

## Prio Circular Duct Fans

### Quiet and compact mixed-flow fan

- Available with AC and EC motors for 50 and 60Hz
- Easy to install
- Sound and energy optimized impellers

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



#### Flexibility

The prio fans are intended to use for **supply** or **extract** air, 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 unit's **airtight casing** and corrosion resistance allows to use indoors and in damp areas. The combination of a reliable casing and motor construction ensures to minimize the need for maintenance of the fans and allows long **continuous operation**.

#### 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 fan can be selected together with variety types of **accessories** as fast clamps, heaters, filters, dampers, etc.

### Certifications



Ecodesign (ErP) compliant



Green Ventilation

## Features

### Construction

Casing made out of special composite material or sheet metal, is fully airtight class C according to EN12237. The Fans are equipped with an external **terminal box with** protection class **IP44**.

### Impeller

Prio fans 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 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 fans can be installed in any position **indoor** and in **damp areas**. Spigot with 25 mm length is perfectly designed to connect circular duct by **fast clamps preventing vibration** to the duct.

## Technical parameters

### Nominal data

Voltage (nominal)	230	V
Frequency	60; 50	Hz
Phases	1~	
Input power	528	W
Input power kW	0.528	kW
Input current	2.32	A
Impeller speed	2,446	rpm
Air flow	max 1.051	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 3m (20m² Sabin)	56	dB(A)
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### Protection/Classification

Enclosure class, motor	IP54
Insulation class	F

### Data according to ErP

ErP ready	ErP 2018
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### Dimensions and weights

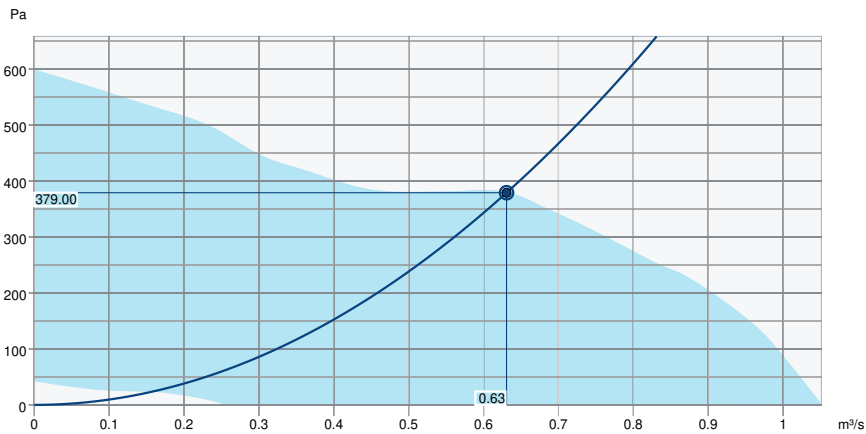
Duct dimension; Circular, inlet	315	mm
Duct dimension; Circular, outlet	315	mm
Weight	8.52	kg

### Others

Duct connection type	Circular
Motor type	EC

Performance

Performance curve



Hydraulic data

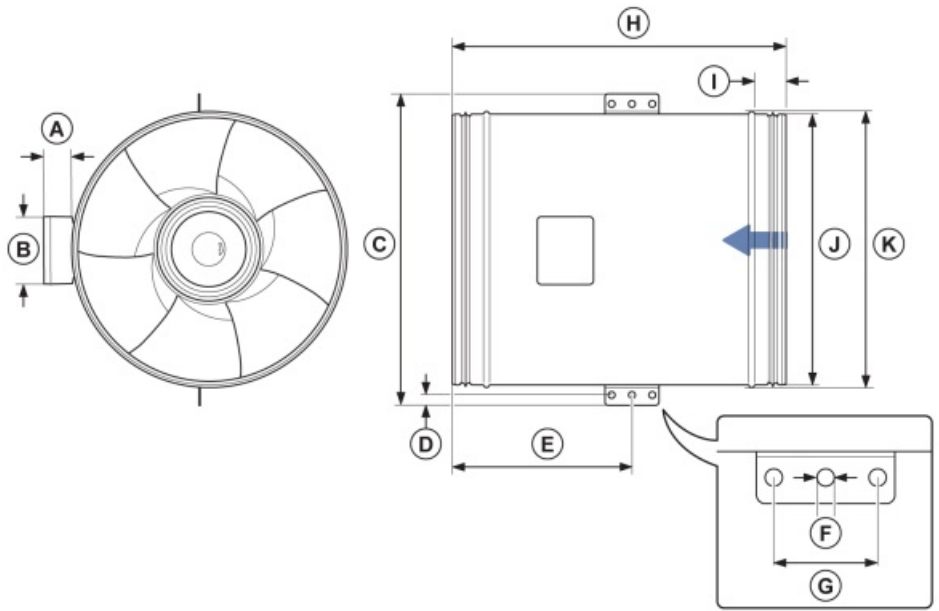
Required air flow	0.63 m³/s
Required static pressure	379 Pa
Working air flow	0.63 m³/s
Working static pressure	379 Pa
Air density	1.204 kg/m³
Power	440.6 W
Fan control - RPM	2,501 rpm
Current	1.93 A
SFP	0.699 kW/m³/s
Control voltage	10.0 V
Supply voltage	230 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	51	73	72	77	80	78	71	62	84
Outlet	dB(A)	60	64	75	76	78	76	70	61	83
Surrounding	dB(A)	15	37	52	60	58	54	51	37	63
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	56
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	42

