

09533GA (BG0903)

DC Blower Fan

Φ95X33^L



General Specifications

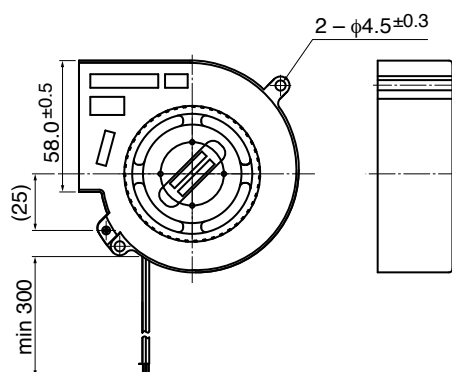
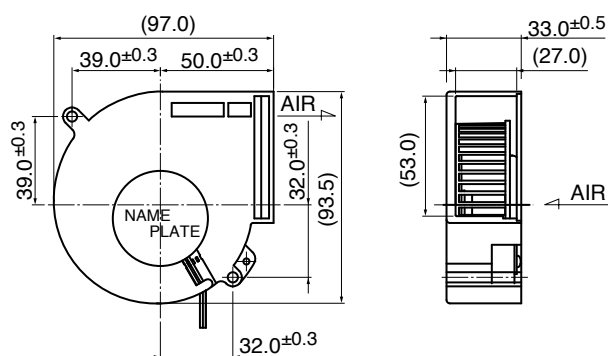
Motor Protection	Auto Restart / Polarity Protection
Insulation Resistance	10MΩ or over with a DC500V Megger
Dielectric Withstand Voltage	AC700V 1s
Allowable Ambient Temperature Range	- 10°C ~ + 60°C (Operating) - 40°C ~ + 70°C (Storage) non-condensing environment

Expected Life

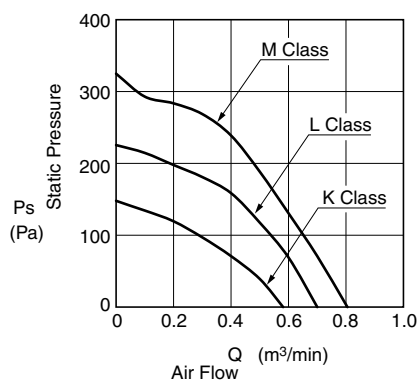
※ Failure Rate: 10% (L10 Life)

25°C 100,000 (Hours)

Outline



Characteristic Curves



Material

Casing	: Plastic (Black) UL94V-0
Impeller	: Plastic (Black) UL94V-0
Bearing	: Ball Bearing
Lead Wire	: UL1007 AWG26 + : Red, - : Black

Specifications

Model	Product No.	Rating Voltage (V)	Operating Voltage (V)	Current (A)*1	Input Power (W)*1	Speed (min ⁻¹)*1	Max. Air Flow (m ³ /min)*1 (CFM)*1	Max. Static Pressure (Pa) (In H ₂ O)	Noise (dB)*1	Mass (g)
09533GA-12K-AA-	00	12	6.0 ~ 13.8	0.40	4.80	2700	0.58 20.4	152.0 0.61	47.5	210
09533GA-12L-AA-	00			0.64	7.68	3200	0.70 24.7	225.0 0.90	51.5	
09533GA-12M-AA-	00			1.03	12.40	3700	0.81 28.6	342.0 1.37	54.5	
09533GA-24K-AA-	00	24	10.0 ~ 27.6	0.21	5.04	2700	0.58 20.4	152.0 0.61	47.5	
09533GA-24L-AA-	00			0.33	7.92	3200	0.70 24.7	225.0 0.90	51.5	
09533GA-24M-AA-	00			0.49	11.80	3700	0.81 28.6	342.0 1.37	54.5	

Rotation: Clockwise as seen from the label side

*1: Average Values in Free Air

General Specifications

Motor Type: DC Brushless Motor

Motor Protection:

Auto Restart/Polarity Protection
(Motor withstands reverse connection for positive and negative leads.)

