



## Comair Rotron Specification Sheet

Specification Date: Jan 10, 2017

Version: 01

COMAIR ROTRON PART NUMBER:  
COMAIR ROTRON MODEL NUMBER:

19043137A  
DDE893948B1S5X-E2

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### A.) MOTOR:

RATED VOLTAGE:	48 Vdc
OPERATING VOLTAGE RANGE:	36 Vdc – 60 Vdc
LOW-START VOLTAGE:	36 Vdc
RUNNING CURRENT:	2.2 Amps
MAX RUNNING LIMITATION:	4 Amps
RATED POWER:	106 Watts
NOMINAL SPEED:	2600 RPM $\pm$ 10% (At Free Delivery)
START UP TIME:	8 Seconds Maximum
MOTOR TYPE:	Brushless DC
MOTOR PROTECTION:	By Integrated Circuit, Fuse
LOCKED ROTORT PROTECTION:	Electronic
POLARITY PROTECTION:	Yes
AUTOMATIC RESTART CAPABILITY:	By Integrated Circuit, Fuse
ROTATION:	Clockwise when viewed from Inlet

### B.) MECHANICAL

DIMENSIONS:	227mm Dia. x 99mm (8.94" Dia. x 3.90") <i>Figure 1</i>
WEIGHT:	1.70 Kg (3.75 Lbs.)
BEARING TYPE:	Ball Bearing, Permanently Lubricated, Shielded
MOTOR BASE:	Die Cast Aluminum
CUP:	Steel Cup without Holes
PROPELLER:	Metal, plated



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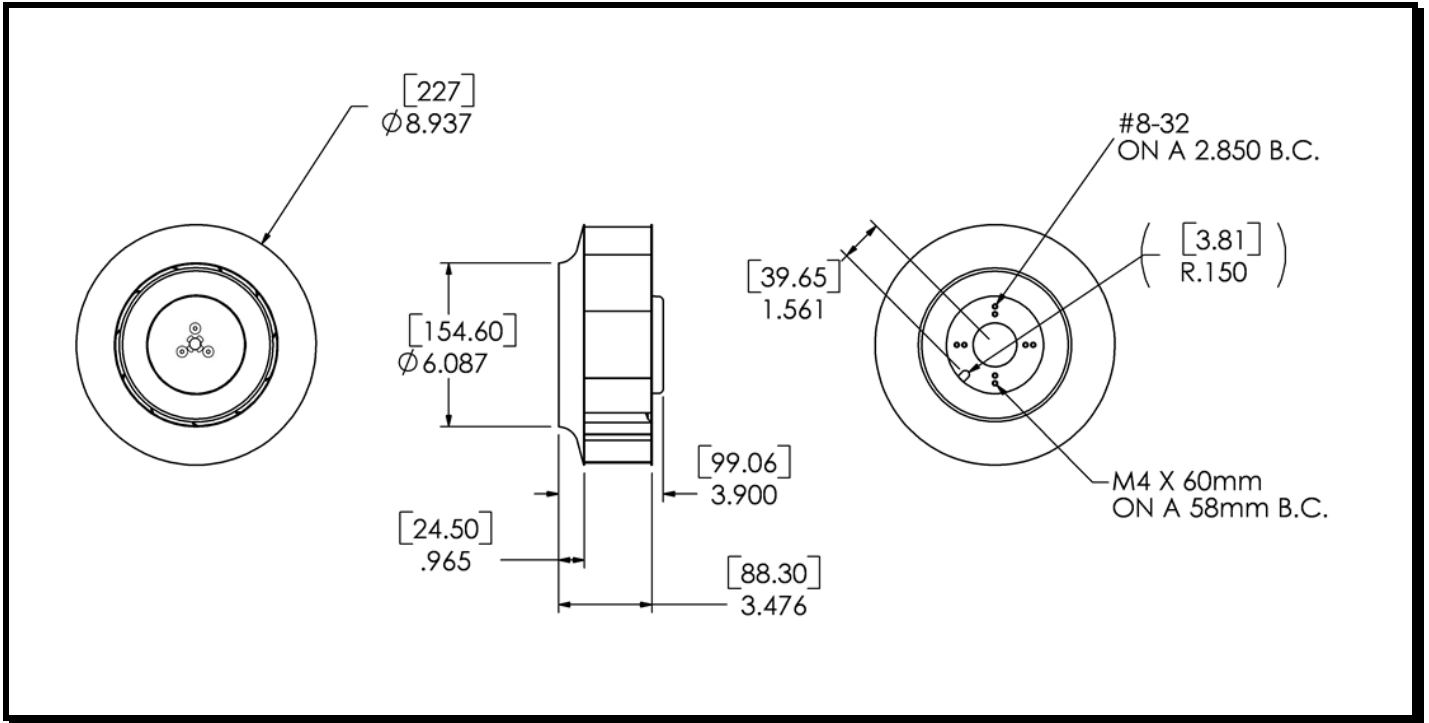


Figure 1

## C.) ADDITIONAL FEATURES

TACHOMETER OUTPUT:

Open Collector Output  
3 Pulses per Revolution  
Non-isolated

## D.) PWM SPEED CONTROL

Base Frequency:  
Amplitude:  
Response:

