

Series  
**VENTS VKP EC**



Centrifugal fans with the air capacity up to **10850 m<sup>3</sup>/h** for rectangular ducts

### ■ Applications

Supply and exhaust ventilation and air conditioning systems for various premises requiring cost-effective solution and controlled ventilation. EC motors in VKP fan reduce energy consumption by 1,5-3 times and ensure high performance and low noise level. Such characteristics are of special importance for ventilation of banks, supermarkets, restaurants, hotels and other public facilities including swimming pool ventilation. The fans are compatible with 600x300, 600x350, 700x400, 800x500, 900x500, 1000x500 mm rectangular ducts.

### ■ Design

Fan casing is made of galvanized steel. All inner components are interconnected by means of rivets. The fan is equipped with 20 mm standard flanges.

### ■ Motor

The impellers with backward-curved blades are powered with high efficient electronically commutated (EC) direct current motors with external rotor. As of today, such motor type is the most advanced solution for energy saving. EC-motors are featured by high performance and the optimal control over the whole range of fan speeds. Premium efficiency reaching up to 90% is an absolute advantage of electronically commutated motors.

### ■ Build-in functions and control

The fan is controlled with the external control signal 0-10 V (air capacity as a function of temperature level, pressure and smoke conditions etc). Should the control value factor get changed the EC-motor changes its speed and the fan boosts as much air capacity to the ventilation system as required. Maximum speed of the fan does not depend on the current frequency and it can operate at 50 or 60 Hz mains supply. The fans can be integrated to the unified PC control system. The respective software allows controlling all the fan units with high accuracy and setting particular operation mode for each fan.

### ■ Mounting

The fans are mounted into the rectangular ducts and require no special fixing in case of direct connection. In case of connection through the flexible connectors the fan is fixed to a building by means of supports, suspension brackets or fixation brackets. The fans can be mounted in any position with respect to the airflow direction which is indicated with a pointer on the casing. Access for the fan maintenance shall be provided. The casing is provided with the removable access door for inspection and maintenance purposes.

#### Technical data:

	<b>VKP 600x300 EC</b>	<b>VKP 600x350 EC</b>	<b>VKP 700x400 EC</b>	<b>VKP 800x500 EC</b>	<b>VKP 900x500 EC</b>	<b>VKP 1000x500 EC</b>
Voltage [V / 50/60 Hz]	1~ 200-277	3~ 380-480	3~ 380-480	3~ 380-480	3~ 380-480	3~ 380-480
Power [kW]	0,48	0,99	1,70	2,95	2,98	2,98
Current [A]	3,10	1,70	2,60	4,60	4,60	4,60
Maximum air flow [m <sup>3</sup> /h]	3350	4550	6300	8900	10850	10850
RPM [min <sup>-1</sup> ]	2300	2580	2600	2500	2040	2040
Noise level at 3 m [dBA]	58	60	63	65	69	69
Maximum operating temperature [°C]	-25 +60	-25 +50	-25 +40	-25 +40	-25 +40	-25 +40
Protection rating	IP X4					

