

prio 250EC circ. duct fan

Item Number: 78187

Variant: 230V 1~ 50/60Hz



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.

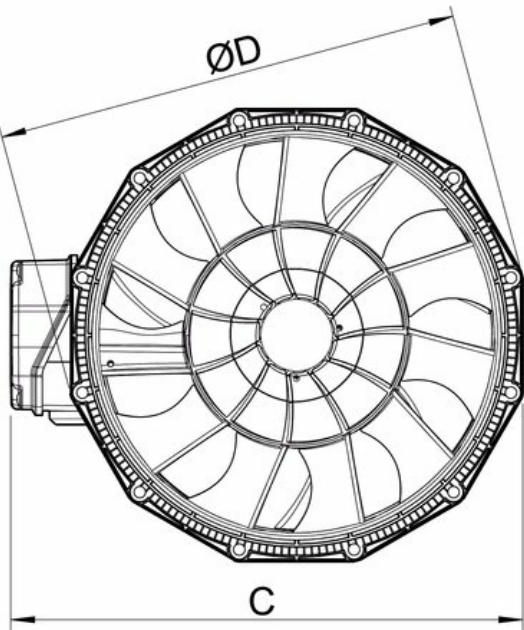
For installation in damp locations we recommend to use a run-on timer. The fans are delivered with a pre-wired potentiometer (0-10 V) that allows you to easily find the required working point.



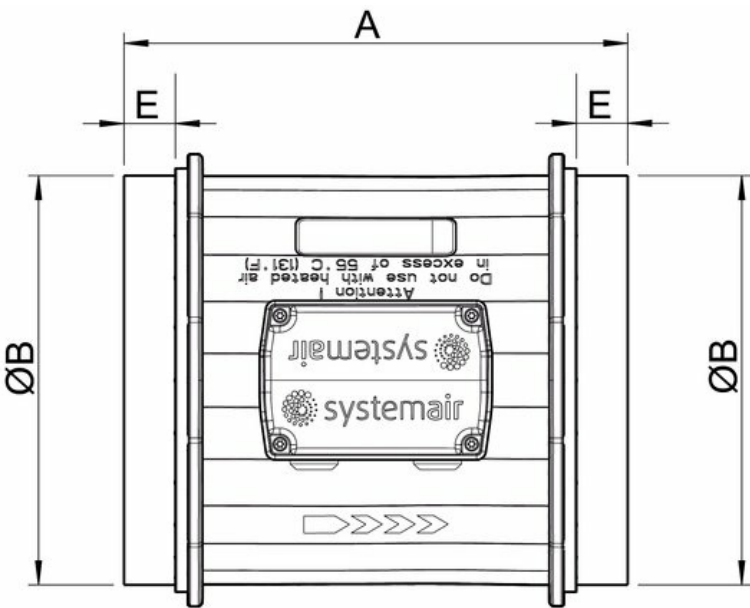
Technical parameters

Nominal data		
Voltage (Nominal)	230	V
Frequency	50; 60	Hz
Phase(s)	1~	
Input power	124	W
Input current	0.901	A
Impeller speed	2,336	r.p.m.
Air flow	max 0.506	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)	46	dB(A)
Protection/Classification		
Enclosure class, motor	IP44	
Insulation class	B	
Dimensions and weights		
Weight	3.1	kg
Others		
Motor type	EC	

Dimension



	A	øB	C	øD	E
prio 250	300	249	303	284	30

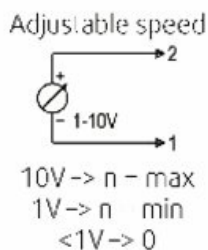
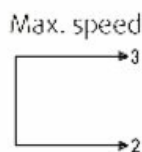


Wiring

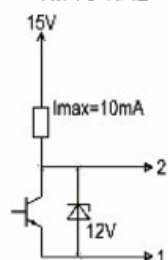
9.3.1.1 Wiring diagram prioAir EC

The fans are delivered with a pre-wired potentiometer (0–10 V)