Insulation Resistance:

10M Ω or over with a DC500V Megger

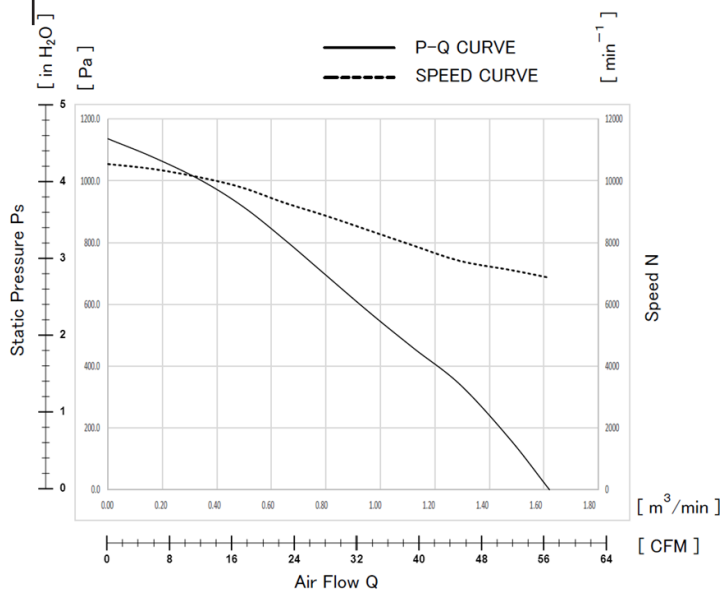
Dielectric Withstand Voltage:

AC 700V 1s or 500V 1min

Allowable Ambient Temperature Range:

-10°C ~ +70°C (Operating)
-40°C ~ +70°C (Storage)
(non-condensing environment)

Characteristics Curves



DC Blower Benefits & Applications

DC Blower

With high static pressure, NMB centrifugal blowers are suitable for cooling electronic systems generating lots of heat and high impedance from back pressure. A DC blower contains a circular impeller within an enclosed cage, which is often referred to as a “squirrel cage”. This design allows DC Blowers to create directed airflow under high pressure conditions. A DC Blower has a more concentrated airflow in which the equipment pulls air in from the sides and forces it out at a concentrated 90° angle.

Benefits

- High pressure and high airflow
- Long life and high reliability with NMB precision ball bearings
- Concentrated airflow to effectively cool target
- Smooth PQ curve with no knee
- Tacho Output for Speed Monitoring

Applications

- Factory Automation
- Humidifiers
- Telecomm
- OA Equipment
- Network Servers
- Home Appliances
- Medical Devices

Life Expectancy L10

60°C 40,000 Hours

Specifications

MODEL	Rating Voltage (V)	Operating Voltage (V)	Current		Input Power		Speed (min^{-1})*1	Max. Air Flow		Max. Static Pressure		Noise (dB)*1	Mass (g)
			Avg (A)*1	Max (A)*1	Avg (W)*1	Max (W)*1		(CFM)	(m^3/min)	(in H_2O)	(Pa)		
09533GA-12T-ATD-0	12	7.0 ~ 13.2	3.80	4.94	45.60	59.28	6850	56.50	1.60	4.46	1110	67.0	200

*1: Values in Free Air

TACHO Specifications

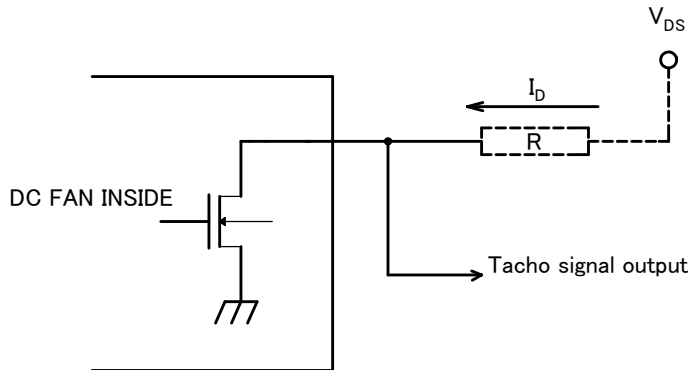
TACHO SIGNAL

1. OUTPUT CIRCUIT : OPEN DRAIN
2. SPECIFICATION

Absolute Maximum Ratings at Ta=25°C

V_{DS} max : +15V

I_D max : 5mA [$V_{DS}(\text{low})_{\text{max}} = 0.5V$]