#### Designation key:

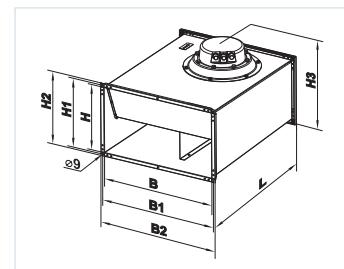
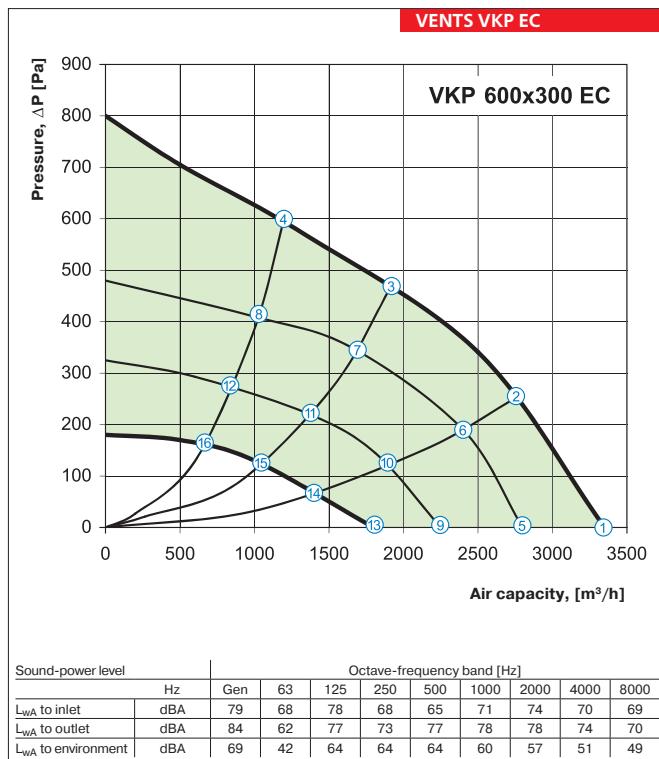
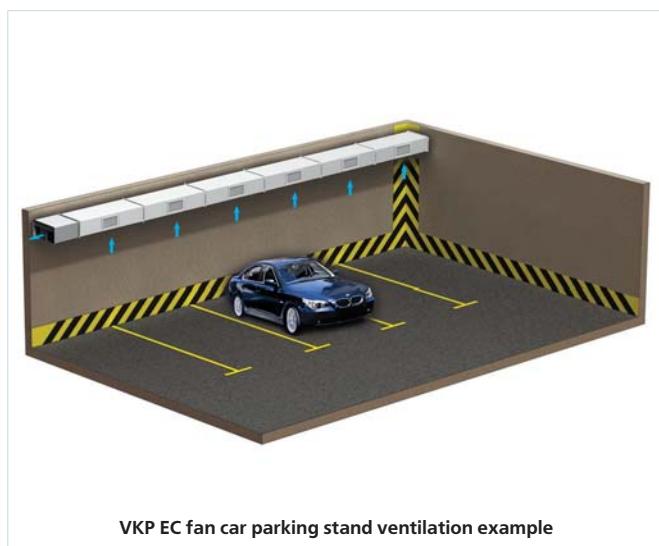
Fan series	Flange diameter [WxH]	Motor
<b>VENTS VKP</b>	600x300, 600x350, 700x400, 800x500, 900x500, 1000x500	<b>EC</b> – synchronous electronically commutated motor

