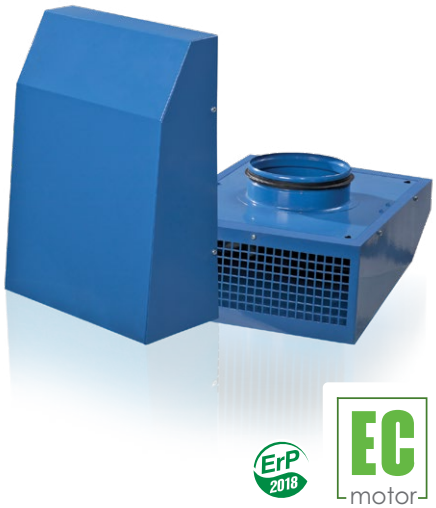
Series
VENTS VCN EC



Exhaust centrifugal fan in steel casing with air flow up to **755 m³/h** for outdoor surface mounting

The motor is protected against direct ingress of moisture and foreign objects

Application
Exhaust ventilation systems for commercial, office and other public or industrial premises for extraction of air with temperatures up to 40 °C. Direct air exhaust is provided.

Design
Steel casing with polymeric coating ensures motor protection against direct humidity exposure in case of the unit outdoor mounting. The fan bottom has a bird and rodent proof guard. Air is exhausted vertically down.

Motor
The units are equipped with high-efficient EC motors with an external rotor and an impeller with backward curved blades. These state-of-the-art motors offer the very best in energy efficiency today.
EC motors are characterised with high performance and optimum control across the entire speed range. In addition to that, the efficiency of the electronically commutated motor reaches very impressive levels of up to 90 %.

Speed control
The fan is controlled with the external control signal 0-10 V (capacity control is performed depending on the required level of productivity, temperature, humidity, pressure and other parameters). Should the control value factor get changed, the EC motor changes its speed and the fan boosts as much air flow to the ventilation system as required.
Maximum fan speed does not depend on the available current frequency and is suitable for operation both at 50 and 60 Hz. Several fans can be integrated into a single computer-driven control system. Custom designed software provides high accuracy control of the fans integrated into a network.

Installation
The fan is designed for outdoor surface wall mounting and connection to round duct of the respective diameter. The fan is powered through the external terminals. Electric connection and mounting shall be performed in compliance with the manual and wiring diagram provided in unit operation manual.

VCN fan WC ventilation example

Designation key

Series	Air duct diameter	Motor type	Options
VENTS VCN	100; 125; 150; 160; 200	**EC**: electronically commutated	**C**: high-powered motor