Client side



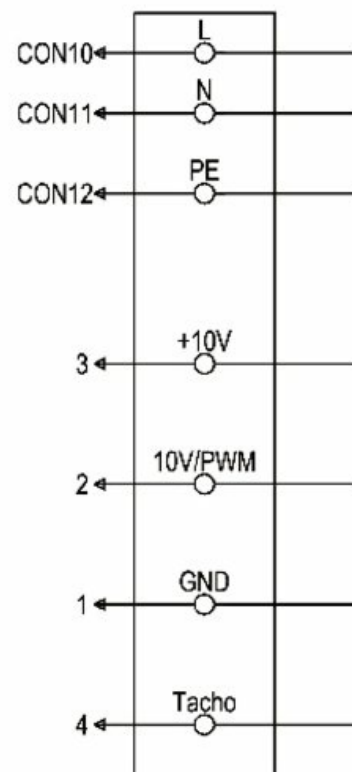
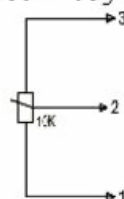
Adjustable speed through PWM
1...10 kHz



100 % PWM → n = max
10 % PWM → n = min
< 10 % → 0

Factory setting

Adjustable speed through potentiometer



Wire no.	Connection	Color	Function/assignment
CON10	L	black or brown	Power supply 230 V AC, 50...60 Hz, see name plate for voltage range
CON11	N	blue	Neutral conductor
CON12	PE	green/yellow	Protective conductor
1	GND	blue	GND-connection of the controller interface
2	0...10 V PWM	yellow	Controller input 0...10 V or PWM
3	10 V	red	Voltage output 10 V / Short-circuit-proof power supply for external devices (e.g. poti) prioAir 150EC, prioAir 160EC > $I_{max}=1.1mA$ prioAir 200FC/prioAir 250FC > $I_{max}=10mA$
4	Tacho	white	Speed output: Open Collector, 1 impulse per revolution, electrically isolated, $I_{sink\ max}=10\ mA$

Accessories

- CB 250-3,0 230V/1 Duct heater (5385)
- CB 250-6,0 400V/2 Duct heater (5372)
- CB 250-9,0 400V/3 Duct heater (5373)
- CBM 250-6,0 400V/2 Duct heater (9089)
- CO2RT-R-D Transmitter (6993)
- CWK 250-3-2,5 Duct cooler,circ (30024)
- CXE/AVC Modbus (37256)
- DMD-C Pressure controller (15793)
- EC-Basic-CO2 and temperature (24808)
- EC-Basic-H humidity (24807)
- EC-Basic-T temperature (24805)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent control board (3115)
- EC-Vent Room Unit (3018)
- FFR 250 Filter cassette (1776)
- FGR 250 Filter cassette (1815)
- FK 250 Fast clamp (1612)
- LDC 250-900 Silencer (5196)
- MTP 10, 10K, Speed control (32731)
- MTP 20, on/off, 3-step (310220)
- MTV-1/010 Controller 0..10V+ (30650)
- Presence detector/IR24-P (6995)
- prio 250 mount. bracket compl. (79316)
- REV-3POL/03 ON/OFF (33978)
- RSK-250 Back draft damper (5603)
- RT 0-30 Room Thermostat (5151)
- SG 250 Protection guard (5610)
- VBC 250-2 Water heating batt (5460)
- VBC 250-3 Water heating batt (9843)
- VBF 250 Water heating battery (1733)
- VK-25 Louvre shutter (5640)
- VKK-250 Back draft damper (1627)

Documents

- [MANUAL_PRIOAIR_EN_\[006\].PDF](#)
- [prioair250_o_rahmen.dxf](#)
- [EU DECLARATION OF CONFORMITY_PRIO_EN_001.PDF](#)

Specification