

# Primo EC

## Inline mixed flow fans with EC motors

### Use

- Inline fans for supply and exhaust ventilation of various commercial and industrial premises requiring powerful air flow.
- The fans are compatible with Ø 355 and 400 mm air ducts.
- New product combines wide capabilities and high performance features of axial and centrifugal fans, providing powerful air flow.



**Air flow:**  
up to 5700 m<sup>3</sup>/h  
1583 l/s



**Power:**  
from 346 W



**Noise level:**  
from 33 dBA



### Design

- The fan casing is made of polymer and reinforced with a metal housing. Due to the conically shaped polymer impeller with specially profiled blades, the air stream circular velocity increases, which results in higher air flow and pressure, as compared to characteristics of standard axial fans.
- 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 airtight terminal box for connection to power mains.

### 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 motors ensure totally controllable speed range for the fan and has integrated overheating protection with automatic restart.
- EC motors have no friction and wearing parts as capacitor and brushes.
- Instead a maintenance free EC controller electronic circuit board is used.
- The impeller is dynamically balanced.
- 220–240 V single phase at 50 Hz.
- All motors have a sealed ball bearing motor with a service life of up to 40,000 hours.
- All motors have manual reset thermal overload protection as required for inline duct fans AS/NZS60335-2-80:2004.

### Speed Control

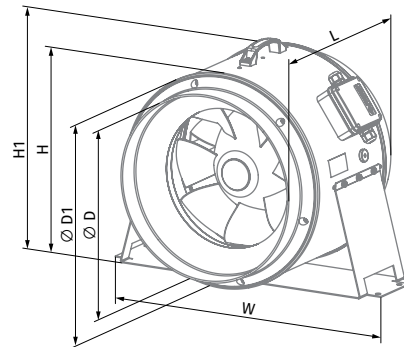
- The fan speed is controlled with a 0–10 V control signal from the following sources:
  - integrated or external speed controller
  - controller with sensors
  - central BMS system.
- The control signal value changes depending on air temperature, pressure, smoke concentration and other parameters.
- During signal value change the fan with EC motor correspondingly changes the rotations speed and delivers required air volume to the ventilation system.
- The computer central building management systems (BMS) enable integration of several EC motors in network and precise individual operation control for each fan.

### Mounting

- The fans may be mounted at any place and at any angle within the ductwork system.
- Several fans may be installed in one system in parallel to attain higher air capacity or in series to increase operating pressure in the system.
- The fan casing is equipped with fixing brackets for suspended mounting (mounting bracket included).

### Overall Dimensions [mm]

Model	Ø D	Ø D1	H	H1	L	W
Primo EC 355 (max)	355	406	408	439	372	566
Primo EC 400	400	451	453	484	415	623



### Ordering Information

Part Number	Model	Description
BLAUPRIMOEC355	Primo EC 355	MIXFLO 355 mm FAN EC MOTOR
BLAUPRIMOEC400	Primo EC 400	MIXFLO 400 mm FAN EC MOTOR

#### Designation key

Series	Motor type	Duct diameter [mm]
Primo	EC: electronically commutated motor	355; 400

## Technical Data

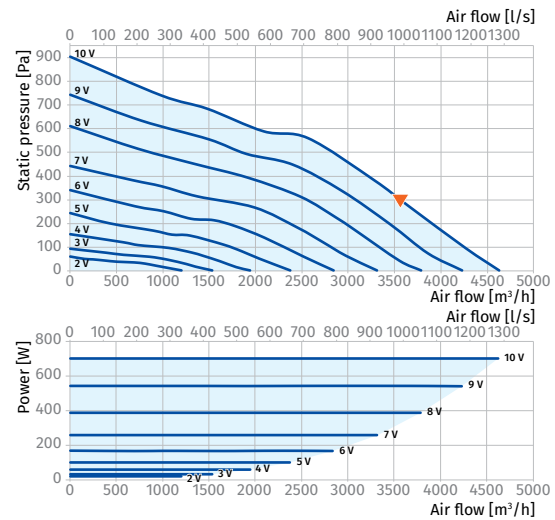
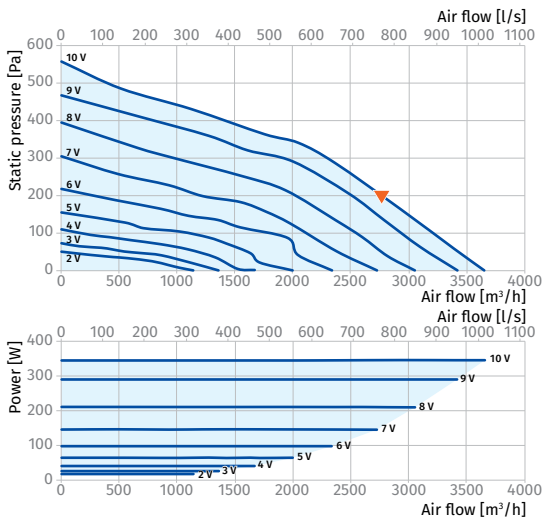
Parameters	Primo EC 355	Primo EC 355 max	Primo EC 400
Voltage [V / 50 Hz]	1~ 230	1~ 230	1~ 230
Power [W]	353	701	726
Current [A]	1.56	3.10	3.23
Maximum air flow [m³/h (l/s)]	3685 (1024)	4630 (1286)	5700 (1583)
RPM [min⁻¹]	2470	3175	2580
Sound pressure at 3 m [dBA]	55	60	60
Transported air temperature [°C]	-25...+55	-25...+55	-25...+55
Protection rating	IPX4	IPX4	IPX4
Motor protection rating	IP44	IP44	IP44
Erp compliance	2018	2018	2018

### 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]	83	73	76	75	75	78	74	69	61	63	73
LWA to outlet [dBA]	85	70	79	75	77	81	76	71	64	65	75
LWA to environment [dBA]	76	56	64	67	70	71	68	63	53	55	65

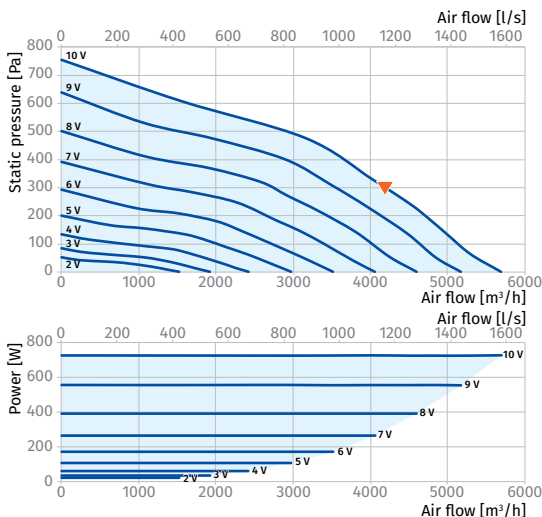
### PRIMO EC 355 MAX

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]	88	74	82	79	79	83	80	75	66	68	78
LWA to outlet [dBA]	90	72	83	79	81	86	82	77	70	70	80
LWA to environment [dBA]	80	45	63	66	73	77	74	68	57	60	70



### 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]	87	70	77	78	81	81	79	74	67	66	76
LWA to outlet [dBA]	88	62	76	78	83	84	80	75	66	68	78
LWA to environment [dBA]	80	59	66	69	74	77	72	67	58	60	70



INLINE FANS