

## Series

**VENTS VKM 100-315**

## Series

**VENTS VKM 355-450**

Inline centrifugal fans in steel casing with air flow up to **5260 m<sup>3</sup>/h**

**Applications**

Supply and exhaust ventilation systems for commercial, office and other public or industrial premises. The steel casing provides reliable operation in case of outdoor installation. For premises with high requirements to the noise level we suggest units in low-noise modification (VKM...Q).

**Design**

The fan casing is made of steel with polymeric coating.

**Motor**

The impeller with backward curved blades is powered by the single phase motor with external rotor and overheating protection with automatic restart. Some standard sizes are available with high-powered motors (VKMS). **The VKM...E models are equipped with an energy-efficient motor with low energy demand.** The motor is equipped with ball bearings for long service life designed for at least

40000 hours. For precise features, safe operation and low noise, each turbine is dynamically balanced while assembly. Motor protection rating is IP44.

**Speed control**

Smooth or step speed control with a thyristor or an autotransformer speed controller. Several fans may be connected to one speed controller provided that the total power and operating current do not exceed the rated speed controller parameters. The VKM...P models are equipped with a built-in speed controller (available for diameters 100...315).

**Mounting**

Mounting to wall or ceiling at any angle is performed with fastening brackets supplied with the unit. The fan is powered through the external terminal box. Electric connection and installation shall be performed in compliance with the manual and wiring diagram on the terminal box.

**■ VKM fan with electronic temperature and control module**

The ideal solution for ventilation of the premises requiring permanent temperature control, i.e. greenhouses. The fan with the electronic temperature and speed control module provides automatic control of the motor speed (air flow) depending on air temperature in the air duct or in the room.

The front panel of the electronic module has the following control knobs:

- speed control knob for setting the motor speed
  - thermostat control knob for setting the temperature set point
  - thermostat indicator light
- VKM...Un - the model with an external temperature sensor fixed on a 4 m cable (Un/U2n option). The temoerature sensor has mechanial protection.

**Designation key**

Series		Air duct diameter	Options
<b>VENTS VKM</b>	<b>S:</b> high-powered motor	100; 125; 150; 160; 200; 250; 315; 355; 400; 450	<b>E:</b> low energy demand motor. <b>Q:</b> low-powered motor. <b>Un:</b> speed controller with an electronic thermostat and a temperature sensor fixed on a 4-meter cable. Temperature-based operation logic. <b>U2n:</b> speed controller with an electronic thermostat and a temperature sensor fixed on a 4-meter cable. Temperature-based switching on/off. <b>R1:</b> power cord with a mains plug. <b>P:</b> integrated smooth speed controller.

**Accessories**

**Fan overall dimensions**

Type	Dimensions [mm]								Weight [kg]	Fig. no.
	ØD	ØD1	B	B1	L	L1	L2	L3		
VKM 100 Q	98	255	310	270	205	20	25	30	2,9	1
VKM 100	98	255	310	270	205	20	25	30	3,2	1
VKM 125 Q	123	255	310	270	205	20	25	30	2,9	1
VKM 125	123	255	310	270	205	20	25	30	3,2	1
VKM 150	149	345	395	355	200	20	20	40	5,1	1
VKMS 150	149	345	395	355	230	20	20	40	5,6	1
VKM 160	159	305	360	320	220	25	25	30	5,0	1
VKMS 160	158	340	390	350	245	25	20	40	6,4	1
VKM 200	198	345	395	355	255	25	30	40	6,6	1
VKMS 200	198	345	395	355	255	25	30	40	8,3	1
VKM 250 E	248	345	395	355	250	25	30	40	6,2	1
VKM 250	248	345	395	355	250	25	30	40	8,4	1
VKM 315	314	405	455	415	260	30	30	40	8,0	1
VKMS 315	314	405	455	415	290	30	30	40	8,8	1
VKM 355 Q	353	460	522	522	506	60	60	70	18,8	2
VKM 400	398	570	663	634	570	60	60	70	25,1	2
VKM 450	448	608	700	670	644	60	60	80	27,26	2