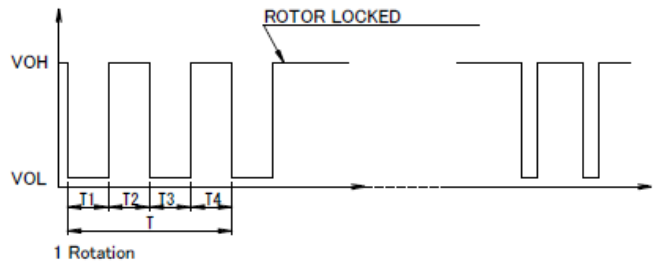


TACHO SIGNAL CIRCUIT

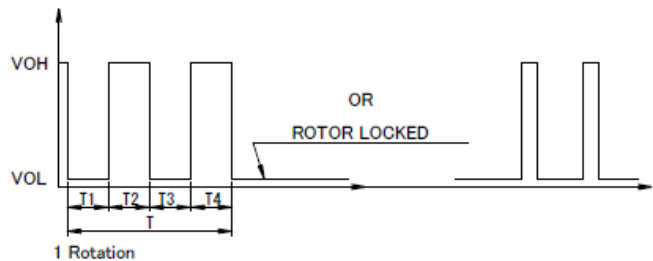
3. OUTPUT WAVEFORM: AT RATED VOLTAGE

OUTPUT SIGNAL VOLTAGE

3-1 Case-1



3-2 Case-2



1) When the rotor is locked at V_{OH} position of signal, signal keeps V_{OH} position or signal becomes to V_{VOL} position for a few seconds at any time of the auto-restart motion.

2) When the rotor is locked at V_{VOL} position of signal, signal keeps V_{VOL} position or signal becomes to V_{OH} position for a few seconds at any time of the auto-restart motion.

3) $T = T1 + T2 + T3 + T4 = 60 / m = 1 \text{ rotation}$

$m : \text{min}^{-1}$

Tach Duty Cycle = 50% ± 10%

Materials

Casing : Plastic (Black UL94V-0)

Impeller : Plastic (Black UL94V-0)

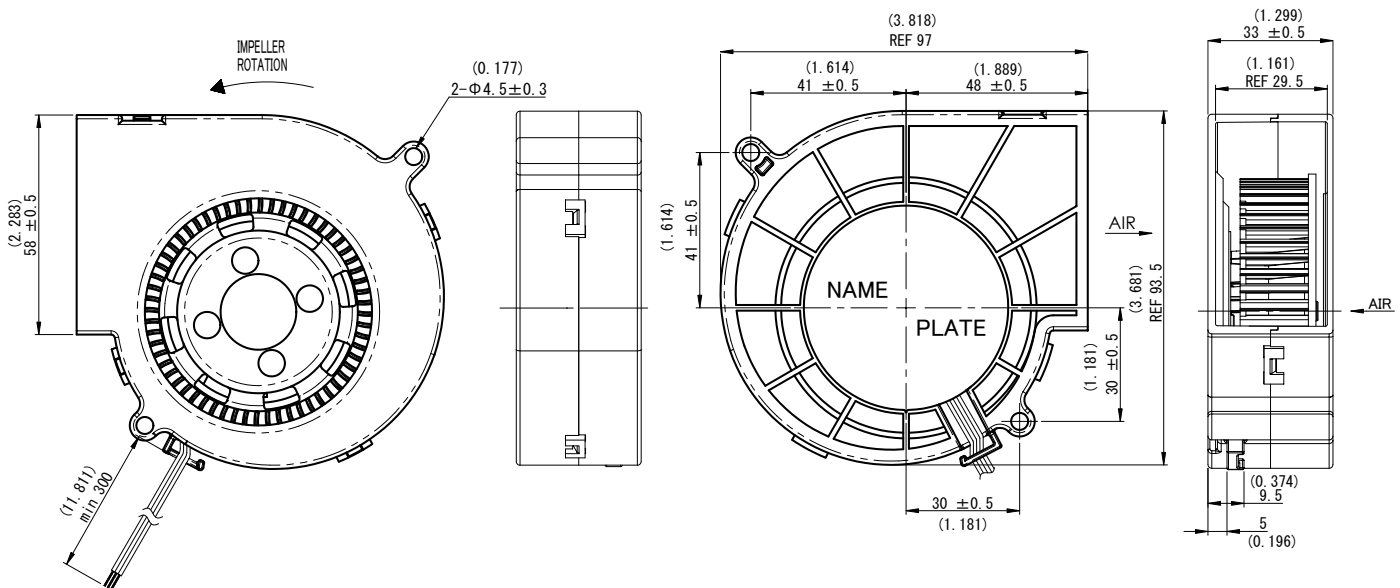
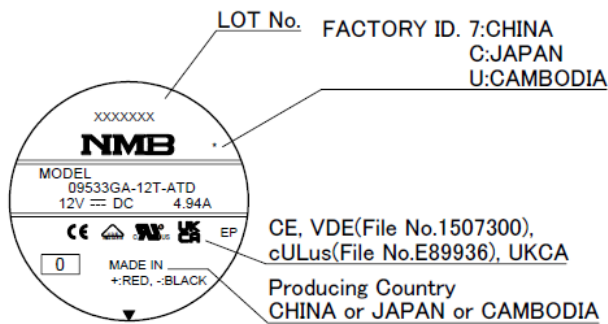
Bearing : Ball Bearing

Lead Wire : UL1007 AWG24

(+) : Red (-) : Black Tach: White

Outline

Name Plate



Unit: mm (inch)

General Specifications

Motor Type: DC Brushless Motor

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Auto Restart/Polarity Protection
(Motor withstands reverse connection for positive and negative leads.)

