

Series  
**VENTS VCUN**



Scroll single-inlet centrifugal fans with the impeller mounted directly on the three phase asynchronous motor shaft. Air flow up to **19 000 m<sup>3</sup>/h**. The fan is designed for supply and exhaust ventilation systems.

■ **Applications**

Supply and exhaust ventilation systems for commercial, office and other public or industrial premises. The fans can be used as components for ventilation and air conditioning units and are suitable for outdoor mounting.

■ **Design**

The fan casing is made of steel with polymeric coating. VCUN fan can be supplied both with the clockwise or counterclockwise rotation impeller. Each modification has few scroll positions to enable connection to the air ducts at any angle with 45° pitch distance.

■ **Motor**

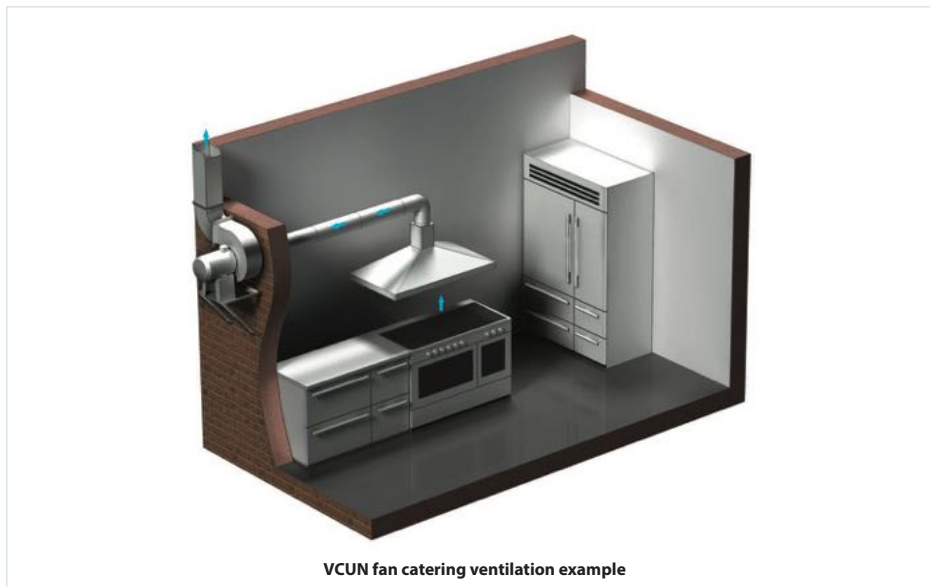
2-, 4-, 6- or 8-pole three phase asynchronous motors and impeller with forward curved blades made of galvanized steel installed on the motor shaft. Ball bearings in the motor ensure long service life. For precise features, safe operation and low noise, each turbine is dynamically balanced while assembly. Motor protection rating IP54.

■ **Speed control**

Both smooth or step speed control is performed by means of the autotransformer or frequency controller. Several fans can be connected to one controller in case the total power and operating current do not exceed the rated controller values.

■ **Mounting**

The fan is suitable for installation in ventilating chambers, air conditioning units or can be used separately. In case of independent operation it can be connected to air ducts by means of both exhaust and intake branch pipes or exhaust branch pipe only. The exhaust and inlet branch pipes have rectangular or circular sections accordingly. Power is supplied by means of external terminals.



ErP data	
Overall efficiency	η [%]
Measurement category	MC
Efficiency category	EC
Efficiency grade	N
Variable speed drive	VSD
Power	kW
Current	A
Air flow	m <sup>3</sup> /h
Static pressure	Pa
Speed	n/min <sup>-1</sup>
Specific ratio	SR

**Designation key**

Series	Impeller diameter, mm	Impeller width, mm	Motor modification		Scroll orientation*	Casing rotation angle*
			Power [kW]	Number of poles		
<b>VENTS VCUN</b>	140; 160; 180; 200; 225; 250; 280; 315; 355; 400; 450; 500	74; 93; 103; 127; 143; 183; 203; 229	0.25; 0.37; 0.55; 0.75; 1.1; 1.5; 2.2; 3; 4; 5.5; 7.5; 11	2; 4; 6; 8	R: right side; L: left side	0; 45; 90; 135; 180; 225; 270; 315

\* Standard casing modification PR90 (refer picture).

**Accessories**



**Technical data**

	VCUN 140x74- 0,25-4	VCUN 140x74- 0.37-2	VCUN 160x74- 0,55-4	VCUN 160x74- 0,75-2	VCUN 180x74- 0,55-4	VCUN 180x74- 1,1-2	VCUN 200x93- 0,55-4	VCUN 200x93- 1,1-2
Voltage [V/50 Hz]	3~400	3~400	3~400	3~400	3~400	3~400	3~400	3~400
Power [kW]	0.25	0.37	0.55	0.75	0.55	1.1	0.55	1.1
Current [A]	0.8	0.9	1.6	1.8	1.6	2.6	1.6	2.6
Max. air flow [m³/h]	450	710	750	1540	1030	1950	1615	1900
RPM [min <sup>-1</sup> ]	1350	2730	1360	2820	1360	2800	1360	2800
Noise level at 3 m [dBA]	60	65	62	68	64	70	67	73
Transported air temperature [°C]	60	60	60	60	60	60	60	60
Protection rating	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54

**Technical data**

	VCUN 225x103- 1,1-4	VCUN 225x103- 2,2-2	VCUN 240x114- 2,2-4	VCUN 240x114- 3,0-2	VCUN 250x127- 1,5-6	VCUN 250x127- 2,2-4	VCUN 250x127- 5,5-2	VCUN 280x127- 1,5-6
Voltage [V/50 Hz]	3~400	3~400	3~400	3~400	3~400	3~400	3~400	3~400
Power [kW]	1.1	2.2	2.2	3.0	1.5	2.2	5.5	1.5
Current [A]	2.8	4.7	5.1	6.1	4.2	5.1	10.7	4.2
Max. air flow [m³/h]	2125	3350	2930	4350	2415	3720	4820	3450
RPM [min <sup>-1</sup> ]	1420	2865	1420	2870	940	1420	2850	940
Noise level at 3 m [dBA]	72	75	74	78	68	78	81	69
Transported air temperature [°C]	60	60	60	60	60	60	60	60
Protection rating	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54

