet	dBA	48	21	24	28	38	37	34	24	28	26	37
L_{WA} to environment	dBA	49	26	34	33	39	41	38	32	26	29	38

Vents Enave 240 P Sound-power level, A - weighted (p.1 on the diagram)		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 inlet	dBA	71	48	50	54	58	59	60	58	58	51	61
L_{WA} to supply outlet	dBA	75	50	53	57	61	62	63	61	61	54	64
L_{WA} to exhaust inlet	dBA	54	37	40	44	45	43	37	32	26	33	43
L_{WA} to exhaust outlet	dBA	51	35	38	42	43	41	35	30	25	31	41
L_{WA} to environment	dBA	61	39	47	46	50	50	48	45	43	40	50

Vents Enave 240 P Sound-power level, A - weighted (p.4 on the diagram)		Gen.	Octave-frequency band [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		dBA	63	125	250	500	1000	2500	4000	8000		
L_{WA} to supply inlet	dBA	65	41	44	48	51	54	50	49	48	45	54
L_{WA} to supply outlet	dBA	67	43	46	50	54	57	53	52	51	47	56
L_{WA} to exhaust inlet	dBA	46	29	32	36	37	37	25	22	23	25	35
L_{WA} to exhaust outlet	dBA	48	30	34	38	39	39	26	23	24	27	37
L_{WA} to environment	dBA	53	31	39	38	44	46	39	36	32	33	42

Accessories for air handling units

	Filter G4	Supply filter F7	Decorative panel	Control panel	Control panel	WiFi Control panel	Internal humidity sensor	Internal CO_2 sensor
								
Enave 180 P A21	SF 205x200x48 Coarse 90% G4	SF 205x200x48 ePM1 60% F7	-	A25	A22	A22 Wi-Fi	HV2	CO2-3
Enave-T 180 P A21			PD-Enave 181 P					
Enave 181 P A21								
Enave-T 181 P A21								
Enave 240 P A21	SF 205x200x48 Coarse 90% G4	SF 205x200x48 ePM1 60% F7	-					
Enave-T 240 P A21								
Enave 241 P A21			PD-Enave 181 P					
Enave-T 241 P A21								
Enave 180 P A14	SF 205x200x48 Coarse 90% G4	SF 205x200x48 ePM1 60% F7	-	-	-	-	HV2	-
Enave-T 180 P A14			PD-Enave 181 P					
Enave 181 P A14								
Enave-T 181 P A14								
Enave 240 P A14	SF 205x200x48 Coarse 90% G4	SF 205x200x48 ePM1 60% F7	-					
Enave-T 240 P A14								
Enave 241 P A14			PD-Enave 181 P					
Enave-T 241 P A14								

	External CO_2 sensor with indication	External CO_2 sensor	External humidity sensor	Electrical preheater	Electrical reheater	Syphon kit	Silencer	Air damper	Electric actuator
									
Enave 180 P A21	CO2-1	CO2-2	HR-S	NKP 160 A21 V.2	NKD 160 A21 V.2	SH-32	SR 160	KRV 160	TF 230
Enave-T 180 P A21									
Enave 181 P A21									
Enave-T 181 P A21									
Enave 240 P A21									
Enave-T 240 P A21									
Enave 241 P A21									
Enave-T 241 P A21									
Enave 180 P A14	CO2-1	CO2-2	HR-S	-	-				
Enave-T 180 P A14									
Enave 181 P A14									
Enave-T 181 P A14									
Enave 240 P A14									
Enave-T 240 P A14									
Enave 241 P A14									
Enave-T 241 P A14									