Series

VENTS KSF K2 EC

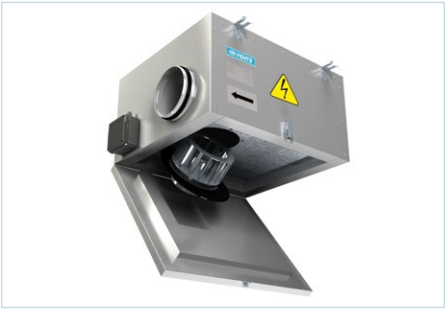
Inline centrifugal fans in a heat- and sound-insulated casing with air flow up to **1682 m³/h**

Application

The KSF K2 EC fans are designed for supply and exhaust ventilation systems for commercial, office and other public or industrial premises with high requirements to the noise level and with limited space for mounting. For example, the unit design includes a possibility of space-restricted installation above suspended ceilings. Compatible with Ø 100-250 mm air ducts.

Design

The fan casing is made of aluzinc. For easy installation and operation, the cover of the fan is secured with a special lock. The casing is heat- and sound-insulated with a 50 mm layer of non-flammable mineral wool. To ensure better noise absorption, the inner surface of the insulation is made of a perforated metal sheet. The round connecting spigots are rubber sealed.



Motor

The units feature efficient electronically commutated (EC) direct current motors with an external rotor and centrifugal impellers with forward curved blades. EC motor is free of friction and wear parts such as a commutator and brushes. These components are replaced by a maintenance-free electronic circuit board. EC motors are characterised with high performance and optimum control across the entire speed range. In addition to that, the efficiency of the electronically commutated motor reaches very impressive levels of up to 90 %.

Integrated functions and control

The fan is controlled with an external control signal 0-10 V (capacity control is performed depending on temperature, pressure, smoke level etc.). The fan has low energy consumption at any speed. Maximum fan speed does not depend on the available current frequency and is suitable for operation both at 50 and 60 Hz. The fans can be connected to centralized computer ventilation control systems.

Installation

Duct fans are intended for mounting to round air ducts. The fans are installed between the air ducts. In case the fan is mounted on flexible joints, attach the fan to a structural unit by means of supports, suspension links or brackets. The fan may be installed in any position in consideration of the air flow direction (as indicated by the arrow on the fan casing). While mounting the fan provide enough access for servicing and repair operations.

Designation key

Series	Spigot diameter	Modification	Motor	Options
VENTS KSF	100; 125; 150; 160; 200; 250	**K2**: heat- and sound-insulated casing	**EC**: synchronous electronically commutated motor	**R1**: power cord with a mains plug.

Accessories

Silencer

Filters

Heaters

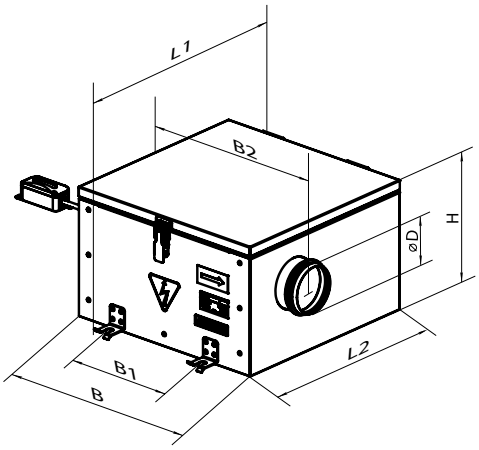
Back valve

Air damper

Speed controller R-1/010

Overall dimensions of fans

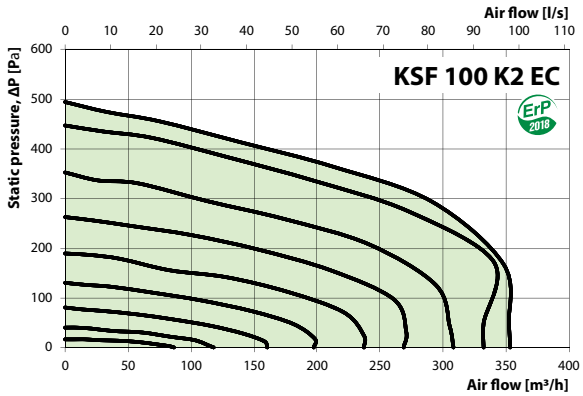
Model	Dimensions [mm]							Weight [kg]
	ØD	B	B1	B2	H	L1	L2	
KSF 100 K2 EC	97	512	360	589	280	553	460	17
KSF 125 K2 EC	122	512	360	589	280	553	460	17
KSF 150 K2 EC	147	592	390	669	350	613	520	24
KSF 160 K2 EC	157	592	390	669	350	613	520	24
KSF 200 K2 EC	197	552	374	629	380	646	553	26
KSF 250 K2 EC	247	665	487	742	411	699	606	33