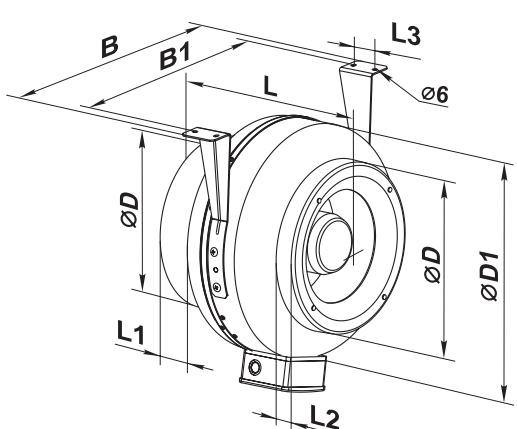
**VKM 100 – VKM 315**

Fig. 1

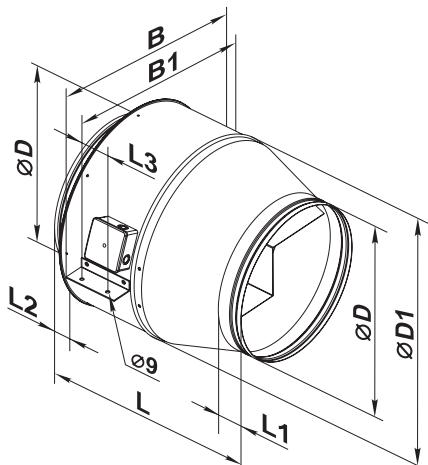
**VKM 355- VKM 450**

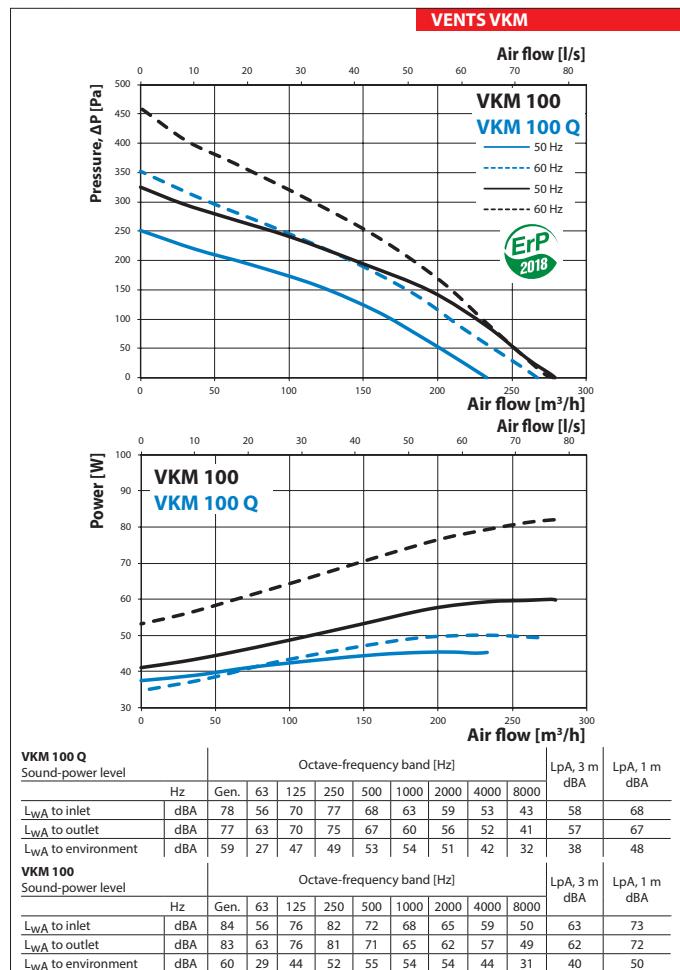
Fig. 2

## FANS FOR ROUND DUCTS

### Technical data

	VKM 100 Q	VKM 100	
Nominal voltage [VAC]	1~220-240		
Frequency [Hz]	50	60	50
Power [W]	45	50	60
Current [A]	0.24	0.23	0.28
Max. air flow [m³/h]	233	267	279
RPM [min⁻¹]	2780	3300	2840
Noise level at 3 m [dBA]	38	39	40
Transported air temperature [°C]	-25...+45		
SEC class	C	-	C
Protection rating	IPX4		

