

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 Ø 100 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



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 (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.

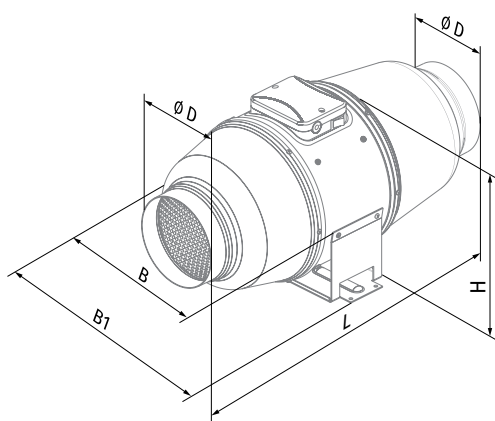
Accessories

| 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) |

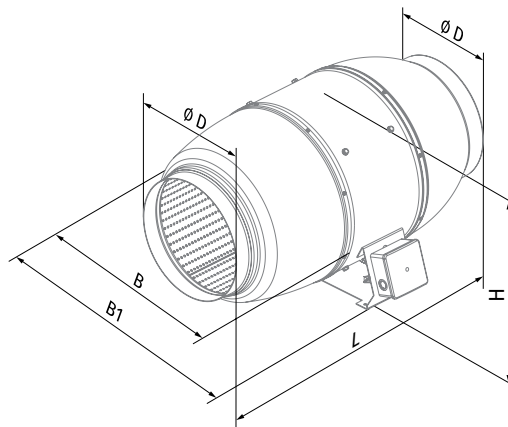
| Designation key | | |
|-----------------|-----------------------------------|---|
| Series | Duct diameter [mm] | Options |
| Iso-Mix | 100; 125; 150; 160; 200; 250; 315 | <p>T: turn-off delay timer adjustable from 2 to 30 minutes</p> <p>US: three-position speed switch</p> <p>FR1: smooth speed controller adjustable from 0 to 100 % and power cable with mains plug</p> <p>G1: speed controller, temperature controller with external temperature sensor, power cable with mains plug</p> <p>GT1: speed controller, temperature controller with external temperature sensor, 5 min timer switch and power cable with mains plug</p> <p>GI1: speed controller, temperature controller with integrated temperature sensor and power cable mains plug</p> <p>GTI1: speed controller, temperature controller with integrated temperature sensor, 5 min timer switch and power cable with mains plug</p> <p>W1: power cable with mains plug</p> |

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

Technical data

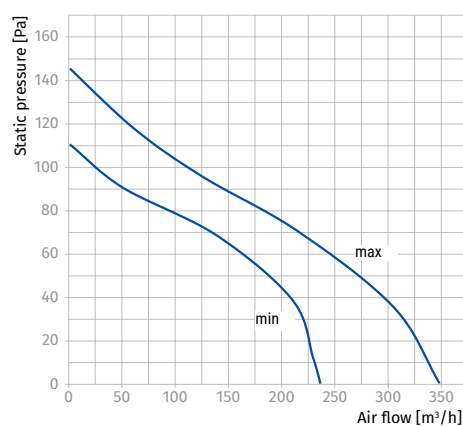
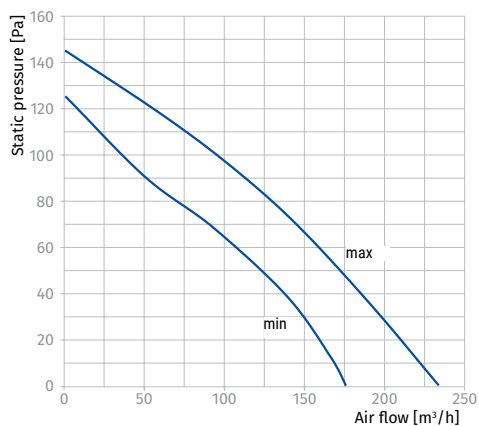
| Parameters | Iso-Mix 100 | | Iso-Mix 125 | |
|--|-------------|----------|-------------|----------|
| | min | max | min | max |
| Speed | | | | |
| Voltage [V] | 1 ~ 230 | | 1 ~ 230 | |
| Frequency [Hz] | 50/60 | | 50/60 | |
| Power [W] | 24 | 26 | 25 | 29 |
| Current [A] | 0.10 | 0.11 | 0.11 | 0.13 |
| Maximum air flow [m ³ /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 | 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] | 55 | 29 | 45 | 51 | 49 | 48 | 35 | 26 | 14 | 34 | 44 |
| LWA to outlet [dBA] | 53 | 30 | 35 | 38 | 52 | 45 | 38 | 38 | 25 | 33 | 43 |
| LWA to environment [dBA] | 44 | 29 | 31 | 36 | 38 | 39 | 36 | 31 | 24 | 24 | 34 |
| Max speed | | | | | | | | | | | |
| LWA to inlet [dBA] | 61 | 33 | 51 | 57 | 55 | 54 | 39 | 29 | 16 | 40 | 50 |
| LWA to outlet [dBA] | 58 | 33 | 38 | 41 | 57 | 50 | 41 | 41 | 27 | 37 | 47 |
| LWA 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 | | | | | | | | | | | |
| LWA to inlet [dBA] | 60 | 32 | 50 | 56 | 54 | 53 | 38 | 29 | 16 | 39 | 49 |
| LWA to outlet [dBA] | 58 | 40 | 43 | 50 | 52 | 54 | 50 | 43 | 33 | 38 | 48 |
| LWA to environment [dBA] | 44 | 35 | 38 | 39 | 37 | 29 | 23 | 18 | 12 | 23 | 33 |
| Max speed | | | | | | | | | | | |
| LWA to inlet [dBA] | 64 | 35 | 54 | 60 | 58 | 56 | 41 | 31 | 17 | 43 | 53 |
| LWA to outlet [dBA] | 61 | 35 | 40 | 44 | 60 | 53 | 44 | 44 | 29 | 40 | 50 |
| LWA to environment [dBA] | 48 | 35 | 40 | 44 | 43 | 38 | 34 | 25 | 20 | 28 | 38 |