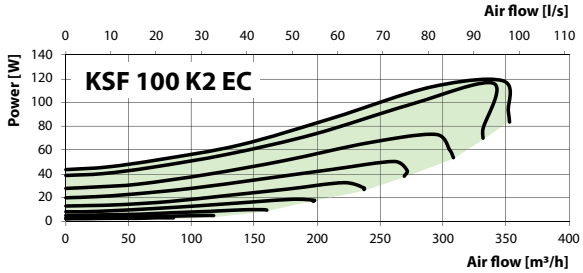


Technical data

	KSF 100 K2 EC	KSF 125 K2 EC
Unit voltage [V/50 (60) Hz]	1~230	1~230
Power [W]	118	118
Current [A]	0.92	0.92
Maximum air flow [m^3/h]	353	393
RPM [min^{-1}]	3000	3000
Sound pressure level at 3 m distance [dBA]	33	33
Maximum transported air temperature [°C]	-25...+50	-25...+50
SEC class	C	C
Ingress protection rating	IP44	IP44

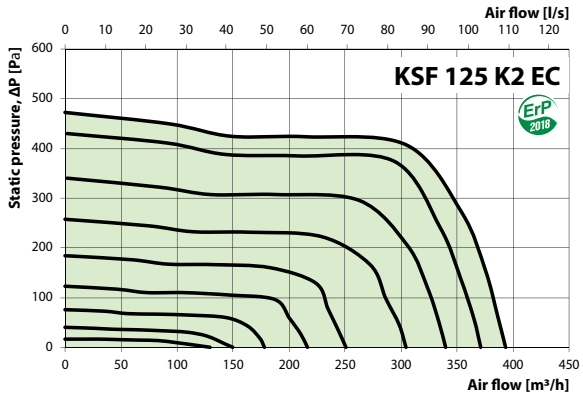
VENTS KSF K2 EC

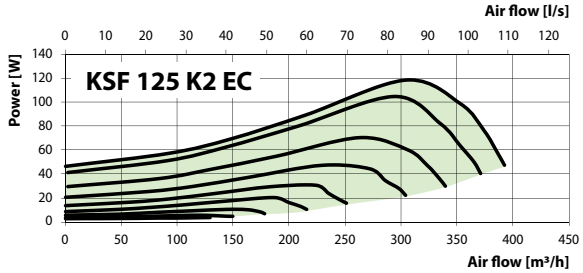




Sound power level			Sound power level [A-filter]									
			Octave frequency band [Hz]								Sound pressure level at a distance of 3 m [A-filter]	Sound pressure level at a distance of 1 m [A-filter]
	Hz	General	63	125	250	500	1000	2000	4000	8000	LpA, 3 m dBA	LpA, 1 m dBA
L_{wA} to inlet	dBA	69	61	61	64	60	58	58	56	52	48	58
L_{wA} to outlet	dBA	73	55	65	67	67	63	65	60	56	52	62
L_{wA} to environment	dBA	53	35	39	50	46	43	45	40	34	33	43

VENTS KSF K2 EC



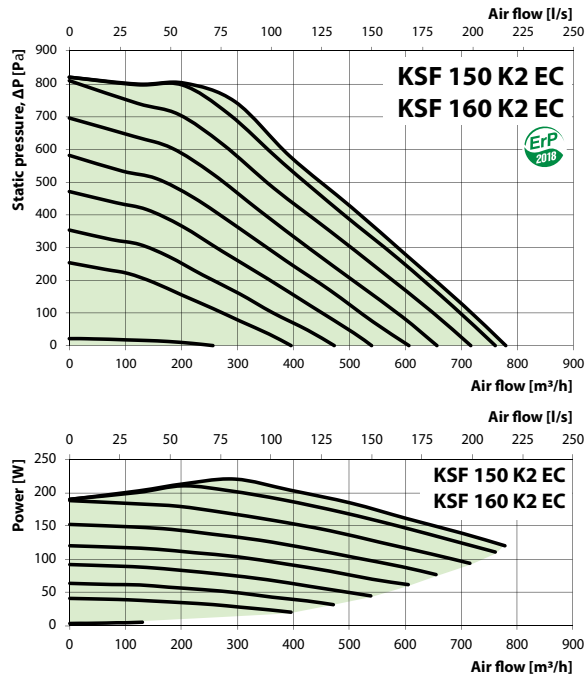


Sound power level			Sound power level [A-filter]									
			Octave frequency band [Hz]								Sound pressure level at a distance of 3 m [A-filter]	Sound pressure level at a distance of 1 m [A-filter]
	Hz	General	63	125	250	500	1000	2000	4000	8000	LpA, 3 m dBA	LpA, 1 m dBA
L_{wA} to inlet	dBA	69	56	60	64	63	62	60	56	46	49	59
L_{wA} to outlet	dBA	75	57	68	66	67	69	68	60	51	54	64
L_{wA} to environment	dBA	54	17	35	43	44	50	49	41	30	33	43

