

prio 250EC circ. duct fan

Axial circular duct fan, <125W

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	m ³ /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 (20m ² Sabin)	46	dB(A)

Protection/Classification

Enclosure class, motor	IP44
Insulation class	B

Data according to ErP

ErP ready	Not ErP relevant
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Dimensions and weights

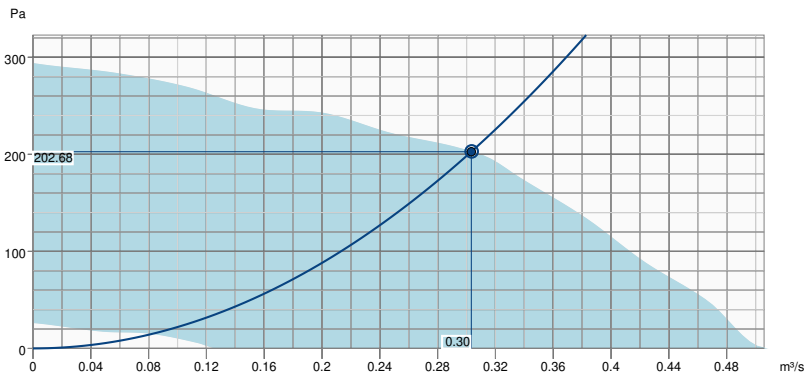
Duct dimension; Circular, inlet	250	mm
Duct dimension; Circular, outlet	250	mm
Weight	3.1	kg

Others

Duct connection type	Circular
Motor type	EC

Performance

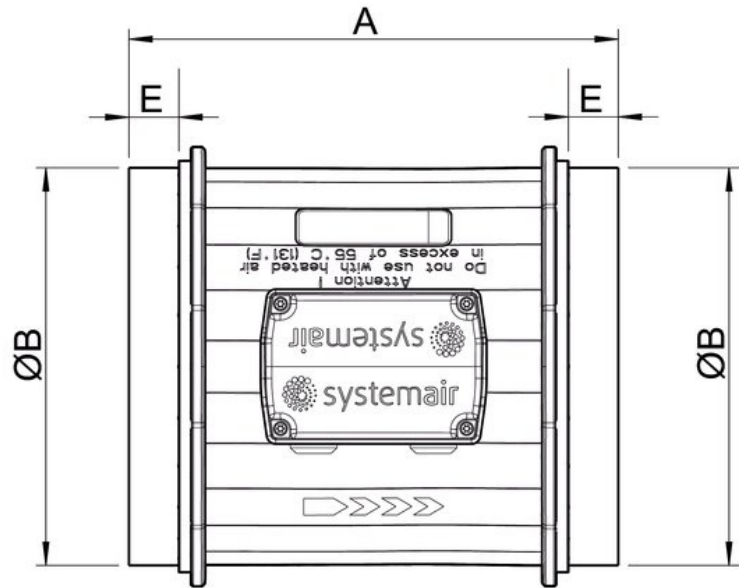
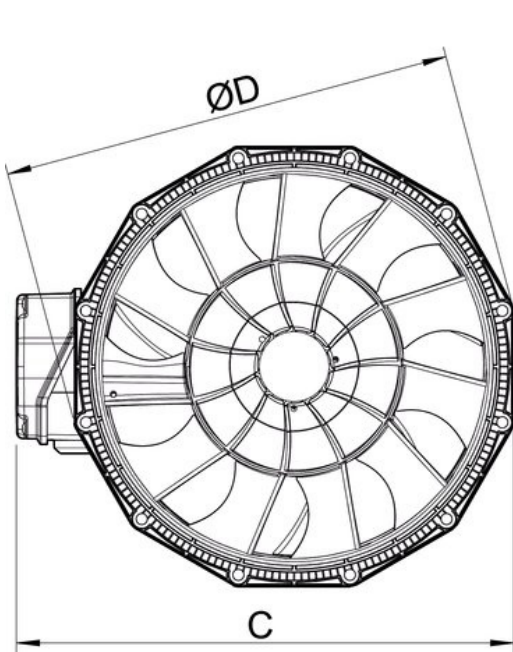
Performance curve



Hydraulic data	
Required air flow	0.30 m³/s
Required static pressure	203 Pa
Working air flow	0.30 m³/s
Working static pressure	203 Pa
Air density	1.204 kg/m³
Power	125.7 W
Fan control - RPM	1283 rpm
Current	0.90 A
SFP	0.415 kW/m³/s
Control voltage	10.0 V
Supply voltage	230 V

