

Series  
**VENTS VCUN**



Scroll single-inlet centrifugal fans with the impeller mounted directly on the three phase asynchronous motor shaft. Air capacity 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 various 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 IP 54.

■ **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.



VCUN fan catering ventilation example

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



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**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]	400	400	400	400	400	400	400	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 capacity [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
Maximum transported air temperature [°C]	60	60	60	60	60	60	60	60
Protection rating	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54

**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]	400	400	400	400	400	400	400	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 capacity [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
Maximum transported air temperature [°C]	60	60	60	60	60	60	60	60
Protection rating	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54

**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]	400	400	400	400	400	400	400	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 capacity [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
Maximum transported air temperature [°C]	60	60	60	60	60	60	60	60
Protection rating	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54

**Technical data:**

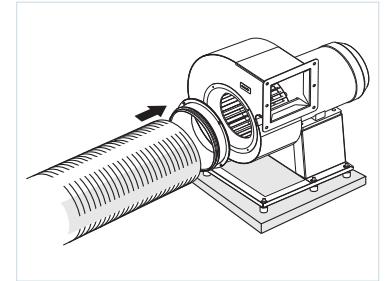
	VCUN 400x183-5,5-4	VCUN 450x203-3,0-8	VCUN 450x203-4,0-6	VCUN 450x203-11,0-4	VCUN 500x229-5,5-8	VCUN 500x229-7,5-6	VCUN 500x229-11,0-4
Voltage [V / 50 Hz]	400	400	400	400	400	400	400
Power [kW]	5.5	3.0	4.0	11.0	5.5	7.5	11.0
Current [A]	11.0	7.8	9.1	24.0	14.8	17.0	24.0
Max. air capacity [m³/h]	10175	10230	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
Maximum transported air temperature [°C]	60	60	60	60	60	60	60
Protection rating	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54

FAN SERIES VENTS VCUN

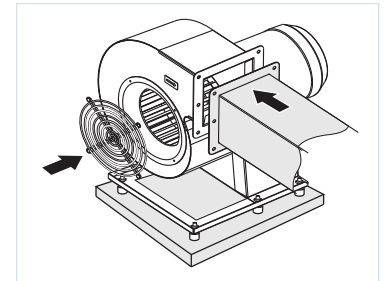
**SELECTION TABLE FOR ACCESSORIES:**

Type	Rubber anti-vibration mounts	Spring-loaded anti-vibration mounts	Flange	Grille				
VCUN 140x74-0,25-4	VVCr 8	VVCp 8	FVC-VCUN 140	RVC-VCUN 140				
VCUN 140x74-0,37-2				RVC-VCUN 160				
VCUN 160x74-0,55-4				RVC-VCUN 160				
VCUN 160x74-0,75-2			VVCr 8	VVCp 8	FVC-VCUN 180	RVC-VCUN 180		
VCUN 180x74-0,55-4						RVC-VCUN 180		
VCUN 180x74-1,1-2						RVC-VCUN 200		
VCUN 200x93-0,55-4					VVCr 16	VVCp 16	FVC-VCUN 200	RVC-VCUN 200
VCUN 200x93-1,1-2								RVC-VCUN 225
VCUN 225x103-1,1-4								RVC-VCUN 225
VCUN 225x103-2,2-2	VVCr 16	VVCp 16					FVC-VCUN 240	RVC-VCUN 240
VCUN 240x114-2,2-4								RVC-VCUN 240
VCUN 240x114-3,0-2								RVC-VCUN 250
VCUN 250x127-1,5-6			VVCr 16	VVCp 16			FVC-VCUN 250	RVC-VCUN 250
VCUN 250x127-2,2-4								RVC-VCUN 250
VCUN 250x127-5,5-2								RVC-VCUN 280
VCUN 280x127-1,5-6					VVCr 26	VVCp 26	FVC-VCUN 280	RVC-VCUN 280
VCUN 280x127-2,2-4								RVC-VCUN 315
VCUN 280x127-5,5-2								RVC-VCUN 315
VCUN 315x143-2,2-6	VVCr 26	VVCp 26					FVC-VCUN 315	RVC-VCUN 315
VCUN 315x143-4,0-4								RVC-VCUN 355
VCUN 355x143-2,2-6								RVC-VCUN 355
VCUN 355x143-4,0-4			VVCr 35	VVCp 35			FVC-VCUN 400	RVC-VCUN 400
VCUN 400x183-1,5-8								RVC-VCUN 400
VCUN 400x183-2,2-6								RVC-VCUN 450
VCUN 400x183-5,5-4					VVCr 35	VVCp 35	FVC-VCUN 450	RVC-VCUN 450
VCUN 450x203-3,0-8								RVC-VCUN 450
VCUN 450x203-4,0-6								RVC-VCUN 500
VCUN 450x203-11,0-4	VVCr 50	VVCp 50					FVC-VCUN 500	RVC-VCUN 500
VCUN 500x229-5,5-8								RVC-VCUN 500
VCUN 500x229-7,5-6								RVC-VCUN 500
VCUN 500x229-11,0-4			VVCr 75	VVCp 75			FVC-VCUN 500	RVC-VCUN 500
VCUN 500x229-5,5-8								RVC-VCUN 500
VCUN 500x229-7,5-6								RVC-VCUN 500
VCUN 500x229-11,0-4					VVCr 75	VVCp 75	FVC-VCUN 500	RVC-VCUN 500
VCUN 500x229-5,5-8								RVC-VCUN 500
VCUN 500x229-7,5-6								RVC-VCUN 500
VCUN 500x229-11,0-4	VVCr 75	VVCp 75					FVC-VCUN 500	RVC-VCUN 500
VCUN 500x229-5,5-8								RVC-VCUN 500
VCUN 500x229-7,5-6								RVC-VCUN 500

