Series

VENTS Enave-C P



Heat recovery air handling units in sound- and heat-insulated casings.
Air flow up to **279 m³/h**.
Heat recovery efficiency up to **89 %**

Description

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

Casing

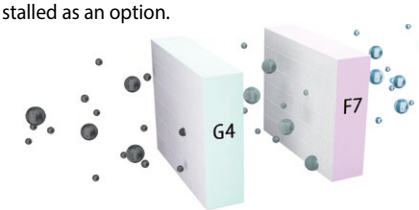
The casing is made of expanded polypropylene (EPP) that has high heat- and sound-insulating properties. **Enave-C P** units have adjustable oriental connection of the flanges to provide more flexible installation solutions.



Enave-C ... L – left-handed version.
Enave-C ... R – right-handed version.

Filter

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



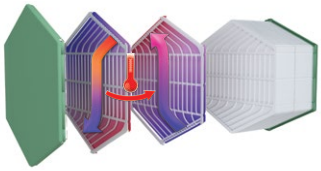
Fans

Units' fans are equipped with electronnicaly-commutated motors.

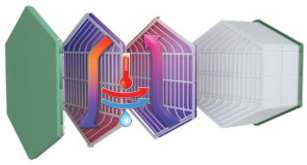
Enave-C(T) 230 P A21 CF units are availiable with **Constant flow** function - the fans automatically maintain a constant air volume regardless of pressure changes in the duct system. Stable airflow is ensured up to 300 a external static pressure.

Heat Exchanger

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



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



Bypass

Units are equipped with a bypass for summer cooling.

Automation

Enave-C 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-C P A14 units have an integrated control system with a wall-mounted control panel equipped with LED indication.

Google play

Download on the App Store

Modbus

Frost protection

For **Enave-C P** units frost protection is realized by shutting down the supply fan. Optional duct preheater is available for units with A21 control system.