**Technical data**

	VCUN 280x127- 2,2-4	VCUN 280x127- 5,5-2	VCUN 315x143- 2,2-6	VCUN 315x143- 4,0-4	VCUN 355x143- 2,2-6	VCUN 355x143- 4,0-4	VCUN 400x183- 1,5-8	VCUN 400x183- 2,2-6
Voltage [V/50 Hz]	3~400	3~400	3~400	3~400	3~400	3~400	3~400	3~400
Power [kW]	2.2	5.5	2.2	4.0	2.2	4.0	1.5	2.2
Current [A]	5.1	10.7	5.6	8.7	5.6	8.7	4.2	5.8
Max. air flow [m³/h]	4395	6330	4375	6530	5090	8150	6545	8100
RPM [min <sup>-1</sup> ]	1420	2850	940	1410	940	1410	700	940
Noise level at 3 m [dBA]	75	81	70	79	71	79	62	73
Transported air temperature [°C]	60	60	60	60	60	60	60	60
Protection rating	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54

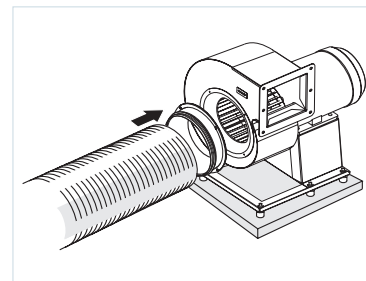
**Technical data**

	VCUN 400x183- 5,5-4	VCUN 450x203- 3,0-8	VCUN 450x203- 4,0-6	VCUN 450x203- 11,0-4	VCUN 500x229- 5,5-8	VCUN 500x229- 7,5-6	VCUN 500x229- 11,0-4
Voltage [V/50 Hz]	3~400	3~400	3~400	3~400	3~400	3~400	3~400
Power [kW]	5.5	3.0	4.0	11.0	5.5	7.5	11.0
Current [A]	11.0	7.8	9.1	24.0	14.8	17.0	24.0
Max. air flow [m³/h]	10175	10230	11150	19000	11550	14960	17250
RPM [min <sup>-1</sup> ]	1430	700	950	1450	700	955	1450
Noise level at 3 m [dBA]	80	70	76	84	72	78	85
Transported air temperature [°C]	60	60	60	60	60	60	60
Protection rating	IP54	IP54	IP54	IP54	IP54	IP54	IP54

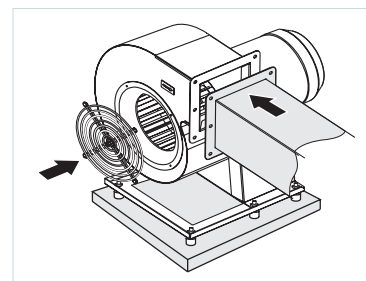
Selection table for accessories

Type	Rubber anti-vibration mounts	Spring-loaded anti-vibration mounts	Flange	Flexible connector	Grille
VCUN 140x74-0,25-4	VVCr 8	VVCp 8	FVC 140	VVG 140	RVC 140
VCUN 140x74-0,37-2				VVG-VCUN 92x95	
VCUN 160x74-0,55-4			FVC 160	VVG 160	RVC 160
VCUN 160x74-0,75-2				VVG-VCUN 106x104	
VCUN 180x74-0,55-4			FVC 180	VVG 180	RVC 180
VCUN 180x74-1,1-2				VVG-VCUN 120x114	
VCUN 200x93-0,55-4			FVC 200	VVG 200	RVC 200
VCUN 200x93-1,1-2				VVG-VCUN 134x129	
VCUN 225x103-1,1-4			FVC 225	VVG 225	RVC 225
VCUN 225x103-2,2-2				VVG-VCUN 151x141	
VCUN 240x114-2,2-4	VVCr 16	VVCp 16	FVC 240	VVG 240	RVC 240
VCUN 240x114-3,0-2				VVG-VCUN 161x156	
VCUN 250x127-1,5-6			FVC 250	VVG 250	RVC 250
VCUN 250x127-2,2-4				VVG-VCUN 168x166	
VCUN 250x127-5,5-2			FVC 280	VVG 280	RVC 280
VCUN 280x127-1,5-6				VVG-VCUN 189x196	
VCUN 280x127-2,2-4			FVC 315	VVG 315	RVC 315
VCUN 280x127-5,5-2				VVG-VCUN 213x216	
VCUN 315x143-2,2-6			FVC 355	VVG 355	RVC 355
VCUN 315x143-4,0-4				VVG-VCUN 241x214	
VCUN 355x143-2,2-6	VVCr 35	VVCp 35	FVC 400	VVG 400	RVC 400
VCUN 355x143-4,0-4				VVG-VCUN 272x268	VVG-VCUN 272x289
VCUN 400x183-1,5-8	VVCr 50	VVCp 50	FVC 450	VVG 450	RVC 450
VCUN 400x183-2,2-6				VVG-VCUN 306x315	
VCUN 400x183-5,5-4	VVCr 75	VVCp 75	FVC 500	VVG 500	RVC 500
VCUN 450x203-3,0-8				VVG-VCUN 341x353	
VCUN 450x203-4,0-6	VVCr 75	VVCp 75	FVC 500	VVG 500	RVC 500
VCUN 450x203-11,0-4				VVG-VCUN 341x353	
VCUN 500x229-5,5-8	VVCr 75	VVCp 75	FVC 500	VVG 500	RVC 500
VCUN 500x229-7,5-6				VVG-VCUN 341x353	
VCUN 500x229-11,0-4					

**FVC Flange**  
designed to connect round ducts to VCUN fans.



**RVC Grille**  
designed for fan protection against foreign objects.



**Anti-vibration mounts VVCr and VVCp**  
Designed for noise reduction and vibration damping produced by the fans. Provide dynamic loading decrease and increase reliability and durability of ventilation equipment.