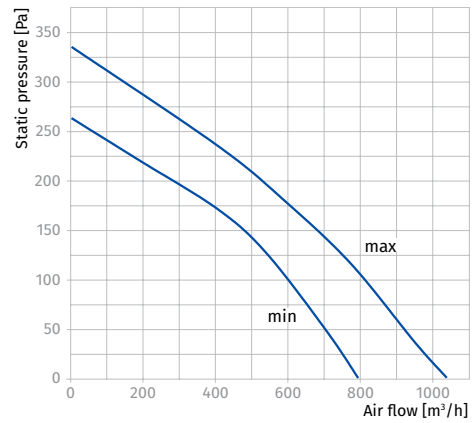
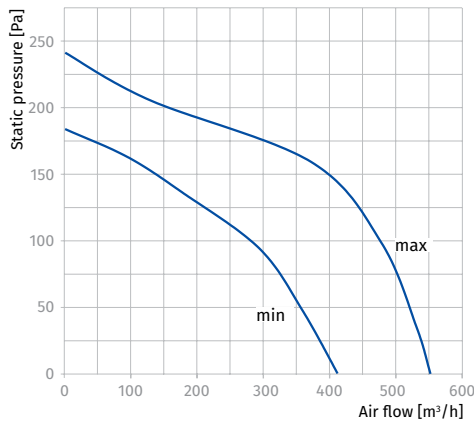
| Parameters | Iso-Mix 150, Iso-Mix 160 | | Iso-Mix 200 | |
|---------------------------------------|--------------------------|-----------|-------------|------------|
| Speed | min | max | min | max |
| Voltage [V] | 1 ~ 230 | | 1 ~ 230 | |
| Frequency [Hz] | 50/60 | | 50/60 | |
| Power [W] | 45 | 52 | 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 | 2018 | | 2018 | |

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 |



| 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 | |

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 | | | | | | | | | | | |
| LWA to inlet [dBA] | 66 | 36 | 56 | 63 | 60 | 59 | 43 | 32 | 17 | 45 | 55 |
| LWA to outlet [dBA] | 64 | 37 | 42 | 46 | 63 | 55 | 46 | 46 | 30 | 43 | 53 |
| LWA to environment [dBA] | 55 | 44 | 48 | 51 | 47 | 44 | 37 | 31 | 25 | 34 | 44 |
| Max speed | | | | | | | | | | | |
| LWA to inlet [dBA] | 69 | 38 | 59 | 66 | 63 | 62 | 45 | 34 | 18 | 49 | 59 |
| LWA to outlet [dBA] | 75 | 43 | 50 | 54 | 74 | 65 | 54 | 54 | 36 | 54 | 64 |
| LWA 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 | | | | | | | | | | | |
| LWA to inlet [dBA] | 67 | 36 | 57 | 63 | 61 | 59 | 43 | 32 | 18 | 46 | 56 |
| LWA to outlet [dBA] | 65 | 45 | 48 | 56 | 59 | 61 | 56 | 48 | 37 | 44 | 54 |
| LWA to environment [dBA] | 56 | 47 | 47 | 52 | 50 | 45 | 41 | 37 | 29 | 36 | 46 |
| Max speed | | | | | | | | | | | |
| LWA to inlet [dBA] | 70 | 38 | 60 | 67 | 64 | 62 | 45 | 34 | 18 | 49 | 59 |
| LWA to outlet [dBA] | 71 | 50 | 53 | 62 | 65 | 67 | 62 | 53 | 41 | 50 | 60 |
| LWA to environment [dBA] | 60 | 51 | 52 | 54 | 55 | 50 | 46 | 43 | 35 | 40 | 50 |

