Iso-Mix
Sound-insulated inline mixed-flow fans

Use

- Supply and extract ventilation systems installed in various premises with high requirements to the noise level.
- For ventilation air ducts requiring high pressure, powerful air flow and low noise level.
- Compatible with Ø100 up to Ø 315 mm air ducts.

Air flow:
up to 1920 m³/h
533 l/s

Power:
from 24 W

Noise level:
from 23 dBA

ErP 2016   ErP 2018

Design

- The casing is made of polymer-coated steel, 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.
- Mixed-flow impeller made of high-quality plastic.
- The diffusor, the specially profiled impeller and directing vanes provide high performance and powerful pressure combined with low noise operation.
- External airtight 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

- Double-speed single-phase high-efficient motor with low energy demand on ball bearings.
- Overheating protection due to built-in thermal switches.
- Motor ingress protection rating IPX4.

Speed control

- Speed selection with a built-in speed switch (US option) or an external multi-speed controller (specially ordered accessory).
- Smooth speed control is possible either with an integrated speed controller (FR option), an external thyristor or transformer speed controller (specially ordered accessory) when connected to the maximum speed terminal.

Mounting

- Due to its compact design the fan is the ideal solution for mounting in limited spaces.
- The fan is suitable for mounting in any section of the ventilation system from intake to the end of the ductwork.
- Wall or ceiling mounting with a special mounting plate on the fan casing.

Modifications and options

- **T:** turn-off delay timer adjustable from 2 to 30 minutes.
- **US:** built-in three-position speed switch.
- **FR:** built-in smooth speed controller adjustable from 0 to 100 %. The fan is supplied with power cable and IEC C14 plug or mains plug **(FR1)**.

- **G:** speed and temperature controllers with external temperature sensor that is fixed on 4 m cable. The fan is supplied with power cable and IEC C14 plug or mains plug **(G1)**.

- **GI**: speed and temperature controllers with integrated temperature sensor. The fan is supplied with power cable and IEC C14 plug or mains plug **(GI1)**. The G and GI modifications enable automatic speed control depending on room temperature and offer the optimal ventilation solution for premises requiring permanent temperature control as greenhouses, orangeries, etc.
- **W**: power cable and IEC C14 plug or mains plug **(W1)**.

Accessories

Silencer	Panel filter	Pocket filter	Electric heater	Water heater	Backdraft air damper	Air damper	Clamp	Temperature controller	Speed controllers	Timer / Sensor
SD	KFBK	KFBT	EKH	WKH	VRV	VKA	K	MLCD E2	CDP/CDT	TE(TI)/HSE(HSI)/ LSE(LSI)/IRSE(IRSI)

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Designation key		
Series	**Duct diameter [mm]**	**Options**
Iso-Mix	100; 125; 150; 160; 200; 250; 315	**T:** turn-off delay timer adjustable from 2 to 30 minutes **US:** built-in three-position speed switch **FR:** built-in smooth speed controller adjustable from 0 to 100 % and power cable with IEC C14 plug **FR1:** built-in smooth speed controller adjustable from 0 to 100 % and power cable with mains plug **G:** speed and temperature controllers with an external temperature sensor that is fixed on 4 m cable, power cable with IEC C14 plug **G1:** speed and temperature controllers with an external temperature sensor that is fixed on 4 m cable, power cable with mains plug **GI:** speed and temperature controllers with integrated temperature sensor and power cable with IEC C14 plug **GI1:** speed and temperature controllers with integrated temperature sensor and power cable with mains plug **W:** power cable with IEC C14 plug **W1:** power cable with mains plug

Overall dimensions [mm]

