



Sound-insulated inline mixed-flow fans **ISO-MIX EC**



APPLICATION

Iso MIX fans with EC Motors are specially designed for supply and exhaust ventilation of premises requiring with high requirements to noise level. These fans are enclosed in a specially designed sound-insulated casing that ensures silent fan operation in combination with high aerodynamic characteristics. These fans are featured with wide capabilities and high performance of axial and centrifugal fans thus providing powerful air stream and high pressure while retaining high energy efficiency of EC Motors. The fans are compatible with Ø 100 to 315 mm.

AREAS OF APPLICATION

Best Solution for Ventilation in libraries, conference halls, educational institutions, kindergartens, health care and child care facilities etc. where noise is a major criteria.

DESIGN

- The fan casing made of polymer-coated steel.
- The inner casing is internally filled with 50 mm mineral wool thermal- and sound-insulating layer.
- Special inner perforation of the casing and sound-insulating material are designed for wide-frequency sound absorbing. The inner casing perforation let sound waves pass through the holes and fall at a specific angle to the sound-absorbing layer
- The inner casing and the impeller are made of high-quality durable plastic.
- The diffuser, the specially profiled impeller and the directing vanes at outlet from the fan casing distribute air flow in such a way as to attain the best combination of high performance, enhanced pressure and low noise.
- External water tight terminal block on the fan casing for power supply.
- Mounting brackets on the fan casing for mounting to the floor, to the wall or ceiling

MOTOR

The fans feature high-efficiency electronically commutated (EC) direct current motors. In addition to that EC motors combine high performance and optimum response over the entire speed range. The performance efficiency of electronically commutated motors reaches a staggering 90 %.

SPEED CONTROL

- The fans are controlled by means of a 0-10 V 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. All the system parameters can be monitored from the computer screen allowing to program operating parameters for each fan on the network individually
- Integration of several fans into a single computer-controlled system with sensor feedback combined with speed control across the entire dynamic range.

MOUNTING

- Due to compact design the fan is the ideal solution for mounting in limited spaces, including space behind a false ceiling.
- The fan can be installed in any section of the ventilation system from intake to the end of the ductworks.
- Wall or ceiling mounting with a mounting plate.

IMPORTANT NOTE

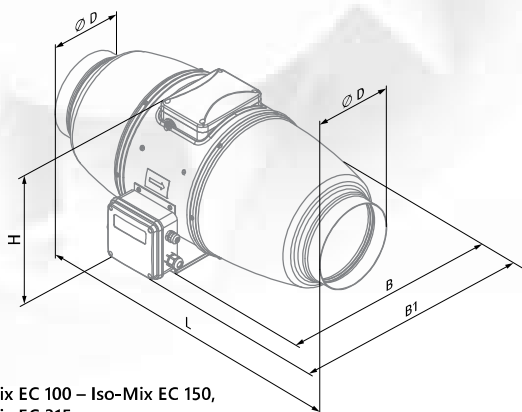
Electrical connection and installation must be performed in accordance with the instruction manual.

The electrical connections diagram applied to the terminal box should be strictly followed being an EC Motor unit.

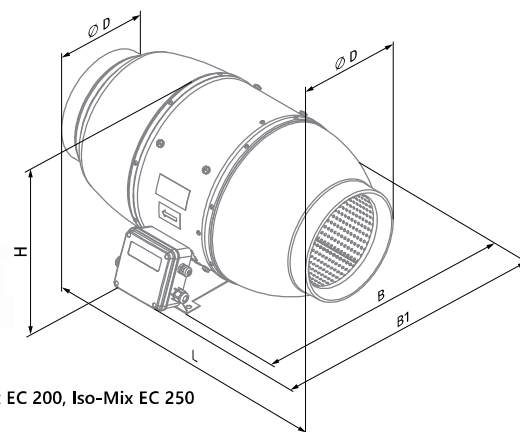
A single system may have several fans installed in parallel to boost the output capacity or in series to boost the working pressure.