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



**RVC-VCUN 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.



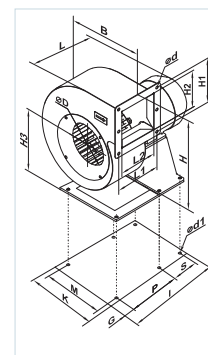
Anti-vibration mount VVCr



Anti-vibration mount VVCp

**Fan overall dimensions:**

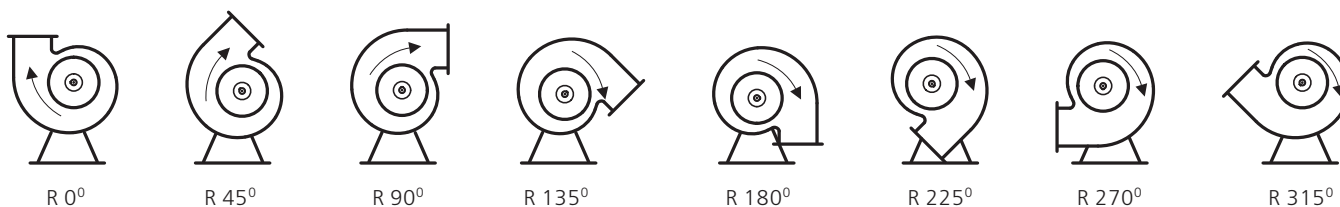
Type	Dimensions [mm]																	Weight [kg]
	∅D	∅d	∅d1	B	H	H1	H2	H3	L	L1	L2	P	M	I	G	K	S	
VCUN 140x74-0,25-4	140	8	10	242	323	125	92	144	309	125	95	124	220	234	18	253	80	9.3
VCUN 140x74-0,37-2	140	8	10	242	323	125	92	144	309	125	95	124	220	234	18	253	80	9.3
VCUN 160x74-0,55-4	160	8	10	277	373	134	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
<b>VCUN 225x103-2,2-2</b>	<b>225</b>	<b>10</b>	<b>12</b>	<b>388</b>	<b>507</b>	<b>178</b>	<b>151</b>	<b>232</b>	<b>432</b>	<b>172</b>	<b>141</b>	<b>174</b>	<b>275</b>	<b>316</b>	<b>27</b>	<b>330</b>	<b>100</b>	<b>24.2</b>
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



