

## **Comair Rotron Specification Sheet**

Specification Date: Nov. 20, 2013

**RoHS Compliant**Version: 03
RoHS Compliant

### A.) MOTOR:

RATED VOLTAGE: 48 Vdc

OPERATING VOLTAGE RANGE: 24 Vdc – 72 Vdc

LOW-START VOLTAGE: 20 Vdc

RUNNING CURRENT: 0.75 Amps

LOCKED ROTOR CURRENT: 1.25 Amps

RATED POWER: 36 Watts

NOMINAL SPEED:  $4560 \text{ RPM} \pm 10 \%$ 

(At Free Delivery)

START UP TIME: 8 Seconds Maximum

MOTOR TYPE: Brushless DC

MOTOR PROTECTION: Fuse

LOCKED ROTORT 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")

Figure 1

WEIGHT: 0.84 Kg (1.84 Lbs.)

BEARING TYPE: Permanently Lubricated Ball Bearing

VENTURI: Single Piece, Die Cast Aluminum, Painted

Black

PROPELLER: Polycarbonate, Black, UL94V-0



# **Comair Rotron Specification Sheet**

Specification Date: Nov. 20, 2013

**RoHS Compliant**Version: 03
RoHS Compliant

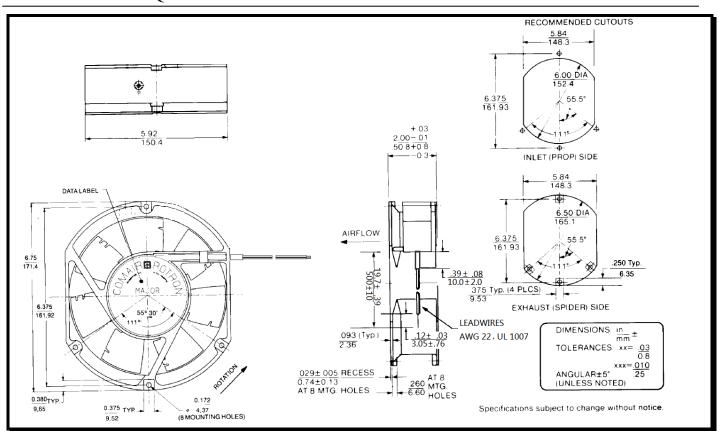


Figure 1

#### C.) ADDITIONAL FEATURES

TACHOMETER: Output: Open Collector  $I_{C:}$  20 mA Max.

Vcc: 60VDC Max.

Pulses per Revolution: 2 Isolated: No

PROGRAMMABLE SPEED CONTROL:

Method: PWM, insensitive to signal amplitude

Amplitude: High =  $2.8 \sim 20$ vdc

 $Low = -0.8 \sim 0.8 \text{vdc}$ 

Frequency: 200 ~ 20 KHz

Duty cycle: <5% 0 rpm

5%~95% Ramp increase in RPM

>95% Full speed

Open Leadwire Full speed

CURRENT LIMITING: Automatic re-starts and current limited if impeller rotation

blocked after start up.



## **Comair Rotron Specification Sheet**

Specification Date: Nov. 20, 2013

**RoHS Compliant**Version: 03
RoHS Compliant

#### D.) ENVIRONMENTAL

OPERATING TEMPERATURE: -10°C to +75°C at 48VDC

STORAGE TEMPERATURE: -40°C to +85° C

HUMIDITY: 5% to 95% RH, non-condensing

#### E.) PERFORMANCE CHARACTERISTICS ( Derived )

AIR FLOW:  $300 \text{ CFM} \pm 10\%$ , Figure 2

(At Free Delivery and 48.0VDC Nominal)

STATIC PRESSURE: 1.54" Inches of H<sub>2</sub>0, Figure 2

(At Shut-Off and 48.0VDC Nominal)

ACOUSTIC LEVEL: 60 dBA

(Measured Freely Suspended at 1 meter per ANSI S12.11-1987 at 48VDC Nominal)

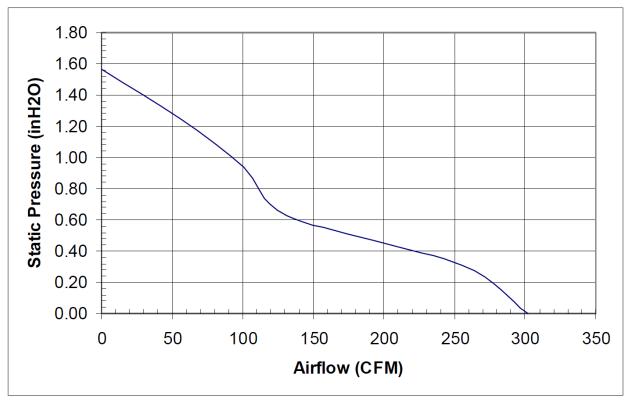


Figure 2



## **Comair Rotron Specification Sheet**

Specification Date: Nov. 20, 2013

**RoHS Compliant**Version: 03
RoHS Compliant

### F.) TERMINATION

Harness:  $500 \pm 10 \text{mm} (19.7" \pm 0.39")$ 22 AWG, UL 1007 Style

(From the edge of the venturi to the tip of the

leadwire.)

Connector: VHR-4N Pin Type: SVH-21T-P1.1 Pin 1: Black – Return(-)

Pin 2: Blue – Tachometer Output Pin 3: Yellow – PWM Input Pin 4: Red – Power(+)

Sleeve Tube: PVC (UL or CSA approved)

(Sleeve tube to extend  $10.0 \pm 2.0$ mm

[0.39"±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, CE

#### I.) Flammability

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