

Series
VENTS VKPI EC



Centrifugal fans with the air capacity up to **10850 m³/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 and is heat- and sound-insulated with 50 mm mineral wool layer. 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.

Integrated 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:

	VKPI 600x300 EC	VKPI 600x350 EC	VKPI 700x400 EC	VKPI 800x500 EC	VKPI 900x500 EC	VKPI 1000x500 EC
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
Max. air capacity [m ³ /h]	3350	4550	6300	8900	10850	10850
RPM [min ⁻¹]	2300	2580	2600	2500	2040	2040
Noise level at 3 m [dBA]	49	51	54	57	60	60
Transported air temperature [°C]	-25 +60	-25 +50	-25 +40	-25 +40	-25 +40	-25 +40
Protection rating	IP X4	IP X4	IP X4	IP X4	IP X4	IP X4

Designation key:

Series	Flange diameter [WxH]	Motor
VENTS VKPI	600x300, 600x350, 700x400, 800x500, 900x500, 1000x500	EC – synchronous electronically commutated motor

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 ³ /h]
Static pressure	[Pa]
Speed	[n/min ⁻¹]
Specific ratio	SR

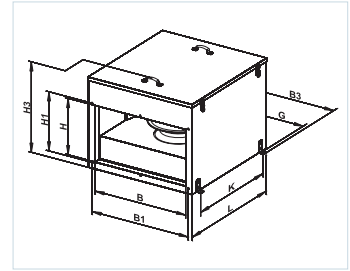
Accessories



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Fan overall dimensions:

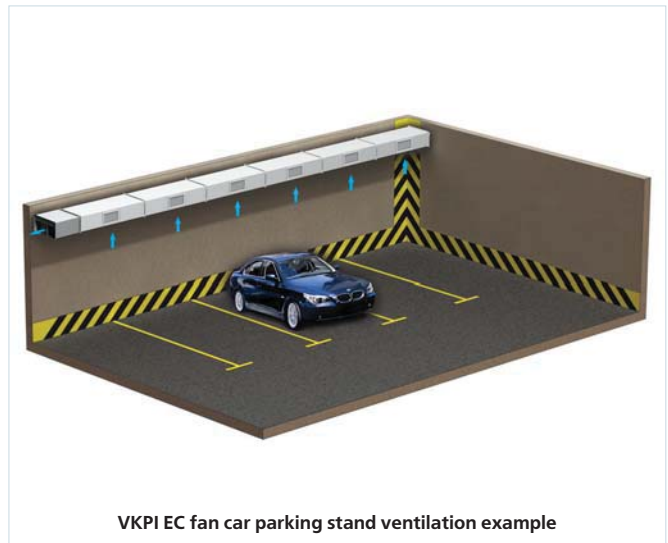
Type	Dimensions [mm]									Weight [kg]
	B	H	B1	H1	B3	H3	L	G	K	
VKPI 600x300 EC	600	300	620	320	775	530	752	745	500	55.0
VKPI 600x350 EC	600	350	620	370	775	630	802	745	500	65.0
VKPI 700x400 EC	700	400	720	420	875	690	880	845	742	90.0
VKPI 800x500 EC	800	500	820	520	975	810	935	945	800	124.1
VKPI 900x500 EC	900	500	920	520	1075	810	1000	1045	800	128.0
VKPI 1000x500 EC	1000	500	1020	520	1175	810	1000	1145	800	129.0



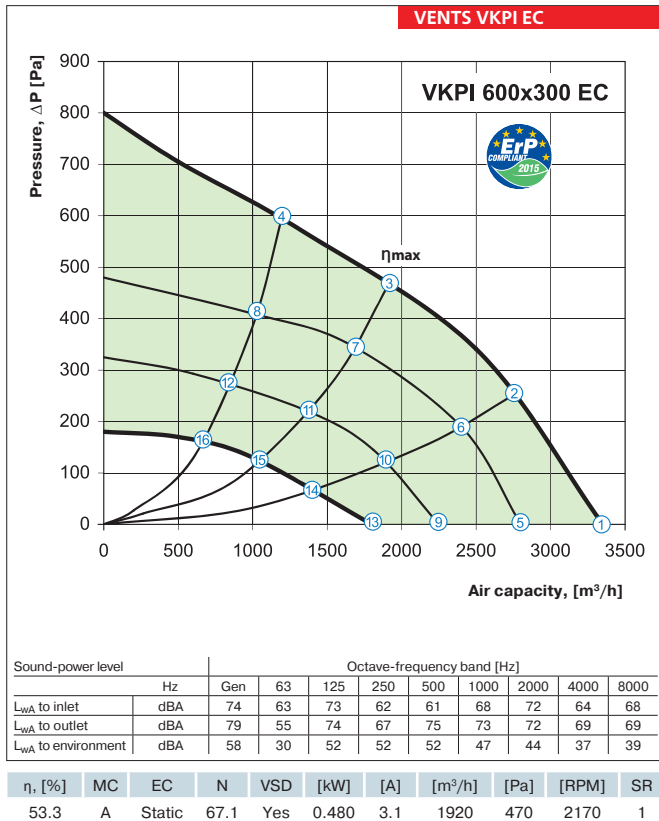
VENTS
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FAN SERIES



