

# PRIO 250EC CIRC. DUCT FAN

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## Description

- EC-motors, high level of efficiency
- Low SFP values
- 100% speed controllable
- Integrated motor protection
- Can be installed in any position
- Compact design
- Low sound level
- Potentiometer included for ease of commissioning



EC fans are intelligent devices using integrated motor electronics, ensuring that the motor always runs at optimal load. With EC motors the proportion of energy utilized effectively is higher, which as a result reduces the energy usage considerably, compared with AC motors.

Another special feature of EC fans is their energy-saving potential not only at full load, but especially when speed controlled, i.e. at part load. When operating at part-load, the energy used is much lower than with an asynchronous motor of equivalent output.

Reduced energy usage guarantees a drop in operating costs.

The prioAir series is designed for installation in ducts. The prioAir models have 25 mm long spigot connections in acc. with EN 1506:1997. The fans have aerodynamically optimized impellers and guide vanes. Motor protection is integrated in the electronics of the motor. The air tight casing (tightness class C in acc. with EN12237:2003) is manufactured from special composite material.

The mounting clamp facilitates easy installation and removal, and prevents the transfer of vibrations to the duct. Mounting bracket to the wall or ceiling as accessory.

For installation in damp locations we recommend to use a run-on timer. The fans are delivered with a pre-wired potentiometer (0-10 V) that allows you to easily find the required working point.

## Technical parameters

Nominal data		
Voltage	230	V
Frequency	50/60	Hz
Phase	1	~
Input power (P1)	126	W
Current	0.901	A
Max. airflow	1822	m <sup>3</sup> /h
R.p.m.	2336	r.p.m.
Weight	2.9	kg
Temperature data		
Max. temperature of transported air	55	°C
Sound data		
Sound pressure level at 3 m	45.7	dB(A)

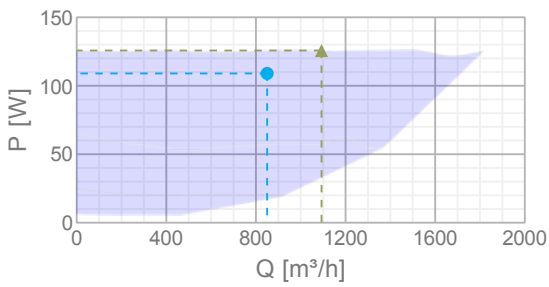
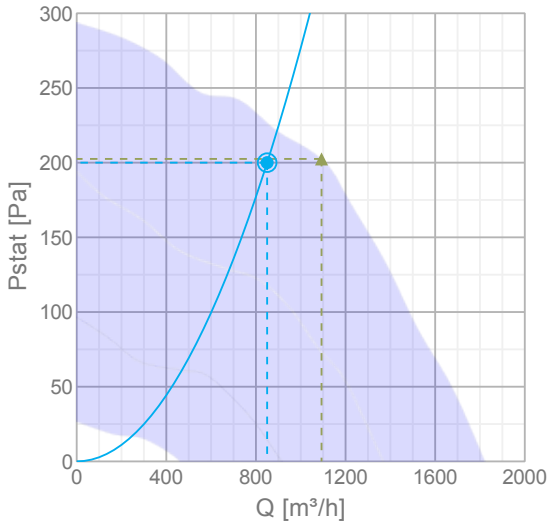
## Protection / Classification