Mounting

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

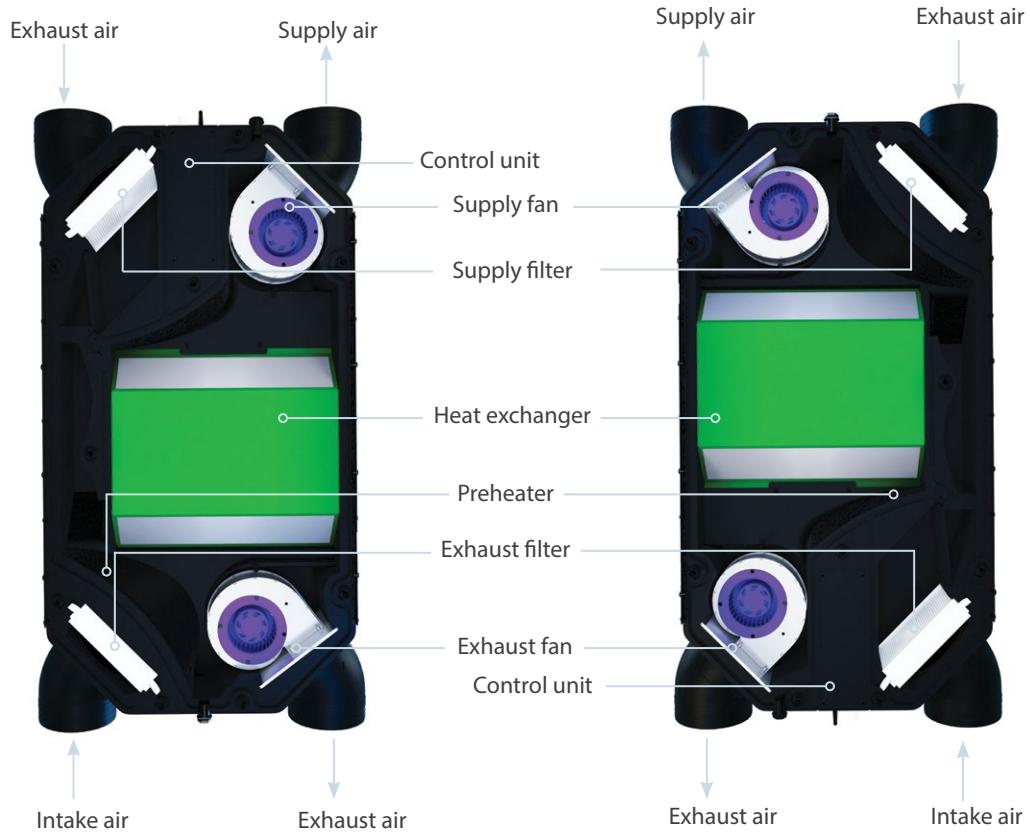
Control and automation

Functions	A21	A14
Wired remote control pane	A22 (option) 	A14 
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	Auto, manual	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

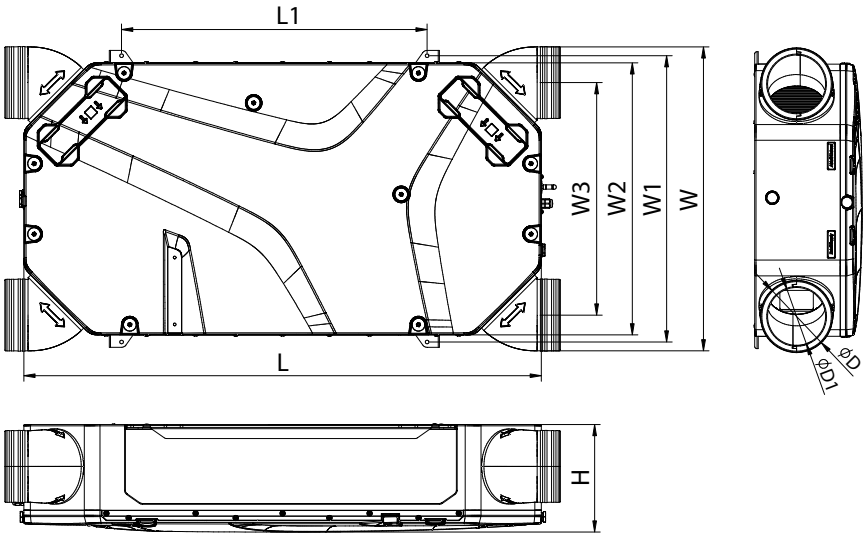
Model	Casnig modification	Heat exchanger type	Nominal size	Modification	Casing type	Heater	Controller	Unit version	Airflow control
Enave	_ – Standard C – compact	_ – heat recovery T – energy recovery	Airflow m³/h /10	0 – standard	P – suspended	_ – w/o heater E – integrated pre-heater	A21, A14	**L**: left-handed **R**: right-handed	_- standard CF - constant flow

Unit design



Overall dimensions

Model	Dimensions [mm]								
	H	W	L	W1	W2	W3	L1	ØD	ØD1
Enave-C P	242	683	1160	642	610	521	685	160	125

