

# Iso-B EC

## Sound-insulated centrifugal fans

### Use

- Supply and extract ventilation systems installed in premises with high requirements to the noise level.
- Suitable for limited mounting space.
- Unit design includes a possibility of space-restricted installation above suspended ceilings.
- Compatible with Ø 100 up to 315 mm round air ducts.



**Air flow:**  
up to 1260 m<sup>3</sup>/h  
350 l/s



**Power:**  
from 92.6 W



**Noise level:**  
from 32 dBA



### Design

- Galvanized steel casing internally filled thermal- and sound-insulating layer.
- The connection spigots are equipped with rubber seals.
- Fixing brackets for easy mounting.

### Motor

- High-efficient electronically commutated direct current motors with backward curved blades. Such motors are the most state-of-the-art energy saving solution.
- Power consumption of EC motors is 35 % less as compared to standard motors.
- The fans with EC motors have excellent aerodynamic performance and low-noise operation.
- EC motors are featured with high performance and total speed controllable range.
- High efficiency reaching 90 % is the premium advantage of the electronically-commutated motors.
- The motors are equipped with ball bearings designed for at least 40 000 operating hours.

### Speed control

- The fans are controlled by means of a 0-10 V external control signal while the performance regulation is based on the feedback from the temperature, smoke and other sensors as well as other vital parameter settings.
- As the control signal changes the EC fan changes speed accordingly to supply the exact air amount required by the ventilation system.
- The maximum fan speed does not depend on the electric mains frequency enabling compatibility with both 50 Hz and 60 Hz networks.

- The fans can be easily combined into a single computer-controlled network.
- Special software allows for precise control over the operating parameters of the network units.

### Mounting

- The fans are intended for installation in round air ducts. They are installed between the air ducts.
- The use of flexible connectors requires fixation of the fan on the building structure by means of supports, mounts or fixing brackets.
- The fan can be fixed in any position, taking into account the air flow direction indicated by the arrow on the fan casing.
- While mounting the fan provide enough access for servicing and repair operations.
- Electrical connection and installation must be performed in accordance with the instruction manual and the electrical connections diagram applied to the terminal box.

### Modifications and options

- FR – built-in speed controller

### Designation key

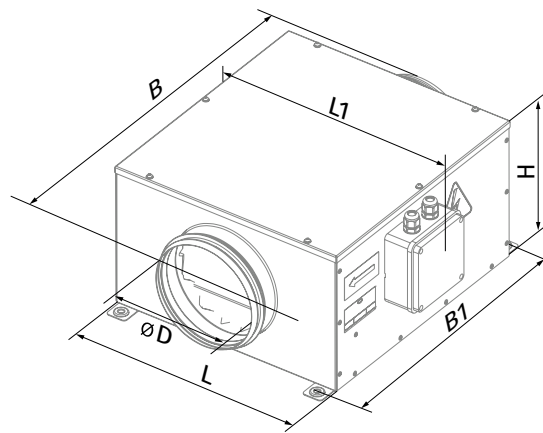
Series	Motor	Spigot diameter [mm]	Options
Iso-B	EC: electronically commutated motor	100; 125; 150; 160; 200; 250; 315	FR: built-in smooth speed controller

### Accessories

Silencer	Panel filter	Pocket filter	Electric heater	Water heater	Backdraft air damper	Shutter	Speed controller
SD	KFBK	KFBT	EKH	WKH	VRV	VKA	CDT E/0-10

**Overall dimensions [mm]**

Type	ØD	L	L1	B	B1	H
Iso-B EC 100 (FR)	99	325	375 (388)	355	447	200
Iso-B EC 125 (FR)	124	325	375 (388)	355	447	200
Iso-B EC 150 (FR)	149	325	405 (418)	385	447	220
Iso-B EC 160 (FR)	159	325	405 (418)	385	447	220
Iso-B EC 200 (FR)	199	435	490 (503)	485	590	295
Iso-B EC 250 (FR)	249	435	490 (503)	485	590	295
Iso-B EC 315 (FR)	314	435	560 (663)	545	650	405