Insulation class	B
Enclosure class, motor	IP44 IP

## EPS diagrams

### Diagrams

#### Diagrams



### Max efficiency

#### Hydraulic data

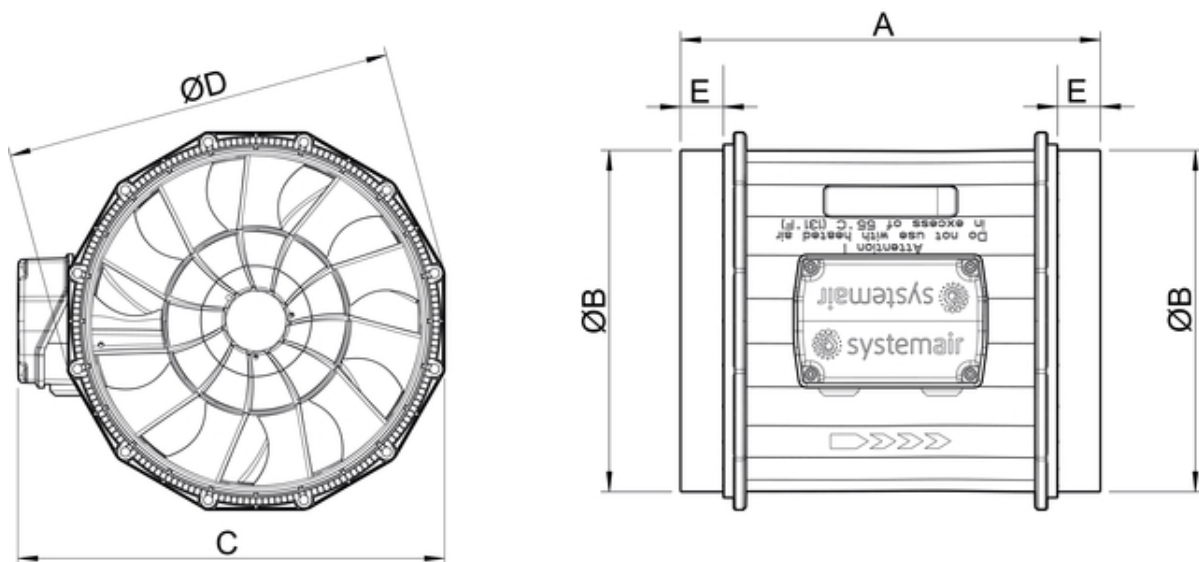
▲ Working air flow	1093 m <sup>3</sup> /h
▲ Working static pressure	202 Pa
▲ Power	126 W
Speed	1236 r.p.m.
Current	0.895 A
SFP	0.414 W/(l/s)
Voltage	230 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Tot
Inlet	dB(A)	38	45	47	52	51	47	41	39	56
Outlet	dB(A)	41	51	44	51	50	46	40	35	56
Surrounding	dB(A)	-	19	24	35	34	27	16	9	38

## User

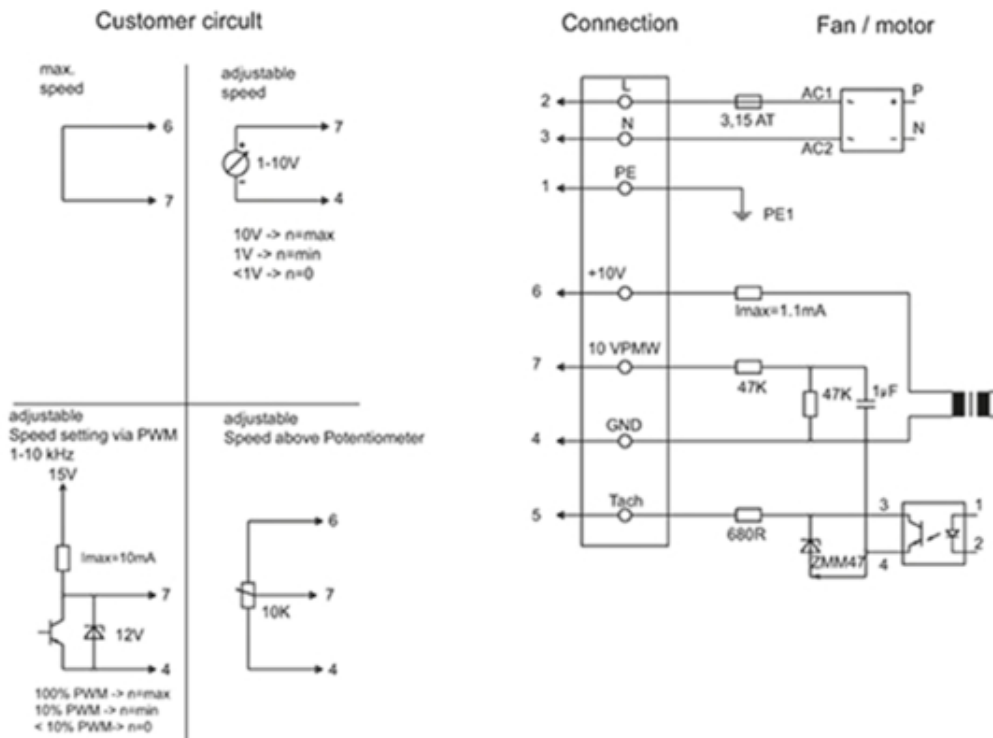
Hydraulic data										
○ Required air flow										850 m <sup>3</sup> /h
○ Required static pressure										200 Pa
● Working air flow										850 m <sup>3</sup> /h
● Working static pressure										200 Pa
● Power										109 W
Speed										2217 r.p.m.
Current										0.773 A
SFP										0.462 W/(l/s)
Voltage										230 V
Sound power level		63	125	250	500	1k	2k	4k	8k	Tot
Inlet	dB(A)	34	56	62	61	65	64	58	50	70
Outlet	dB(A)	35	50	56	61	64	63	57	46	68
Surrounding	dB(A)	0	27	38	45	48	44	34	20	51