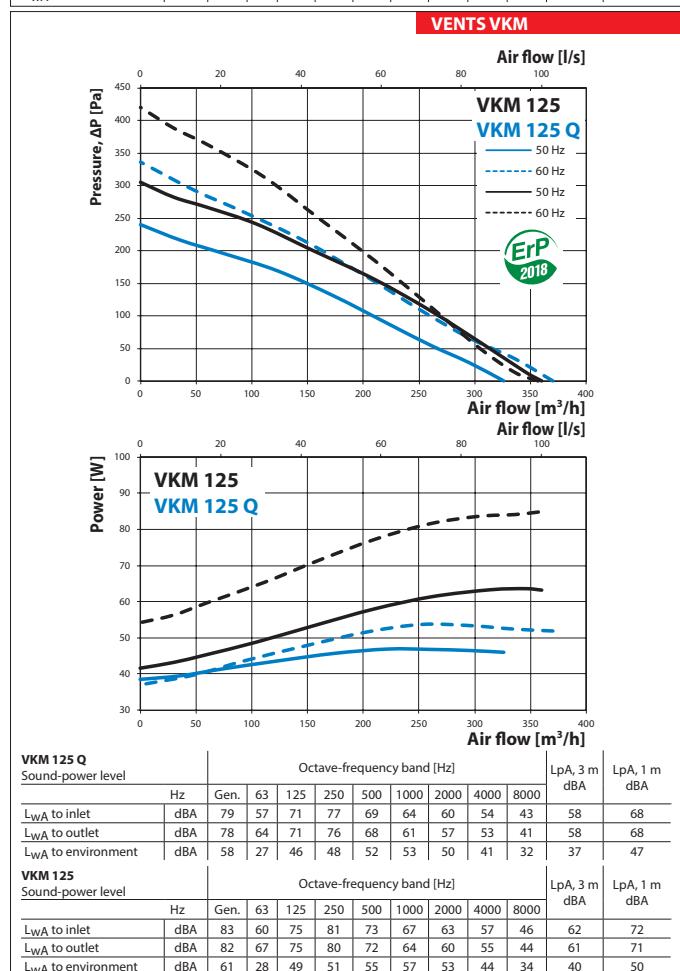
To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).



### Technical data

	VKM 125 Q	VKM 125	
Nominal voltage [VAC]	1~220-240		
Frequency [Hz]	50	60	50
Power [W]	47	54	64
Current [A]	0.25	0.24	0.29
Max. air flow [m³/h]	326	370	360
RPM [min⁻¹]	2760	3240	2840
Noise level at 3 m [dBA]	37	38	40
Transported air temperature [°C]	-25...+45		
SEC class	C	-	C
Protection rating	IPX4		

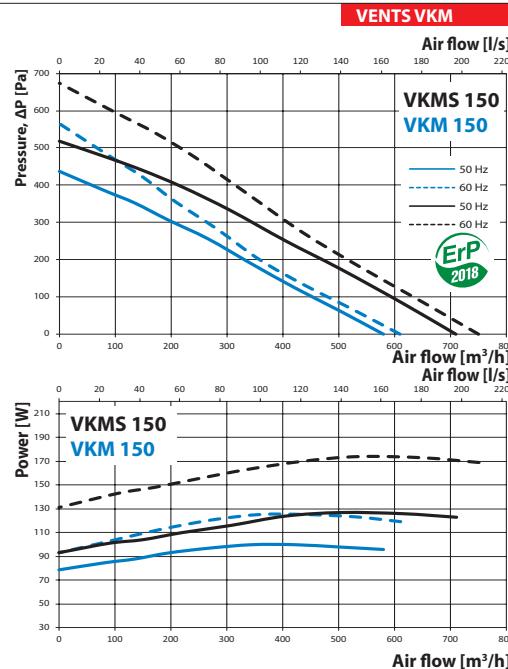
To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).



**Technical data**

	VKM 150		VKMS 150	
Nominal voltage [VAC]	1~220-240			
Frequency [Hz]	50	60	50	60
Power [W]	100	125	127	174
Current [A]	0.45	0.55	0.55	0.76
Max. air flow [m³/h]	580	610	710	750
RPM [min⁻¹]	2700	3100	2760	3150
Noise level at 3 m [dBA]	45	46	48	49
Transported air temperature [°C]	-25...+45			
SEC class	C	-	C	-
Protection rating	IPX4			

To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).