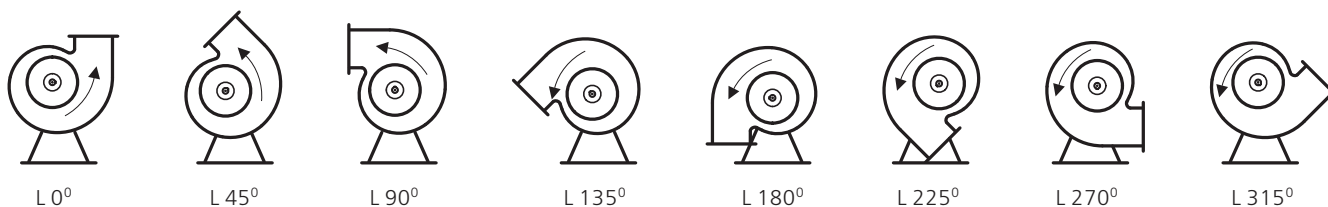
FAN SERIES VENTS VCUN

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

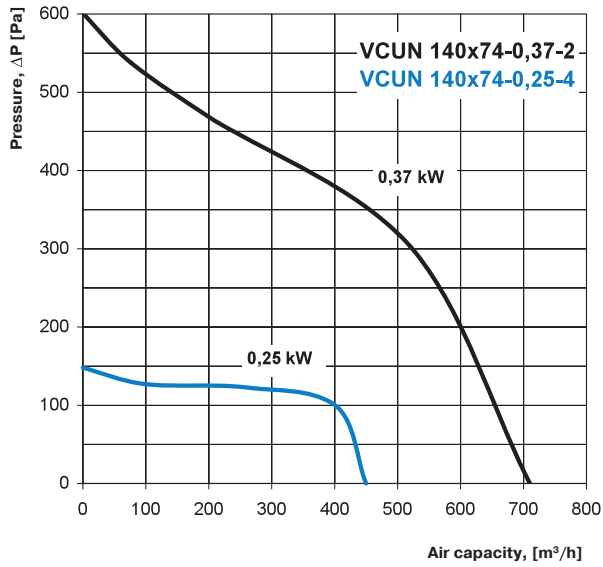
Right scroll orientation



Left scroll orientation



VENTS VCUN



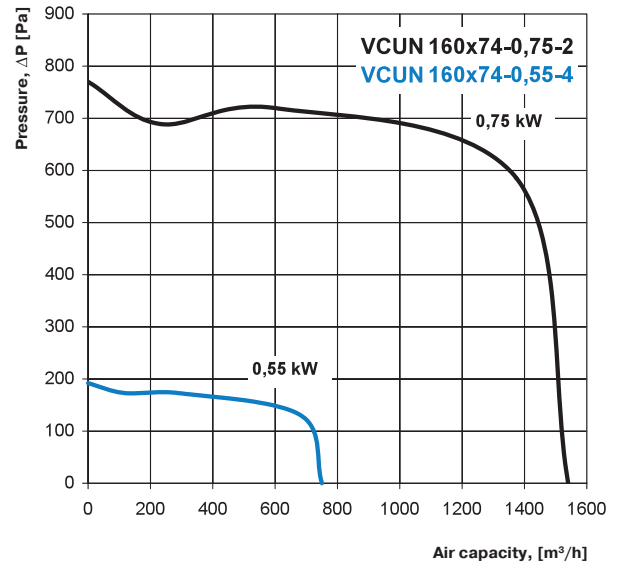
VCUN 140x74-0,37-2

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dB(A)	68	47	59	69	72	74	75	72	71

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dB(A)	61	43	58	64	61	68	68	65	63

VENTS VCUN



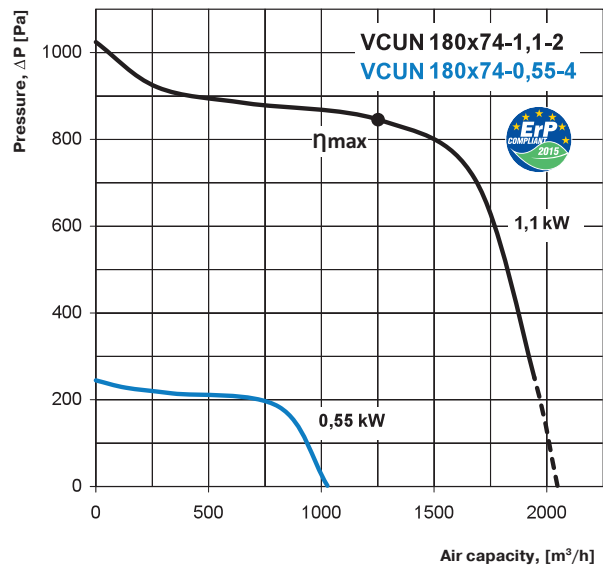
VCUN 160x74-0,75-2

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dB(A)	67	48	60	69	74	74	78	73	72

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dB(A)	63	46	59	64	65	69	71	68	65

VENTS VCUN



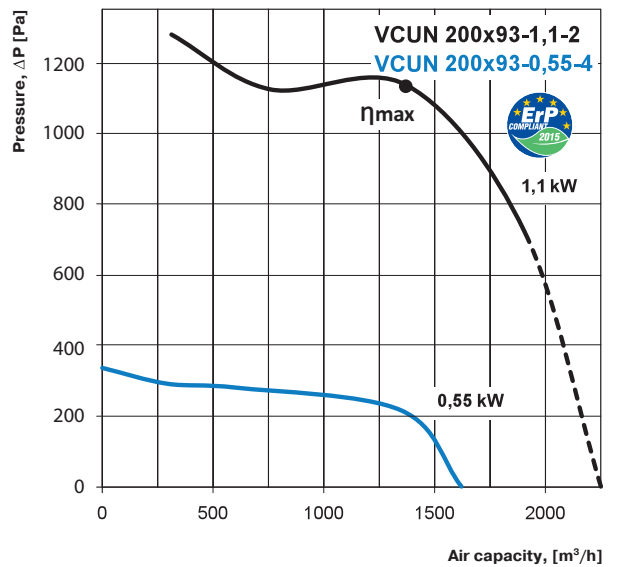
VCUN 180x74-1,1-2

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dB(A)	70	53	62	72	78	77	81	78	77

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dB(A)	62	50	63	68	67	73	75	69	67

