Series
VENTS VKV

Centrifugal roof fans with vertical air exhaust and with maximum air capacity of up to **4700 m³/h** at **50 Hz** and **5130 m³/h** at **60 Hz**.

Series
VENTS VKH

Centrifugal roof fans with horizontal air exhaust and with maximum air capacity of up to **4700 m³/h** at **50 Hz** and **5130 m³/h** at **60 Hz**.

Applications
Exhaust ventilation system for various premises suitable for roof mounting. Compatible with Ø 200 to 500 mm air ducts. Suitable for any roof types as well as vertical ventilation shafts.

Design
The fan casing is made of steel with polymeric coating (VENTS VKV and VENTS VKH models), aluminum (VENTS VKVA, VENTS VKHA), galvanized steel (VENTS VKVz, VENTS VKHz).

Motor
2-, 4- or 6-pole single or three phase asynchronous external rotor motor and impeller with backward curved blades installed on the motor shaft. The motor is equipped with thermal overheating protection with automatic restart as well as ball bearings for long service life. For precise features, safe operation and low noise, each turbine is dynamically balanced while assembly. Motor protection rating IP 44.

Speed control
Both smooth or step speed control is performed by means of the thyristor or autotransformer 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 mounted on the roof directly above the ventilating duct or shaft and is firmly fixed to the flat surface by means of a connecting plate. While mounting VKH fans directly onto the flat roof a supporting block shall be provided to prevent water and snow drops into the vent of the ventilation shaft. Electrical connection and installation shall beperformed in compliance with the manual and circuit diagram on the terminal box.
For connection of the fans to round air ducts use the following accessories: KKV damper, GVK flexible connector, FKV counter flange. For mounting of the fans to flat surface use the mounting frame RKV.

Model VENTS VKVA (aluminum)

Model VENTS VKHA (aluminum)

Designation key:

Series and modification	Casing material	Motor modification		Turbine standard size
		Number of poles	Phase	
VENTS VKV – vertical air exhaust **VENTS VKH** – horizontal air exhaust	_ steel with polymeric coating A – aluminum z – galvanized steel	**2** **4** **6**	**E** – single phase **D** – three phase	220; 225; 250; 280; 310; 355; 400; 450; 500

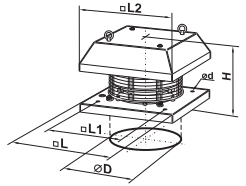
Accessories

page 210 page 211 page 211 page 378 page 378 page 442 page 446 page 461 page 462 page 466 page 467

Fan overall dimensions:

Type	Dimensions [mm]						Weight [kg]
	ØD	Ød	H	L	L1	L2	
VKH 2E 220	213	10	228	338	245	338	6.9
VKH 2E 225	213	10	228	338	245	338	7.1
VKH 2E 250	285	10	265	425	330	365	10.1
VKH 2E 280	285	10	265	425	330	365	10.2
VKH 4E 310	285	10	300	438	330	400	10.2
VKH 4D 310	285	10	300	438	330	400	10.2
VKH 4E 355	438	12	348	598	450	550	15.6
VKH 4D 355	438	12	325	598	450	550	15.6
VKH 4E 400	438	12	348	598	450	550	21.0
VKH 4E 450	438	12	400	668	535	640	22.7
VKH 4D 400	438	12	323	598	450	550	22.0
VKH 4D 450	438	12	400	668	535	640	22.7
VKH 6E 500	438	12	465	668	535	640	26.6

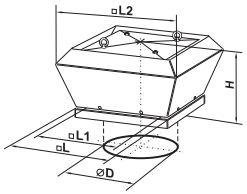
VKH

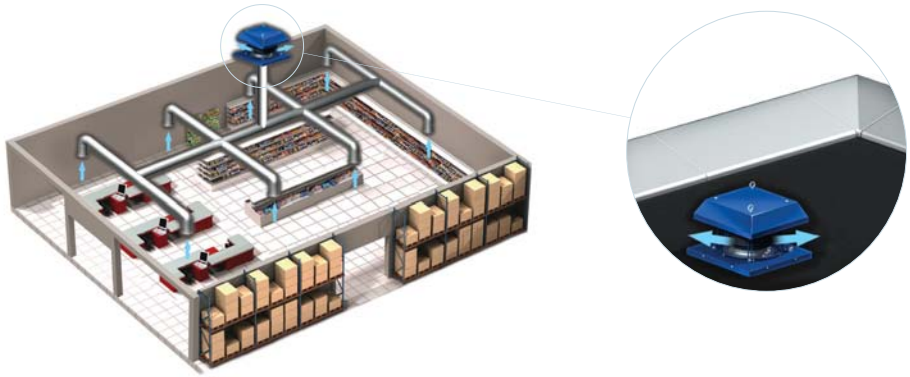


Fan overall dimensions:

Type	Dimensions [mm]					Weight [kg]
	ØD	H	L2	L1	L	
VKV 2E 220	213	275	460	245	338	8.9
VKV 2E 225	213	275	460	245	338	9.6
VKV 2E 250	285	275	520	330	425	12.0
VKV 2E 280	285	275	520	330	425	12.7
VKV 4E 310	285	330	560	330	438	17.8
VKV 4D 310	285	330	560	330	438	17.8
VKV 4E 355	438	420	783	450	598	22.0
VKV 4D 355	438	420	783	450	598	22.0
VKV 4E 400	438	420	783	450	598	27.5
VKV 4E 450	438	454	872	535	668	30.0
VKV 4D 400	438	420	783	450	598	27.5
VKV 4D 450	438	454	872	535	668	30.0
VKV 6E 500	438	454	872	535	668	33.8

VKV





VKH fan store roof ventilation example

Technical data:

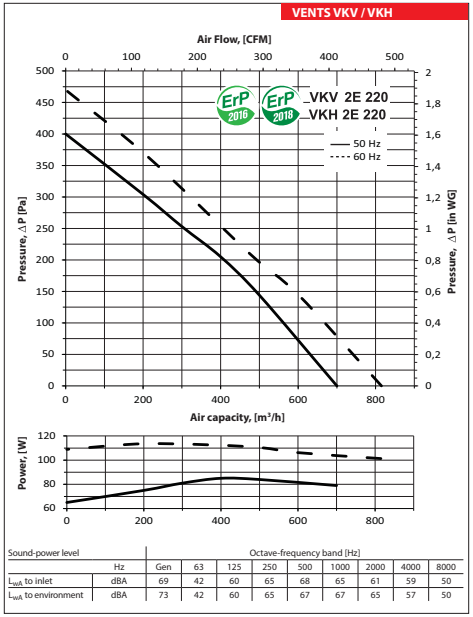
	VKV / VKH 2E 220		VKV / VKH 2E 225		VKV / VKH 2E 250		VKV / VKH 2E 280	
Voltage [V]	1~ 220-240		1~ 220-240		1~ 220-240		1~ 220-240	
Frequency [Hz]	50	60	50	60	50	60	50	60
Power [W]	85	111	135	142	155	265	225	348
Current [A]	0,38	0,44	0,6	0,65	0,7	1,15	1,0	1,51
Max. air capacity [m³/h]	700	815	900	940	1300	1480	1780	1855
RPM [min⁻¹]	2700	2810	2650	2830	2600	2640	2700	2790
Noise level at 3 m [dBA]	49	51	49	51	65	70	66	69
Max. transported air temperature [°C]	55	50	55	50	50	50	50	50
SEC class	B	B	B	B	-	-	-	-
Protection rating	IP X4		IP X4		IP X4		IP X4	

Technical data:

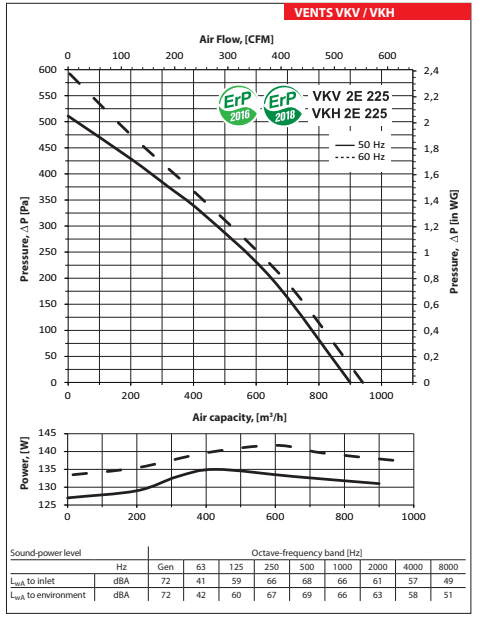
	VKV / VKH 4E 310		VKV / VKH 4D 310		VKV / VKH 4E 355		VKV / VKH 4D 355	
Voltage [V]	1~ 220-240		3~ 400		1~ 220-240		3~ 400	
Frequency [Hz]	50	60	50	60	50	60	50	60
Power [W]	120	183	110	172	245	305	170	235
Current [A]	0,54	0,79	0,32	0,32	1,12	1,34	0,52	0,5
Max. air capacity [m³/h]	1820	1880	1950	2030	2800	2920	2350	2570
RPM [min⁻¹]	1370	1420	1400	1480	1420	1530	1400	1600
Noise level at 3 m [dBA]	45	46	53	54	46	49	53	55
Max. transported air temperature [°C]	85	50	65	50	50	50	70	50
Protection rating	IP X4		IP X4		IP X4		IP X4	