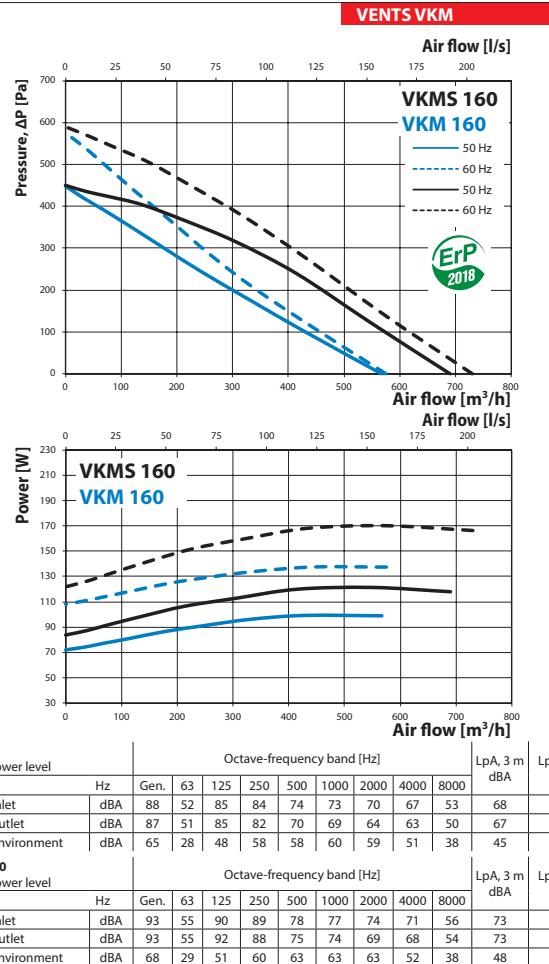


VKM 150 Sound-power level	Octave-frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
	Hz	Gen.	63	125	250	500	1000	2000		
L <sub>WA</sub> to inlet	dBA	90	53	87	86	75	74	71	68	54
L <sub>WA</sub> to outlet	dBA	90	53	88	85	72	71	66	65	52
L <sub>WA</sub> to environment	dBA	66	28	49	58	60	60	50	37	45
VKMS 150 Sound-power level	Octave-frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
	Hz	Gen.	63	125	250	500	1000	2000		
L <sub>WA</sub> to inlet	dBA	94	56	91	90	79	78	75	71	57
L <sub>WA</sub> to outlet	dBA	94	56	92	89	76	75	69	68	55
L <sub>WA</sub> to environment	dBA	68	29	51	61	63	63	52	39	48

**Technical data**

	VKM 160		VKMS 160	
Nominal voltage [VAC]	1~220-240			
Frequency [Hz]	50	60	50	60
Power [W]	99	137	121	170
Current [A]	0.44	0.61	0.53	0.75
Max. air flow [m³/h]	567	575	690	730
RPM [min⁻¹]	2770	3160	2800	3210
Noise level at 3 m [dBA]	45	47	48	49
Transported air temperature [°C]	-25...+45			
SEC class	C	-	C	-
Protection rating	IPX4			

To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).



VKM 160 Sound-power level	Octave-frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
	Hz	Gen.	63	125	250	500	1000	2000		
L <sub>WA</sub> to inlet	dBA	88	52	85	84	74	73	70	67	53
L <sub>WA</sub> to outlet	dBA	87	51	85	82	70	69	64	63	50
L <sub>WA</sub> to environment	dBA	65	28	48	58	58	60	59	51	38
VKMS 160 Sound-power level	Octave-frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA
	Hz	Gen.	63	125	250	500	1000	2000		
L <sub>WA</sub> to inlet	dBA	93	55	90	89	78	77	74	71	56
L <sub>WA</sub> to outlet	dBA	93	55	92	88	75	74	69	68	54
L <sub>WA</sub> to environment	dBA	68	29	51	60	63	63	52	38	48