Type	ØD	B	B1	L	H	Weight [kg]
Iso-Mix 100	98	214	243	505	251	4.6
Iso-Mix 125	123	214	243	474	251	4.6
Iso-Mix 150	148	247	273	579	263	6.1
Iso-Mix 160	159	281	327	566	284	6.3
Iso-Mix 200	198	293	386	550	295	8.0
Iso-Mix 250	248	358	445	658	360	15.0
Iso-Mix 315	313	432	520	780	434	25.0
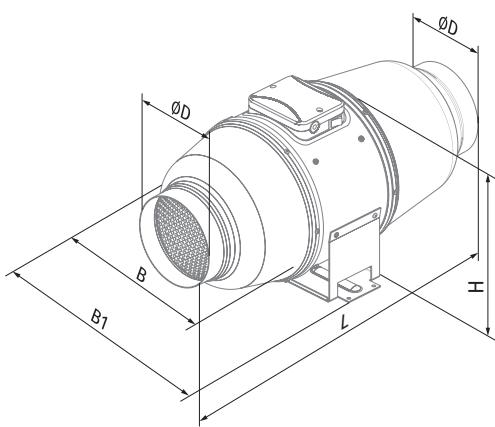
Iso-Mix 100 – Iso-Mix 150
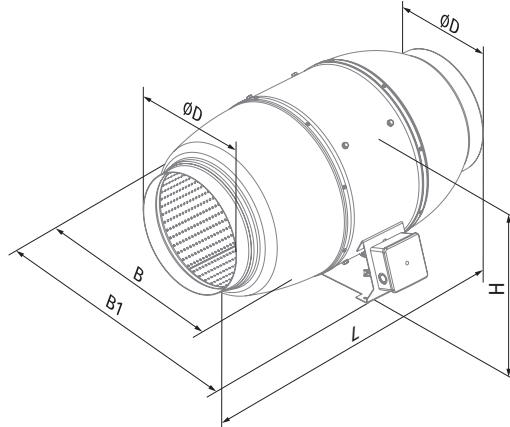
Iso-Mix 160 – Iso-Mix 315

SOUND-INSULATED FANS

Technical data

Parameters	Iso-Mix 100		Iso-Mix 125	
Speed	min	max	min	max
Voltage [V / 50-60 Hz]	1 ~ 230		1 ~ 230	
Power [W]	24	26	25	29
Current [A]	0.10	0.11	0.11	0.13
Maximum air flow [m³/h (l/s)]	175 (49)	233 (65)	235 (65)	347 (96)
RPM [min⁻¹]	2015	2610	1660	2315
Sound pressure at 3 m [dBA]	24	29	23	28
Max. transported air temperature [°C]	+60		+60	
SEC class	–		–	
IP rating	IPX4		IPX4	
Motor IP rating	IP44		IP44	
ErP	–		–	

ISO-MIX 100

Sound power level, A-weighted	Octave frequency bands [Hz]									L_{pA} 3 m [dBA]	L_{pA} 1 m [dBA]
	Total	63	125	250	500	1000	2000	4000	8000		
Min speed											
L_{wA} to inlet [dBA]	**55**	29	45	51	49	48	35	26	14	**34**	**44**
L_{wA} to outlet [dBA]	**53**	30	35	38	52	45	38	38	25	**33**	**43**
L_{wA} to environment [dBA]	**44**	29	31	36	38	39	36	31	24	**24**	**34**
Max speed											
L_{wA} to inlet [dBA]	**61**	33	51	57	55	54	39	29	16	**40**	**50**
L_{wA} to outlet [dBA]	**58**	33	38	41	57	50	41	41	27	**37**	**47**
L_{wA} to environment [dBA]	**49**	36	42	45	44	37	34	24	18	**29**	**39**

