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 ∅ 100 up to ∅ 315 mm air ducts.

Air flow:
up to 1920 m³/h
533 l/s

Power:
from 24 W

Noise level:
from 23 dBA

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 (three-speed for Iso-Mix 200) 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 (**FR1** 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:** three-position speed switch.
- **FR1:** smooth speed controller adjustable from 0 to 100 % and power cable with mains plug.

- **G1:** speed controller, temperature controller with external temperature sensor (cable length 4 m), power cable with mains plug.

- **GT1:** speed controller, temperature controller with external temperature sensor (cable length 4 m), 5 min timer switch and power cable with mains plug.
- **GI1:** speed controller, temperature controller with integrated temperature sensor and power cable with mains plug.
- **GTI1:** speed controller, temperature controller with integrated temperature sensor, 5 min timer switch and power cable with mains plug.
- The **G1** and **GI1** modifications enable automatic speed control depending on indoor temperature. The optimal ventilation solution for premises requiring permanent temperature control as greenhouses, orangeries, etc.
- **W1:** power cable with mains plug.
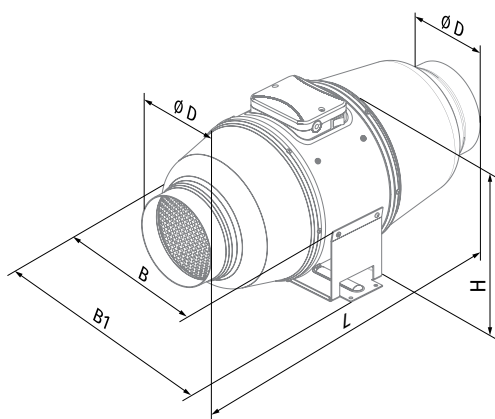
Accessories

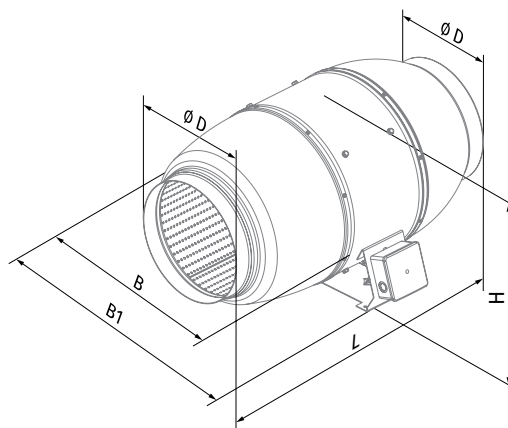| Silencers	Filter boxes	Electric heaters	Water heaters	Backdraft air dampers	Air dampers	Clamps	Temperature controllers	Speed controllers	Timers/Sensors
SD	KFBK / KFBT	EKH	WKH	VRV	VK / VKA	K	MLCD E2	CDP / CDT	TE(TI) / HSE(HSI) / LSE(LSI) / IRSE(IRSI)

SOUND-INSULATED INLINE FANS

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:** three-position speed switch **FR1:** smooth speed controller adjustable from 0 to 100 % and power cable with mains plug **G1:** speed controller, temperature controller with external temperature sensor, power cable with mains plug **GT1:** speed controller, temperature controller with external temperature sensor, 5 min timer switch and power cable with mains plug **GI1:** speed controller, temperature controller with integrated temperature sensor and power cable mains plug **GTI1:** speed controller, temperature controller with integrated temperature sensor, 5 min timer switch and power cable with mains plug **W1:** power cable with mains plug

Overall dimensions [mm]

Type	Ø D	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
Iso-Mix 250	248	358	445	658	360	15
Iso-Mix 315	313	432	520	780	434	25