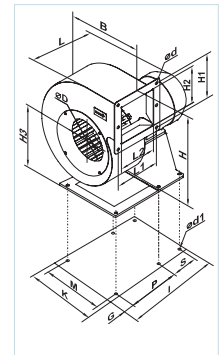
Anti-vibration mount VVCr



Anti-vibration mount VVCp

**Fan overall dimensions**

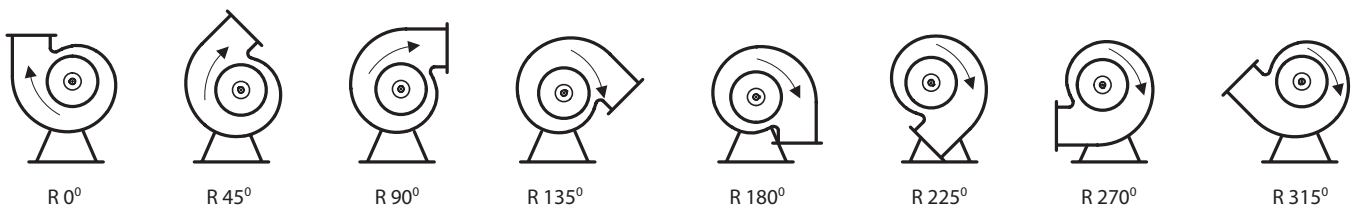
Type	Dimensions [mm]																	Mass [kg]
	∅D	∅d	∅d1	B	H	H1	H2	H3	L	L1	L2	P	M	I	G	K	S	
VCUN 140x74-0,25-4	140	8	10	242	323	125	92	144	309	125	95	124	220	234	18	253	80	9.3
VCUN 140x74-0,37-2	140	8	10	242	323	125	92	144	309	125	95	124	220	234	18	253	80	9.3
VCUN 160x74-0,55-4	160	8	10	277	373	134	106	173	356	134	104	141	220	260	17	252	90	12.7
VCUN 160x74-0,75-2	160	8	10	277	373	134	106	173	356	134	104	141	220	260	17	252	90	13.0
VCUN 180x74-0,55-4	180	10	10	311	414	143	120	193	365	143	114	146	270	270	22	314	90	13.5
VCUN 180x74-1,1-2	180	10	10	311	414	143	120	193	365	143	114	146	270	270	22	314	90	14.5
VCUN 200x93-0,55-4	200	10	10	345	436	160	134	193	380	160	129	158	270	284	24	315	90	15.2
VCUN 200x93-1,1-2	200	10	10	345	436	160	134	193	380	160	129	158	270	284	24	315	90	16.2
VCUN 225x103-1,1-4	225	10	12	388	507	178	151	232	432	172	141	174	275	316	27	330	100	21.2
VCUN 225x103-2,2-2	225	10	12	388	507	178	151	232	432	172	141	174	275	316	27	330	100	24.2
VCUN 240x114-2,2-4	240	10	12	414	568	186	161	282	461	186	156	195	275	362	27	330	125	30.5
VCUN 240x114-3,0-2	240	10	12	414	568	186	161	282	461	186	156	195	275	362	27	330	125	31.4
VCUN 250x127-1,5-6	250	10	12	431	594	202	168	292	473	202	166	206	300	373	27	355	125	33.0
VCUN 250x127-2,2-4	250	10	12	431	594	202	168	292	473	202	166	206	300	373	27	355	125	32.2
VCUN 250x127-5,5-2	250	10	12	431	614	202	168	312	517	202	166	213	300	397	27	355	140	40.0
VCUN 280x127-1,5-6	280	10	12	483	626	225	189	292	503	231	196	243	300	410	27	355	125	35.1
VCUN 280x127-2,2-4	280	10	12	483	626	225	189	292	503	231	196	243	300	410	27	355	125	34.2
VCUN 280x127-5,5-2	280	10	12	483	646	225	189	312	545	231	196	243	300	427	27	355	140	42.4
VCUN 315x143-2,2-6	315	10	15	543	731	250	213	353	568	255	216	268	350	452	27	405	140	46.8
VCUN 315x143-4,0-4	315	10	15	543	731	250	213	353	568	255	216	268	350	452	27	405	140	49.8
VCUN 355x143-2,2-6	355	10	15	611	817	275	241	403	566	255	214	253	350	442	32	405	140	49.0
VCUN 355x143-4,0-4	355	10	15	611	817	275	241	403	566	255	214	253	350	442	32	405	140	51.0
VCUN 400x183-1,5-8	400	10	15	689	870	310	272	403	619	310	268	313	400	497	27	455	140	57.1
VCUN 400x183-2,2-6	400	10	15	689	870	310	272	403	619	310	268	313	400	497	27	455	140	54.1
VCUN 400x183-5,5-4	400	10	15	689	882	310	272	414	662	330	289	341	400	525	27	455	140	69.5
VCUN 450x203-3,0-8	450	10	15	774	985	345	306	464	690	352	315	351	450	550	42	530	140	77.8
VCUN 450x203-4,0-6	450	10	15	774	985	345	306	464	690	352	315	351	450	550	42	530	140	76.5
VCUN 450x203-11,0-4	450	10	15	774	1005	345	306	484	722	352	315	371	450	608	42	530	178	105.0
VCUN 500x229-5,5-8	500	11	15	860	1115	390	341	534	761	401	353	408	500	645	42	580	178	85.0
VCUN 500x229-7,5-6	500	11	15	860	1115	390	341	534	761	401	353	408	500	645	42	580	178	86.0
VCUN 500x229-11,0-4	500	11	15	860	1115	390	341	534	761	401	353	408	500	645	42	580	178	107.0