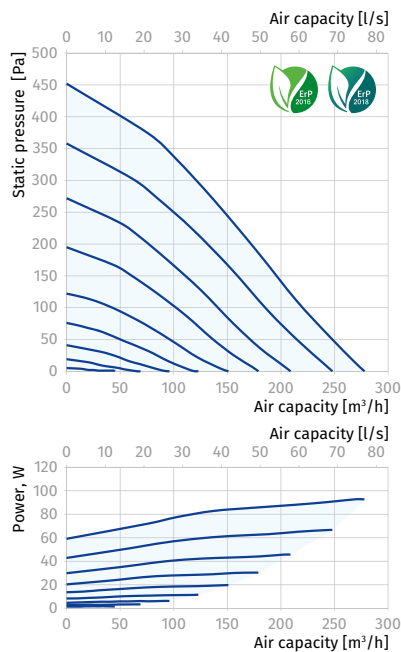


## Technical data

Parameters	Iso-B EC 100	Iso-B EC 125	Iso-B EC 150 Iso-B EC 160	Iso-B EC 200	Iso-B EC 250	Iso-B EC 315
Voltage [V/50(60) Hz]	1~ 230	1~ 230	1~ 230	1~ 230	1~ 230	1~ 230
Power [W]	92.7	92.6	94.8	101.6	163.7	164.3
Current [A]	0.75	0.75	0.77	0.83	1.34	1.35
Maximum air capacity [m <sup>3</sup> /h (l/s)]	278 (77)	357 (99)	425 (118)	700 (194)	1145 (318)	1260 (350)
RPM	3200	3200	3200	2580	2510	2620
Sound pressure level at 3 m distance [dB(A)]	32	34	35	37	40	42
Max. transported air temperature [°C]	-25...+60	-25...+60	-25...+60	-25...+60	-25...+60	-25...+60
Energy efficiency class	C	C	B	B	B	-
Ingress protection rating	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Motor IP rating	IP55	IP55	IP55	IP55	IP55	IP55
ErP	2016, 2018	2016, 2018	2016, 2018	2016, 2018	2016, 2018	2016, 2018

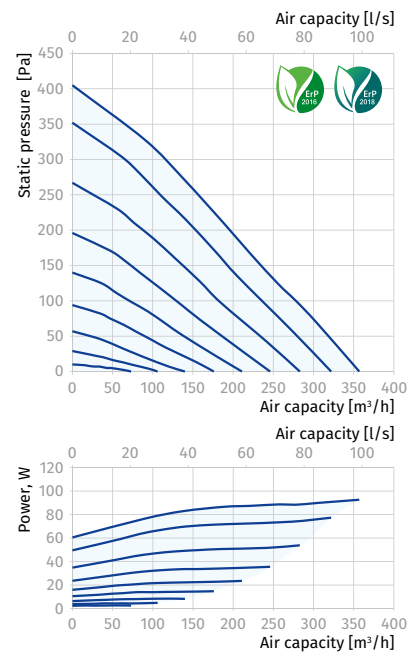
### ISO-B EC 100

Sound power level, A-weighted	Octave frequency bands [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
L <sub>WA</sub> to inlet [dBA]	61	47	55	59	51	47	41	41	32	41	51
L <sub>WA</sub> to outlet [dBA]	64	52	59	60	57	47	41	42	36	44	54
L <sub>WA</sub> to environment [dBA]	53	42	49	49	41	36	31	27	23	32	42



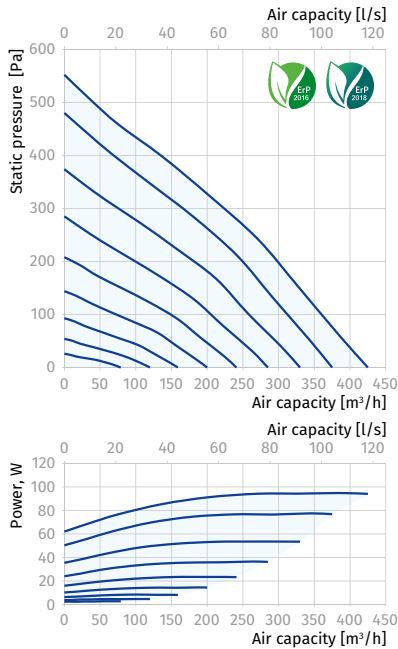
### ISO-B EC 125

Sound power level, A-weighted	Octave frequency bands [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
L <sub>WA</sub> to inlet [dBA]	60	46	54	58	50	46	40	40	31	40	50
L <sub>WA</sub> to outlet [dBA]	63	51	58	59	56	46	40	41	35	43	53
L <sub>WA</sub> to environment [dBA]	55	44	51	51	43	38	32	28	24	34	44



