

prio 150EC circ. duct fan

Axial circular duct fan, <125W

Item number: 78184

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

Norminal data		
Voltage (nominal)	230	V
Frequency	50; 60	Hz
Phase(s)	1~	
Input power	76	W
Input current	0.642	A
Impeller speed	4,330	r.p.m.
Air flow	max 796	m ³ /h
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)	48	dB(A)
Protection/Classification		
Enclosure class, motor	IP44	
Insulation class	B	

Data according to ErP

ErP ready

Not ErP relevant

Dimensions and weights

Duct dimension; Circular, inlet

150 mm

Duct dimension; Circular, outlet

150 mm

Weight

1.9 kg

Others

Duct connection type

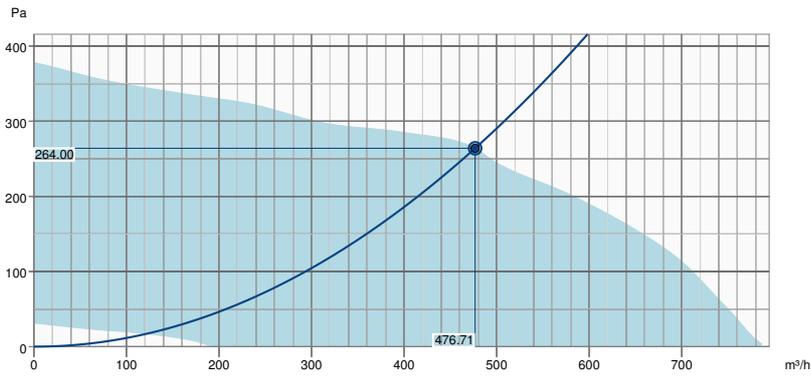
Circular

Motor type

EC

Performance

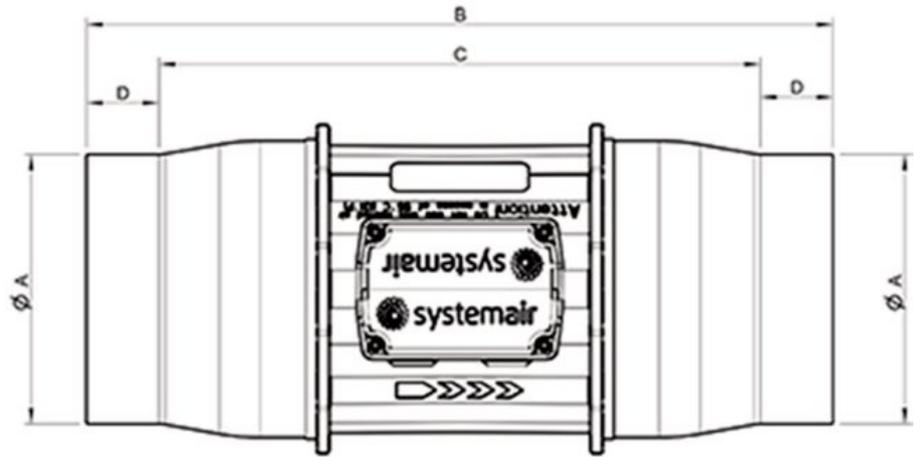
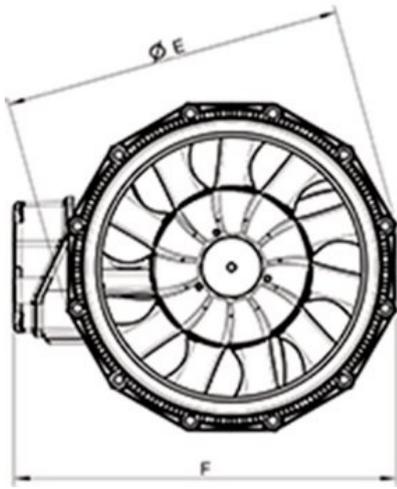
Performance curve



Hydraulic data	
Required air flow	477 m³/h
Required static pressure	264 Pa
Working air flow	477 m³/h
Working static pressure	264 Pa
Air density	1.204 kg/m³
Power	75.6 W
Fan control - RPM	4374 rpm
Current	0.64 A
SFP	0.571 kW/m³/s
Control voltage	10.0 V
Supply voltage	230 V

