

# Iso-Primo EC

## Sound-insulated inline mixed-flow fans with EC motor

### Use

- Combined supply and exhaust ventilation systems of various commercial and industrial spaces with stringent noise requirements (such as libraries, conference halls, classrooms, kindergarten playrooms etc.).
- For ventilation air ducts requiring high pressure, powerful air flow and low noise level.
- Compatible with Ø 200 up to Ø 400 mm air ducts.

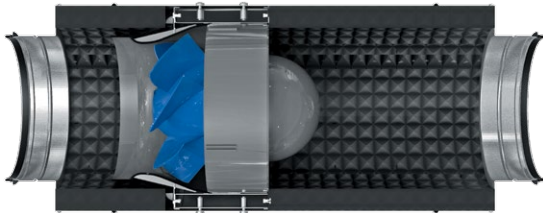


**Air flow:**  
up to 5415 m<sup>3</sup>/h  
1504 l/s



### Design

- The external casing is made of galvanized steel.
- Noise and heat insulation is ensured by a acoustic foam layer 30 mm in thickness.
- The inner casing and the impeller are made of durable high-quality plastic.
- The specially designed diffuser, impeller and airflow rectifier at the fan outlet provide smooth air flow distribution and enable the best combination of high capacity, powerful pressure and low noise.
- The fan casing is equipped with an external water-tight terminal box for electrical connections.



### Speed control

- The fan speed is controlled with a 0–10 V control signal from the following sources:
  - integrated or external speed controller
  - controller with sensors
  - central BMS system.
- The control signal value changes depending on air temperature, pressure, smoke concentration and other parameters.
- During signal value change the fan with EC motor correspondingly changes the rotations speed and delivers required air volume to the ventilation system.

### Mounting

- The unit is intended for mounting to round air ducts. The fan is installed between the air ducts. The fan casing has mounting brackets to facilitate suspended installation of the fan. While installing the fan, ensure convenient access for subsequent maintenance and repair.
- Make sure to provide sufficient maintenance access during fan installation. Electrical connection and installation must be performed in accordance with the instruction manual and the electrical connections diagram applied to the terminal box.
- A single system may have several fans installed in parallel to boost the output capacity or in series to boost the working pressure.

### Motor

- High-efficient direct current EC motor.
- EC technology meets the up-to-date requirements to energy-saving and controllable ventilation and provides up to 35 % energy saving as compared to asynchronous motors.
- EC motor ensures totally controllable speed range for the fan and has integrated overheating protection with restart.
- EC motor has no friction and wearing parts as capacitor und brushes. Instead a maintenance-free EC controller electronic circuit board is used.
- The impeller is dynamically balanced.

### Designation key

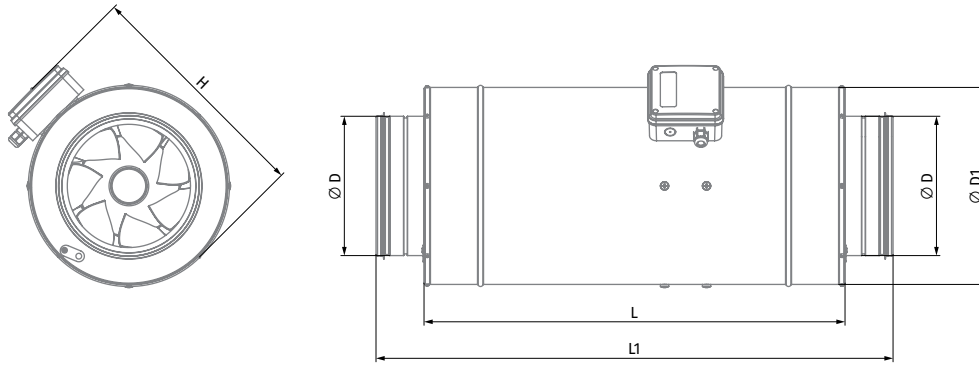
Series	Motor type	Spigot diameter [mm]	Options
Iso-Primo	EC: electronically commutated motor	200; 250; 315; 355; 400	T: turn-off delay timer adjustable from 2 to 30 minutes G1: speed controller, temperature controller with an external temperature sensor, power cable with mains plug W: power cable with mains plug