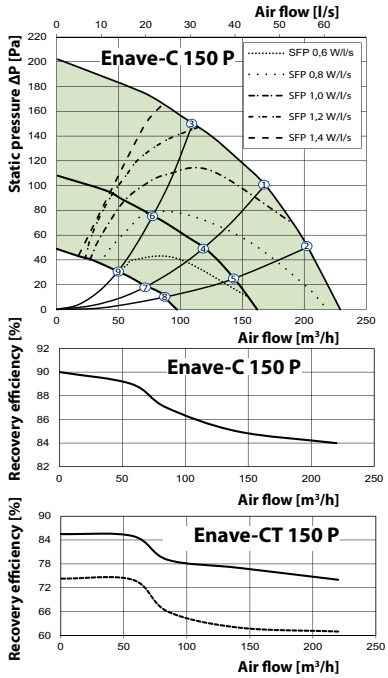


Technical data

	Enave-C 150 P	Enave-CT 150 P	Enave-C 150 PE	Enave-CT 150 PE
Voltage [V / 50-60 Hz]	230			
Max. unit power without electric heater [W]	72			
Integrated electric heater power [W]	-		800	
Max. unit power [W]	72		872	
Max. unit current without electric heater [A]	0.63		0.63	
Integrated electric heater current [A]	-		3.55	
Max. unit current [A]	0.63		4.18	
Max air flow [m^3/h]	229		229	
Sound pressure level at 3 m distance [dBA]	27	27	27	27
Transported air temperature [°C]	–25…+40			
Case material	EPP			
Insulation [mm]	25 mm			
Extract filter	G4 / Coarse > 60%			
Supply filters	G4 / Coarse > 60% (option F7 / ePM1 60%)			
Connected air duct diameter [mm]	125 / 160			
Weight [kg]	18	19.5	18	19.5
Heat recovery efficiency [%]	89	85	89	85
Heat exchanger type	Counterflow			
Heat exchanger material	Polysterene	Enthalpy membrane	Polysterene	Enthalpy membrane
SEC class	A+	A	A+	A

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

Enave-C 150 P



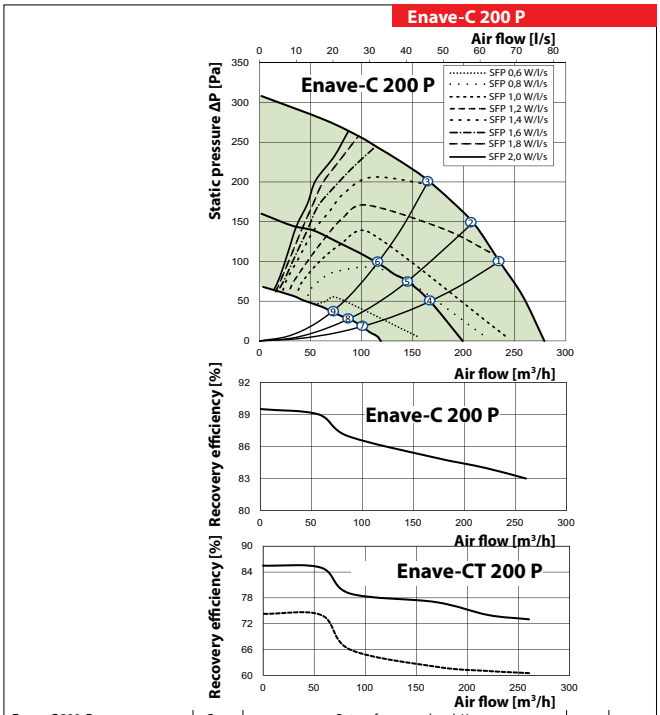
Enave-C 150 P A-weighted sound power level (p.1 on the diagram)		Gen.	Octave frequency band, Hz								LpA, 3m dB(A)	LpA, 1m dB(A)
		dB(A)	63	125	250	500	1000	2000	4000	8000		
LwA to supply inlet	dB(A)	59	38	41	45	48	55	34	33	37	40	48
LwA to supply outlet	dB(A)	62	40	43	47	50	58	36	35	39	42	51
LwA to exhaust inlet	dB(A)	46	23	26	30	34	40	26	25	24	26	35
LwA to exhaust outlet	dB(A)	48	24	27	32	36	42	27	26	25	27	37
LwA to environment	dB(A)	56	37	45	44	47	49	39	36	31	36	45

Enave-C 150 P A-weighted sound power level (p.4 on the diagram)		Gen.	Octave frequency band, Hz								LpA, 3m dB(A)	LpA, 1m dB(A)
		dB(A)	63	125	250	500	1000	2000	4000	8000		
LwA to supply inlet	dB(A)	51	30	33	37	41	46	24	23	25	31	40
LwA to supply outlet	dB(A)	53	32	35	39	43	48	25	24	26	33	42
LwA to exhaust inlet	dB(A)	38	15	18	22	25	32	18	19	23	18	27
LwA to exhaust outlet	dB(A)	40	16	19	23	26	34	19	20	24	19	28
LwA to environment	dB(A)	48	28	36	35	37	41	29	24	24	27	37