VKPI EC fan school class ventilation example

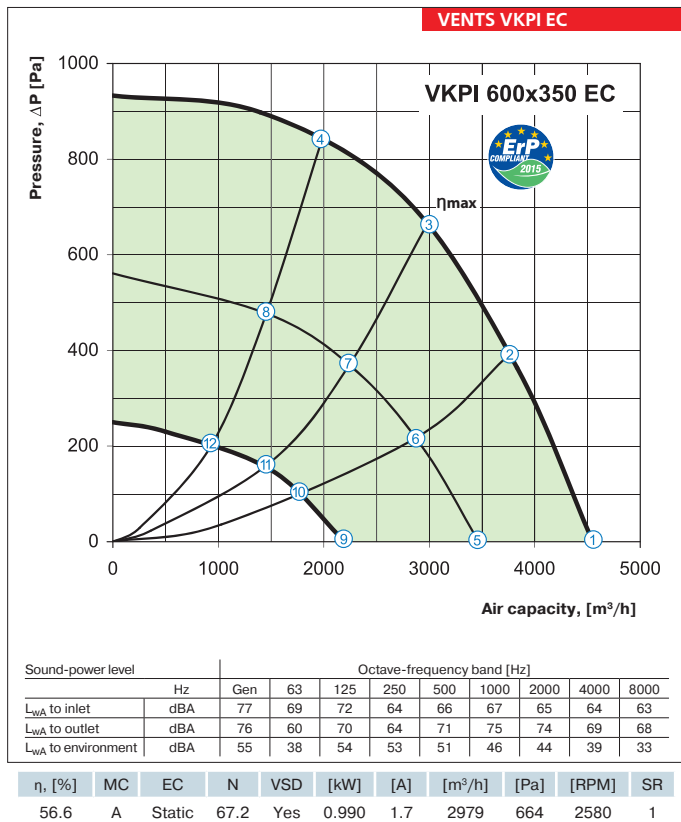


VKPI EC fan car parking stand ventilation example

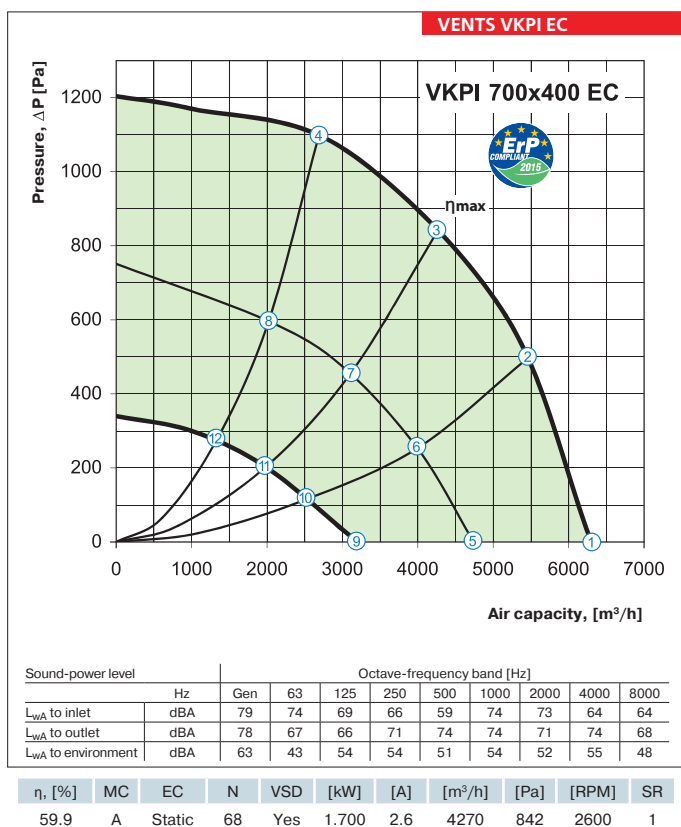


point	P, (W)	I, (A)	n, (min ⁻¹)
1	370	2.35	2300
2	445	2.85	2215
3	480	3.10	2170
4	448	2.85	2220
5	210	1.30	1900
6	284	1.70	1900
7	312	1.80	1900
8	278	1.70	1900
9	124	0.80	1560
10	158	1.00	1560
11	175	1.10	1560
12	158	1.00	1560
13	57	0.40	1200
14	73	0.50	1200
15	80	0.50	1200
16	70	0.50	1200