## Dimensions



	A	ØB	C	ØD	E
prio 250	300	249	303	284	30

## Wiring



Line	No.	Signal	Colour	Function / assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	5	Tacho	white	Tach output: open collector, 1 pulse per revolution, electrically isolated, I <sub>sink_max</sub> = 10mA
	6	10V/ max 1.1mA	red	Voltage output 10 V/ 1.1 mA, electrically isolated
	4	GND	blue	GND - Connection for control interface

## Accessories


### Electric accessories


- [HR1 Room Humidistat IP21 \(5150\)](#)
- [RT 0-30 Room Thermostat \(5151\)](#)
- [CO2RT-R-D Transmitter \(6993\)](#)
- [Presence detector/IR24-P \(6995\)](#)
- [MTV-1/010 Controller 0..10V+ \(30650\)](#)
- [DMD-C Pressure controller \(15793\)](#)
- [MTP 10, 10K, Speed control \(32731\)](#)
- [EC-Vent Room Unit \(3018\)](#)
- [EC-Vent control board \(3115\)](#)
- [REV-3POL/03 ON/OFF \(33978\)](#)
- [MTP 20, on/off, 3-step \(310220\)](#)
- [EC-Basic-H humidity \(24807\)](#)
- [EC-Basic-T temperature \(24805\)](#)
- [EC-Basic-U universal 0-10V \(24806\)](#)
- [EC-Basic-CO2 and temperature \(24808\)](#)
- [CXE/AVC Modbus \(37256\)](#)


## Accessories

[CB 250-9,0 400V/3 Duct heater \(5373\)](#)  
[CB 250-3,0 230V/1 Duct heater \(5385\)](#)  
[VBF 250 Water heating battery \(1733\)](#)  
[CWK 250-3-2,5 Duct cooler\\_circ \(30024\)](#)  
[VBC 250-2 Water heating batt \(5460\)](#)  
[LDC 250-900 Silencer \(5196\)](#)  
[FFR 250 Filter cassette \(1776\)](#)  
[FGR 250 Filter cassette G3 \(1815\)](#)  
[FK 250 Fast clamp \(1612\)](#)  
[VKK-250 Back draft damper \(1627\)](#)  
[RSK-250 Back draft damper \(5603\)](#)  
[SG 250 Protection guard \(5610\)](#)  
[VK-25 Louvre shutter \(5640\)](#)  
[CBM 250-6,0 400V/2 Duct heater \(9089\)](#)  
[VBC 250-3 Water heating batt \(9843\)](#)  
[IGC-LI-250 \(37361\)](#)  
[CB 250-6,0 400V/2 Duct heater \(5372\)](#)  
[prio 250 mount. bracket compl. \(79316\)](#)

## Documentation

 [manual\\_prioair\\_en-de\\_315801.pdf \(3,43MB\)](#)

 [eu declaration of conformity\\_prioAir\\_en\\_\[001\].pdf \(47,80kB\)](#)

 [prioair250\\_o\\_rahmen.dxf \(4,19MB\)](#)

## Specification text