

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	174	W
Input current	1.45	A
Impeller speed	2,661	rpm
Air flow	max 0.6178	m³/s
Specific ratio	1	
Temperature of transported air	max 55	°C
Max temperature of transported air, when speed controlled	55	°C

Sound data

Sound pressure level at 1m	43	dB(A)
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Protection/Classification

Enclosure class, motor	IP44
Insulation class	B

Dimensions and weights

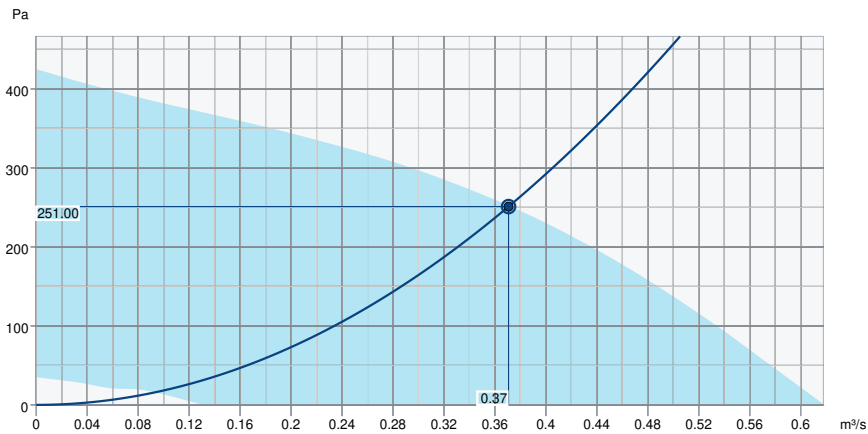
Duct dimension; Circular, inlet	315	mm
Duct dimension; Circular, outlet	315	mm
Weight	7.05	kg

Others

Motor type	EC
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Performance

Performance curve



Hydraulic data

Required air flow	0.37 m³/s
Required static pressure	251 Pa
Working air flow	0.37 m³/s
Working static pressure	251 Pa
Air density	1.204 kg/m³
Power	173.0 W
Fan control - RPM	2,673 rpm
Current	1.40 A
SFP	0.467 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	41	55	59	67	58	53	47	69
Outlet	dB(A)	24	42	56	61	68	60	55	48	70
Surrounding	dB(A)	<10	17	31	43	52	43	34	25	53
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	46
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	32