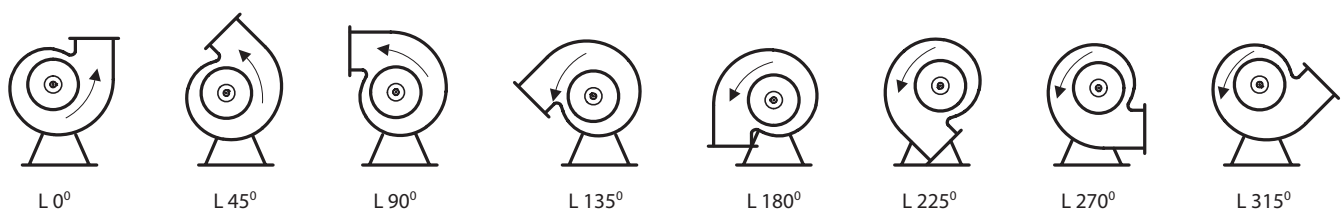
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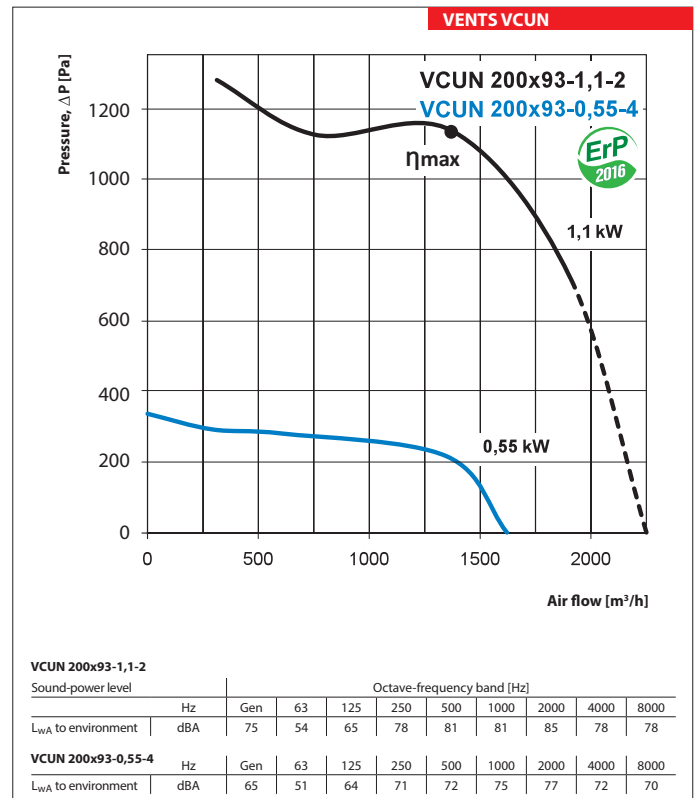
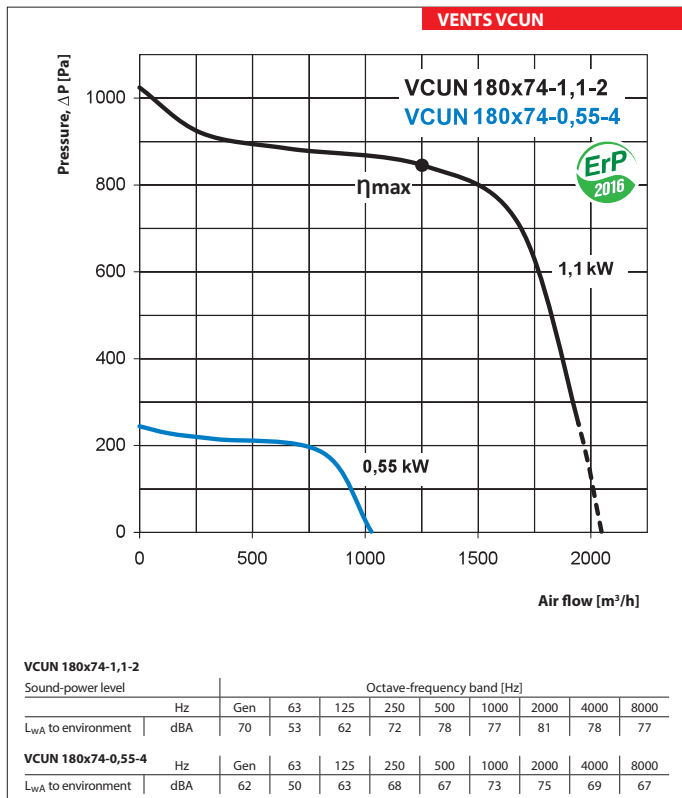
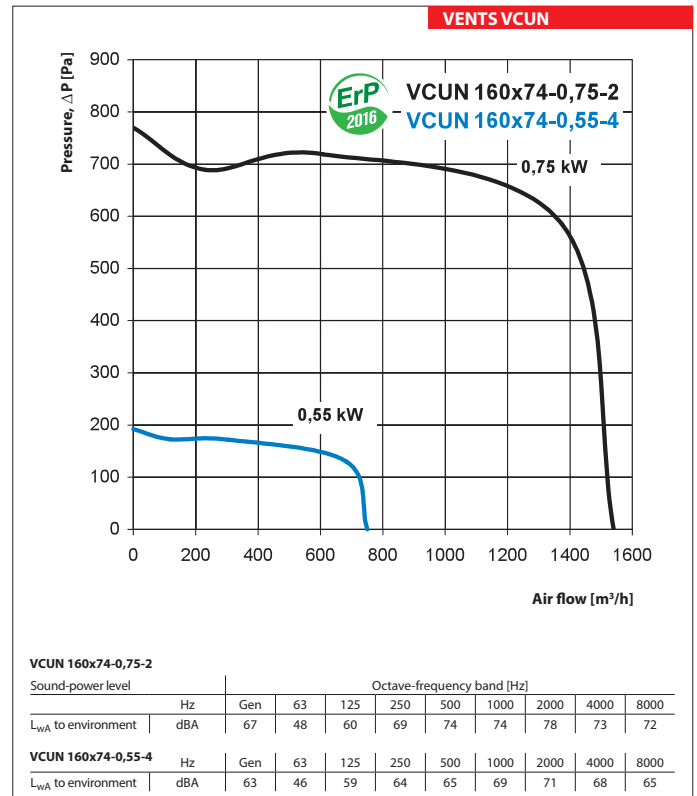
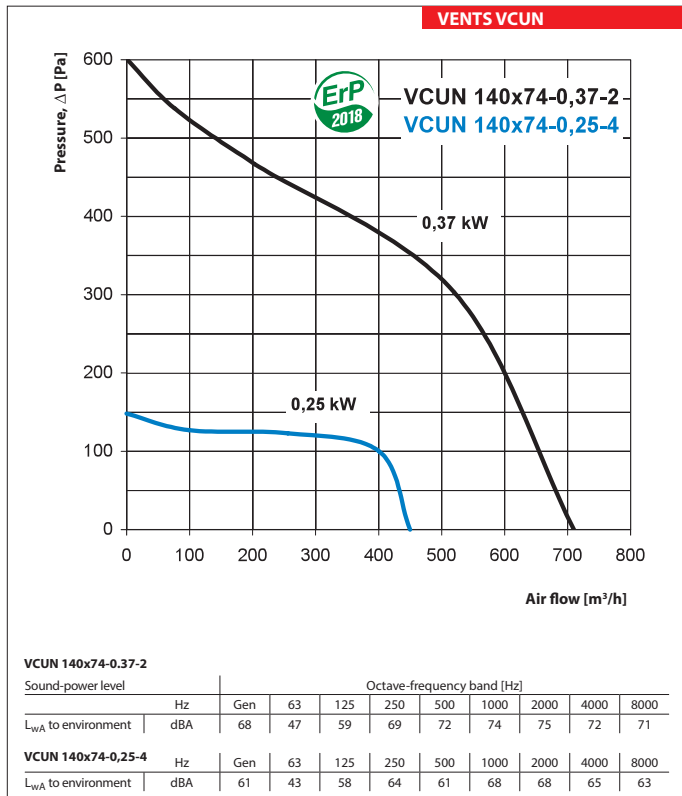
**Scroll orientation (view on the intake side)**

