



Prio Silent XP Circular Duct Fans

Mixed-flow fan with integrated silencer

- Unique patented combination of silencer and fan casing
- Option to change air direction in casing
- Available with AC and EC motors for 50 and 60Hz
- Sound and energy optimized impellers
- Very low weight
- Easy to clean

[Find more details in our online catalogue.](#)

Flexibility

The prio silent XP fans are intended to use for **supply** or **extract** air and are designed to be installed in **any position**. This ensures that the fans can be used in a variety of **commercial** and **domestic** applications.

Reliability

The hybrid silencer/casing has a very good **resistance** against most **chemicals and oils**. The hydrophobic surface of the casing is **easy to clean** and allows using the fan in **wet conditions**.

Performance

The **sound optimized** impellers together with **high efficient** external rotor motors are designed to ensure high-level performance to **minimize power consumption** and **maximize efficiency**.

Accessories

Prio silent XP can be selected together with variety types of **accessories** as fast clamps, heaters, filters, dampers, etc.

Certifications



Ecodesign (ErP) compliant

Features

Construction

Hybrid silencer/casing manufactured from EPP and special composite material, is fully air tight class C according to EN12237.

Fans are equipped with an external **terminal box with** protection class **IP55**.

Impeller

Prio silent XP have aerodynamically optimized impellers and guide vanes. These are from lightweight, hard-wearing fiberglass reinforced **polyamide**, dynamically **balanced** and paired with corresponding external rotor motors.

Motor

Depending on the type, prio silent XP fans are equipped with **AC** or **EC** external rotor motor. Motors are suitable for **50Hz** and **60Hz**.

Motor protection

Fans with **AC** motors have an **integrated** thermal protection with manual (electrical) reset.

Fans with **EC** motors have an **integrated** electronic **thermal protection** including **locked-rotor protection** and **soft-start**.

Control

EC motors with **built-in potentiometer** to adjust working point can be also controlled by external **signal 0-10V**.

AC motors can be controlled by **5-step** or **stepless** speed regulator.

Installation

Prio silent XP can be installed in any position by using metal rail with holes. Spigot with 25 mm length is perfectly designed to connect circular duct by using **fast clamps preventing vibration** to the duct.

Technical parameters

Nominal data

Voltage (nominal)	230	V
Frequency	50; 60	Hz
Phases	1~	
Input power	83	W
Input current	0.72	A
Impeller speed	4,238	rpm
Air flow	max 0.2189	m³/s
Temperature of transported air	max 55	°C
Max temperature of transported air, when speed controlled	55	°C

Sound data

Sound pressure level at 1m	41	dB(A)
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Protection/Classification

Enclosure class, motor	IP44
Insulation class	B

Data according to ErP

ErP ready	Not ErP relevant
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Dimensions and weights

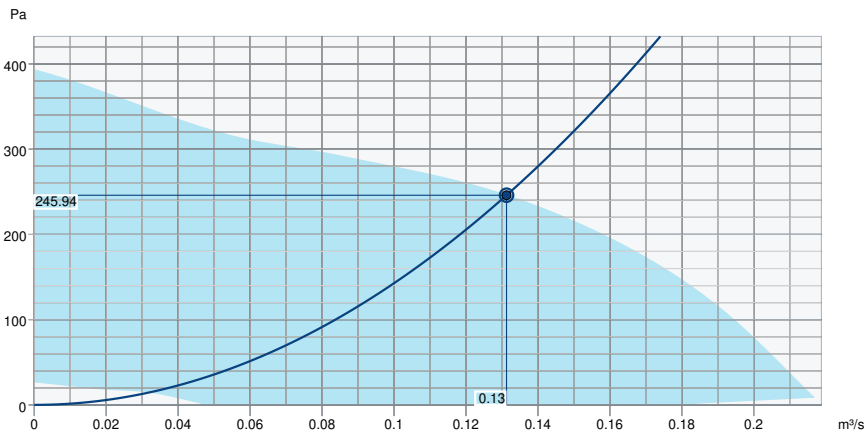
Duct dimension; Circular, inlet	160	mm
Duct dimension; Circular, outlet	160	mm
Weight	3.17	kg

Others

Motor type	EC
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Performance

Performance curve



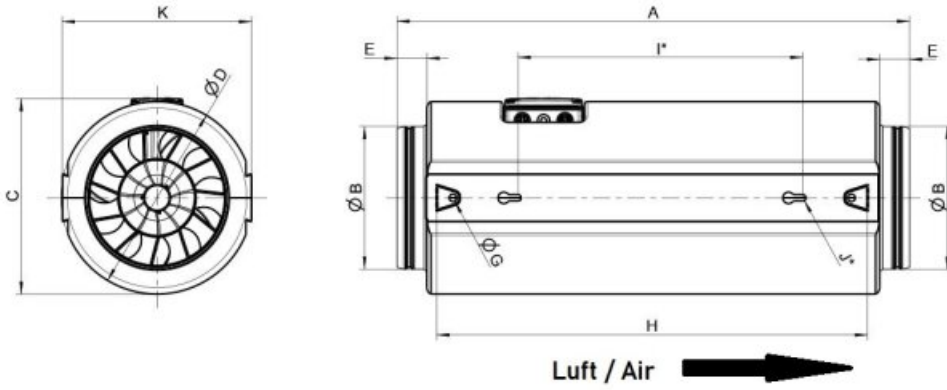
Hydraulic data

Required air flow	0.13 m³/s
Required static pressure	246 Pa
Working air flow	0.13 m³/s
Working static pressure	246 Pa
Air density	1.204 kg/m³
Power	78.7 W
Fan control - RPM	4,318 rpm
Current	0.70 A
SFP	0.599 kW/m³/s
Control voltage	10.0 V
Supply voltage	230 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	23	37	41	54	54	56	47	40	60
Outlet	dB(A)	24	39	42	55	56	58	48	41	61
Surrounding	dB(A)	<10	<10	26	38	46	49	38	28	51
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	44
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	30