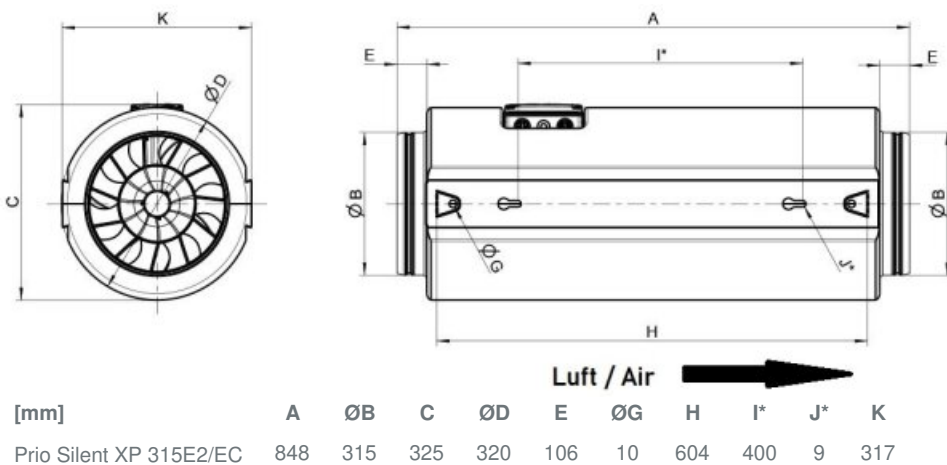
Accessories

Ecodesign

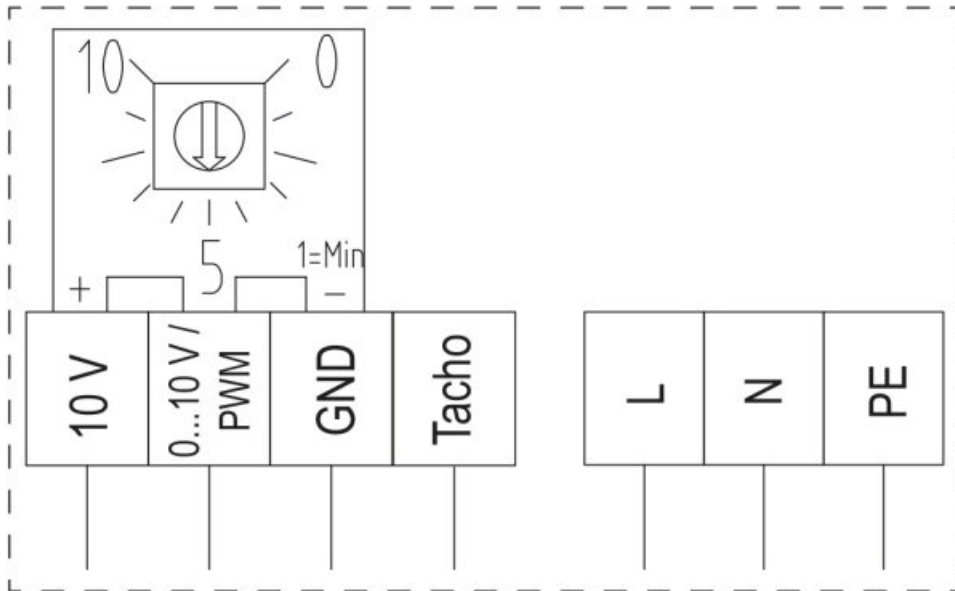
Ecodesign 327

Manufacturer	Systemair GmbH	
Type	Prio Silent XP 315EC	
Year of manufacture	See name plate of the fan	
Air flow q_v	0.3889	m ³ /s
Efficiency category	total	
Efficiency grade N	84.4	
Efficiency grade target N	58	
Speed (rpm) n	2,625	rpm
Pressure increase total p_{sf}	273	Pa
Power consumption P_{ed}	160	W
Overall efficiency	73	%
Overall efficiency target	46.6	%
Variable speed drive	Yes	
Additional components	Components used to calculate the energy efficiency that are not apparent from the measurement category are detailed in the CE declaration.	
Maintenance	Information on installation, operation and maintenance is provided in the operating instructions.	
Recycling / disposal	Information on recycling and disposal is provided in the operating instructions.	

Dimension



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)
- MTP 10, 10K, Speed control (32731)
- Potentiometer MTP 20, 0-10V (310220)
- SG 315 Protection guard (5611)
- VKK-315 Back draft damper (1628)
- Presence detector/IR24-P (6995)
- CB 315-3,0 230V/1 Duct heater (5386)
- CBM 315-6,0 400V/2 Duct heater (9091)
- FGR 315 Filter cassette (1818)
- LDC 315-900 Silencer (5197)
- VBC 315-2 Water heating batt (5461)
- VBF 315 Water heating battery (1734)
- IGC-315 Intake grille (76879)
- DMD-C Pressure controller (15793)
- EC-Basic-H humidity (24807)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent Room Unit (3018)
- MTV-1/010 Controller 0..10V+ (30650)
- REV-3POL/03-7,5kW R/Y (33978)
- Step switch S-5EC-2, 0-10V (449084)
- CB 315-6,0 400V/2 Duct heater (5374)
- RT 0-30 Room Thermostat (5151)
- CB 315-9,0 400V/3 Duct heater (5375)
- FFR 315 Filter cassette (1779)
- FK 315 Fast clamp (1613)
- RSK-315 Back draft damper (5604)
- VBC 315-3 Water heating batt (9844)
- BMS Trickle & Boost Switch (120363)

Documents

- imo_prioair_en_003
- UKCA DECLARATION OF CONFORMITY_PRIO_PRIO-XP_EN_002.PDF