VENTS VCUN



VCUN 200x93-1,1-2

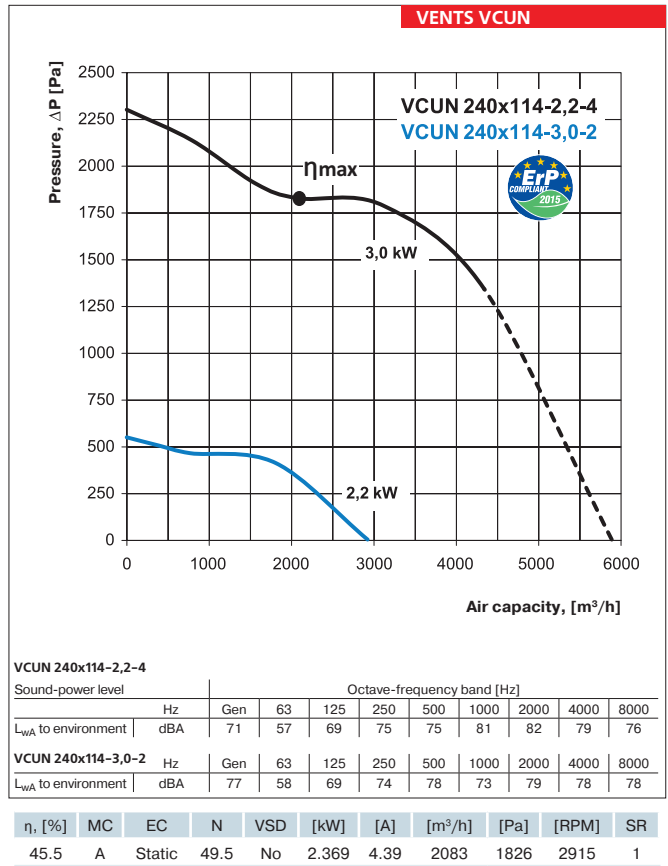
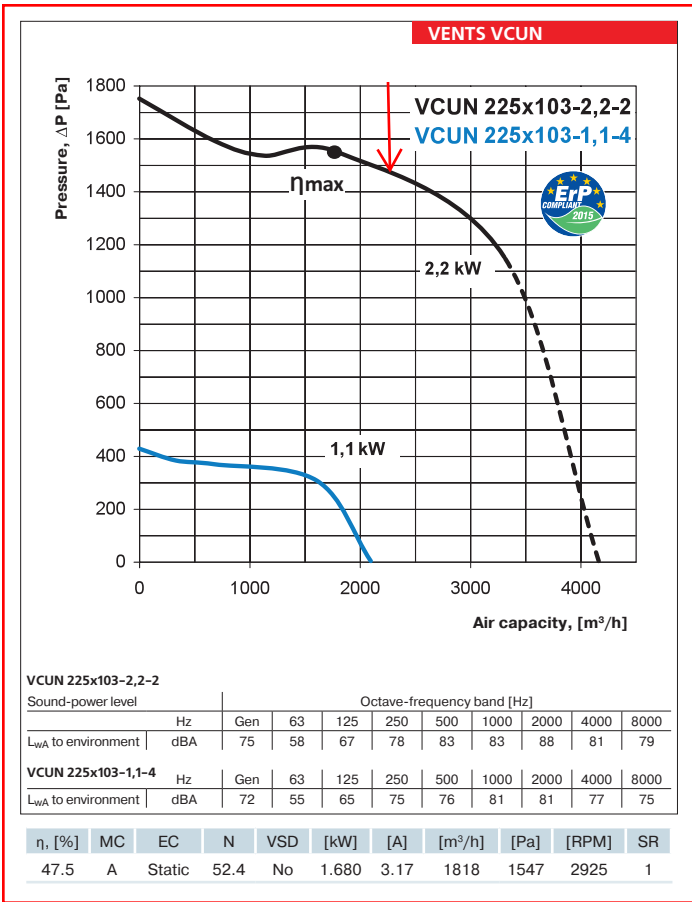
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dB(A)	75	54	65	78	81	81	85	78	78