## Ecodesign

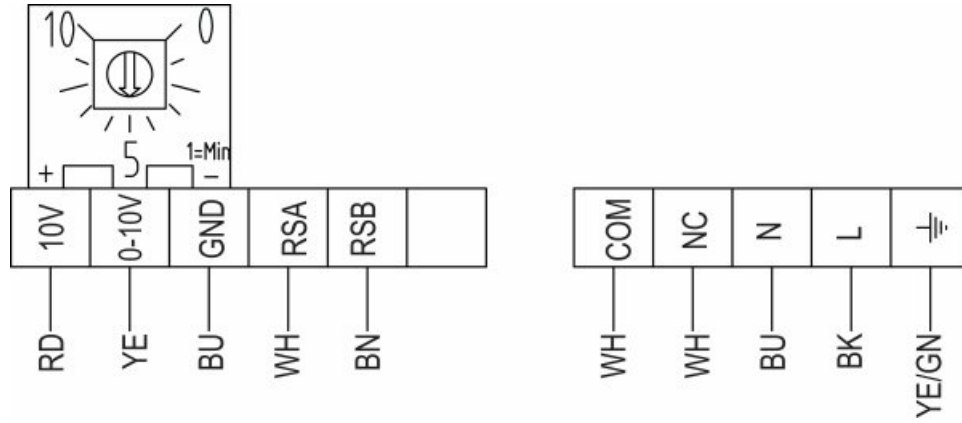
Product	
Trade name	Systemair
Product name	prio 315 EC
<b>Ecodesign 327</b>	
Manufacturer	Systemair Sweden AB, Industrivägen 3, Skinnskatteberg, Sweden
Type	prio 315 EC
Year of manufacture	See name plate of the fan
Air flow qv	0.631 m³/s
Efficiency category	total
Efficiency grade N	70.8
Efficiency grade target N	58
Speed (rpm) n	2,501 rpm
Pressure increase total psf	418 Pa
Power consumption Ped	441 W
Overall efficiency	62.3 %
Overall efficiency target	49.4 %
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



A	B	C	D	E	ØF	G	H	I	ØJ	ØK
45	100	375	15	205	10	60	407	45	314	322

## Wiring



RD Red

YE Yellow

BU Blue

WH White

GN Green

BN Brown

BK Black

## Accessories

- CXE/AVC Modbus (37256)
- EC-Basic-CO2 and temperature (24808)
- EC-Basic-T temperature (24805)
- EC-Selector (9908)
- EC-Vent Room Unit (3018)
- MTV-1/010 Controller 0..10V+ (30650)
- Pressure controller PCA 1000D2 (76739)
- SG 315 Protection guard (5611)
- Step switch S-5EC-2, 0-10V (449084)
- CB 315-6,0 400V/2 Duct heater (5374)
- Presence detector/IR24-P (6995)
- CB 315-12,0 400V/3 Duct heater (5387)
- CB 315-9,0 400V/3 Duct heater (5375)
- CBMF 315-9,0 400V/3 Duct heater (12354)
- FFR 315 Filter cassette (1779)
- FK 315 Fast clamp (1613)
- RSK-315 Back draft damper (5604)
- VBC 315-3 Water heating batt (9844)
- VK-30 Louvre shutter (5641)
- DMD-C Pressure controller (15793)
- EC-Basic-H humidity (24807)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent control board (3115)
- MTP 10, 10K, Speed control (32731)
- Potentiometer MTP 20, 0-10V (310220)
- REV-3POL/03-7,5kW R/Y (33978)
- Step switch S-5EC, 0-10V (76738)
- VKK-315 Back draft damper (1628)
- HR1 Room Humidistat (215150)
- RT 0-30 Room Thermostat (5151)
- CB 315-3,0 230V/1 Duct heater (5386)
- CBM 315-9,0 400V/3 Duct heater (5485)
- CWK 315-3-2,5 Duct cooler,circ (30025)
- FGR 315 Filter cassette (1818)
- LDC 315-900 Silencer (5197)
- VBC 315-2 Water heating batt (5461)
- VBF 315 Water heating battery (1734)
- BMS Trickle & Boost Switch (120363)

## Documents

- INSTALLATION\_\_OPERATION\_AND\_MAINTENANCE\_INSTRUCTION\_K\_\_KV\_\_PRIO\_\_EN\_009.PDF
- MODBUS LITE V5.01 parameter specification.pdf
- COMMISSIONING\_RECORD\_FANS\_\_EN.PDF