ISO-MIX 125

Sound power level, A-weighted	Octave frequency bands [Hz]									L_{pA} 3 m [dBA]	L_{pA} 1 m [dBA]
	Total	63	125	250	500	1000	2000	4000	8000		
Min speed											
L_{wA} to inlet [dBA]	**60**	32	50	56	54	53	38	29	16	**39**	**49**
L_{wA} to outlet [dBA]	**58**	40	43	50	52	54	50	43	33	**38**	**48**
L_{wA} to environment [dBA]	**44**	35	38	39	37	29	23	18	12	**23**	**33**
Max speed											
L_{wA} to inlet [dBA]	**64**	35	54	60	58	56	41	31	17	**43**	**53**
L_{wA} to outlet [dBA]	**61**	35	40	44	60	53	44	44	29	**40**	**50**
L_{wA} to environment [dBA]	**48**	35	40	44	43	38	34	25	20	**28**	**38**
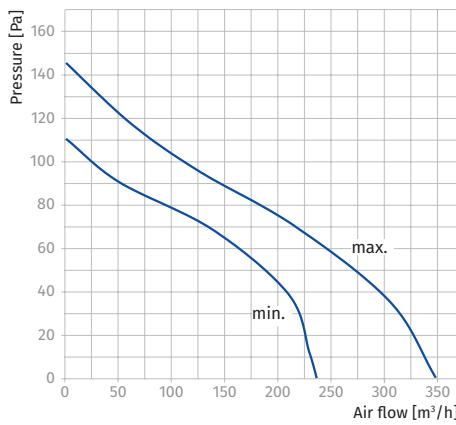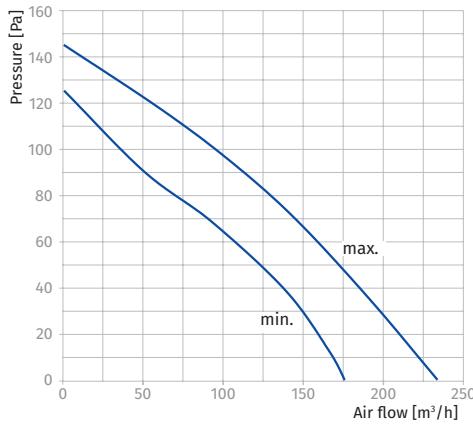
Parameters	Iso-Mix 150, Iso-Mix 160		Iso-Mix 200	
Speed	min	max	min	max
Voltage [V / 50-60 Hz]	1 ~ 230		1 ~ 230	
Power [W]	45	52	78	110
Current [A]	0.20	0.23	0.35	0.49
Maximum air flow [m³/h (l/s)]	410 (114)	550 (153)	790 (219)	1035 (288)
RPM [min⁻¹]	1985	2640	2000	2460
Sound pressure at 3 m [dBA]	26	33	31	36
Max. transported air temperature [°C]	+60		+60	
SEC class	C		C	
IP rating	IPX4		IPX4	
Motor IP rating	IP44		IP44	
ErP	2016, 2018		2016, 2018	

ISO-MIX 150, ISO-MIX 160

Sound power level, A-weighted	Octave frequency bands [Hz]									L_{pA} 3 m [dBA]	L_{pA} 1 m [dBA]
	Total	63	125	250	500	1000	2000	4000	8000		
Min speed											
L_{wA} to inlet [dBA]	**59**	32	49	55	53	52	38	28	15	**38**	**48**
L_{wA} to outlet [dBA]	**62**	36	41	44	61	53	44	44	29	**41**	**51**
L_{wA} to environment [dBA]	**47**	37	40	41	40	38	29	22	19	**26**	**36**
Max speed											
L_{wA} to inlet [dBA]	**68**	37	58	65	62	61	44	33	18	**48**	**58**
L_{wA} to outlet [dBA]	**66**	38	43	47	65	57	47	47	31	**45**	**55**
L_{wA} to environment [dBA]	**53**	44	47	48	47	45	34	26	23	**33**	**43**

ISO-MIX 200

Sound power level, A-weighted	Octave frequency bands [Hz]									L_{pA} 3 m [dBA]	L_{pA} 1 m [dBA]
	Total	63	125	250	500	1000	2000	4000	8000		
Min speed											
L_{wA} to inlet [dBA]	**63**	34	53	60	57	56	41	31	17	**43**	**53**
L_{wA} to outlet [dBA]	**62**	43	46	53	56	58	53	46	36	**41**	**51**
L_{wA} to environment [dBA]	**52**	40	46	46	44	41	37	35	30	**31**	**41**
Max speed											
L_{wA} to inlet [dBA]	**69**	38	59	66	63	62	45	34	18	**49**	**59**
L_{wA} to outlet [dBA]	**67**	39	44	48	66	58	48	48	32	**47**	**57**
L_{wA} to environment [dBA]	**57**	44	52	52	49	45	41	39	34	**36**	**46**