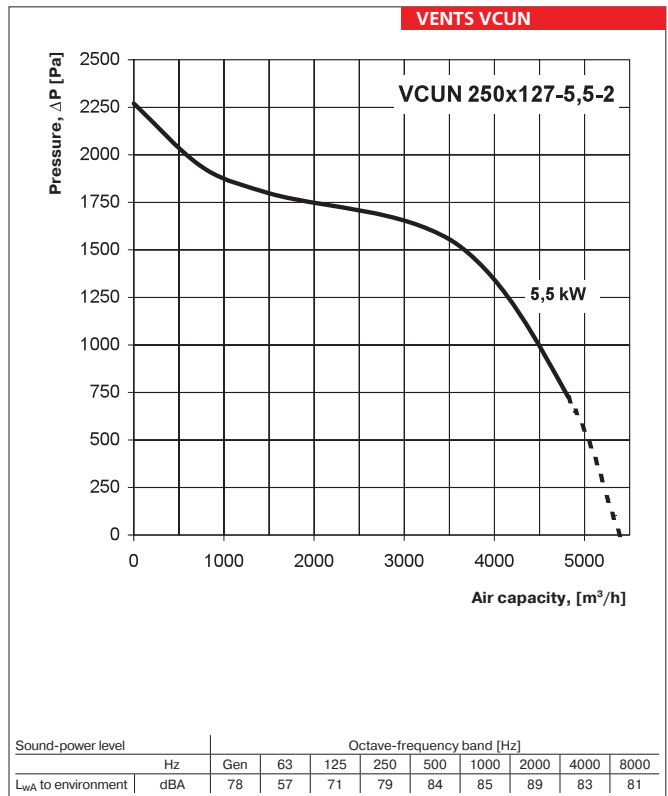
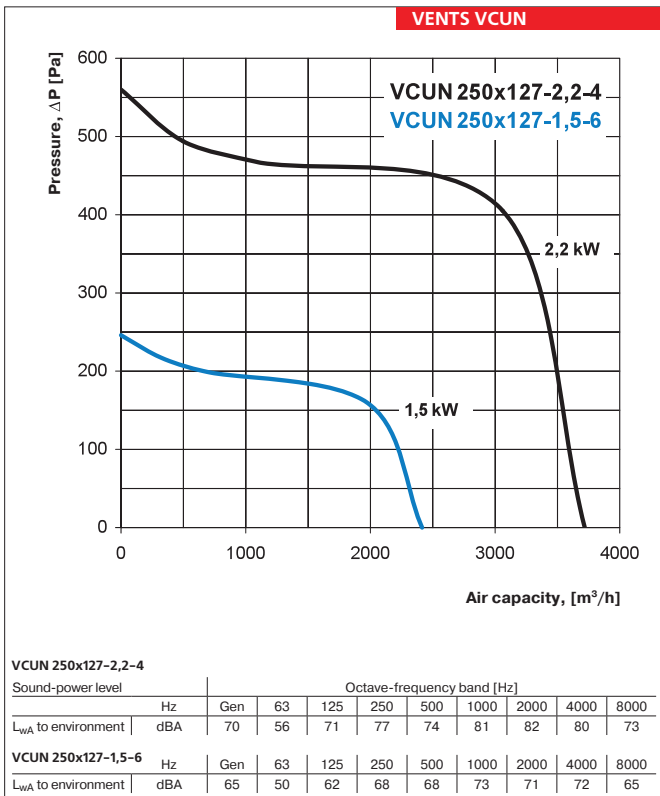
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dB(A)	65	51	64	71	72	75	77	72	70

$\eta$ , [%]	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

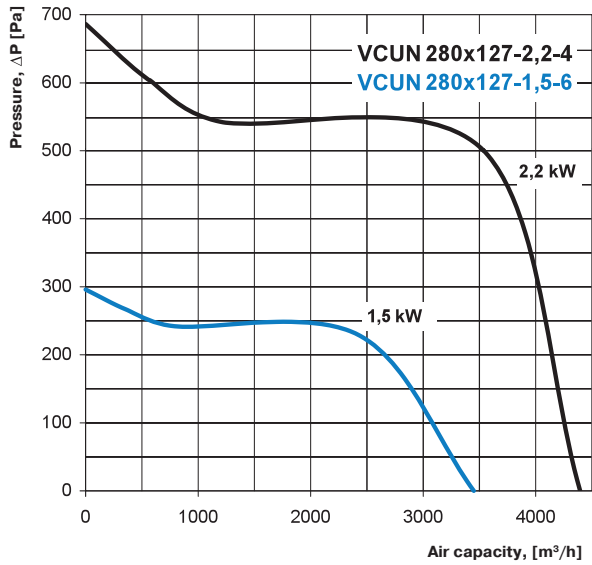
$\eta$ , [%]	MC	EC	N	VSD	[kW]	[A]	[m <sup>3</sup> /h]	[Pa]	[RPM]	SR
41.1	A	Static	47.2	No	1.075	1.99	1373	1135	2895	1



FAN SERIES VENTS VCUN



VENTS VCUN



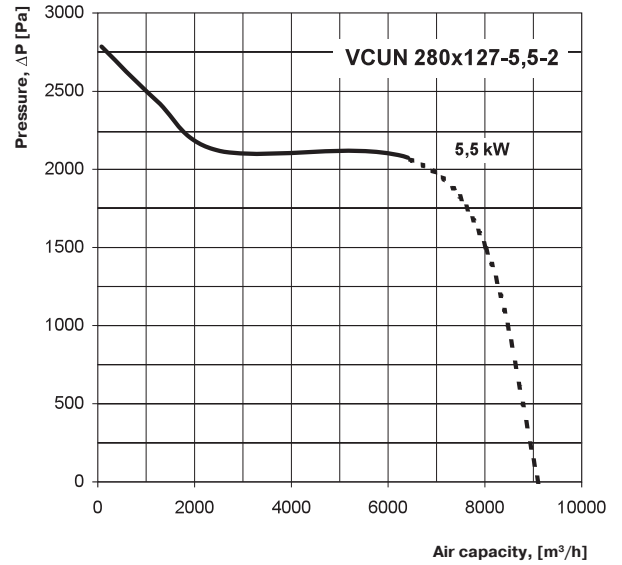
VCUN 280x127-2,2-4

Sound-power level		Octave-frequency band [Hz]									
	Hz	Gen	63	125	250	500	1000	2000	4000	8000	
$L_{WA}$ to environment	dBA	73	61	74	76	81	82	83	81	77	