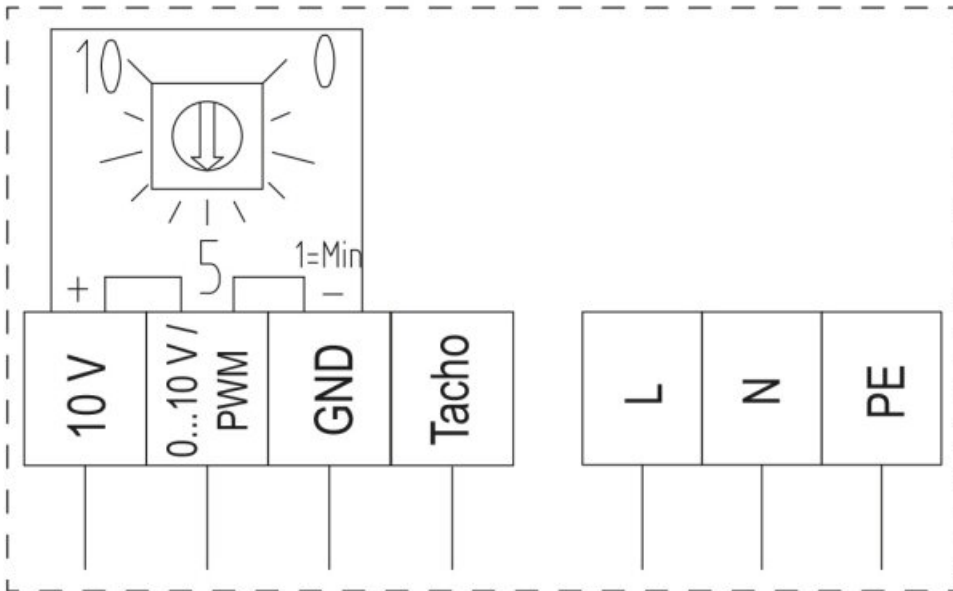
Accessories

Dimension



[mm]	A	ØB	C	ØD	E	ØG	H	I*	J*	K
Prio Silent XP 160E2/EC	686	160	235	230	42	10	570	400	9	224

Wiring



Function / assignment

L	Power supply 230V AC, 50...60 Hz, see name plate for voltage range
N	Neutral conductor
PE	Protective conductor
0...10V / PWM	Controller input 0...10V or PWM
10V	Voltage output 10V / Short-circuit-proof power supply for external devices (e.g. poti) prio 150EC, prio 160EC → I max=1.1mA prio 200EC, prio 250EC → I max=10mA
GND	GND-connection of the controller interface
Tacho	Speed output: Open Collector, 1 impulse per revolution, electrically isolated, I _{sink_max} =10mA

Accessories

- CXE/AVC Modbus (37256)
- EC-Basic-CO2 and temperature (24808)
- EC-Basic-T temperature (24805)
- EC-Vent control board (3115)
- IGK-160 Wall Grid (1632)
- MTV-1/010 Controller 0..10V+ (30650)
- REV-3POL/03-7,5kW R/Y (33978)
- Step switch S-5EC-2, 0-10V (449084)
- HR1 Room Humidistat (215150)
- RT 0-30 Room Thermostat (5151)
- CB 160-2,1 230V/1 Duct heater (5292)
- CB 160-5,0 400V/2 Duct heater (5383)
- CWK 160-3-2,5 Duct cooler,circ (30022)
- FGR 160 Filter cassette (1809)
- LDC 160-300 Silencer (53108)
- LDC 160-900 Silencer (5193)
- VBC 160-2 Water heating batt (5458)
- BMS Trickle & Boost Switch (120363)
- DMD-C Pressure controller (15793)
- EC-Basic-H humidity (24807)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent Room Unit (3018)
- MTP 10, 10K, Speed control (32731)
- Potentiometer MTP 20, 0-10V (310220)
- SG 160 Protection guard (5608)
- VKK-160 Back draft damper (1625)
- Presence detector/IR24-P (6995)
- CB 160-1,2 230V/1 Duct heater (5291)
- CB 160-2,7 230V/1 Duct heater (5382)
- CBM 160-2,1 230V/1 Duct heater (5482)
- FFR 160 Filter cassette (1770)
- FK 160 Fast clamp (1610)
- LDC 160-600 Silencer (5192)
- RSK-160 Back draft damper (5601)
- VBC 160-3 Water heating batt (9840)
- IGC-160 Intake grille (76876)

Documents

- imo_prioair_en_003
- UKCA DECLARATION OF CONFORMITY_PRIO_PRIO-XP_EN_002.PDF