### Accessories

Silencers	Filter boxes	Electric heaters	Water heaters	Backdraft air dampers	Air dampers	Clamps	Speed controllers	
								
SD	KFBK	KFBT	EKH	WKH	VRV	VK / VKA	K	CDT E/0-10

**Overall dimensions [mm]**

Type	Ø D	Ø D1	H	L	L1	Weight [kg]
Iso-Primo EC 200	199	281	339	601	739	8.2
Iso-Primo EC 250	249	337	389	601	739	9.8
Iso-Primo EC 315	314	412	468	601	739	20.7
Iso-Primo EC 355	354	412	471	601	739	20.7
Iso-Primo EC 400	399	460	517	648	785	22.8



**Technical data**

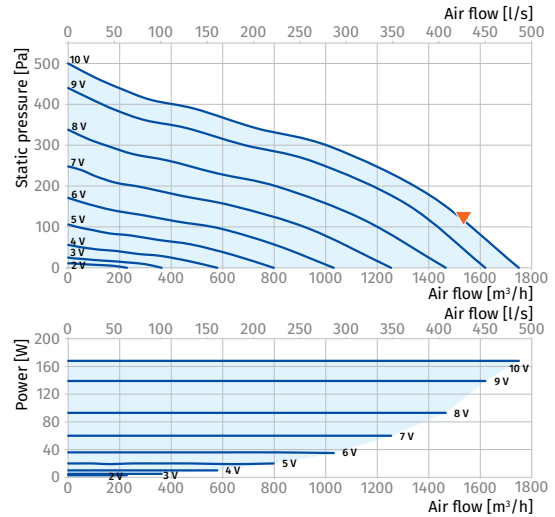
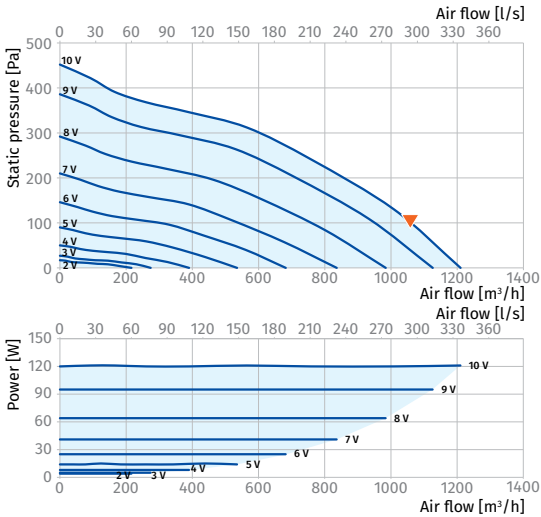
Parameters	Iso-Primo EC 200	Iso-Primo EC 250	Iso-Primo EC 315
Voltage [V / 50(60) Hz]	1 ~ 230	1 ~ 230	1 ~ 230
Power [W]	121	168	353
Current [A]	0.96	1.34	1.56
Maximum air flow [m <sup>3</sup> /h (l/s)]	1210 (336)	1750 (486)	3090 (858)
RPM [min <sup>-1</sup> ]	3100	3282	2470
Sound pressure at 3 m [dBA]	47	48	47
Transported air temperature [°C]	-25...+55	-25...+55	-25...+55
IP rating	IPX4	IPX4	IPX4
Motor IP rating	IP44	IP44	IP44
ErP	2018	2018	2018

**ISO-PRIMO EC 200**

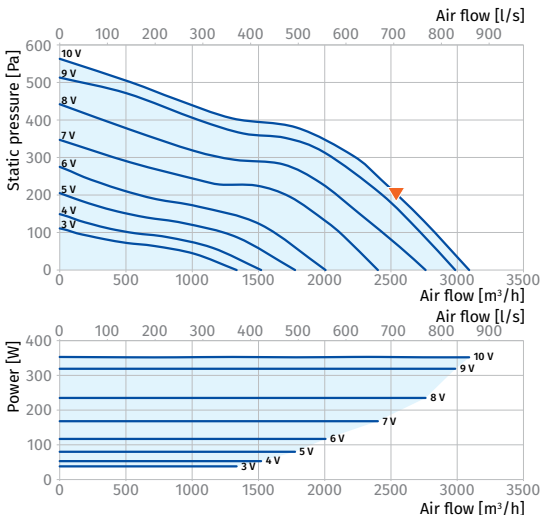
Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	71	67	67	63	59	50	45	44	40	51	61
LWA to outlet [dBA]	72	68	68	63	61	52	48	47	38	52	62
LWA to environment [dBA]	68	58	54	64	63	42	42	30	23	47	57

