

# PRIOAIR 10 EC INLINE DUCT FAN

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## Description

### Application

The prioAir series is designed for installation in ducts. Extremely efficient, prioAir fans are perfect for a wide assortment of powerful, quiet air-moving applications.

### Design

Compact size, low noise, very high efficiency and air tight casing. Aerodynamically optimized impellers and guide vanes with integrated external rotor motors. Includes a mounting bracket. Special composite material is corrosion-proof and light weight.

### Speed control

The prioAir EC fan motor's speed is controlled via a 0-10Vdc signal. The motor provides a +10V reference that can be used by a remotely-mounted potentiometer (such as MTP 10). The motor can also be controlled by an externally-provided 0-10Vdc signal that can come from any device or a Building Management System (BMS). The fan's motor also provides operational speed (tachometer pulse) output that can be used to verify fan operation. These control features allow the prioAir EC to be integrated into and play an active role in smart HVAC systems in buildings.

### Motor protection

Thermal overload protection with automatic reset.



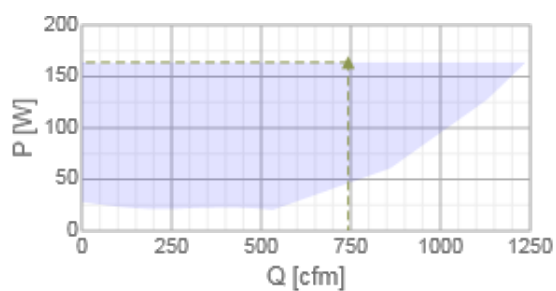
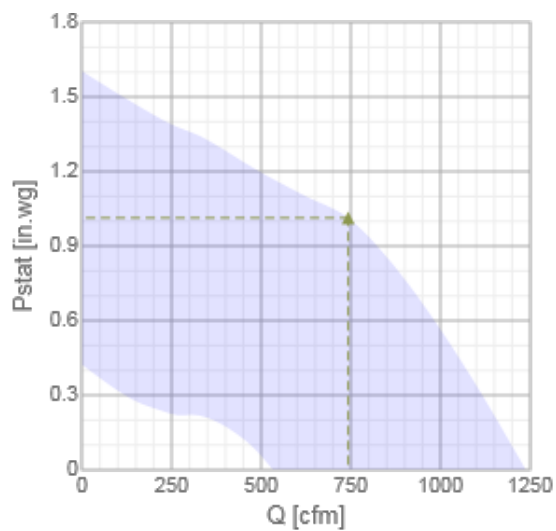
## Technical parameters

Nominal data		
Voltage	120	V
Frequency	60	Hz
Phase	1	~
Input power (P1)	164	W
Current	2.11	A
Max. airflow	1237	cfm
Fan impeller speed	2629	r.p.m.
Weight	9.39	lbs.
Temperature data		
Max. temperature of transported air	131	°F
Protection / Classification		
Insulation class	B	
Enclosure class, motor	IP44	IP

## EPS diagrams

## Performance

## Diagrams



#### Hydraulic data

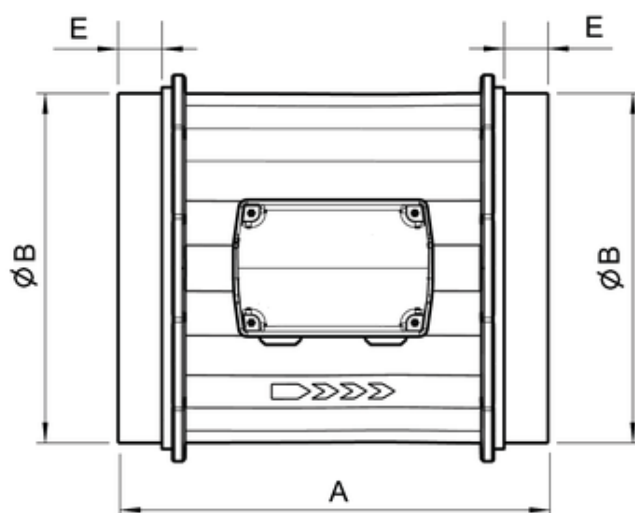
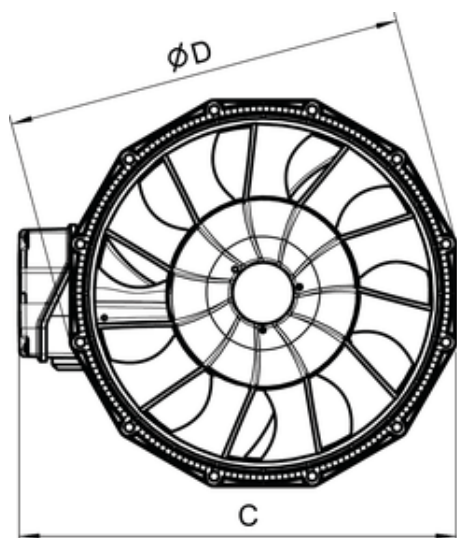
	Working point						
	Q [cfm]	Ps [in.wg]	P [W]	n [r.p.m.]	I [A]	SFP [W/(cfm)]	U [V]
Max efficiency	742	1.01	164	2675	2.1	0.221	120