## FANS FOR ROUND DUCTS

### Technical data

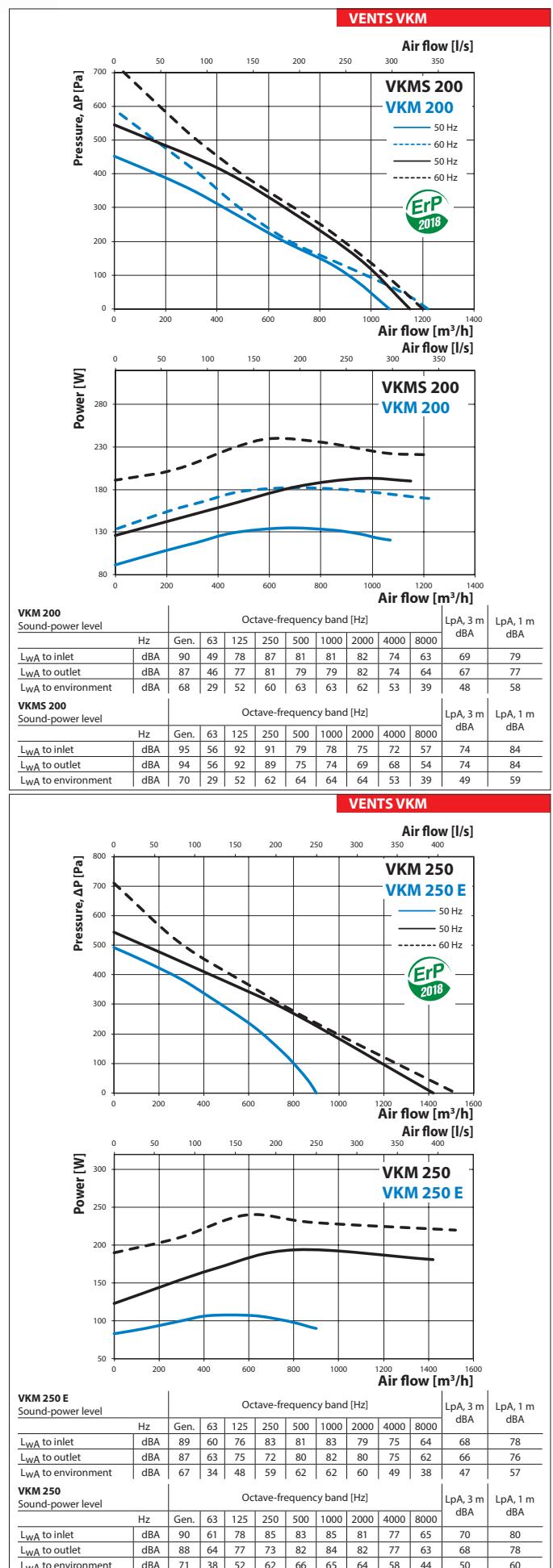
	VKM 200		VKMS 200	
Nominal voltage [VAC]	1~220-240			
Frequency [Hz]	50	60	50	60
Power [W]	135	182	193	240
Current [A]	0.59	0.79	0.84	1.05
Max. air flow [m³/h]	1070	1220	1150	1200
RPM [min⁻¹]	2710	3120	2780	2850
Noise level at 3 m [dBA]	48	50	49	49
Transported air temperature [°C]	-25...+45			
SEC class	C	-	-	-
Protection rating	IPX4			

To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).

### Technical data

	VKM 250 E		VKM 250	
Nominal voltage [VAC]	1~220-240			
Frequency [Hz]	50	50	60	
Power [W]	95	194	240	
Current [A]	0.47	0.85	1.05	
Max. air flow [m³/h]	900	1420	1520	
RPM [min⁻¹]	2050	2790	2860	
Noise level at 3 m [dBA]	47	50	51	
Transported air temperature [°C]	-25...+45			
SEC class	C	-	-	
Protection rating	IPX4			

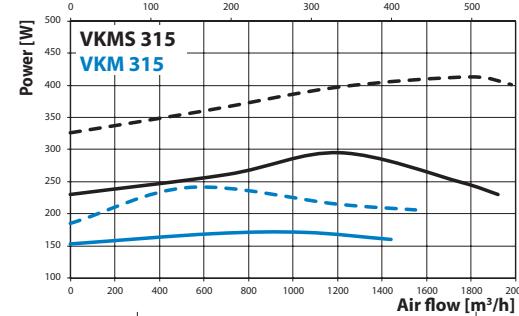
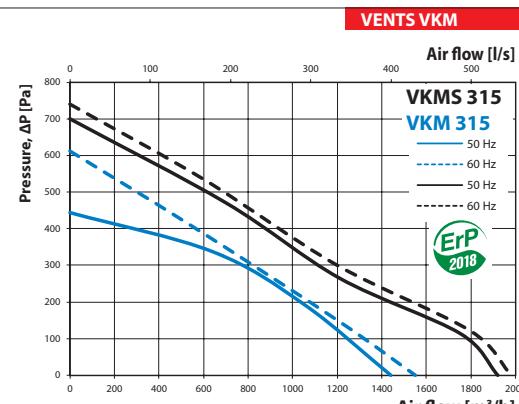
To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).