Right scroll orientation



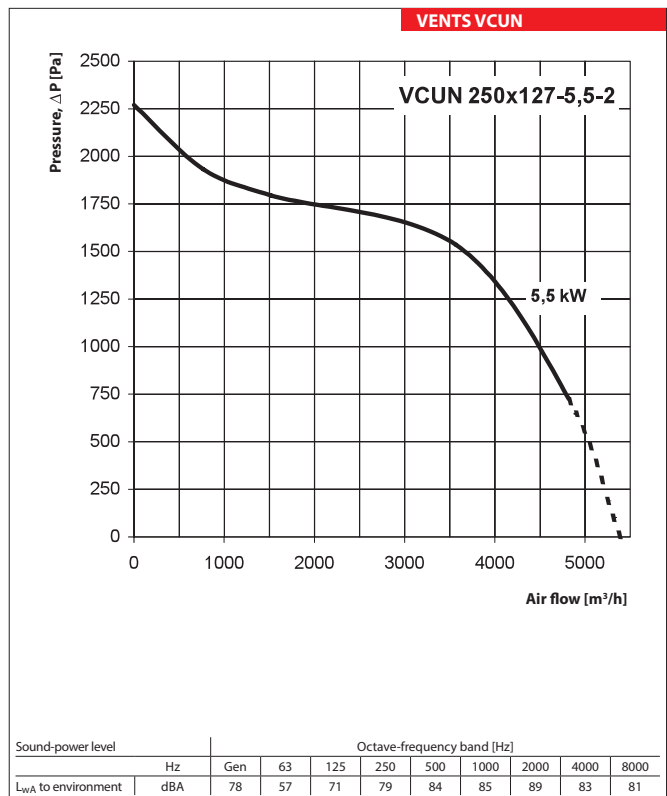
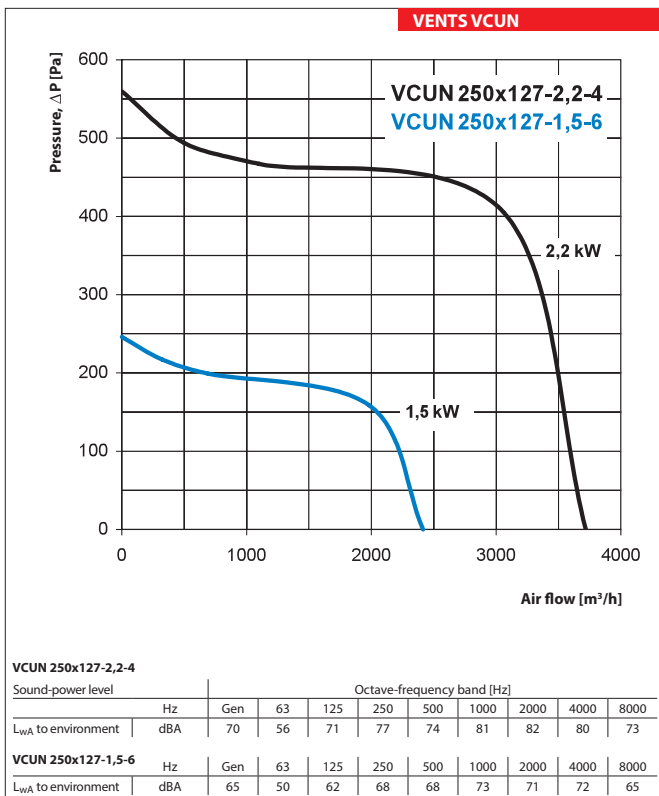
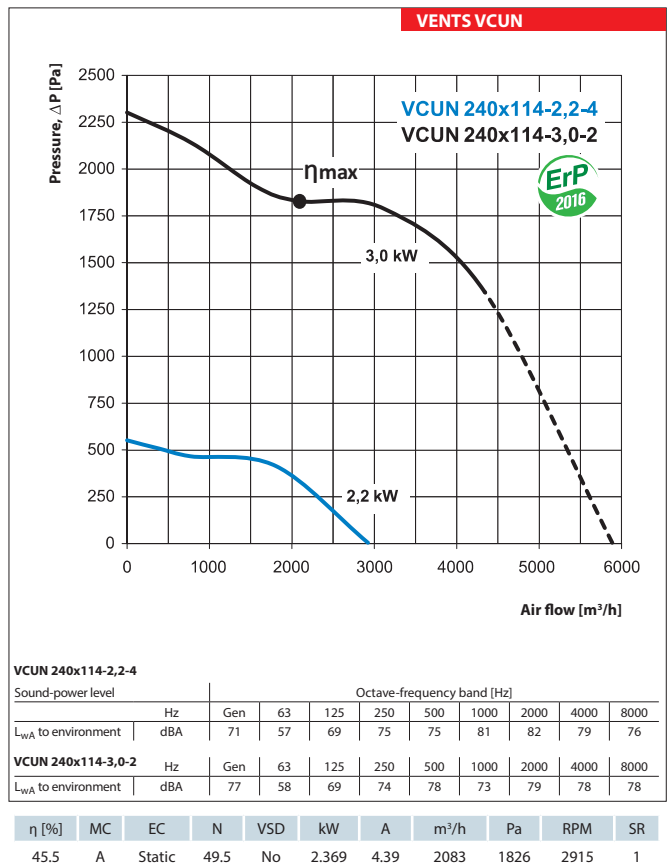
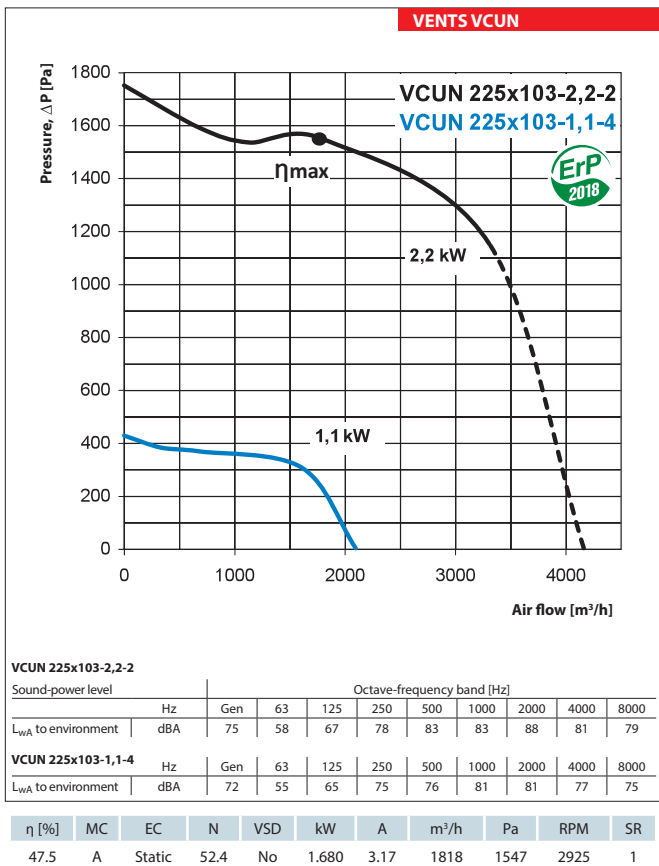
Left scroll orientation



