



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 | Hz |
| Phases | 1~ | |
| Input power | 236 | W |
| Input current | 1.03 | A |
| Impeller speed | 2,594 | rpm |
| Air flow | max 0.5664 | 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) |
|----------------------------|----|-------|

Protection/Classification

| | |
|------------------------|------|
| Enclosure class, motor | IP44 |
| Insulation class | F |

Data according to ErP

| | |
|-----------|----------|
| ErP ready | ErP 2018 |
|-----------|----------|

Dimensions and weights

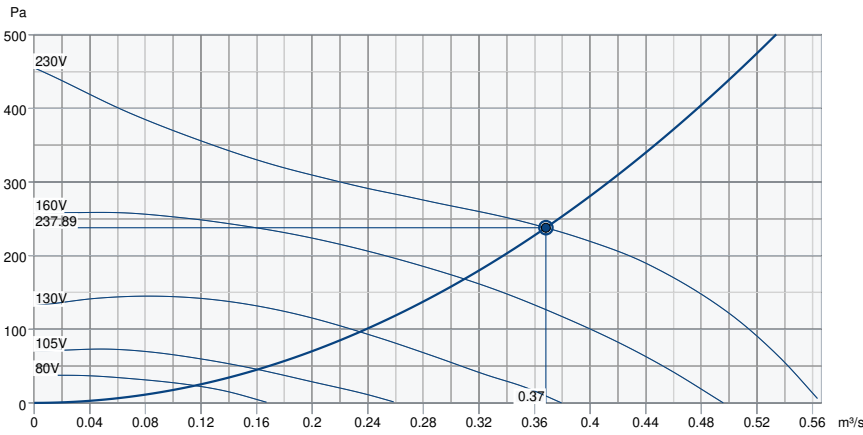
| | | |
|----------------------------------|------|----|
| Duct dimension; Circular, inlet | 250 | mm |
| Duct dimension; Circular, outlet | 250 | mm |
| Weight | 8.07 | kg |

Others

| | |
|------------|----|
| Motor type | AC |
|------------|----|

Performance

Performance curve



Hydraulic data

| | |
|--------------------------|---------------|
| Required air flow | 0.37 m³/s |
| Required static pressure | 238 Pa |
| Working air flow | 0.37 m³/s |
| Working static pressure | 238 Pa |
| Air density | 1.204 kg/m³ |
| Power | 201.0 W |
| Fan control - RPM | 2,693 rpm |
| Current | 0.80 A |
| SFP | 0.546 kW/m³/s |
| Control voltage | 230.0 V |
| Supply voltage | 230 V |

| Sound power level | | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | Total |
|--|-------|----|-----|-----|-----|----|----|----|----|-------|
| Inlet | dB(A) | 22 | 41 | 53 | 59 | 66 | 59 | 53 | 47 | 68 |
| Outlet | dB(A) | 23 | 43 | 55 | 60 | 68 | 60 | 54 | 49 | 69 |
| Surrounding | dB(A) | 13 | 15 | 29 | 42 | 53 | 44 | 32 | 25 | 54 |
| Sound pressure level at 3m (20m² Sabine) | dB(A) | - | - | - | - | - | - | - | - | 47 |
| Sound pressure level at 3m free field | dB(A) | - | - | - | - | - | - | - | - | 33 |