OVERALL DIMENSIONS [mm]

Type	ØD	B	B1	L	H	Weight [Kg]
Iso-Mix EC 100	98	243	283	505	234	4.6
Iso-Mix EC 125	123	243	283	474	234	4.6
Iso-Mix EC 150	147	273	314	579	264	6.1
Iso-Mix EC 200	198	343	393	558	296	8.0
Iso-Mix EC 250	248	402	452	664	363	15.0
Iso-Mix EC 315	313	478	528	785	455	25.0



Iso-Mix EC 100 – Iso-Mix EC 150,
Iso-Mix EC 315



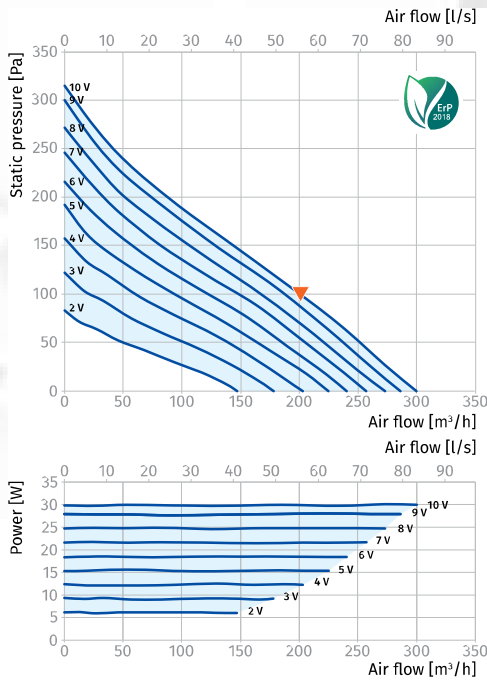
Iso-Mix EC 200, Iso-Mix EC 250

SPECIFICATIONS

Parameters	Iso-Mix EC 100	Iso-Mix EC 125	Iso-Mix EC 150	Iso-Mix EC 200	Iso-Mix EC 250	Iso-Mix EC 315
Voltage [V / 50 Hz]	1~230	1~230	1~230	1~230	1~230	1~230
Power [W]	30	40	55	123	169	284
Current [A]	0.29	0.37	0.48	1.02	1.38	1.25
Maximum air flow [m ³ /h (l/s)]	300 (83)	450 (125)	600 (167)	1040 (289)	1285 (357)	1970 (547)
RPM [min ⁻¹]	3680	3750	3390	3390	2870	2826
Sound pressure level at 3m [dBA]	37	43	38	43	42	46
Transported air temperature [°C]	-25...+55	-25...+55	-25...+55	-25...+55	-25...+55	-25...+55
Motor Protection	IP44	IP44	IP44	IP44	IP44	IP44
SEC class	B	B	B	-	-	-
Erp	2018	2018	2018	2018	2018	2018

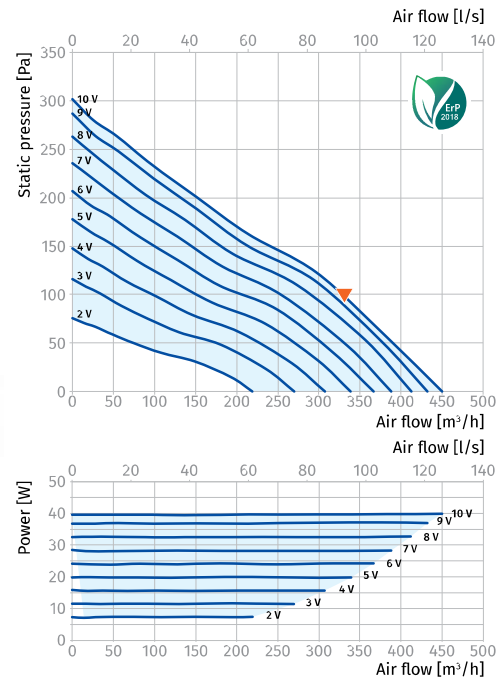
ISO-MIX EC 100

Sound power level, A-weighted	Octave Frequency Band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LwA to input [dBA]	62	46	59	59	42	37	34	31	23	42	52
LwA to output [dBA]	57	46	57	45	42	38	31	26	20	37	47
LwA surrounding (dBA)	57	39	45	51	55	43	42	32	23	37	47