Accessories

Silencer

Backdraft damper

Air shutter

Clamps

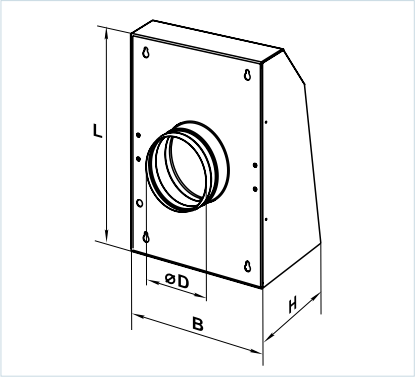
Speed controller R-1/010

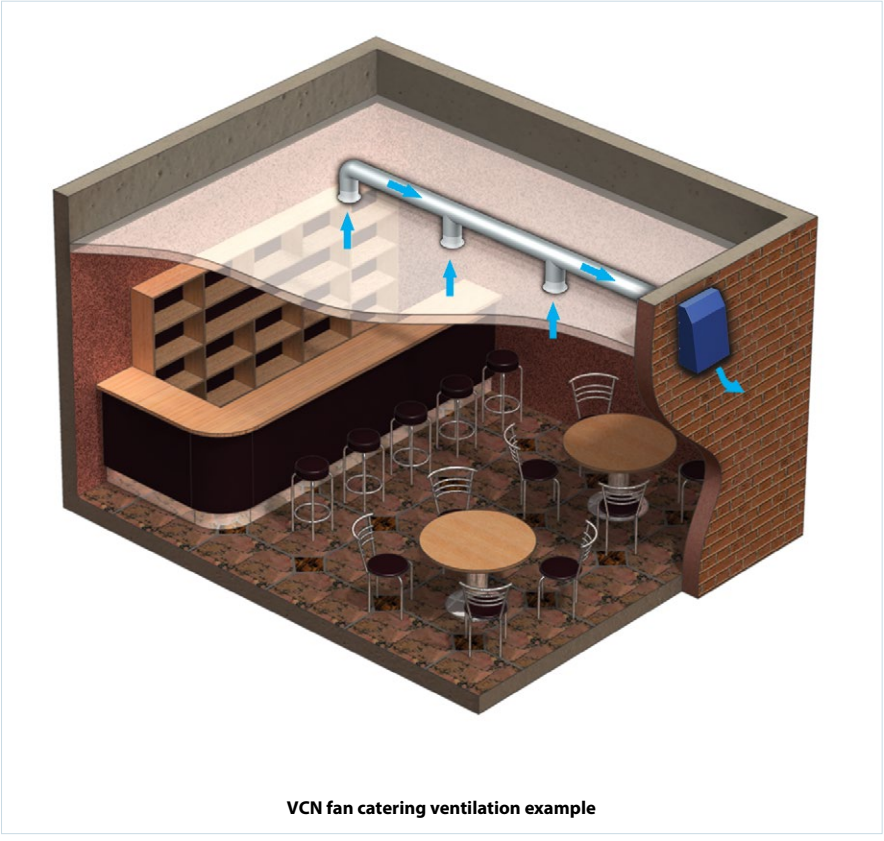
Technical data

	VCN 100 EC	VCN 125 EC	VCN 150 EC	VCN 160 EC	VCN 200 EC	VCN 200 EC C
Voltage [V] at 50 Hz	1~230	1~230	1~230	1~230	1~230	1~230
Power [W]	89	103	92	92	79	102
Current [A]	0.53	0.83	0.75	0.75	0.67	0.86
Maximum air flow [m^3/h]	313	480	550	585	535	755
RPM [min^{-1}]	3460	3600	2840	2840	2680	2800
Sound pressure level at 3 m distance [dBA]	55	57	56	55	55	58
Maximum transported air temperature [°C]	-25...+40	-25...+40	-25...+40	-25...+40	-25...+40	-25...+40
SEC class	B	B	B	B	B	B
Ingress protection rating	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4

Overall dimensions of fans

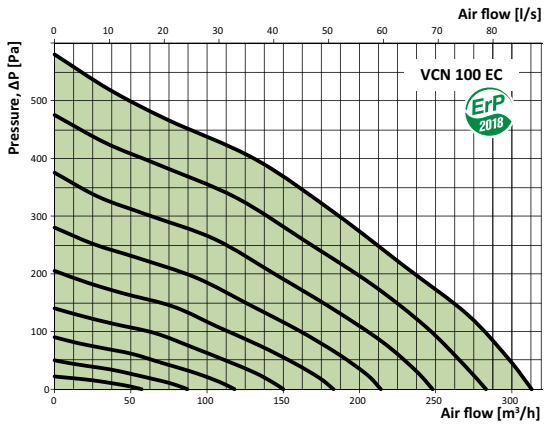
Model	Dimensions [mm]				Mass [kg]
	ØD	L	B	H	
VCN 100 EC	100	355	260	140	3.6
VCN 125 EC	125	355	260	140	3.6
VCN 150 EC	150	400	300	140	4.7
VCN 160 EC	160	400	300	140	4.7
VCN 200 EC	200	400	300	140	4.7
VCN 200 EC C	200	400	326	181.4	5.3