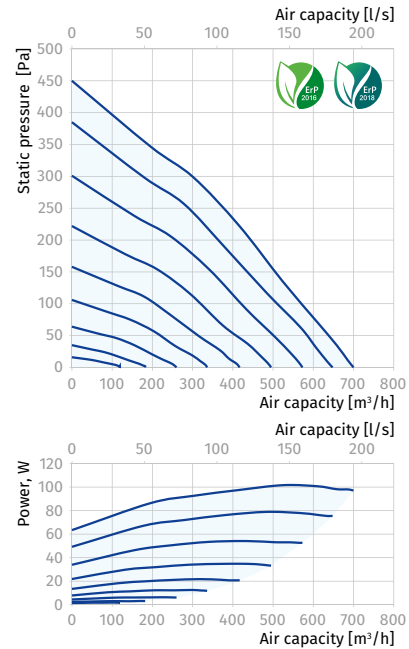
**ISO-B EC 150 / ISO-B EC 160**

Sound power level, A-weighted	Octave frequency bands [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LWA to inlet [dBA]	63	48	56	60	52	48	42	42	32	42	52
LWA to outlet [dBA]	65	53	60	61	58	48	42	43	36	45	55
LWA to environment [dBA]	56	45	52	52	44	39	33	29	24	35	45



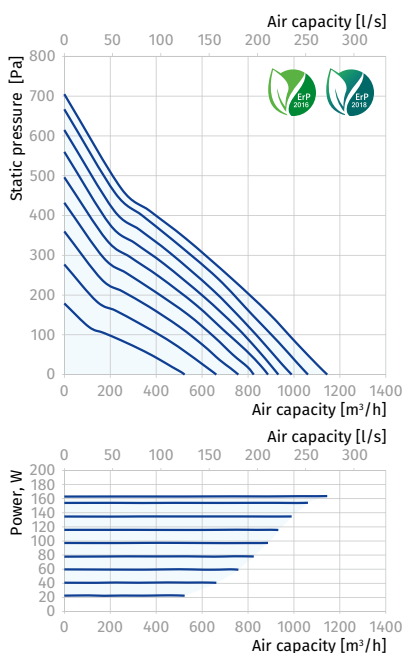
**ISO-B EC 200**

Sound power level, A-weighted	Octave frequency bands [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LWA to inlet [dBA]	62	46	59	59	41	37	34	30	23	41	51
LWA to outlet [dBA]	65	52	64	51	47	43	35	29	22	44	54
LWA to environment [dBA]	57	46	53	54	45	40	33	30	25	37	47



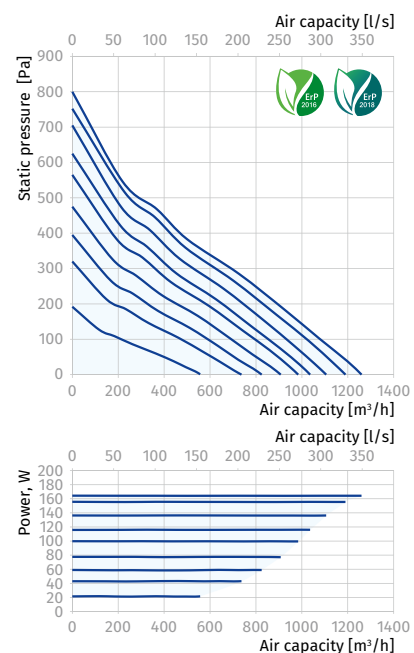
**ISO-B EC 250**

Sound power level, A-weighted	Octave frequency bands [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LWA to inlet [dBA]	66	49	62	62	44	39	36	32	24	45	55
LWA to outlet [dBA]	68	55	68	54	50	45	37	31	24	48	58
LWA to environment [dBA]	61	49	57	57	48	43	36	32	27	40	50



**ISO-B EC 315**

Sound power level, A-weighted	Octave frequency bands [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LWA to inlet [dBA]	67	52	61	65	56	51	45	45	35	46	56
LWA to outlet [dBA]	70	56	65	66	62	51	44	46	39	49	59
LWA to environment [dBA]	62	51	58	59	50	44	37	32	28	42	52



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