



## Comair Rotron Specification Sheet

Specification Date: September 21, 2009

**Datasheet Version: 02**

RoHS Compliant

COMAIR ROTRON PART NUMBER: 041286  
COMAIR ROTRON MODEL NUMBER: JQD48Z6E6X

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### A.) MOTOR:

RATED VOLTAGE:	48Vdc
OPERATING VOLTAGE RANGE:	24Vdc – 72Vdc
LOW-START VOLTAGE:	20 Vdc
RUNNING CURRENT:	0.75 Amps
LOCKED ROTOR CURRENT:	1.250 Amps
RATED POWER:	36 Watts
NOMINAL SPEED:	4,560 RPM $\pm$ 10% (At Free Delivery)
START UP TIME:	8 Seconds Maximum
MOTOR TYPE:	Brushless DC
MOTOR PROTECTION:	Fuse
LOCKED ROTOR PROTECTION:	Electronic
POLARITY PROTECTION:	Yes
AUTOMATIC RESTART CAPABILITY:	Yes
ROTATION:	Counter Clockwise when viewed from the strut side
AIR FLOW DIRECTION:	Exhaust/struts

### B.) MECHANICAL

DIMENSIONS:	171.5mm x 150.4mm x 50.8mm [6.75" x 5.92" x 2.00"] <i>Figure 1</i>
WEIGHT:	0.84 Kg [1.84 Lbs.]
BEARING TYPE:	Permanently Lubricated Ball Bearings
VENTURI:	Single Piece, Die Cast Aluminum, Painted Black
PROPELLER:	Polycarbonate, Black, UL94V-0



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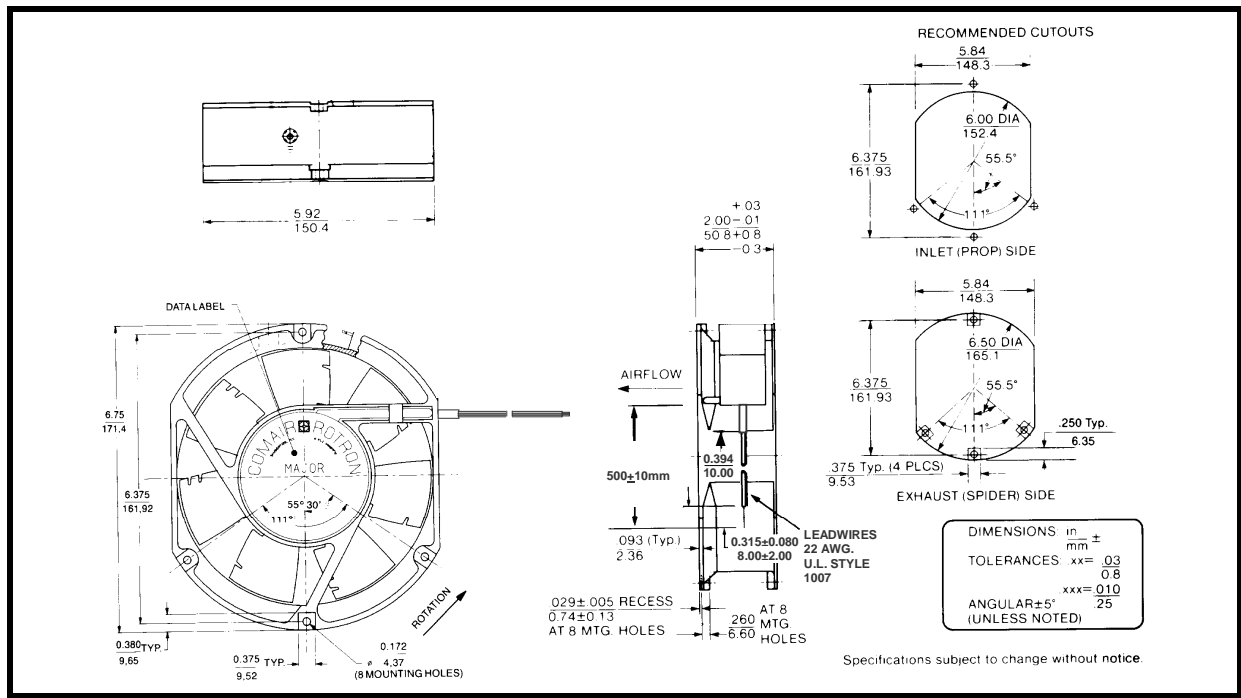


Figure 1

## C.) ENVIRONMENTAL

OPERATING TEMPERATURE:

-10°C to +75°C at 48VDC

STORAGE TEMPERATURE:

-40°C to +80°C

## D.) PERFORMANCE CHARACTERISTICS

AIR FLOW:

300 CFM ± 10% (Figure 2)  
(At Free Delivery and 48.0 VDC Nominal)

STATIC PRESSURE:

1.54" Inches of H<sub>2</sub>O (Figure 2)  
(At Shut-Off and 48.0 VDC Nominal)

ACOUSTIC LEVEL:

60 dBA. @ 48Vdc  
(Measured Freely Suspended at 1 meter per  
ANSI S12.11-1987)



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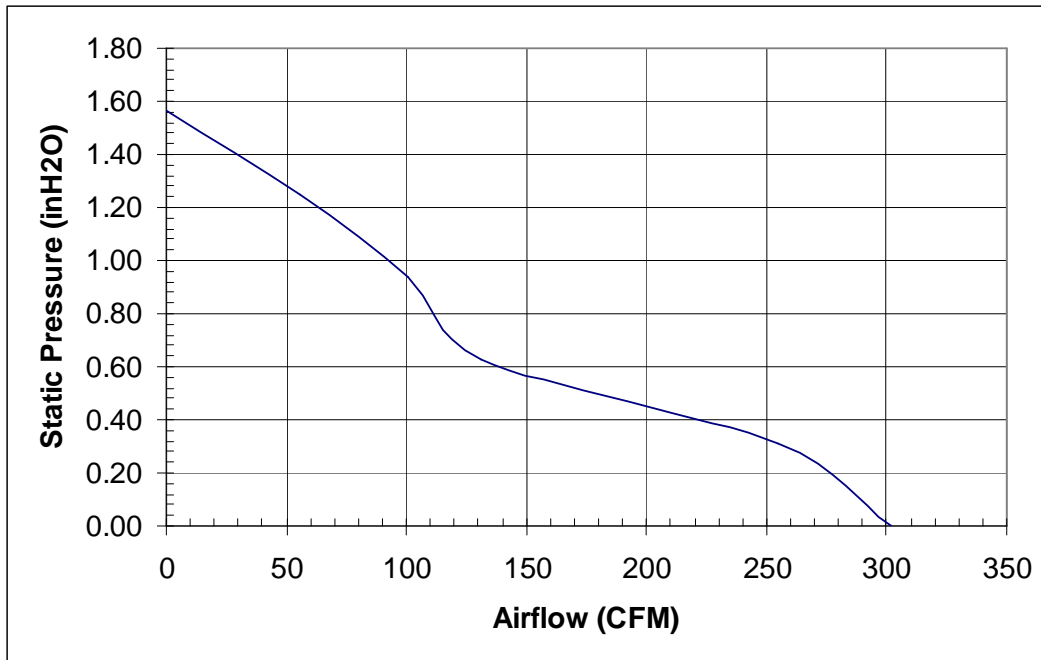


Figure 2

### E.) ADDITIONAL FEATURES

#### TACHOMETER:

Output:	Open Collector
Ic:	20 mA max.
Vcc:	60 Vdc max.
Pulses per Revolution:	2
Isolated:	No

#### PROGRAMMABLE SPEED CONTROL:

Method:	PWM, insensitive to signal amplitude
Amplitude:	High = 2.8~20vdc Low = -0.8~0.8vdc
Frequency:	200 ~ 20 KHz
Duty cycle:	
<5%	0 rpm
5%~95%	Ramp increase in RPM
>95%	Full speed
Open Leadwire	Full speed



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CURRENT LIMITING:

Automatic re-starts and current limited if  
impeller rotation blocked after start up

### F.) TERMINATION

Harness:

500mm  $\pm$ 10mm/-0.0 (From the edge of the venturi to  
the tip of the leadwire),AWG 22, UL1007  
Connector: VHR-4N  
Pin type: SVH-21T-P1.1  
Pin 1: black----rerurn(-)  
Pin 2: blue ----tach  
Pin 3: yellow---pwm  
Pin 4: red---power(+)

SLEEVE TUBE:

PVC (UL or CSA approved)  
(Sleeve tube to extend  $10.0 \pm 2.0$ mm [0.39"  
 $\pm$ 0.08"] beyond the edge of the venturi)

### G.) RELIABILITY

This fan is designed for continuous duty life of 68,000 Hours at 40°C.(L10)

### H.) SAFETY AGENCIES

UL,CSA

### I.) FLAMMABILITY

The fan, including all components, meets a UL94V-0 rating or better.