VCUN 280x127-1,5-6

Sound-power level		Octave-frequency band [Hz]									
	Hz	Gen	63	125	250	500	1000	2000	4000	8000	
$L_{WA}$ to environment	dBA	67	50	63	69	67	73	71	69	66	

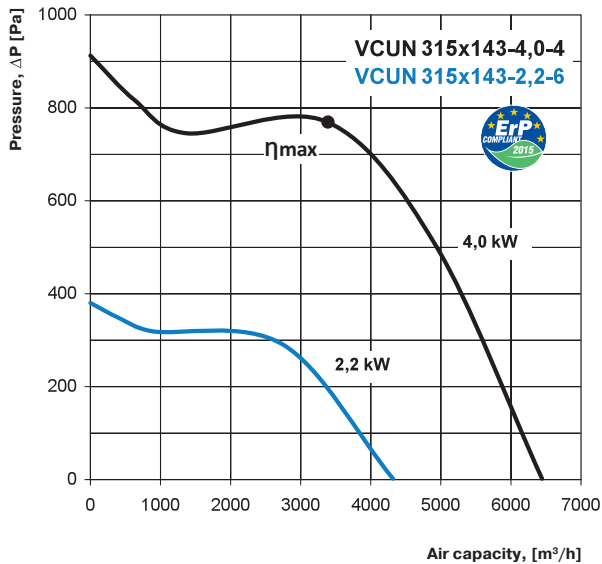
VENTS VCUN



Sound-power level

Sound-power level		Octave-frequency band [Hz]									
	Hz	Gen	63	125	250	500	1000	2000	4000	8000	
$L_{WA}$ to environment	dBA	80	63	72	81	88	86	91	87	86	

VENTS VCUN



VCUN 315x143-4,0-4

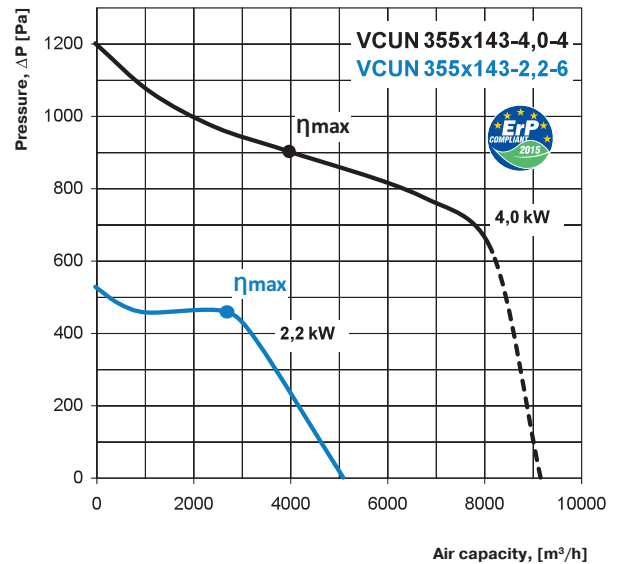
Sound-power level		Octave-frequency band [Hz]									
	Hz	Gen	63	125	250	500	1000	2000	4000	8000	
$L_{WA}$ to environment	dBA	78	62	73	81	84	88	86	86	83	

VCUN 315x143-2,2-6

Sound-power level		Octave-frequency band [Hz]									
	Hz	Gen	63	125	250	500	1000	2000	4000	8000	
$L_{WA}$ to environment	dBA	71	56	67	70	80	78	79	72	68	

$\eta$ , [%]	MC	EC	N	VSD	[kW]	[A]	[m³/h]	[Pa]	[RPM]	SR
36.3	A	Static	40.7	No	2.051	6.32	3429	767	1480	1

VENTS VCUN



VCUN 355x143-4,0-4

Sound-power level		Octave-frequency band [Hz]									
	Hz	Gen	63	125	250	500	1000	2000	4000	8000	
$L_{WA}$ to environment	dBA	77	62	75	80	84	87	90	82	82	

VCUN 355x143-2,2-6

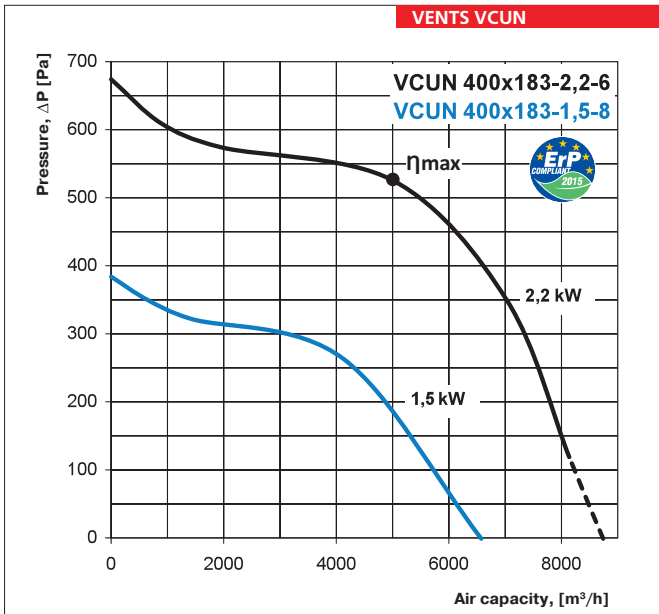
Sound-power level		Octave-frequency band [Hz]									
	Hz	Gen	63	125	250	500	1000	2000	4000	8000	
$L_{WA}$ to environment	dBA	71	54	68	73	82	82	82	75	72	