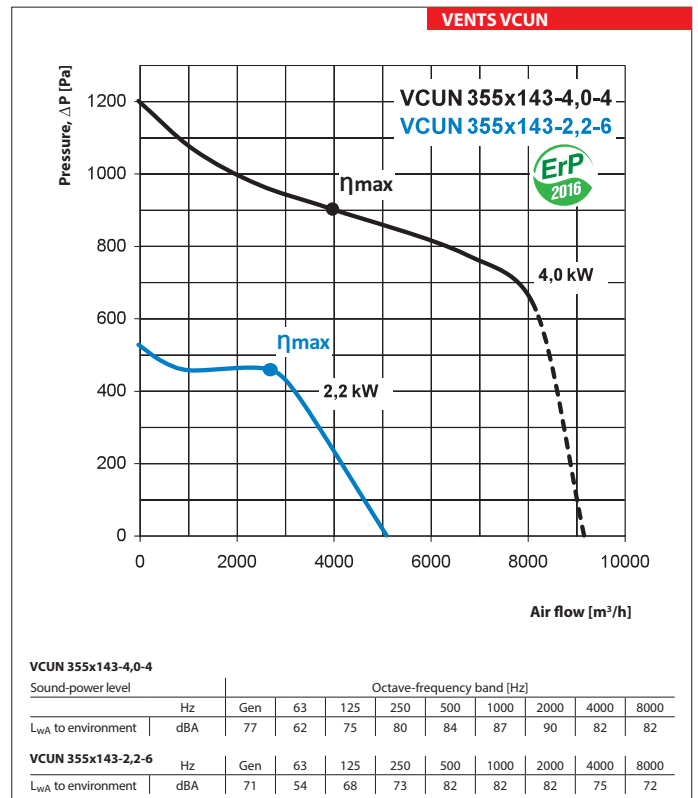
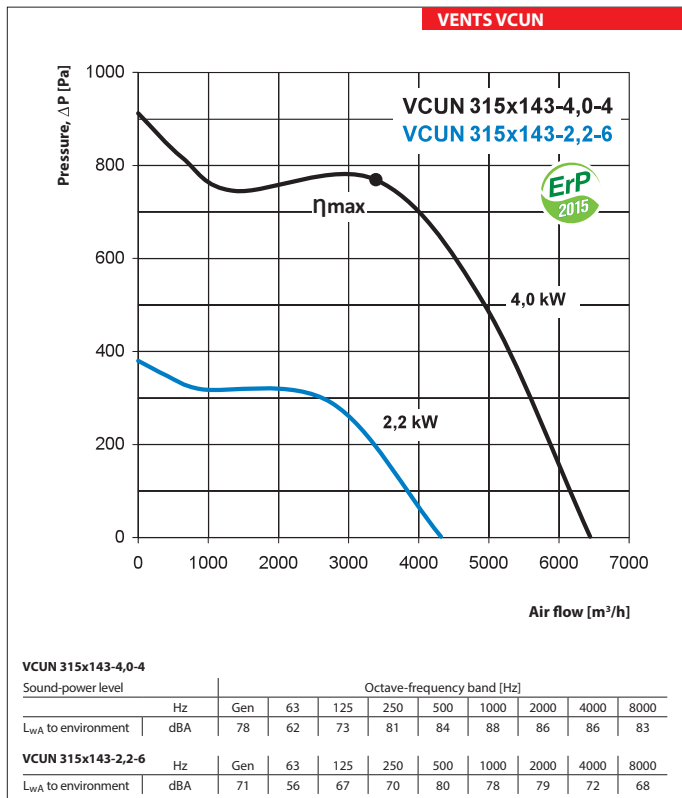
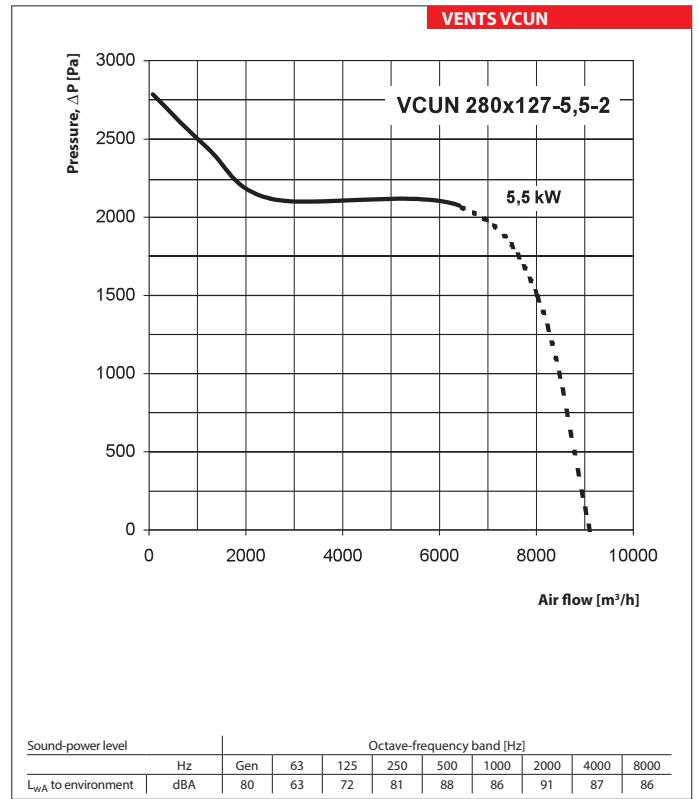
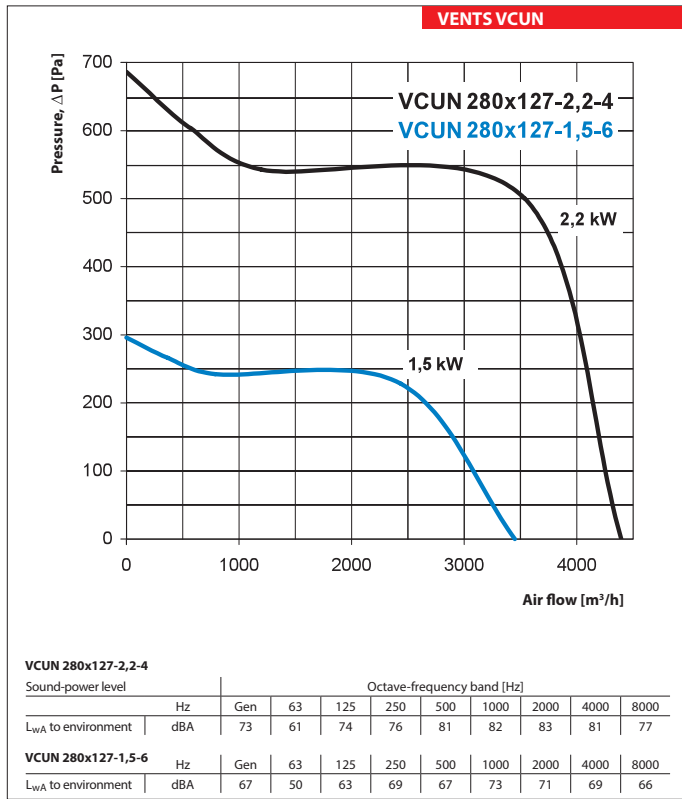