**ISO-PRIMO EC 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		
LWA to inlet [dBA]	72	68	68	64	60	51	45	45	40	52	62
LWA to outlet [dBA]	73	70	69	64	62	52	49	48	39	53	63
LWA to environment [dBA]	69	59	55	66	65	43	43	30	24	48	58


**ISO-PRIMO EC 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		
LWA to inlet [dBA]	76	57	71	74	67	62	57	48	39	56	66
LWA to outlet [dBA]	79	53	68	78	71	58	55	49	39	58	68
LWA to environment [dBA]	67	52	64	63	57	55	48	36	30	47	57



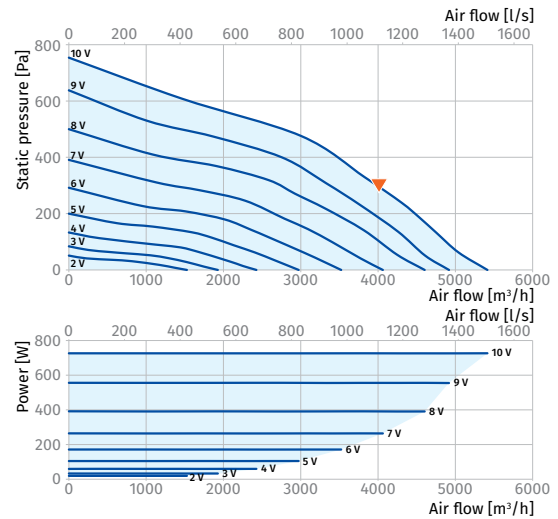
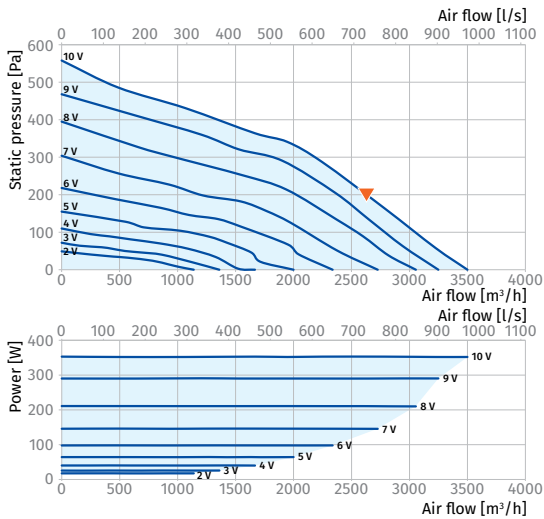
Parameters	Iso-Primo EC 355	Iso-Primo EC 400
Voltage [V / 50(60) Hz]	1 ~ 230	1 ~ 230
Power [W]	353	726
Current [A]	1.56	4.80
Maximum air flow [m³/h (l/s)]	3500 (972)	5415 (1504)
RPM [min⁻¹]	2470	2580
Sound pressure at 3 m [dBA]	48	49
Transported air temperature [°C]	-25...+55	-25...+55
IP rating	IPX4	IPX4
Motor IP rating	IP44	IP44
ErP	2018	2018

### ISO-PRIMO EC 355

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	77	58	72	74	68	63	57	48	39	57	67
LWA to outlet [dBA]	80	54	69	79	72	59	56	50	39	59	69
LWA to environment [dBA]	68	53	65	63	58	56	48	36	30	48	58

### ISO-PRIMO EC 400

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
LWA to inlet [dBA]	78	53	62	70	73	72	70	64	53	57	67
LWA to outlet [dBA]	81	57	65	73	77	74	71	64	54	60	70
LWA to environment [dBA]	70	54	67	65	59	57	49	37	31	49	59



SOUND-INSULATED INLINE FANS