VCUN 355x143-4,0-4

$\eta$ , [%]	MC	EC	N	VSD	[kW]	[A]	[m³/h]	[Pa]	[RPM]	SR
41.3	A	Static	45.2	No	2.449	6.6	3948	904	1475	1

VCUN 355x143-2,2-6

$\eta$ , [%]	MC	EC	N	VSD	[kW]	[A]	[m³/h]	[Pa]	[RPM]	SR
34.1	A	Static	40.3	No	1.026	4.19	2680	460	990	1



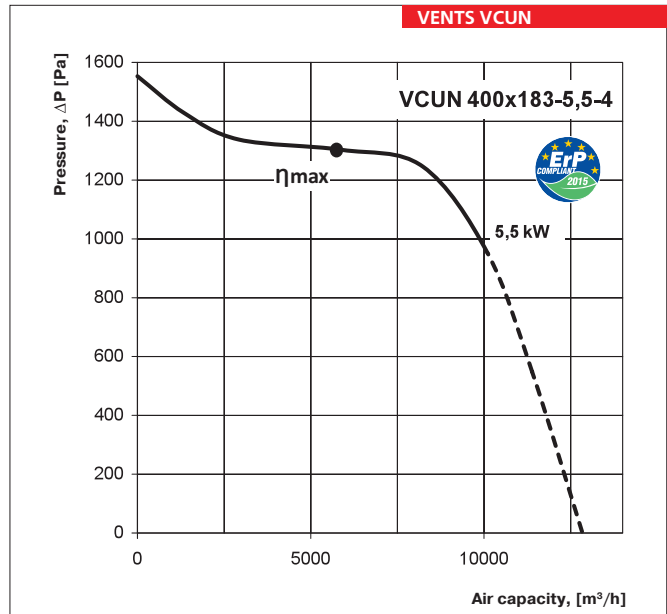
**VCUN 400x183-2,2-6**

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dBA	75	57	72	75	81	80	81	78	76

**VCUN 400x183-1,5-8**

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dBA	68	53	65	69	74	76	77	73	67

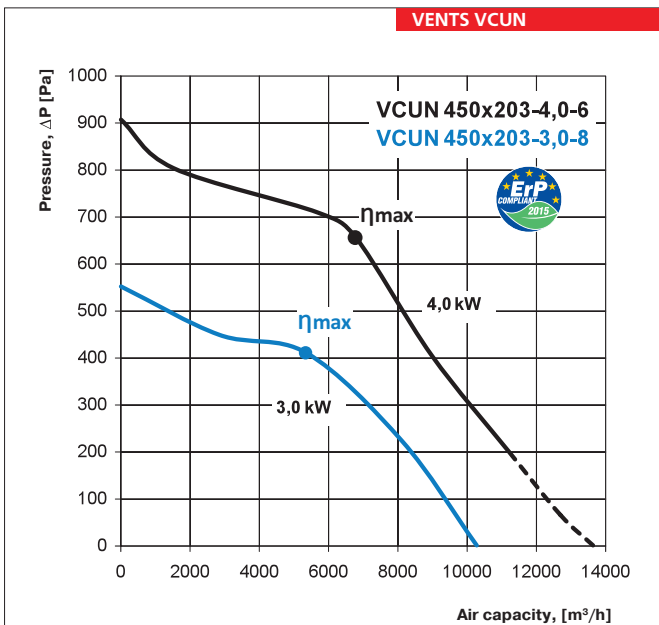
η <sub>i</sub> [%]	MC	EC	N	VSD	[kW]	[A]	[m³/h]	[Pa]	[RPM]	SR
40.6	A	Static	45.3	No	1.831	4.71	4992	526	965	1



**VCUN 400x183-5,5-4**

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dBA	76	64	75	81	82	89	88	84	83

η <sub>i</sub> [%]	MC	EC	N	VSD	[kW]	[A]	[m³/h]	[Pa]	[RPM]	SR
47.7	A	Static	49.5	No	4.620	9.3	5931	1302	1465	1



**VCUN 450x203-4,0-6**

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dBA	76	59	74	75	83	83	85	81	77