Technical data:

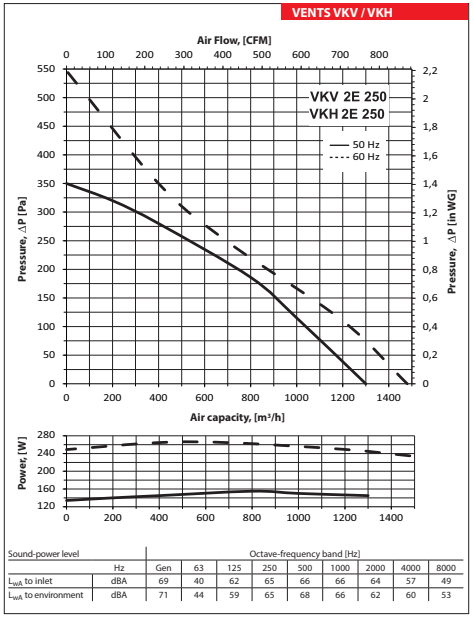
	VKV / VKH 4E 400		VKV / VKH 4D 400				VKV / VKH 4E 450	VKV / VKH 4D 450	VKV / VKH 6E 500	
Voltage [V]	1~ 220-240		3~ 400 Δ		3~ 400 Y		1~ 220-240	400 Y	1~ 220-240	
Frequency [Hz]	50	60	50	60	50	60	50	50	50	60
Power [W]	480	665	515	750	385	515	640	470	385	475
Current [A]	2,4	2,99	1,41	1,44	0,7	0,93	3,1	0,82	1,82	2,1
Max. air capacity [m³/h]	3400	3500	3950	4200	3800	3850	3850	4300	4700	5130
RPM [min⁻¹]	1400	1480	1415	1610	1430	1420	1350	1430	880	850
Noise level at 3 m [dBA]	52	53	59	62	52	53	53	53	47	49
Max. transported air temperature [°C]	80	50	-40 +60	-40 +60	-40 +60	-40 +40	50	50	50	40
Protection rating	IP X4		IP X4		IP X4		IP X4	IP X4	IP X4	



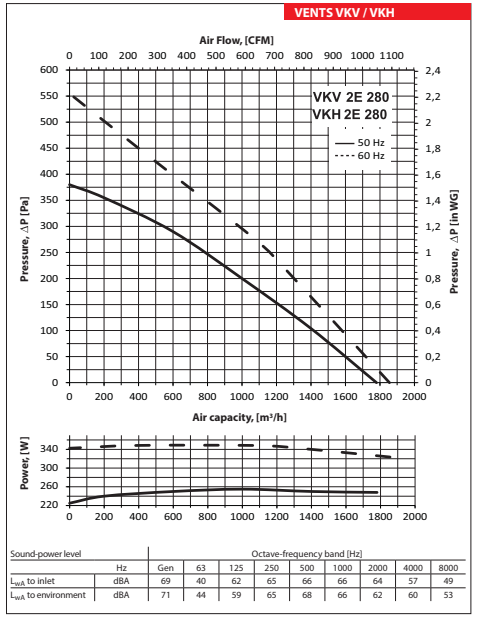
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{WA} to inlet	dBA	69	42	60	65	68	65	61	59	50
L_{WA} to environment	dBA	73	42	60	65	67	67	65	57	50



Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{WA} to inlet	dBA	72	41	59	66	68	66	66	61	57	49
L_{WA} to environment	dBA	72	42	60	67	69	66	63	58	51

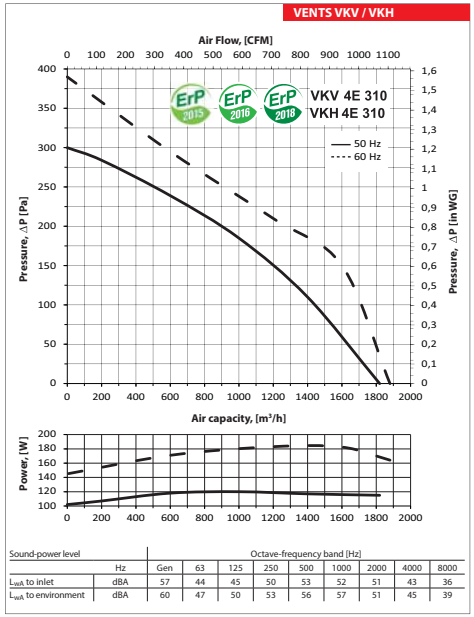


Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{WA} to inlet	dBA	69	40	62	65	66	66	64	57	49
L_{WA} to environment	dBA	71	44	59	65	68	66	62	60	53