Technical data

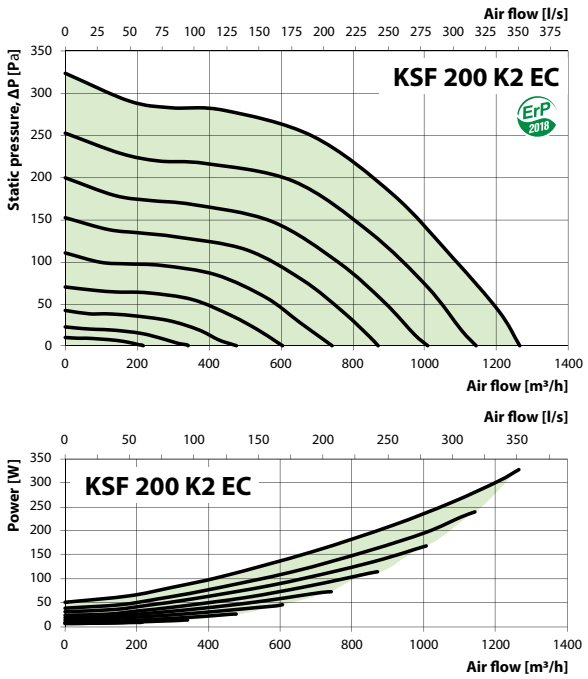
	KSF 150 K2 EC KSF 160 K2 EC	KSF 200 K2 EC
Unit voltage [V/50 (60) Hz]	1~230	1~230
Power [W]	220	259
Current [A]	0.59	1.45
Maximum air flow [m^3/h]	779	1264
RPM [min^{-1}]	2070	1600
Sound pressure level at 3 m distance [dBA]	38	40
Maximum transported air temperature [°C]	-25...+50	-25...+50
SEC class	B	-
Ingress protection rating	IP44	IP44

VENTS KSF K2 EC



Sound power level		Sound power level [A-filter]									Sound pressure level at a distance of 3 m [A-filter]	Sound pressure level at a distance of 1 m [A-filter]
		General	Octave frequency band [Hz]									
	Hz		63	125	250	500	1000	2000	4000	8000	LpA, 3 m dBA	LpA, 1 m dBA
L_{wA} to inlet	dBA	76	62	71	70	68	66	64	62	56	55	65
L_{wA} to outlet	dBA	80	60	71	74	73	72	72	68	60	59	69
L_{wA} to environment	dBA	59	32	45	53	52	53	52	45	35	38	48

VENTS KSF K2 EC

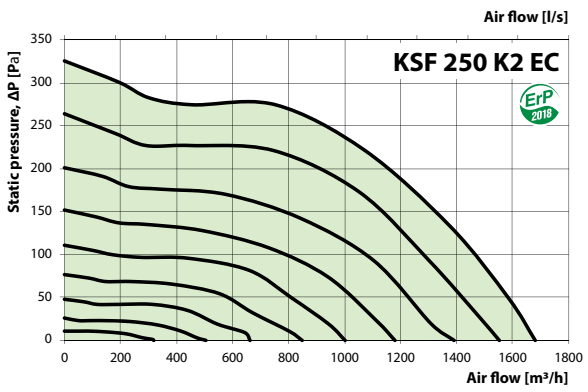


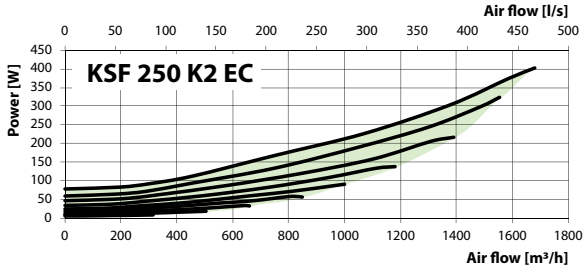
Sound power level		Sound power level [A-filter]									Sound pressure level at a distance of 3 m [A-filter]	Sound pressure level at a distance of 1 m [A-filter]
		General	Octave frequency band [Hz]									
	Hz		63	125	250	500	1000	2000	4000	8000	LpA, 3 m dBA	LpA, 1 m dBA
L_{wA} to inlet	dBA	74	66	66	70	65	63	63	61	57	54	64
L_{wA} to outlet	dBA	79	60	71	73	73	69	71	65	61	58	68
L_{wA} to environment	dBA	60	40	45	58	53	49	52	46	39	40	50

Technical data

	KSF 250 K2 EC
Unit voltage [V/50 (60) Hz]	1~230
Power [W]	374
Current [A]	1.77
Maximum air flow [m^3/h]	1682
RPM [min^{-1}]	1400
Sound pressure level at 3 m distance [dBA]	41
Maximum transported air temperature [°C]	-25...+50
SEC class	-
Ingress protection rating	IP44

VENTS KSF K2 EC





Sound power level			Sound power level [A-filter]								Sound pressure level at a distance of 3 m [A-filter]	Sound pressure level at a distance of 1 m [A-filter]
		General	Octave frequency band [Hz]									
	Hz		63	125	250	500	1000	2000	4000	8000	LpA, 3 m dBA	LpA, 1 m dBA
L_{WA} to inlet	dBA	79	65	75	74	71	69	67	65	59	59	69
L_{WA} to outlet	dBA	83	62	74	77	76	75	75	71	62	62	72
L_{WA} to environment	dBA	62	34	47	56	55	56	55	47	37	41	51