Technical data

	Enave-C 200 P	Enave-CT 200 P	Enave-C 200 PE	Enave-CT 200 PE
Voltage [V / 50-60 Hz]	230			
Max. unit power without electric heater [W]	111			
Integrated electric heater power [W]	-		800	
Max. unit power [W]	111		911	
Max. unit current without electric heater [A]	0,9		0.9	
Integrated electric heater current [A]	-		3.55	
Max. unit current [A]	0,9		4.45	
Max air flow [m³/h]	279		279	
Sound pressure level at 3 m distance* [dBA]	33		33	
Transported air temperature [°C]	- 25...+40			
Case material	EPP			
Insulation	25 mm			
Extract filter	G4 / Coarse >60 %			
Supply filters	G4 / Coarse > 60% (option F7 / ePM1 60%)			
Connected air duct diameter [mm]	125 / 160			
Weight [kg]	18	19.5	18	19.5
Heat recovery efficiency [%]	89	85	89	85
Heat exchanger type	Counterflow			
Heat exchanger material	Polysterene	Enthalpy membrane	Polysterene	Enthalpy membrane
SEC class	A+	A	A+	A

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



Enave-C 200 P A-weighted sound power level (p.1 on the diagram)		Gen.	Octave frequency band, Hz								LpA, 3m	LpA, 1m
		dB(A)	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
LwA to supply inlet	dB(A)	64	40	43	47	54	57	46	46	46	44	53
LwA to supply outlet	dB(A)	67	42	45	49	57	60	48	48	48	46	56
LwA to exhaust inlet	dB(A)	50	27	30	34	39	43	32	32	29	30	39
LwA to exhaust outlet	dB(A)	53	28	32	36	41	45	34	34	30	32	41
LwA to environment	dB(A)	60	39	47	46	52	51	44	42	39	40	49

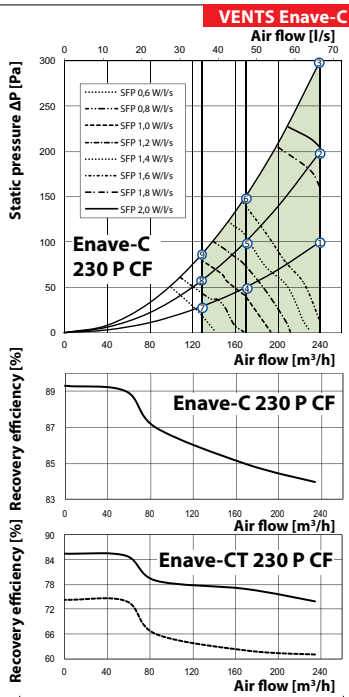
Enave-C 200 P A-weighted sound power level (p.4 on the diagram)		Gen.	Octave frequency band, Hz								LpA, 3m	LpA, 1m
		dB(A)	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
LwA to supply inlet	dB(A)	58	35	38	42	45	53	39	37	34	37	47
LwA to supply outlet	dB(A)	60	37	40	44	47	56	41	39	36	39	49
LwA to exhaust inlet	dB(A)	44	21	24	28	31	38	23	23	24	24	33
LwA to exhaust outlet	dB(A)	46	22	25	29	33	40	24	24	25	25	35
LwA to environment	dB(A)	54	35	43	42	43	47	36	33	28	33	43

Technical data

	Enave-C 230 P CF	Enave-CT 230 P CF	Enave-C 230 PE CF	Enave-CT 230 PE CF
Voltage [V / 50-60 Hz]				
Max. unit power without electric heater [W]	180		180	
Integrated electric heater power [W]	-		800	
Max. unit power [W]	180		980	
Max. unit current without electric heater [A]	1.4		1.4	
Integrated electric heater current [A]	-		3.55	
Max. unit current [A]	1.4		4.95	
Max air flow [m³/h]	240		240	
Sound pressure level at 3 m distance* [dBA]	34		34	
Transported air temperature [°C]	–25…+40			
Case material	EPP			
Insulation	25 mm			
Extract filter	G4 / Coarse > 60%			
Supply filters	G4 / Coarse > 60% (option F7 / ePM1 60%)			
Connected air duct diameter [mm]	125 / 160			
Weight [kg]	18	19.5	18	19.5
Heat recovery efficiency [%]	89	85	89	85
Heat exchanger type	Counterflow			
Heat exchanger material	Polysterene	Enthalpy membrane	Polysterene	Enthalpy membrane
SEC class	A	A	A	A