200Hz to 20,000 Hz  
10Vdc  $\pm$  0.50Vdc (No insensitive features)  
0%  $\leq$  Duty Cycle  $\leq$  10%, off  
10%, 800RPM  $\pm$  100RPM  
10% to 95%, Approx. direct linear ramp  
 $\geq$  95% or open ctrl lead, 2600RPM  $\pm$  10%

## E.) ENVIRONMENTAL

OPERATING TEMPERATURE:  
STORAGE TEMPERATURE:  
HUMIDITY:  
VIBRATION:  
ENVIROMENTAL SHIELD:

-10°C to +70°C  
-40°C to +85° C, 65%  $\pm$  20% RH  
5% to 95% RH, non-condensing  
3G's (20 to 200 Hz)  
Type 2 (IP55)



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## F.) PERFORMANCE CHARACTERISTICS

AIR FLOW:	638 CFM $\pm$ 10% (At Free Delivery and 48Vdc)
STATIC PRESSURE:	1.98" Inches of H <sub>2</sub> O (At Shut-Off and 48Vdc)
ACOUSTIC LEVEL:	73.9 dBA (Freely Suspended at 1 meter per ANSI S12.11-1987 at 48Vdc)

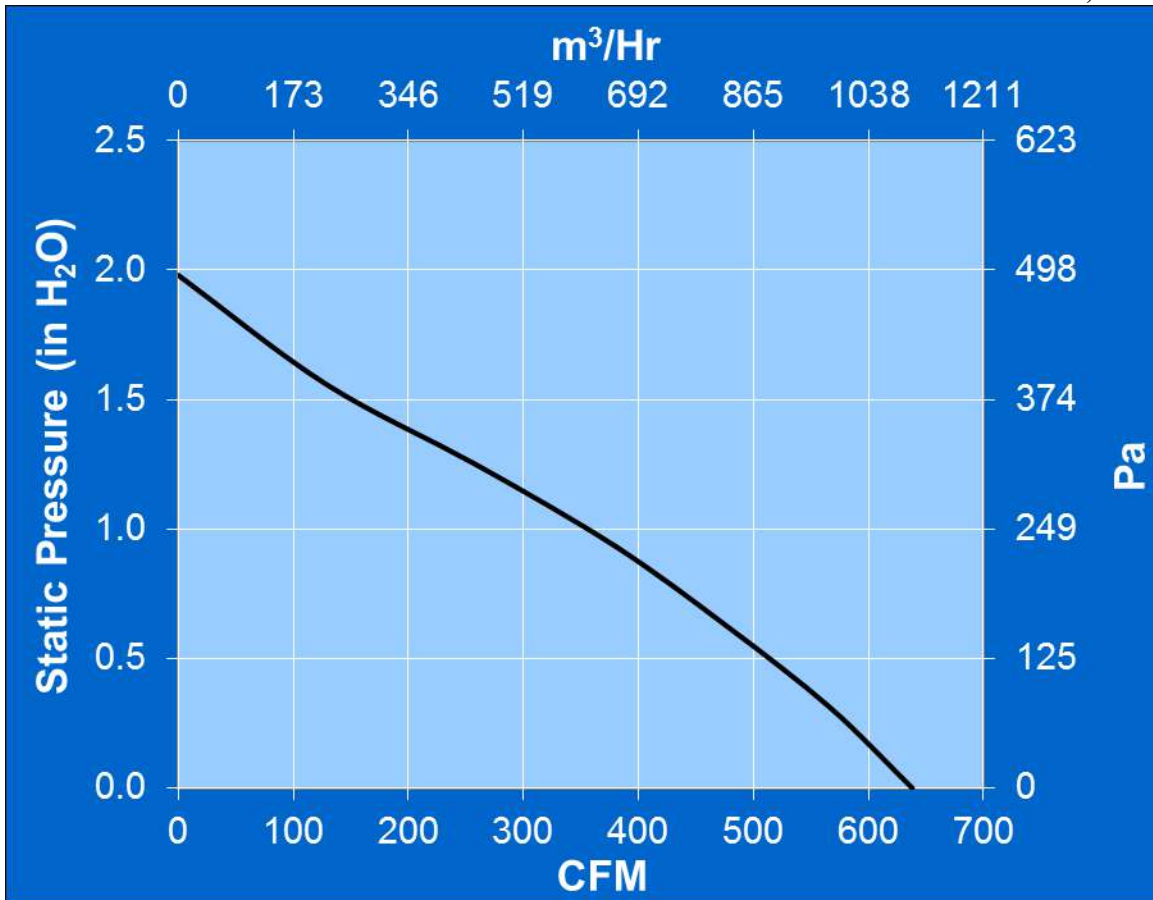


Figure 2



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### G.) TERMINATION

LEADWIRES:

460mm +10mm/-0.0 (From the edge of the venturi to the tip of the leadwire), AWG 18, UL1007

CONTACT: Molex 39-00-0038

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 1: Black----power(-)

Pin 2: Blue ----tach

Pin 3: Yellow---pwm

Pin 4: Red---power(+)

### H.) RELIABILITY

This fan is designed for continuous duty life of 48,000 Hours at 40°C, (L10)

### I.) SAFETY

UL, CUL, CE

### J.) Flammability

The blower including all components meets an UL94V-0 rating or better.

#### Notes:

All parameters will perhaps fluctuate with the speed tolerance by  $\pm 10\%$ .