**VCUN 450x203-3,0-8**

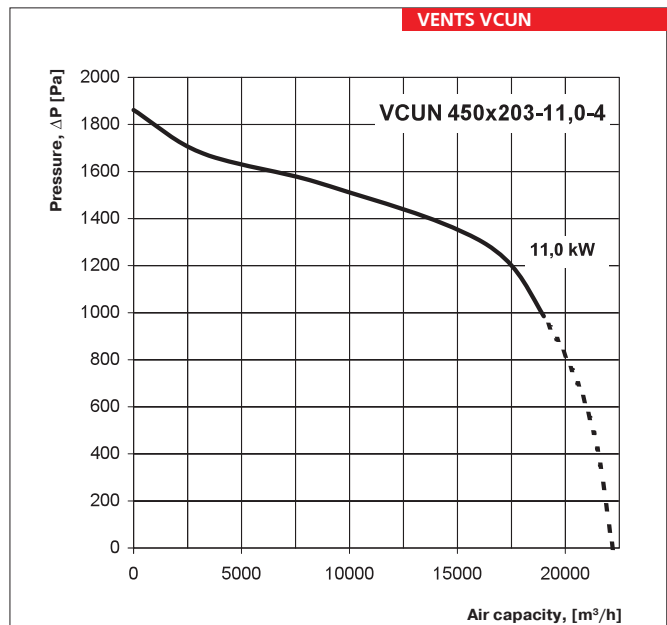
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dBA	67	56	63	65	75	75	71	71	69

**VCUN 450x203-4,0-6**

η <sub>i</sub> [%]	MC	EC	N	VSD	[kW]	[A]	[m³/h]	[Pa]	[RPM]	SR
42.5	A	Static	45.9	No	2.950	6.9	6755	655	980	1

**VCUN 450x203-3,0-8**

η <sub>i</sub> [%]	MC	EC	N	VSD	[kW]	[A]	[m³/h]	[Pa]	[RPM]	SR
41.7	A	Static	47	No	1.486	6.18	5348	409	740	1



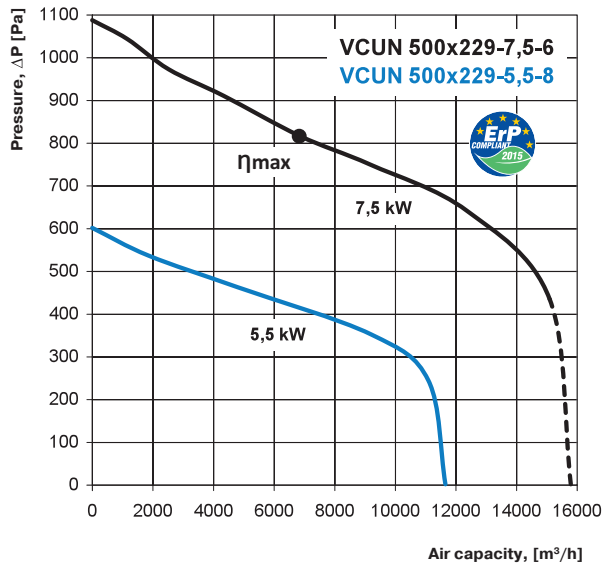
**VCUN 450x203-11,0-4**

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to environment	dBA	85	70	84	89	88	94	94	94	91

FAN SERIES VENTS VCUN



VENTS VCUN



VCUN 500x229-7,5-6

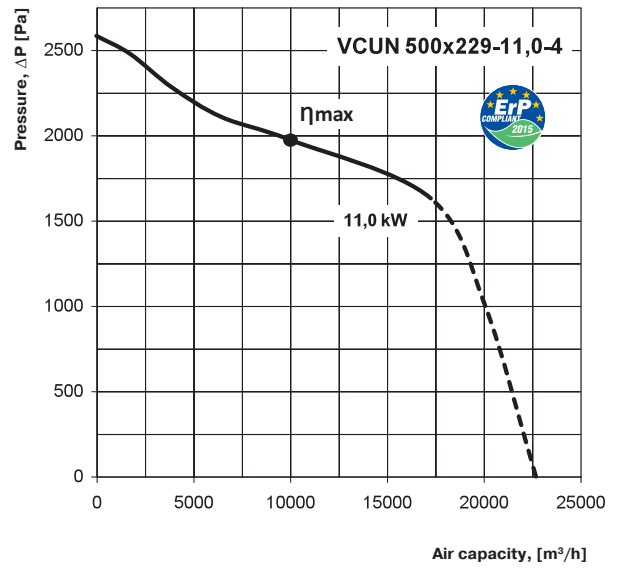
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
$L_{wA}$ to environment	dBA	83	68	79	85	85	93	92	86	85

VCUN 500x229-5,5-8		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
$L_{wA}$ to environment	dBA	77	61	74	78	81	86	85	81	80

$\eta$ , [%]	MC	EC	N	VSD	[kW]	[A]	[m³/h]	[Pa]	[RPM]	SR
38.3	A	Static	40.7	No	4.1	11.3	6791	815	990	1

VENTS VCUN



Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
$L_{wA}$ to environment	dBA	85	73	83	90	91	94	97	94	90

$\eta$ , [%]	MC	EC	N	VSD	[kW]	[A]	[m³/h]	[Pa]	[RPM]	SR
50.9	A	Static	50.6	No	10.5	23	10014	1972	1460	1