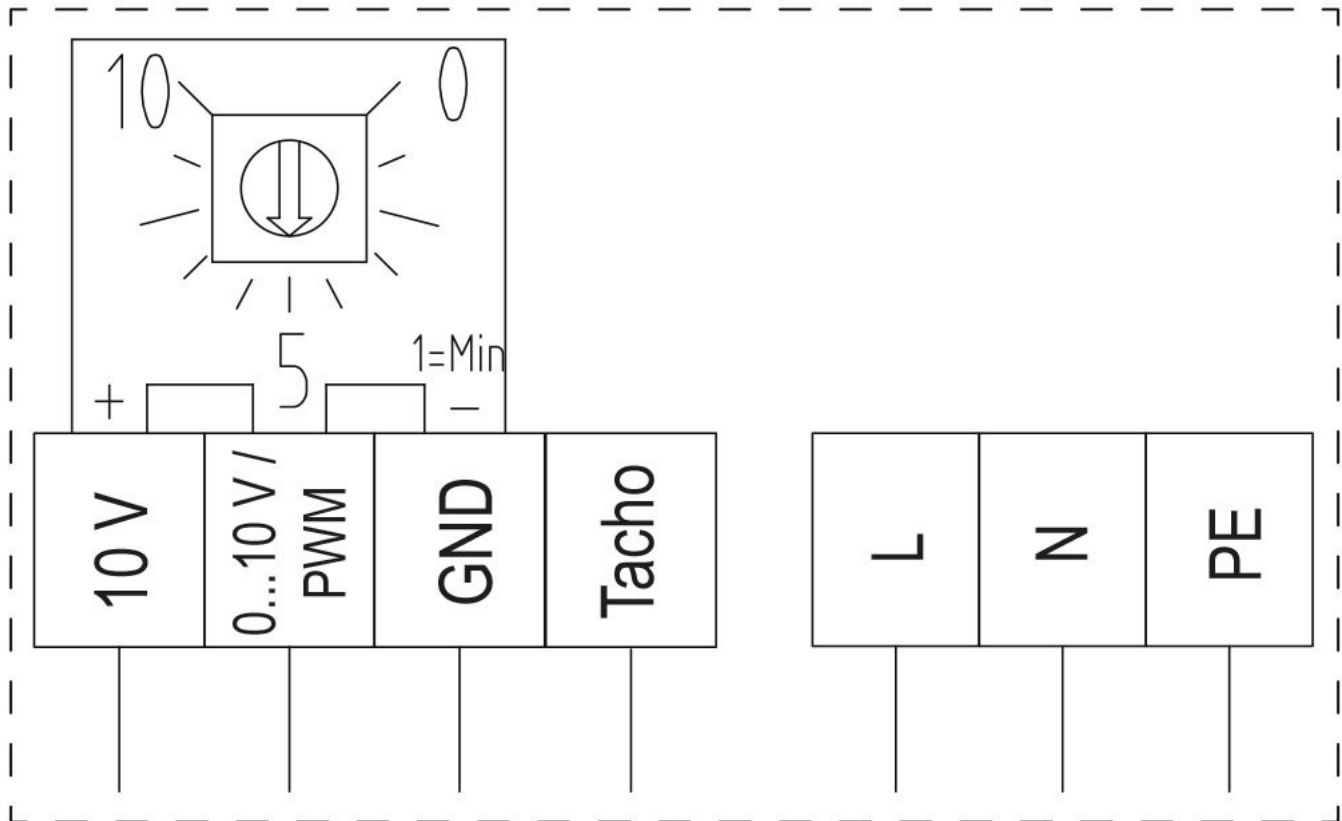
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	33	42	45	51	52	48	42	40	56
Outlet	dB(A)	27	36	44	49	51	47	39	33	55
Surrounding	dB(A)	<10	17	28	34	32	24	13	<10	37
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	30
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	16

Dimension



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

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)
- MTV-1/010 Controller 0..10V+ (30650)
- VKK-250 Back draft damper (1627)
- CO2RT-R-D Transmitter (6993)
- Presence detector/IR24-P (6995)
- RT 0-30 Room Thermostat (5151)
- CB 250-9,0 400V/3 Duct heater (5373)
- CBMF 250-3,0 230V/1 Duct heater (12248)
- 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)
- DMD-C Pressure controller (15793)
- EC-Basic-H humidity (24807)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent Room Unit (3018)
- MTP 20, on/off, 3-step (310220)
- SG 250 Protection guard (5610)
- CB 250-6,0 400V/2 Duct heater (5372)
- HR1 Room Humidistat (215150)
- prio 250 mount. bracket compl. (79316)
- CB 250-3,0 230V/1 Duct heater (5385)
- CBM 250-6,0 400V/2 Duct heater (9089)
- CBMF 250-6,0 400V/2 Duct heater (12249)
- 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_002
- prioair250_o_rahmen.dxf
- UKCA DECLARATION OF CONFORMITY_PRIO_PRIO-XP_EN_001.PDF

Specification