



## Comair Rotron Specification Sheet

Specification Date: Dec 10,2009

Version 01

RoHS Compliant

COMAIR ROTRON PART NUMBER: 043171  
COMAIR ROTRON MODEL NUMBER: DD692748Z1E5X

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### A.) MOTOR:

RATED VOLTAGE:	48 Vdc
OPERATING VOLTAGE RANGE:	24 Vdc – 72 Vdc
LOW-START VOLTAGE:	20 Vdc
RUNNING CURRENT:	1.2 Amps
RATED POWER:	52.9 Watts
NOMINAL SPEED:	3435 RPM $\pm$ 200 (At Free Delivery)
START UP TIME:	10 Seconds Maximum
MOTOR TYPE:	Brushless DC
MOTOR PROTECTION:	By Integrated Circuit, Fuse
LOCKED ROTOR PROTECTION:	Electronic
POLARITY PROTECTION:	Yes
AUTOMATIC RESTART CAPABILITY:	By Integrated Circuit
ROTATION:	Clockwise when viewed from Inlet

### B.) MECHANICAL

DIMENSIONS:	175 mm Dia. x 69 mm (6.9" Dia. x 2.7") <i>Figure 1</i>
WEIGHT:	1.0 Kg
BEARING TYPE:	Ball Bearing, Permanently Lubricated, Shielded
MOTOR BASE:	Cast Aluminum
IMPELLER:	sheet metal, black powder coating



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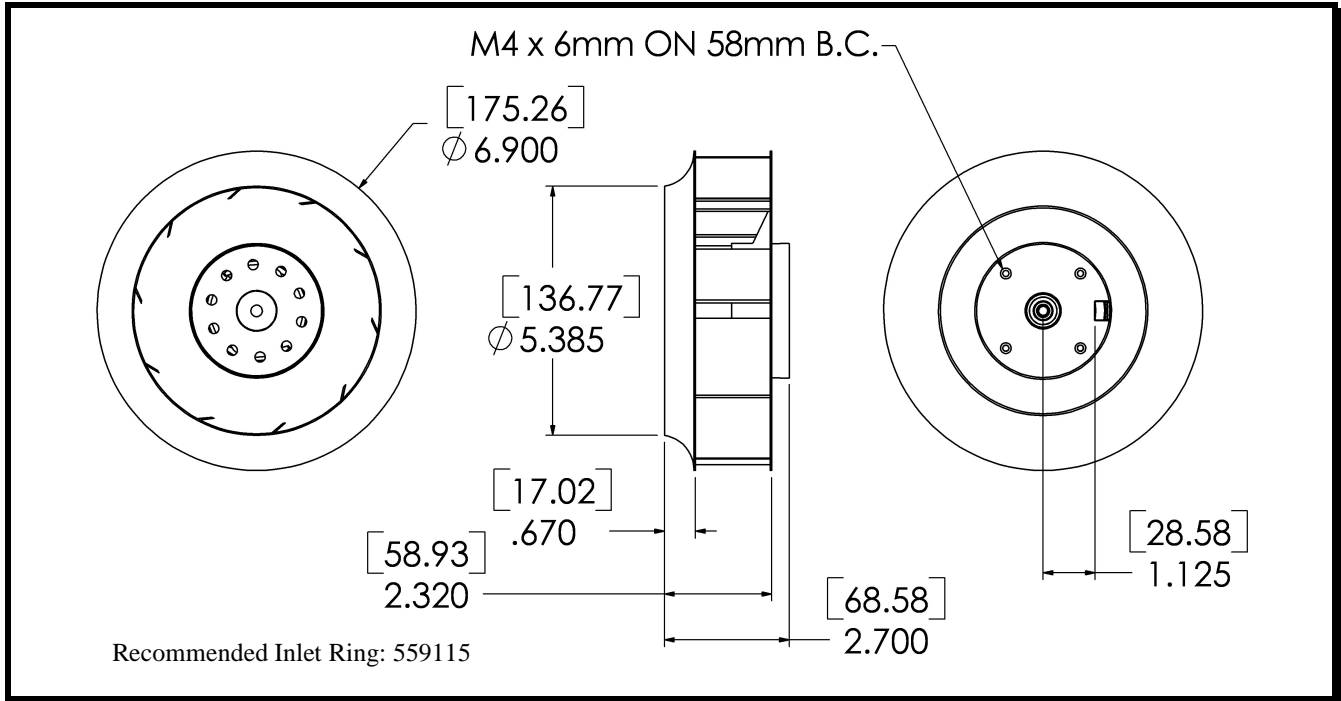


Figure 1

## C.) ADDITIONAL FEATURES

TACHOMETER OUTPUT:

Open Collector Output  
 $V_C = 60\text{vdc max.}$   
 $I_C = 80\text{mA Max.}$   
 2 Pulses per Revolution  
 Non-isolated

PROGRAMMABLE SPEED CONTROL:

Base Frequency:  
 Response:

PWM  
 200Hz ~ 20KHZ  
 Off - 0% to 10%  
 Low Speed - 10% duty cycle  
 Linear ramp - 10% to 100% duty cycle  
 Full Speed - 100% duty cycle

## D.) ENVIRONMENTAL

OPERATING TEMPERATURE:

-10°C to 70°C

STORAGE TEMPERATURE:

-40°C to +75°C



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### E.) PERFORMANCE CHARACTERISTICS

AIR FLOW:

354 CFM  $\pm$  10%

(At Free Delivery and 48 Vdc)

STATIC PRESSURE:

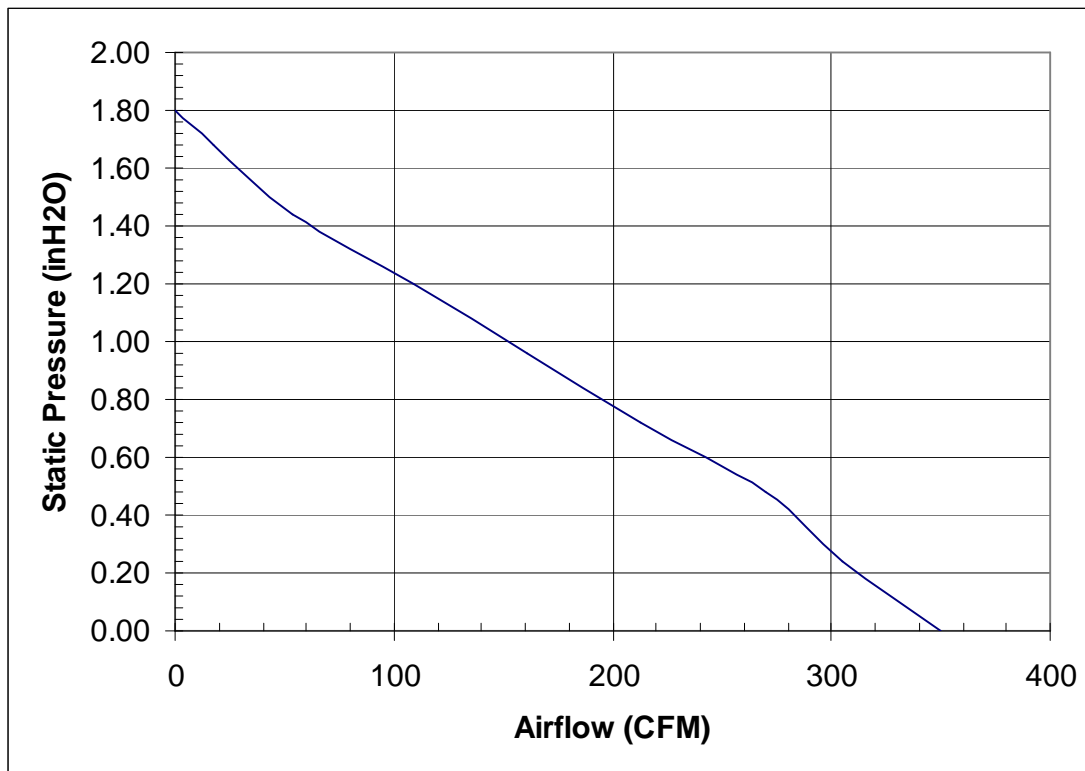
1.8" Inches of H<sub>2</sub>O

(At Shut-Off and 48 Vdc)

ACOUSTIC LEVEL:

71.2dBA

(Freely Suspended at 1 meter per  
ANSI S12.11-1987 and 48Vdc)





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### F.) TERMINATION

LEADWIRES:

600mm  $\pm$ 10mm (From the edge of the venturi to the tip of the leadwire),AWG 22, UL1007

CONTACT:

TJC16-YTER

CONNECTOR:

Molex 39-01-2040

SLEEVE TUBE:

PVC (UL or CSA approved)

(Sleeve tube to extend  $25 \pm 2.0$ mm beyond the edge of the venturi)

PIN DESCRIPTION:

( Pin Numbering per Molex Sequence )

Pin 1: Yellow - PWM

Pin 2: Blue - Tach

Pin 3: Red -Power(+)

Pin 4: Black - Power(-)

### G.) RELIABILITY

This fan is designed for continuous duty life of 50,000 Hours at 40°C, (L10).

### H.) SAFETY



### I.) Flammability

The all components of the motorized impeller meet a UL94V-0 rating.

#### Notes:

All parameters will perhaps fluctuate with the speed tolerance by + / - 10%.