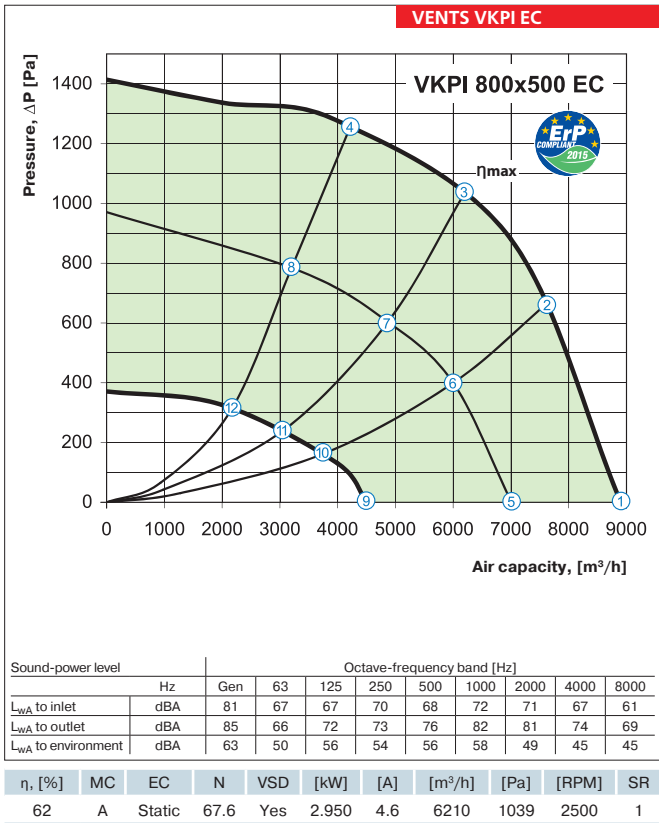
RECTANGULAR INLINE FANS



point	P, (W)	I, (A)	n, (min ⁻¹)
1	669	1.17	2580
2	862	1.46	2580
3	990	1.70	2580
4	907	1.53	2580
5	288	0.57	1930
6	348	0.69	1910
7	396	0.77	1900
8	360	0.72	1905
9	123	0.28	1305
10	144	0.33	1305
11	151	0.34	1305
12	151	0.34	1300

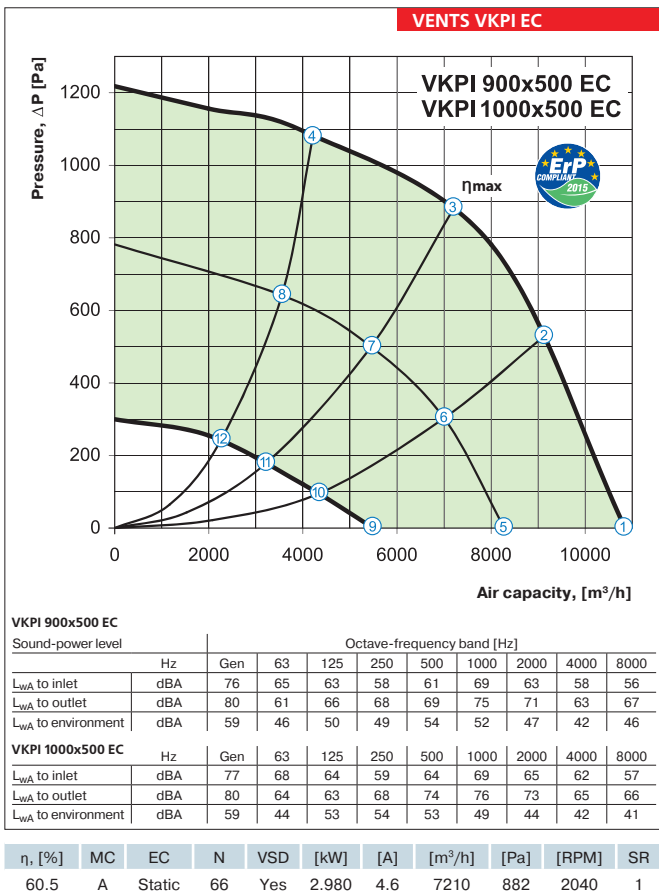


point	P, (W)	I, (A)	n, (min ⁻¹)
1	1140	1.74	2600
2	1510	2.30	2600
3	1700	2.60	2600
4	1594	2.42	2600
5	436	0.73	1940
6	541	0.88	1910
7	533	0.95	1885
8	558	0.91	1905
9	194	0.40	1330
10	226	0.45	1315
11	239	0.47	1305
12	236	0.46	1305



point	P, (W)	I, (A)	n, (min ⁻¹)
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

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point	P, (W)	I, (A)	n, (min ⁻¹)
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