$\eta$ [%]	MC	EC	N	VSD	kW	A	m <sup>3</sup> /h	Pa	RPM	SR
39.3	A	Static	46.3	No	0.769	1.67	1264	843	2940	1

$\eta$ [%]	MC	EC	N	VSD	kW	A	m <sup>3</sup> /h	Pa	RPM	SR
41.1	A	Static	47.2	No	1.075	1.99	1373	1135	2895	1



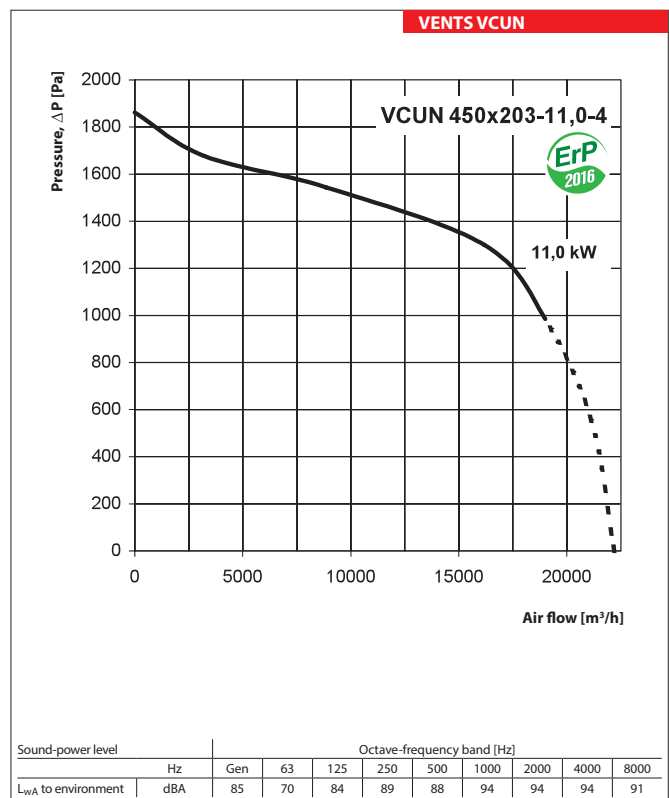
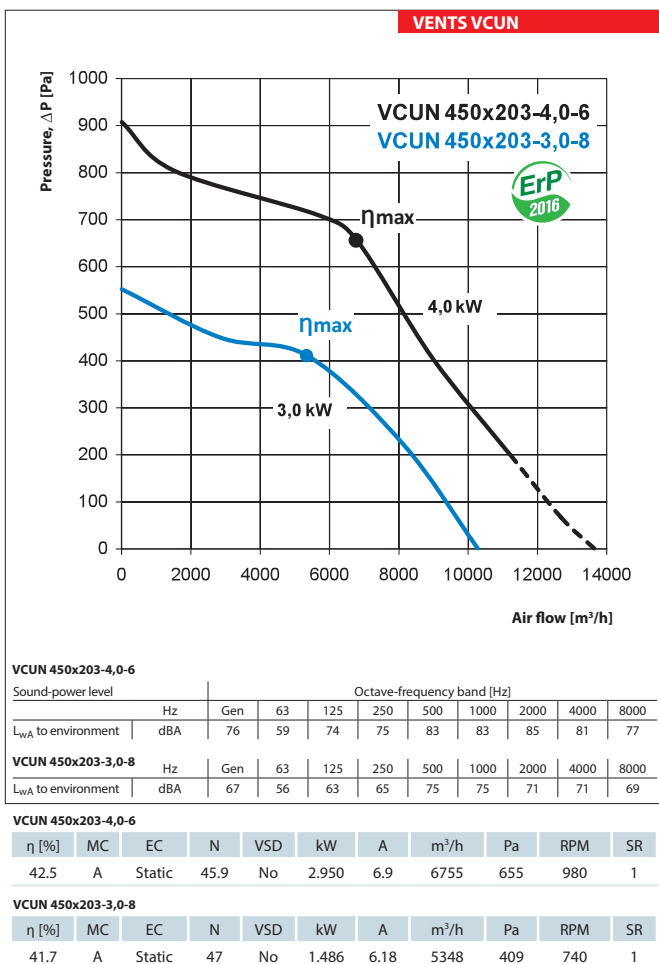
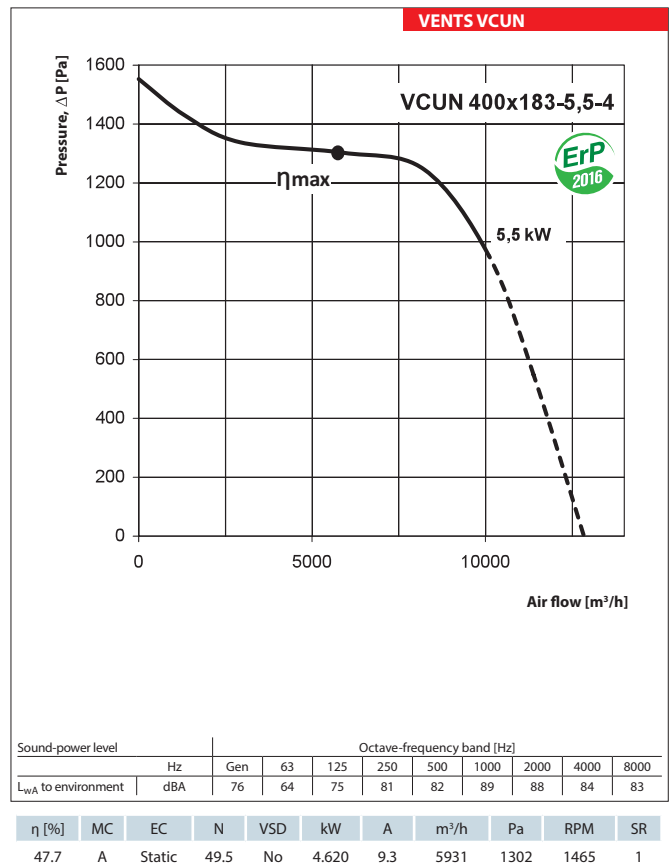
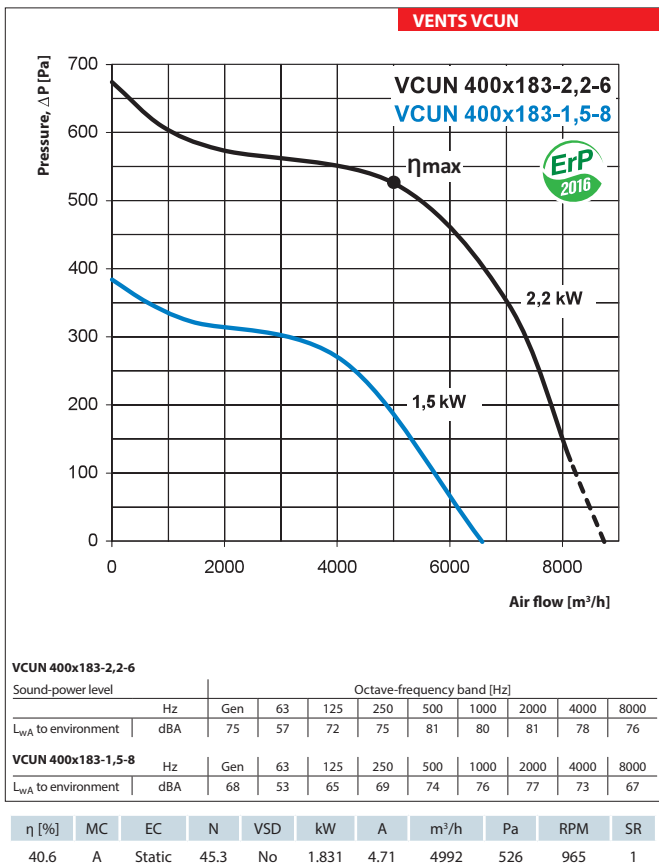
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$\eta$ [%]	MC	EC	N	VSD	kW	A	m <sup>3</sup> /h	Pa	RPM	SR
36.3	A	Static	40.7	No	2.051	6.32	3429	767	1480	1

$\eta$ [%]	MC	EC	N	VSD	kW	A	m <sup>3</sup> /h	Pa	RPM	SR
41.3	A	Static	45.2	No	2.449	6.6	3948	904	1475	1

$\eta$ [%]	MC	EC	N	VSD	kW	A	m <sup>3</sup> /h	Pa	RPM	SR
34.1	A	Static	40.3	No	1.026	4.19	2680	460	990	1



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