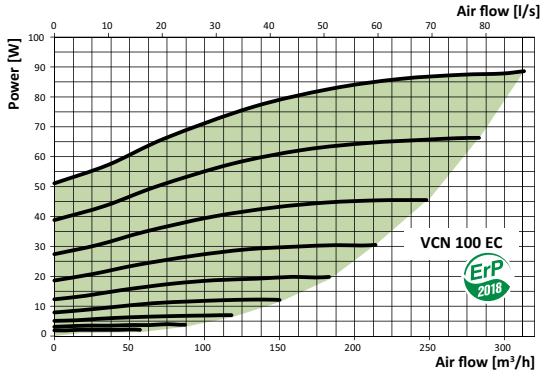




VCN fan catering ventilation example

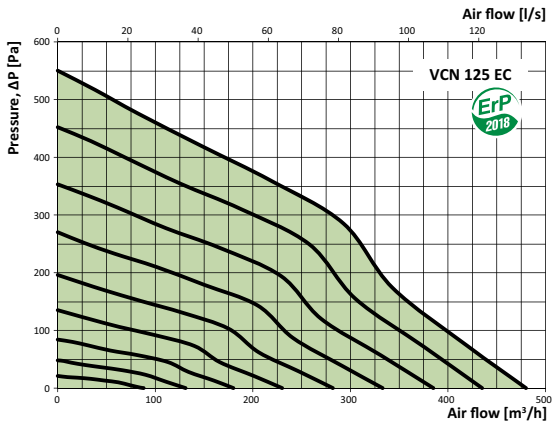
VENTS VCN 100 EC

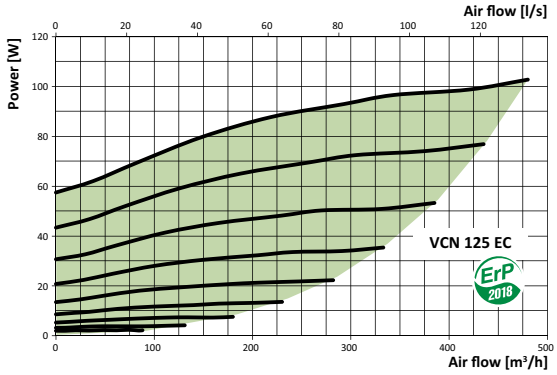




A-weighted sound power level		Octave frequency band [Hz]									LpA, 3 m [dBA]	LpA, 1 m [dBA]
	Hz	Gen.	63	125	250	500	1000	2000	4000	8000		
L_{wA} to inlet	dBA	71	60	57	62	65	67	62	56	49	50	60
L_{wA} to environment	dBA	76	33	44	62	73	68	68	62	51	55	65

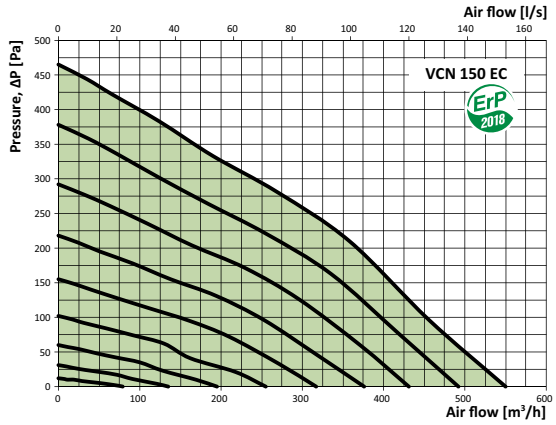
VENTS VCN 125 EC

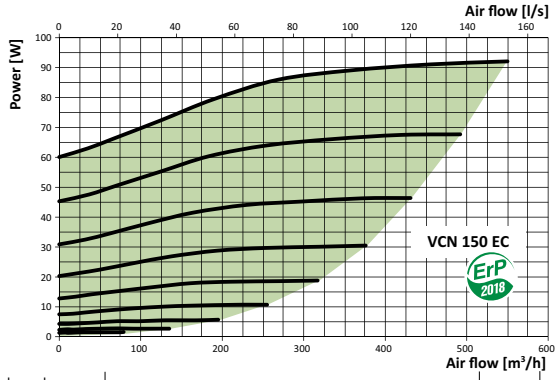




A-weighted sound power level		Octave frequency band [Hz]									LpA, 3 m [dBA]	LpA, 1 m [dBA]
	Hz	Gen.	63	125	250	500	1000	2000	4000	8000		
L_{wA} to inlet	dBA	73	62	59	64	67	69	64	58	51	52	62
L_{wA} to environment	dBA	78	34	45	64	75	71	71	64	53	57	67

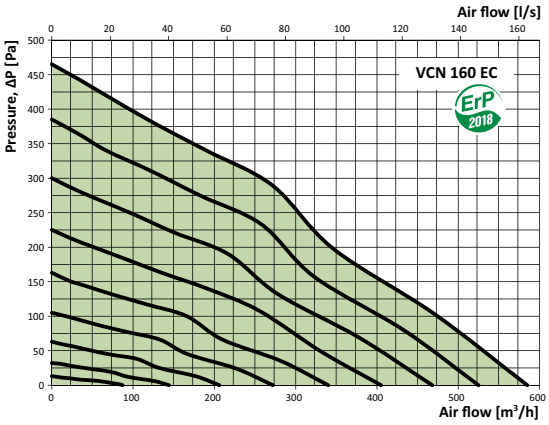
VENTS VCN 150 EC

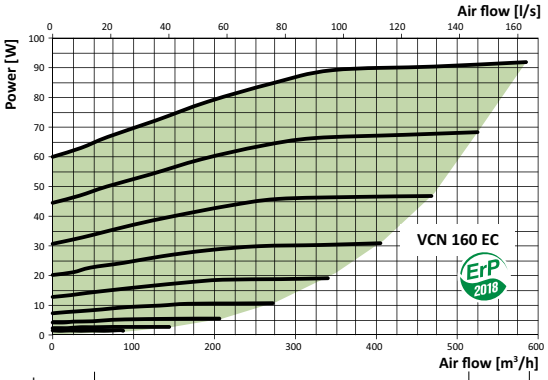




A-weighted sound power level		Octave frequency band [Hz]									LpA, 3 m [dBA]	LpA, 1 m [dBA]
	Hz	Gen.	63	125	250	500	1000	2000	4000	8000		
L_{wA} to inlet	dBA	80	68	65	72	76	71	70	67	61	59	69
L_{wA} to environment	dBA	77	43	53	66	72	70	71	66	60	56	66