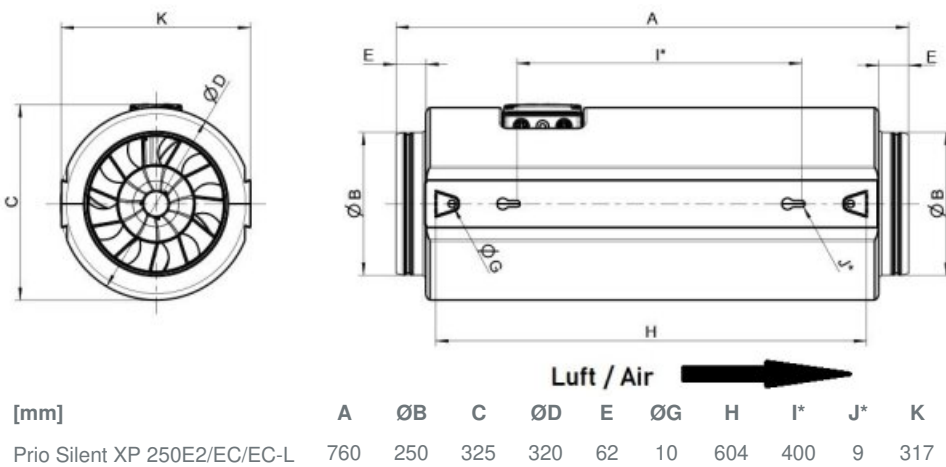
Accessories

Ecodesign

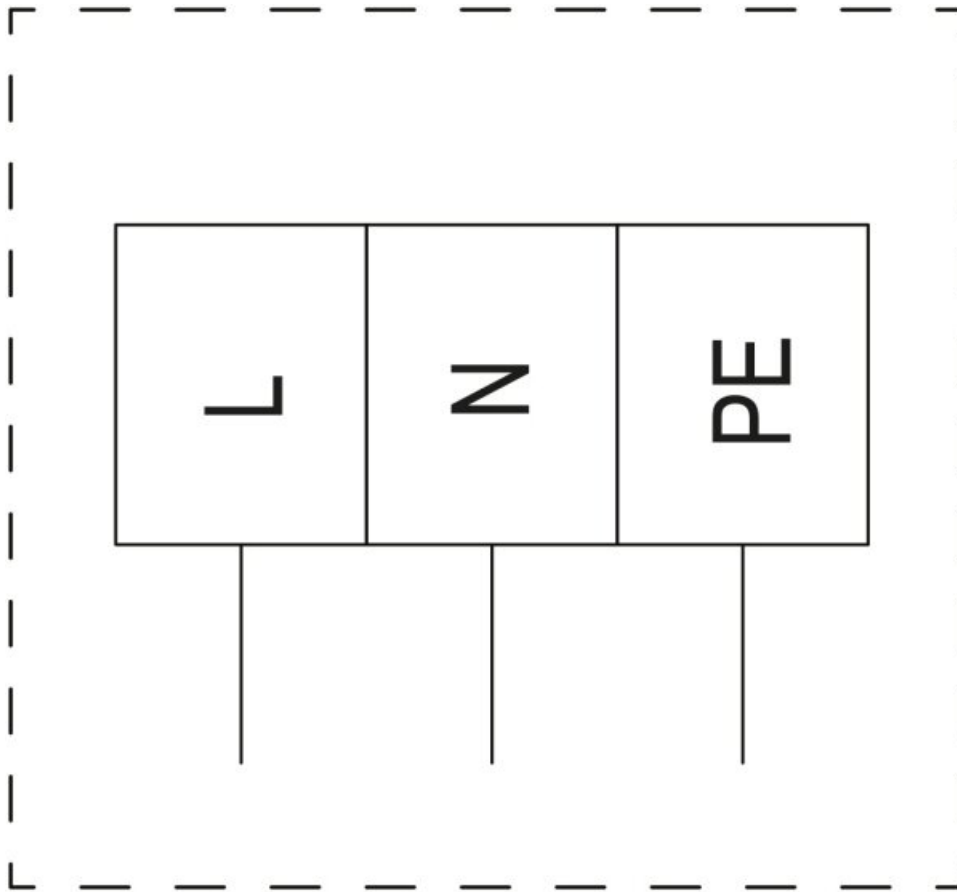
Ecodesign 327

| | | |
|-----------------------------|--|-------------------|
| Manufacturer | Systemair GmbH | |
| Type | Prio Silent XP 250E2 | |
| Year of manufacture | See name plate of the fan | |
| Air flow qv | 0.3889 | m ³ /s |
| Efficiency category | total | |
| Efficiency grade N | 68.4 | |
| Efficiency grade target N | 58 | |
| Speed (rpm) n | 2,660 | rpm |
| Pressure increase total psf | 277 | Pa |
| Power consumption Ped | 190 | W |
| Overall efficiency | 57.5 | % |
| Overall efficiency target | 47.1 | % |
| Variable speed drive | No | |
| 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...60Hz |
| N | Neutral conductor |
| PE | Protective conductor |
| Speed control: | Voltage controllable (See accessories in our online catalogue) |
| Motor protection: | By integrated thermal contacts |

Accessories

- Frequency converter FRQ5SE-6A (37421)
- REE 1 Speed control (5314)
- RETP 6 Temp/Pressure regulator (32293)
- REV-3POL/03-7,5kW R/Y (33978)
- VKK-250 Back draft damper (1627)
- DTV500A (96807)
- HR1 Room Humidistat (215150)
- RT 0-30 Room Thermostat (5151)
- CB 250-9,0 400V/3 Duct heater (5373)
- CWK 250-3-2,5 Duct cooler,circ (30024)
- FGR 250 Filter cassette (1815)
- LDC 250-900 Silencer (5196)
- VBC 250-2 Water heating batt (5460)
- VBF 250 Water heating battery (1733)
- IGC-250 Intake grille (76878)
- RE 1,5 Speed control (5000)
- REPT 6 Digital regulator (5698)
- REU 1.5 Speed control (5004)
- SG 250 Protection guard (5610)
- CB 250-6,0 400V/2 Duct heater (5372)
- Frequency converter FRQSE-6A (37419)
- Presence detector/IR24-P (6995)
- CB 250-3,0 230V/1 Duct heater (5385)
- CBM 250-6,0 400V/2 Duct heater (9089)
- FFR 250 Filter cassette (1776)
- FK 250 Fast clamp (1612)
- RSK-250 Back draft damper (5603)
- VBC 250-3 Water heating batt (9843)
- VK-25 Louvre shutter (5640)

Documents

- imo_prioair_en_003
- UKCA DECLARATION OF CONFORMITY_PRIO_PRIO-XP_EN_002.PDF