#### Acoustic data

Sound power level	63	125	250	500	1k	2k	4k	8k	Tot
Inlet dB(A)	50	63	67	62	70	68	63	53	74

#### Loudness

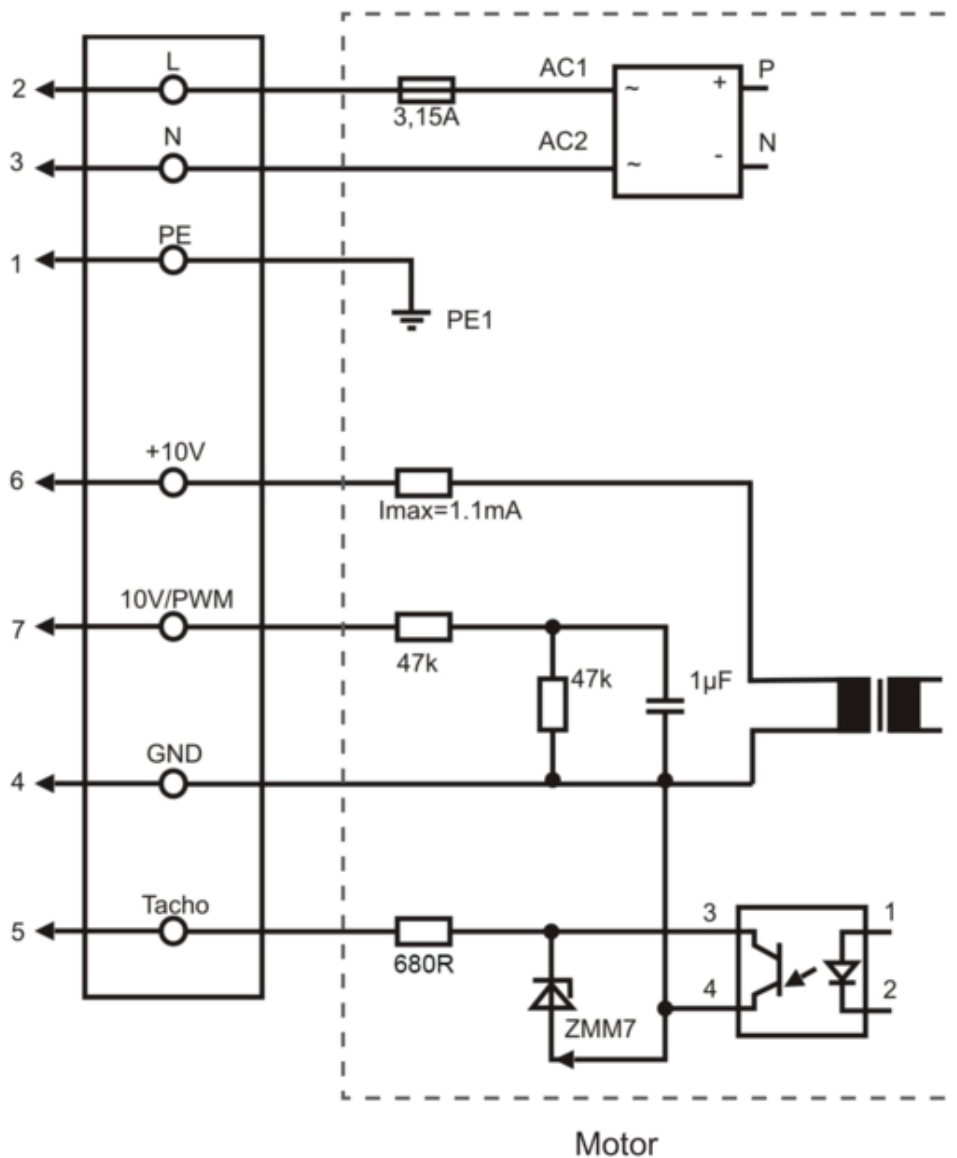
#### Dimensions



	A	B	C	D	E
<b>prioAir 8/ 8EC</b>	9 11/16 (246)	7 7/8 (200)	9 3/4 (248)	9 (229)	1 (25)
<b>prioAir 10/ 10EC</b>	11 11/16 (297)	9 13/16 (249)	11 15/16 (303)	11 1/16 (281)	1 3/16 (30)

All dimension in inches (mm).

## Wiring



Motor Wiring	Terminal Marking	Field marking (to be completed by installer)
Color		Function
Brown	L	Power supply 120VAC, 50/60Hz
Blue	N	Neutral Conductor
Green/Yellow	PE	Protective Conductor
Red	+10V	Voltage Output 10V/1.1 mA, Electrically Isolated
Yellow	10V / PWM	Controller Input 0..10V or PWM, Electrically Isolated
White	Tacho	Speed Output: Open Collector, 1 Impulse per revolution, Electrically Isolated Isink_max=10mA

## Accessories

### Electric accessories

MTP 10, 10K, Speed control (32731)  
DPC 200 Constant Pressure Ctrl (484048)

### Accessories

LD 10 Silencer (411286)  
FC 10 Mounting Clamps (411122)  
IR 10 Iris Damper (411238)

## Documentation

 484065 prioAir OIPM.PDF (1,52MB)