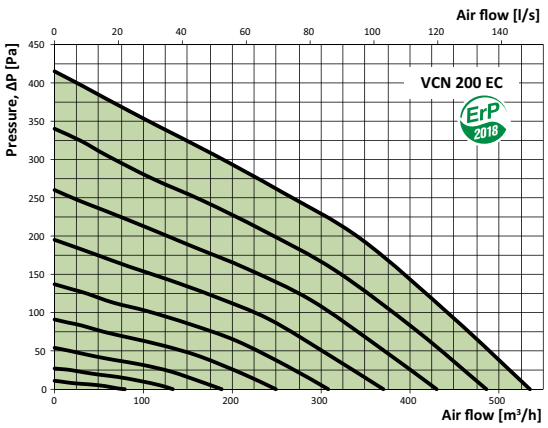
VENTS VCN 160 EC

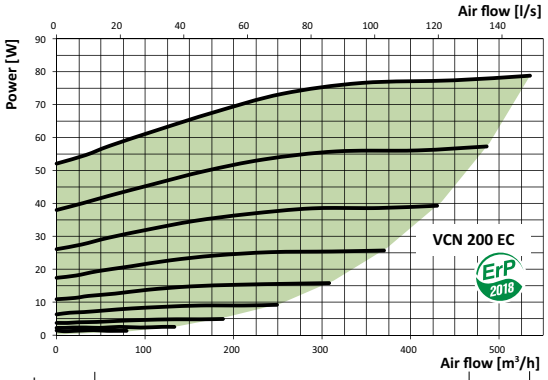




A-weighted sound power level		Octave frequency band [Hz]									LpA, 3 m [dBA]	LpA, 1 m [dBA]
	Hz	Gen.	63	125	250	500	1000	2000	4000	8000		
L_{wA} to inlet	dBA	79	62	68	73	74	72	66	64	56	58	68
L_{wA} to environment	dBA	76	40	52	68	71	70	68	61	52	55	65

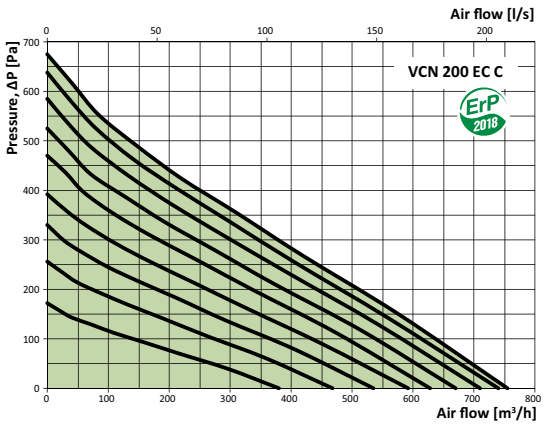
VENTS VCN 200 EC

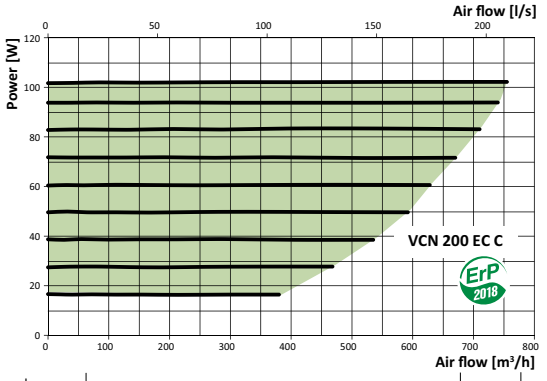




A-weighted sound power level		Octave frequency band [Hz]									LpA, 3 m [dBA]	LpA, 1 m [dBA]
	Hz	Gen.	63	125	250	500	1000	2000	4000	8000		
L_{wA} to inlet	dBA	79	59	61	67	76	71	69	67	60	58	68
L_{wA} to environment	dBA	75	42	52	65	71	69	70	65	59	55	65

VENTS VCN 200 EC C





A-weighted sound power level		Octave frequency band [Hz]									LpA, 3 m [dBA]	LpA, 1 m [dBA]
	Hz	Gen.	63	125	250	500	1000	2000	4000	8000		
L_{wA} to inlet	dBA	82	61	63	69	80	73	71	69	62	61	71
L_{wA} to environment	dBA	79	44	55	68	74	72	73	68	62	58	68