



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## Comair Rotron Specification Sheet

Specification Date: Jan 12, 2012

**COMAIR ROTRON PART NUMBER:** 19044009A  
**COMAIR ROTRON MODEL NUMBER:** MFSE48Z

### **A.) MOTOR:**

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RATED VOLTAGE:	48.0Vdc
OPERATING VOLTAGE RANGE:	36.0Vdc – 56.0Vdc
LOW-START VOLTAGE:	36.0Vdc
RUNNING CURRENT:	2.3 Amps
RATED POWER:	110 Watts
NOMINAL SPEED:	4600RPM±10% (AtFree Delivery)
START UP TIME:	20 Seconds Maximum
OVER VOLTAGE PROTECTION:	No
MAX.LOCK.ROTOR CURRENT:	6.0 A
MOTOR TYPE:	Brushless DC
MOTOR PROTECTION:	Active Over Current Protection
POLARITY PROTECTION:	Yes
LOCKED ROTORT PROTECTION:	Electronic
AUTOMATIC RESTART CAPABILITY:	Yes
AUTOMATIC RESTART DELAY:	5± 2S
MAX START UP CURRENT:	3.0A

### **B.) MECHANICAL**

DIMENSIONS:	<i>Figure 1</i>
WEIGHT:	1.90 Kg
BEARING TYPE:	Permanently Lubricated Ball Bearings
VENTURI:	Two-Piece, Die Cast Aluminum, Painted Black
PROPELLER:	Plastic PA6.6 (polyamide glass-fiber reinforced ,Black, UL94V-0



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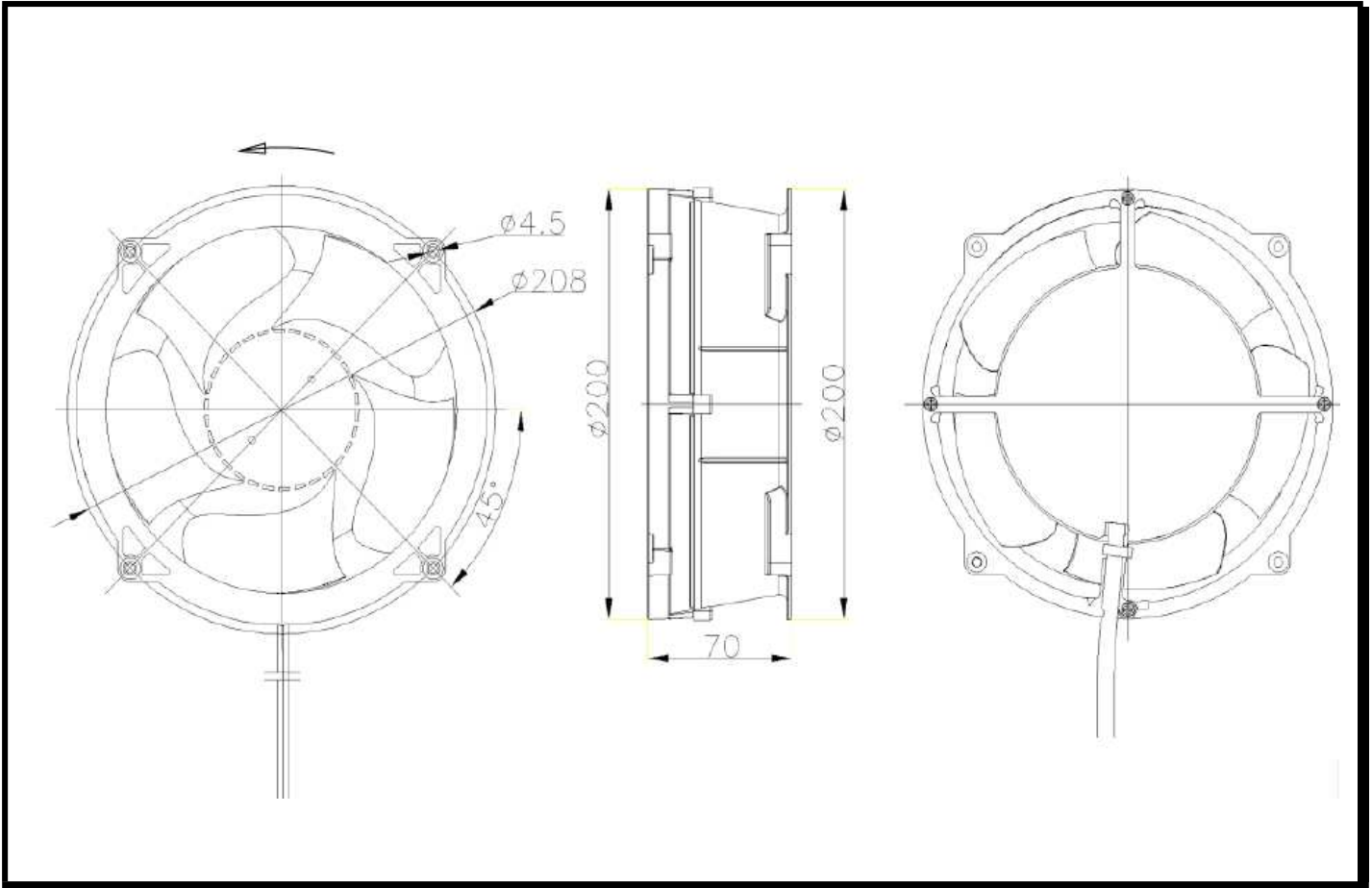


Figure 1

## C.) ENVIRONMENTAL

OPERATING TEMPERATURE: -10°C to 70°C  
STORAGE TEMPERATURE: -40°C to 80°C  
HUMIDITY: 0 to 85% RH, non-condensing

## D.) PERFORMANCE CHARACTERISTICS

AIR FLOW: 530 CFM ±10%  
(At Free Delivery and 48.0 VDC Nominal)  
STATIC PRESSURE: 2.82" Inches of H<sub>2</sub>O  
(At Shut-Off and 48.0 VDC Nominal)



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ACOUSTIC LEVEL: 85 dBA

## E.) TACHOMETER FEATURES

TACHOMETER OUTPUT: Open Collector Output  
 Max Pull up Voltage: 56V  
 Max I<sub>c</sub> : 10mA  
 Nominal Pull up Voltage : 48V  
 Nominal Pull up Resistor : 10000 OHMS

Specific feature of Tacho output with Nominal Voltage & Resistor:

Output High Level : 47 - 49V  
 Output Low Level : 0 - 0.5V  
 Pulses : 3 Per Rev  
 Output Pulse Duty cycle : 50%±10%

## F.) SPEED CONTROL FEATURES

Method: PWM  
 High Voltage Level : 10VDC±5%  
 Low Voltage Level : 0- 0.5VDC  
 Frequency: 1-10KHz  
 Min Input Impedance: 20 Kohms  
 Duty: Speed  
 0-10% 0  
 10% 20% full speed  
 20% 35% full speed  
 30% 50% full speed  
 40% 60% full speed  
 50% 65% full speed  
 60% 75% full speed  
 70% 85% full speed  
 80% 90% full speed  
 90% 95% full speed  
 95%-100% full speed

## G.) TERMINATION

LEADWIRE: 17" Length, UL 1007  
 WIRE GAUGE: 20AWG  
 WIRE IDENTIFICATION: Red – Power+  
 Blue– Power-  
 White – Tachometer Signal(OC)  
 Yellow – Speed control(PWM)

## H.)SAFETY

UL , CE  
 CCC



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## J) PWM VS P-Q CURVE