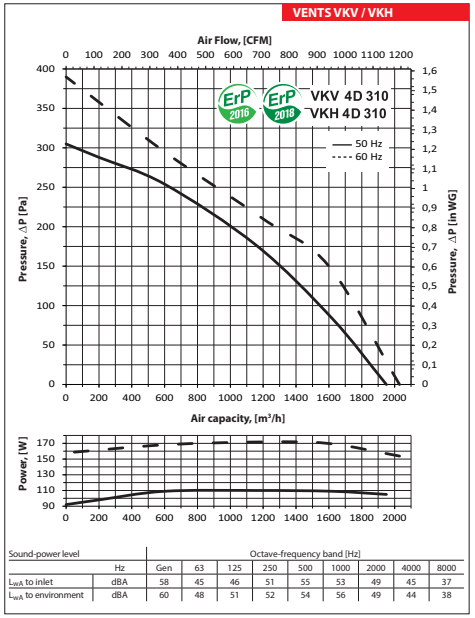
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{WA} to inlet	dBA	69	40	62	65	66	66	64	57	49
L_{WA} to environment	dBA	71	44	59	65	68	66	62	60	53

VENTS VKV / VKH



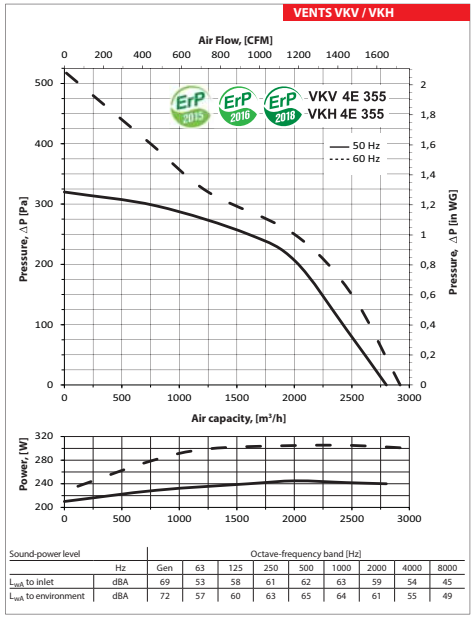
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	57	44	45	50	53	52	51	43	36
L_{wA} to environment	dBA	60	47	50	53	56	57	51	45	39

VENTS VKV / VKH



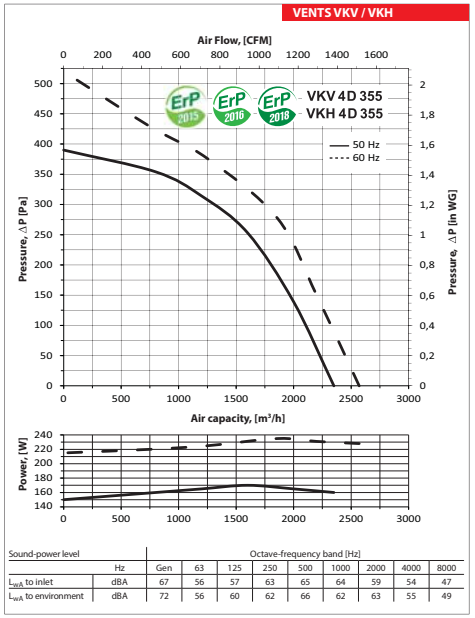
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	58	45	46	51	55	53	49	45	37
L_{wA} to environment	dBA	60	48	51	52	54	56	49	44	38

VENTS VKV / VKH



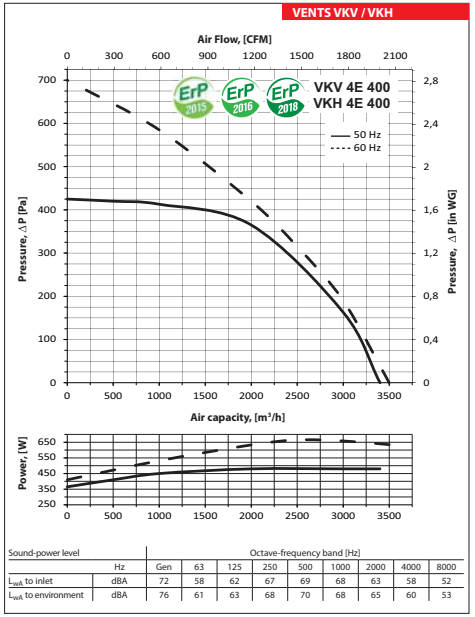
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	69	53	58	61	62	63	59	54	45
L_{wA} to environment	dBA	72	57	60	63	65	64	61	55	49