#### Accessories



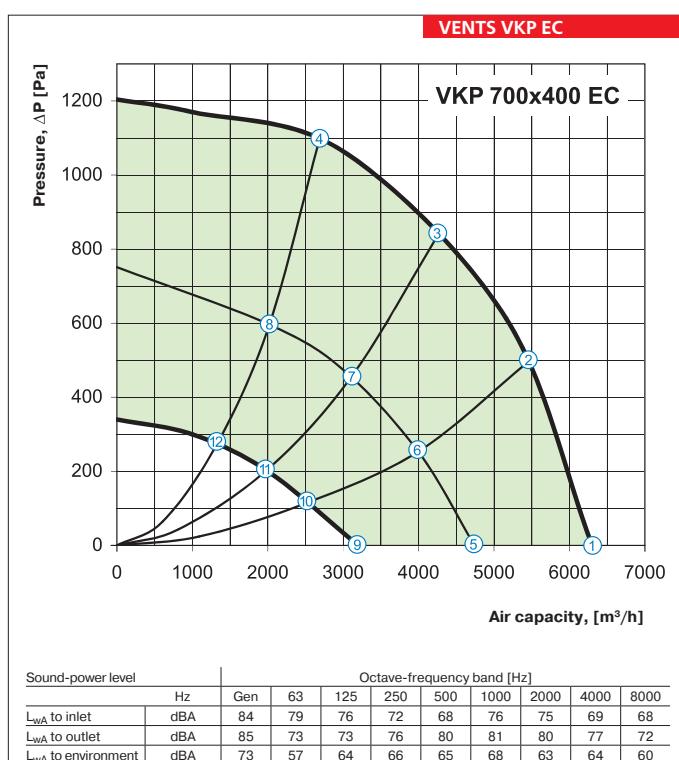
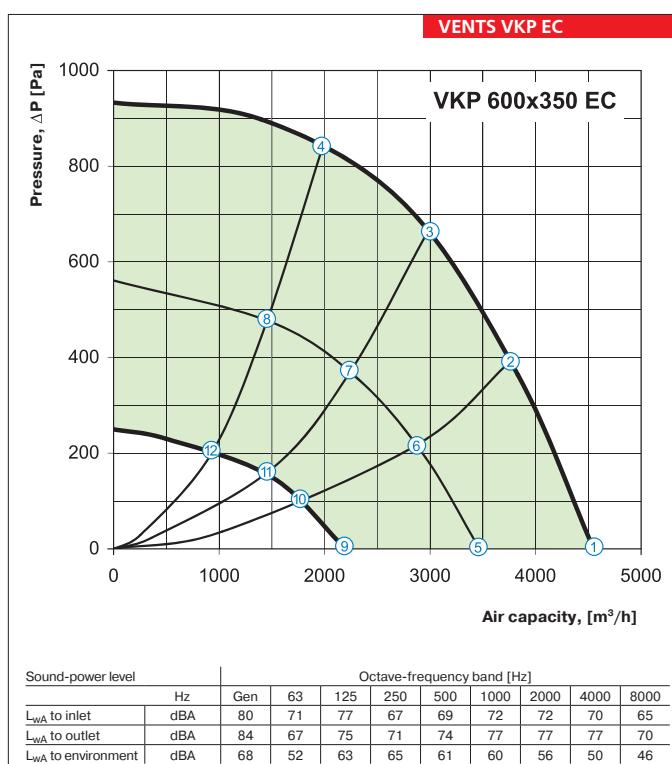
**Fan overall dimensions:**

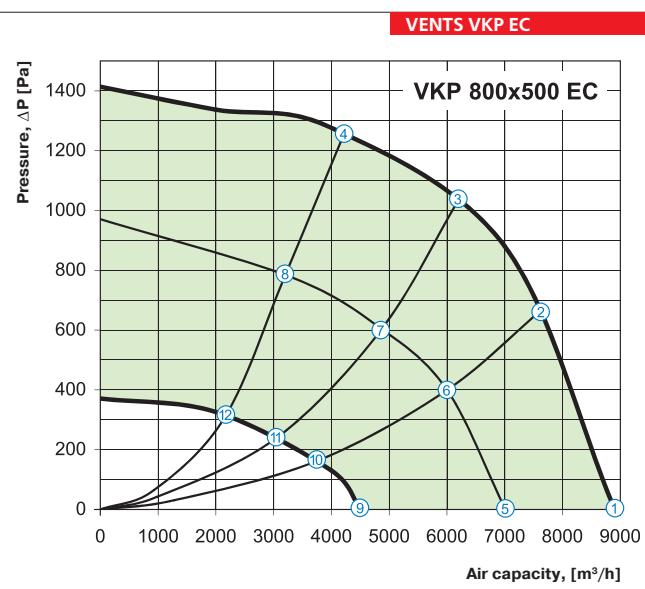
Type	Dimensions [mm]								Mass [kg]
	B	B1	B2	H	H1	H2	H3	L	
VKP 600x300 EC	600	620	640	300	320	340	430	680	35,0
VKP 600x350 EC	600	620	640	350	370	390	480	735	49,5
VKP 700x400 EC	700	720	740	400	420	440	540	780	60,0
VKP 800x500 EC	800	820	840	500	520	540	640	880	70,0
VKP 900x500 EC	900	920	940	500	520	540	640	954	90,0
VKP 1000x500 EC	1000	1020	1040	500	520	540	640	954	95,0