Iso-Mix 100 – Iso-Mix 150

Iso-Mix 160 – Iso-Mix 315

SOUND-INSULATED INLINE FANS

Technical data

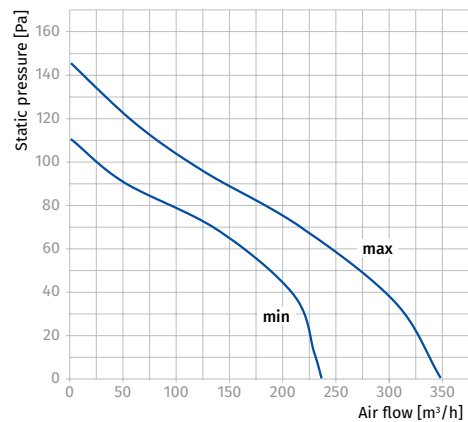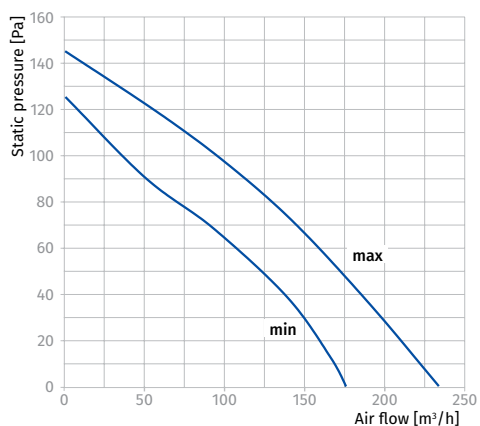| Parameters	Iso-Mix 100		Iso-Mix 125	
Speed	min	max	min	max
Voltage [V]	1 ~ 230		1 ~ 230	
Frequency [Hz]	50/60		50/60	
Power [W]	24	26	25	29
Current [A]	0.10	0.11	0.11	0.13
Maximum air flow [m³/h (l/s)]	175 (49)	233 (65)	235 (65)	347 (96)
RPM [min⁻¹]	2015	2610	1660	2315
Sound pressure at 3 m [dBA]	24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

To comply with ErP 2018 it is necessary to use a speed controller and local demand control typology (connect the sensor).

ISO-MIX 100

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		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	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		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**

SOUND-INSULATED INLINE FANS

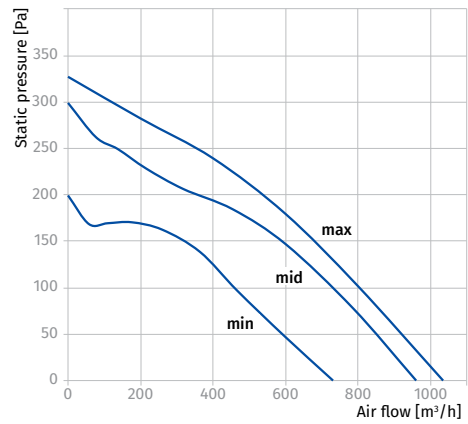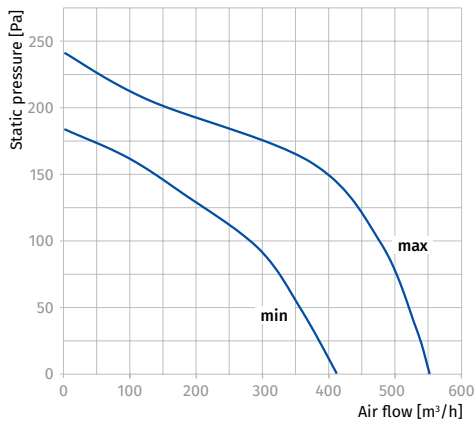| Parameters	Iso-Mix 150, Iso-Mix 160		Iso-Mix 200		
Speed	min	max	min	mid	max
Voltage [V]	1 ~ 230		1 ~ 230		
Frequency [Hz]	50/60		50/60		
Power [W]	45	52	82	100	110
Current [A]	0.20	0.23	0.37	0.44	0.49
Maximum air flow [m³/h (l/s)]	410 (114)	550 (153)	731 (203)	961 (267)	1035 (288)
RPM [min⁻¹]	1985	2640	2376	2382	2445
Sound pressure at 3 m [dBA]	26	33	30	34	36
Max. transported air temperature [°C]	+60		+60		
SEC class	C		C		
IP rating	IPX4		IPX4		
Motor IP rating	IP44		IP44		
ErP	2018		2018		

To comply with ErP 2018 it is necessary to use a speed controller and local demand control typology (connect the sensor).

ISO-MIX 150, ISO-MIX 160

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

ISO-MIX 200

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

SOUND-INSULATED INLINE FANS

Parameters	Iso-Mix 250		Iso-Mix 315	
Speed	min	max	min	max
Voltage [V]	1 ~ 230		1 ~ 230	
Frequency [Hz]	50/60		50/60	
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	–		–	
IP rating	IPX4		IPX4	
Motor IP rating	IP44		IP44	
ErP	2018		2018	

To comply with ErP 2018 it is necessary to use a speed controller and local demand control typology (connect the sensor).

ISO-MIX 250

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		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	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		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**

SOUND-INSULATED INLINE FANS