VENTS VKV / VKH



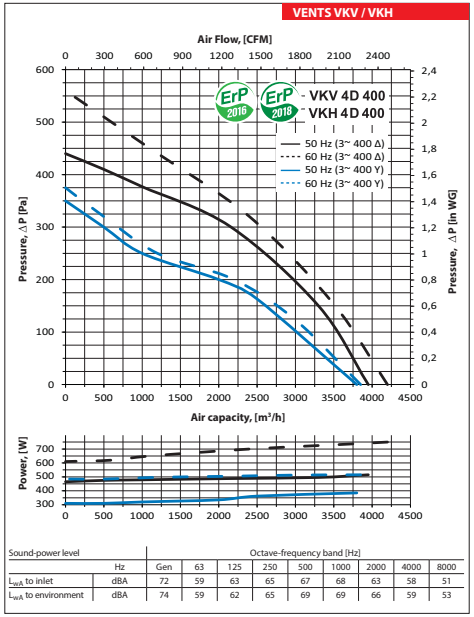
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	67	56	57	63	65	64	59	54	47
L_{wA} to environment	dBA	72	56	60	62	66	62	63	55	49

VENTS VKV / VKH



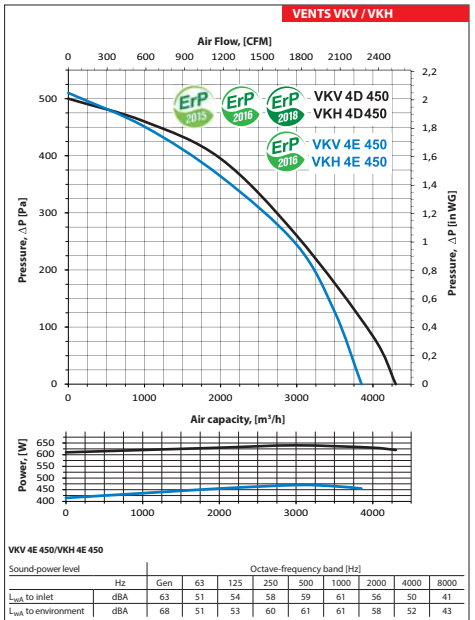
Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	72	58	62	67	69	68	63	58	52
L_{wA} to environment	dBA	76	61	63	68	70	68	65	60	53

VENTS VKV / VKH



Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	72	59	63	65	67	68	63	58	51
L_{wA} to environment	dBA	74	59	62	65	69	69	66	59	53

VENTS VKV / VKH



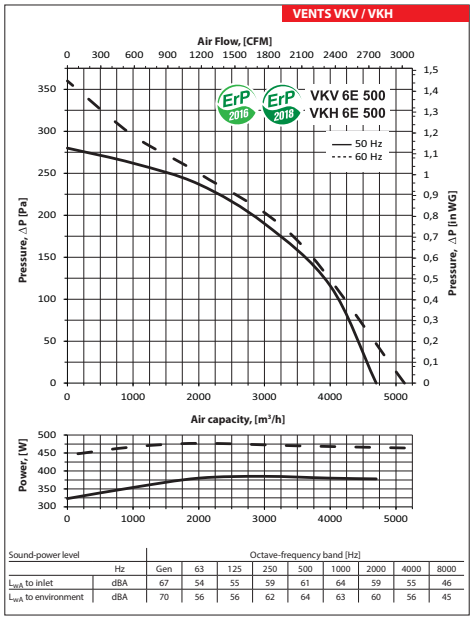
VKV 4E 450/VKH 4E 450

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	63	51	54	58	59	61	56	50	41
L_{wA} to environment	dBA	68	51	53	60	61	61	58	52	43

VKV 4D 450/VKH 4D 450

Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	64	49	55	59	60	60	56	48	42
L_{wA} to environment	dBA	66	51	56	58	61	61	56	52	46

VENTS VKV / VKH



Sound-power level		Octave-frequency band [Hz]								
	Hz	Gen	63	125	250	500	1000	2000	4000	8000
L_{wA} to inlet	dBA	67	54	55	59	61	64	59	55	46
L_{wA} to environment	dBA	70	56	56	62	64	63	60	56	45