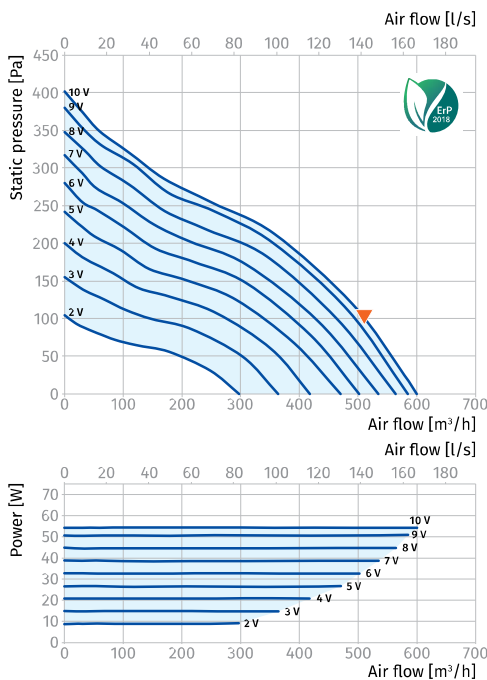
ISO-MIX EC 125

Sound power level, A-weighted	Octave Frequency Band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LwA to input [dBA]	68	51	65	65	46	41	38	34	25	48	58
LwA to output [dBA]	65	52	65	51	48	43	35	30	23	45	55
LwA surrounding (dBA)	63	50	53	57	61	50	49	38	29	43	53



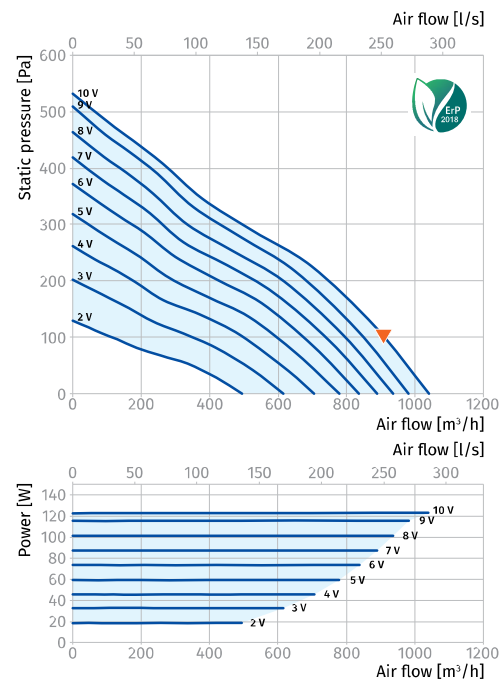
ISO-MIX EC 150

Sound power level, A-weighted	Octave Frequency Band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LwA to input [dBA]	61	45	58	58	41	37	33	30	30	41	51
LwA to output [dBA]	58	47	58	46	43	39	32	27	27	38	48
LwA surrounding (dBA)	58	48	48	50	57	45	43	36	36	38	48



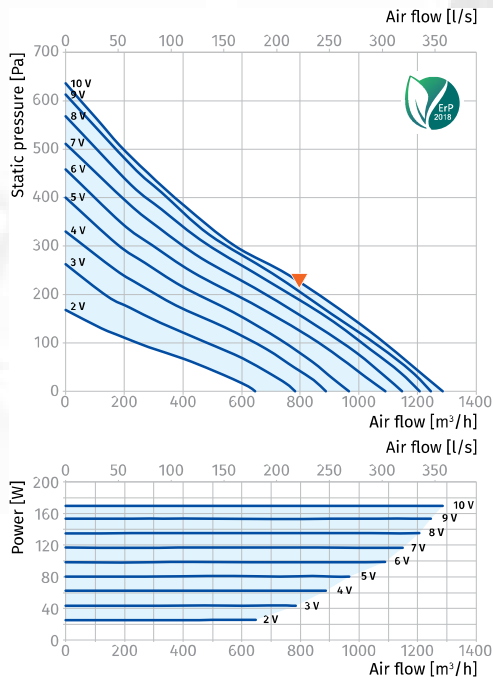
ISO-MIX EC 200

Sound power level, A-weighted	Octave Frequency Band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LwA to input [dBA]	68	37	47	57	63	63	62	61	55	48	58
LwA to output [dBA]	70	42	50	59	64	66	64	63	58	50	60
LwA surrounding (dBA)	63	31	43	53	61	56	53	47	37	43	52



ISO-MIX EC 250

Sound power level, A-weighted	Octave Frequency Band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LwA to input [dBA]	70	45	48	60	66	66	63	58	52	50	60
LwA to output [dBA]	74	46	54	62	70	69	66	63	56	54	64
LwA surrounding (dBA)	63	40	45	52	60	57	51	43	31	42	52



ISO-MIX EC 315

Sound power level, A-weighted	Octave Frequency Band [Hz]								LpA, 3 m dBA	LpA, 1 m dBA	
	Gen.	63	125	250	500	1000	2000	4000			8000
LwA to input [dBA]	72	41	55	64	65	70	65	63	55	52	62
LwA to output [dBA]	77	52	61	67	74	71	69	67	62	57	66
LwA surrounding (dBA)	66	33	48	58	60	63	57	50	38	46	55