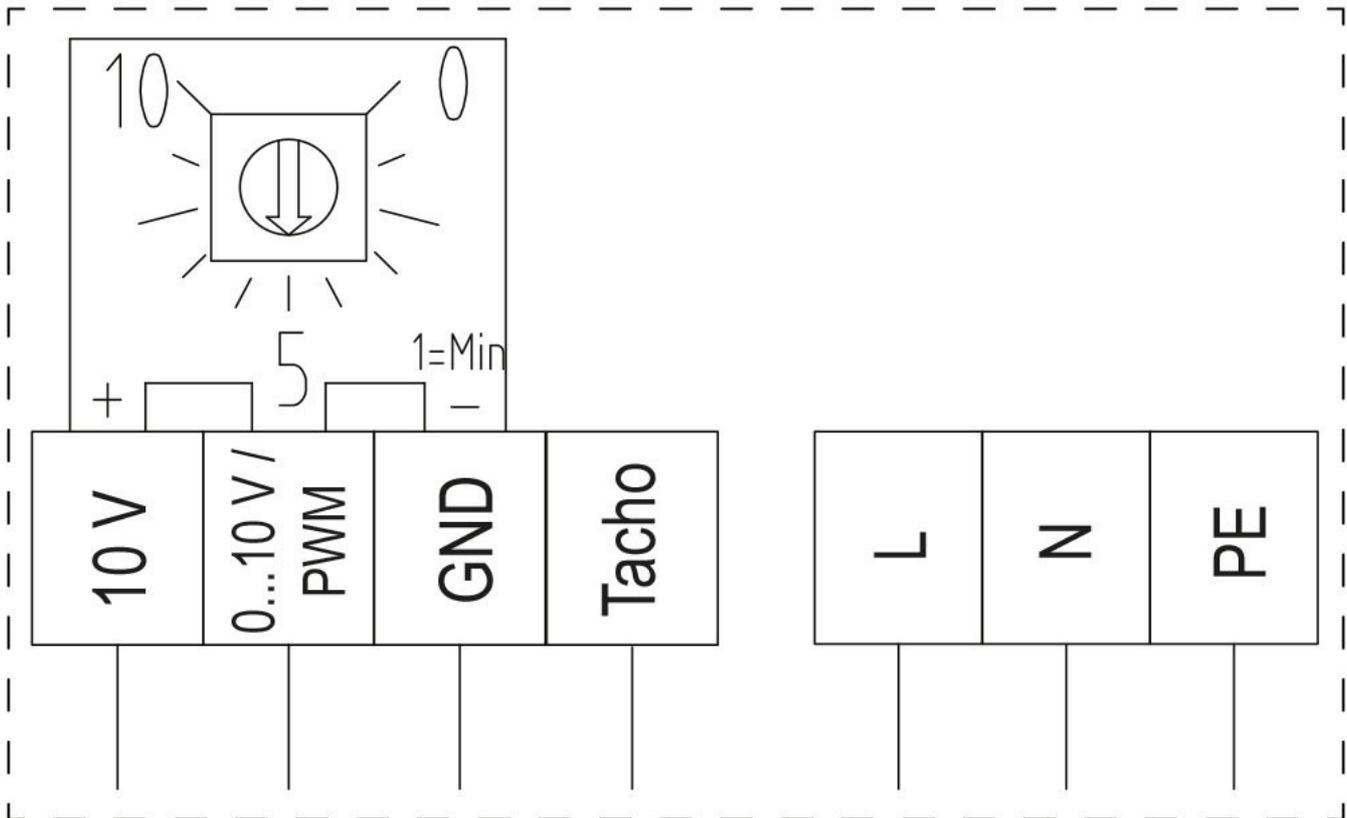
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	44	56	74	68	68	68	64	54	77
Outlet	dB(A)	47	60	73	73	69	69	65	54	78
Surrounding	dB(A)	24	<10	53	39	50	51	42	27	56
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	49
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	35

Dimension



	øA	B	C	D	øE	F
prio 150	149	412	332	40	187	211

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-H humidity (24807)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent Room Unit (3018)
- MTP 20, on/off, 3-step (310220)
- REV-3POL/03 ON/OFF (33978)
- CO2RT-R-D Transmitter (6993)
- Presence detector/IR24-P (6995)
- RT 0-30 Room Thermostat (5151)
- FGR 150 Filter cassette (1807)
- RSK-150 Back draft damper (5599)
- 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)
- SG 150 Protection guard (5555)
- HR1 Room Humidistat (215150)
- prio 150/160 mount. br. compl. (79314)
- FFR 150 Filter cassette (1769)
- FK 150 Fast clamp (1609)
- VK-15 Louvre shutter (87679)

Documents

- imo_prioair_en_002
- prio160_150_dxf_o_rahmen.dxf
- EU DECLARATION OF CONFORMITY_PRIO_PRIO-XP_EN_002.PDF