**Technical data**

	<b>VKM 315</b>		<b>VKMS 315</b>	
Nominal voltage [VAC]	1~220-240			
Frequency [Hz]	50	60	50	60
Power [W]	171	241	295	413
Current [A]	0.77	1.05	1.34	1.8
Max. air flow [m³/h]	1440	1550	1920	1980
RPM [min⁻¹]	2600	2850	2720	2780
Noise level at 3 m [dBA]	52	53	54	55
Transported air temperature [°C]	-25...+45			
SEC class	-	-	-	-
Protection rating	IPX4			

To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).



VKM 315 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 <sub>WA</sub> to inlet	dBA	92	62	80	87	85	87	83	79	66	71
L <sub>WA</sub> to outlet	dBA	91	66	79	75	84	87	84	79	65	70
L <sub>WA</sub> to environment	dBA	72	37	51	64	67	67	65	53	41	52

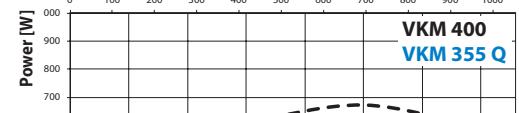
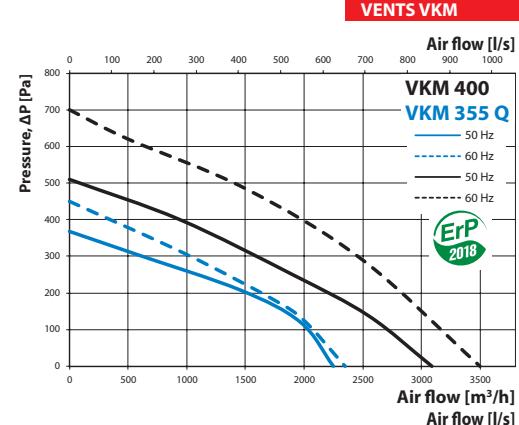
  

VKMS 315 Sound-power level	Octave-frequency band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Hz	Gen.	63	125	250	500	1000	2000	4000	8000	
L <sub>WA</sub> to inlet	dBA	94	63	81	88	86	88	84	80	68	73
L <sub>WA</sub> to outlet	dBA	92	67	81	77	86	88	86	81	66	72
L <sub>WA</sub> to environment	dBA	74	38	53	66	69	69	67	54	42	54

**Technical data**

	<b>VKM 355 Q</b>		<b>VKM 400</b>	
Nominal voltage [VAC]	1~220-240			
Frequency [Hz]	50	60	50	60
Power [W]	233	297	460	673
Current [A]	1.06	1.30	2.23	3.05
Max. air flow [m³/h]	2250	2350	3090	3500
RPM [min⁻¹]	1375	1620	1370	1585
Noise level at 3 m [dBA]	58	59	61	64
Transported air temperature [°C]	-25...+45		-40...+80	-40...+55
SEC class	-	-	-	-
Protection rating	IPX4			

To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).



VKM 355 Q 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 <sub>WA</sub> to inlet	dBA	92	62	80	87	85	87	83	79	66	71
L <sub>WA</sub> to outlet	dBA	91	66	79	75	84	87	84	79	65	70
L <sub>WA</sub> to environment	dBA	72	37	51	64	67	67	65	53	41	52

VKM 400 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 <sub>WA</sub> to inlet	dBA	97	59	84	82	86	92	93	88	78	77
L <sub>WA</sub> to outlet	dBA	96	61	75	85	82	90	94	86	78	76
L <sub>WA</sub> to environment	dBA	81	35	57	66	75	77	77	66	58	61

**Technical data**

VKM 450		
Nominal voltage [VAC]		1~220-240
Frequency [Hz]	50	60
Power [W]	665	1250
Current [A]	2.89	5.40
Max. air flow [m <sup>3</sup> /h]	5300	6280
RPM [min <sup>-1</sup> ]	1265	1560
Noise level at 3 m [dBA]	65	73
Transported air temperature [°C]	-40...+70	-25...+60
SEC class	-	-
Protection rating	IPX4	

To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).