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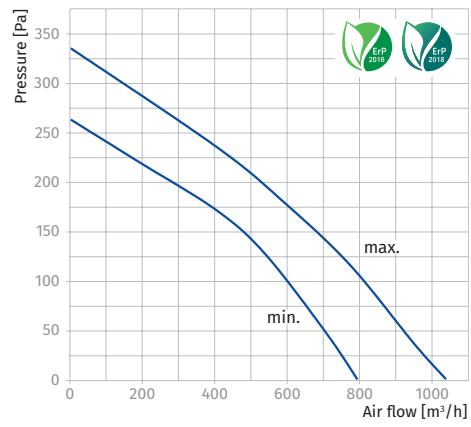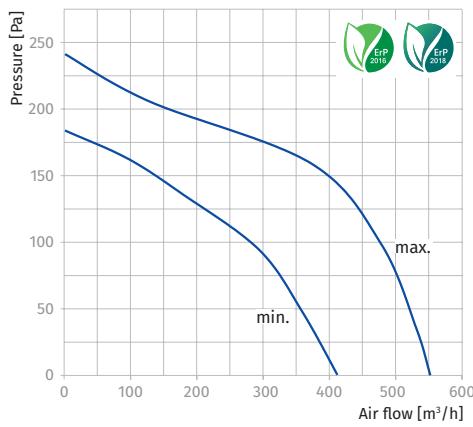
Parameters	Iso-Mix 250		Iso-Mix 315	
Speed	min	max	min	max
Voltage [V / 50-60 Hz]	1 ~ 230		1 ~ 230	
Power [W]	127	178	230	330
Current [A]	0.52	0.79	0.93	1.41
Maximum air flow [m³/h (l/s)]	1035 (288)	1315 (365)	1510 (419)	1920 (533)
RPM [min⁻¹]	1960	2460	2120	2620
Sound pressure at 3 m [dBA]	34	38	36	40
Max. transported air temperature [°C]	+60		+60	
SEC class	–		–	
Ingress protection rating	IPX4		IPX4	
Motor IP rating	IP44		IP44	
ErP	2016, 2018		2016, 2018	

SOUND-INSULATED FANS

ISO-MIX 250

Sound power level, A-weighted	Octave frequency bands [Hz]									LpA 3 m [dBA]	LpA 1 m [dBA]
	Total	63	125	250	500	1000	2000	4000	8000		
Min speed											
L$_{wA}$ to inlet [dBA]	**66**	36	56	63	60	59	43	32	17	**45**	**55**
L$_{wA}$ to outlet [dBA]	**64**	37	42	46	63	55	46	46	30	**43**	**53**
L$_{wA}$ to environment [dBA]	**55**	44	48	51	47	44	37	31	25	**34**	**44**
Max speed											
L$_{wA}$ to inlet [dBA]	**69**	38	59	66	63	62	45	34	18	**49**	**59**
L$_{wA}$ to outlet [dBA]	**75**	43	50	54	74	65	54	54	36	**54**	**64**
L$_{wA}$ to environment [dBA]	**58**	47	49	53	53	49	44	39	31	**38**	**48**
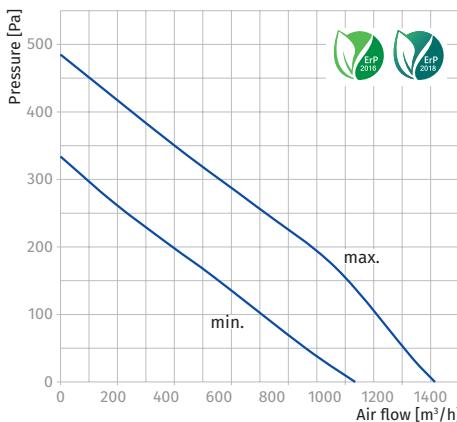
ISO-MIX 315

Sound power level, A-weighted	Octave frequency bands [Hz]									LpA 3 m [dBA]	LpA 1 m [dBA]
	Total	63	125	250	500	1000	2000	4000	8000		
Min speed											
L$_{wA}$ to inlet [dBA]	**67**	36	57	63	61	59	43	32	18	**46**	**56**
L$_{wA}$ to outlet [dBA]	**65**	45	48	56	59	61	56	48	37	**44**	**54**
L$_{wA}$ to environment [dBA]	**56**	47	47	52	50	45	41	37	29	**36**	**46**
Max speed											
L$_{wA}$ to inlet [dBA]	**70**	38	60	67	64	62	45	34	18	**49**	**59**
L$_{wA}$ to outlet [dBA]	**71**	50	53	62	65	67	62	53	41	**50**	**60**
L$_{wA}$ to environment [dBA]	**60**	51	52	54	55	50	46	43	35	**40**	**50**