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

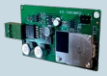
VENTS Enave-C 230 P

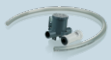


Enave-C 230 P CF A-weighted sound power level (p.1 on the diagram)		Gen.	Octave frequency band, Hz								LpA, 3m	LpA, 1m
		dB(A)	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
LwA to supply inlet	dB(A)	66	39	42	46	51	58	49	48	48	46	55
LwA to supply outlet	dB(A)	69	41	44	48	54	61	52	50	50	48	58
LwA to exhaust inlet	dB(A)	46	27	30	34	35	34	26	24	25	25	35
LwA to exhaust outlet	dB(A)	48	28	32	36	37	36	27	25	26	26	37
LwA to environment	dB(A)	61	38	46	45	53	51	45	42	40	41	50

Enave-C 230 P CF A-weighted sound power level (p.4 on the diagram)		Gen.	Octave frequency band, Hz								LpA, 3m	LpA, 1m
		dB(A)	63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
LwA to supply inlet	dB(A)	59	33	36	40	45	53	40	38	34	39	48
LwA to supply outlet	dB(A)	61	35	38	42	47	56	42	40	36	41	50
LwA to exhaust inlet	dB(A)	39	20	23	27	28	29	20	20	24	19	28
LwA to exhaust outlet	dB(A)	41	21	24	28	29	30	21	21	25	20	29
LwA to environment	dB(A)	55	32	40	39	47	47	37	34	29	34	44

Accessories for air handling units

	Filter G4	Filter F7	Control panel	Control panel	Wi-Fi Control panel	Internal humidity sensor	Internal CO_2 sensor
							
Enave-C 150 P A21	SF 200x165x48 Coarse 90% G4	SF 200x165x48 ePM1 65% F7	A25	A22	A22 Wi-Fi	HV2	CO2-3
Enave-CT 150 P A21							
Enave-C 200 P A21							
Enave-CT 200 P A21							
Enave-C 230 P A21 CF							
Enave-CT 230 P A21 CF							
Enave-C 150 PE A21	SF 200x165x48 Coarse 90% G4	SF 200x165x48 ePM1 65% F7	A25	A22	A22 Wi-Fi	HV2	CO2-3
Enave-CT 150 PE A21							
Enave-C 200 PE A21							
Enave-CT 200 PE A21							
Enave-C 230 PE A21 CF							
Enave-CT 230 PE A21 CF							
Enave-C 150 P A14	SF 200x165x48 Coarse 90% G4	SF 200x165x48 ePM1 65% F7	-	-	-	HV2	-
Enave-CT 150 P A14							
Enave-C 200 P A14							
Enave-CT 200 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-C 150 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-CT 150 P A21									
Enave-C 200 P A21									
Enave-CT 200 P A21									
Enave-C 230 P A21 CF									
Enave-CT 230 P A21 CF									
Enave-C 150 PE A21	CO2-1	CO2-2	HR-S	-	NKD 160 A21 V.2	SH-32	SR 160	KRV 160	TF 230
Enave-CT 150 PE A21									
Enave-C 200 PE A21									
Enave-CT 200 PE A21									
Enave-C 230 PE A21 CF									
Enave-CT 230 PE A21 CF									
Enave-C 150 P A14	CO2-1	CO2-2	HR-S	-	-	SH-32	SR 160	KRV 160	TF 230
Enave-CT 150 P A14									
Enave-C 200 P A14									
Enave-CT 200 P A14									