VENTS  
VKP EC

point	P, (W)	I, (A)	n, (min⁻¹)
1	370	2.35	2300
2	445	2.85	2215
3	480	3.10	2170
4	448	2.85	2220
5	210	1.30	1900
6	284	1.70	1900
7	312	1.80	1900
8	278	1.70	1900
9	124	0.80	1560
10	158	1.00	1560
11	175	1.10	1560
12	158	1.00	1560
13	57	0.40	1200
14	73	0.50	1200
15	80	0.50	1200
16	70	0.50	1200

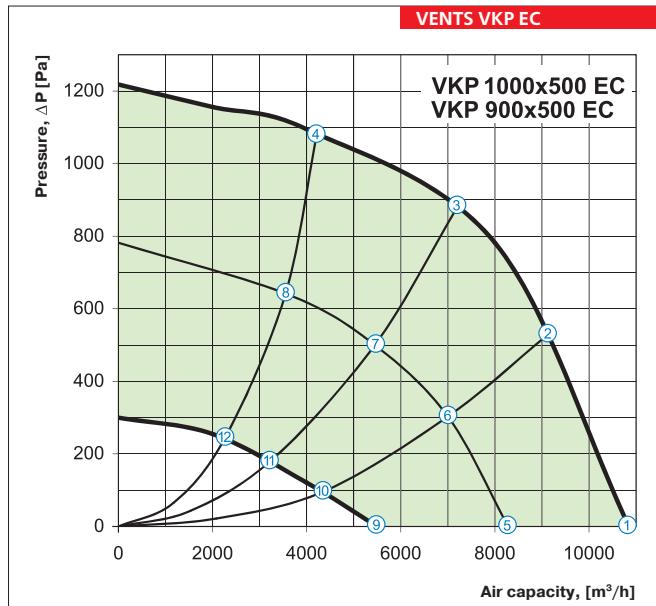
## RECTANGULAR DUCT FANS





point	P, (W)	I, (A)	n, (min <sup>-1</sup> )
1	2009	3.07	2500
2	2738	4.19	2500
3	2950	4.60	2500
4	2748	4.20	2500
5	945	1.48	1945
6	1170	1.80	1920
7	1247	1.91	1915
8	1193	1.84	1920
9	308	0.59	1255
10	416	0.76	1260
11	417	0.77	1255
12	410	0.75	1255

Sound-power level	Hz	Octave-frequency band [Hz]								
		Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to inlet	dBA	84	70	73	75	73	76	75	71	66
L <sub>WA</sub> to outlet	dBA	91	73	77	76	81	87	86	79	76
L <sub>WA</sub> to environment	dBA	72	62	68	66	68	69	65	58	57



point	P, (W)	I, (A)	n, (min <sup>-1</sup> )
1	1988	3.00	2040
2	2596	3.94	2040
3	2980	4.60	2040
4	2638	3.99	2040
5	818	1.28	1550
6	1054	1.63	1545
7	1195	1.83	1550
8	1075	1.66	1570
9	313	0.60	1045
10	362	0.70	1025
11	387	0.72	1010
12	362	0.69	1005

Sound-power level	Hz	Octave-frequency band [Hz]								
		Gen	63	125	250	500	1000	2000	4000	8000
L <sub>WA</sub> to inlet	dBA	81	73	70	65	72	74	70	67	63
L <sub>WA</sub> to outlet	dBA	86	70	70	72	78	79	78	73	70
L <sub>WA</sub> to environment	dBA	69	57	63	63	65	62	56	53	54