Insulation Resistance:

10M Ω or over with a DC500V Megger

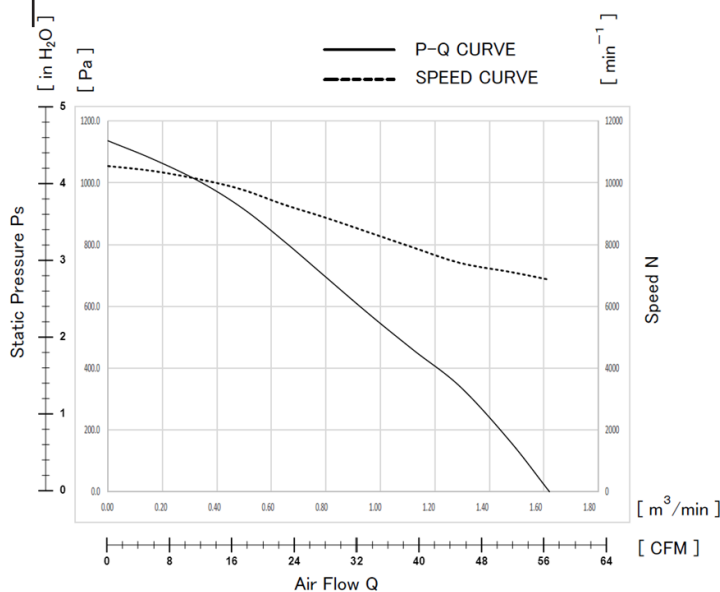
Dielectric Withstand Voltage:

AC 700V 1s or 500V 1min

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Life Expectancy L10

60°C 40,000 Hours

Specifications

MODEL	Rating Voltage	Operating Voltage	Current		Input Power		Speed	Max. Air Flow		Max. Static Pressure		Noise	Mass
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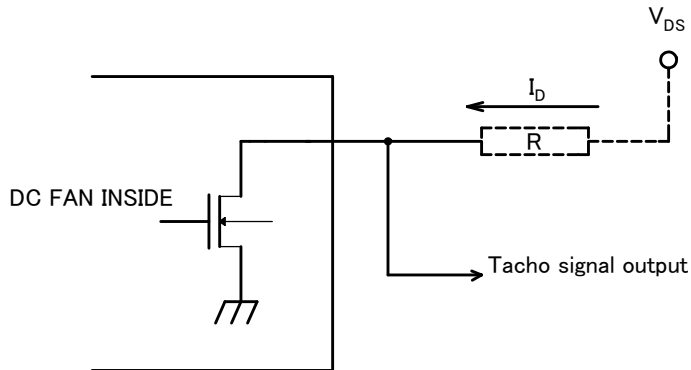
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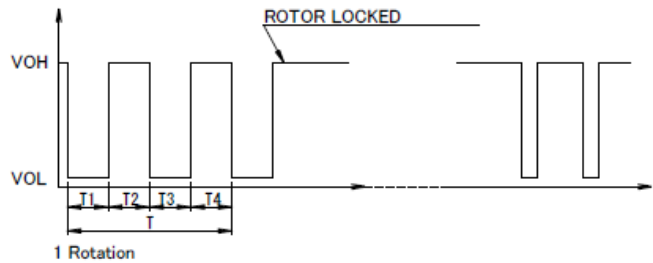


TACHO SIGNAL CIRCUIT

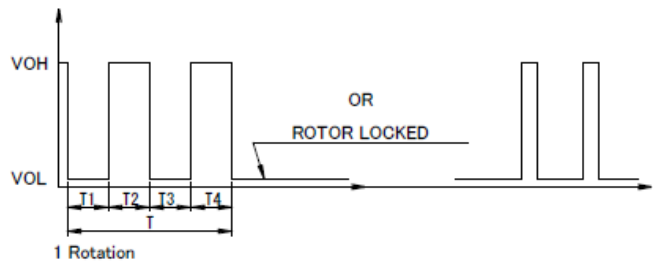
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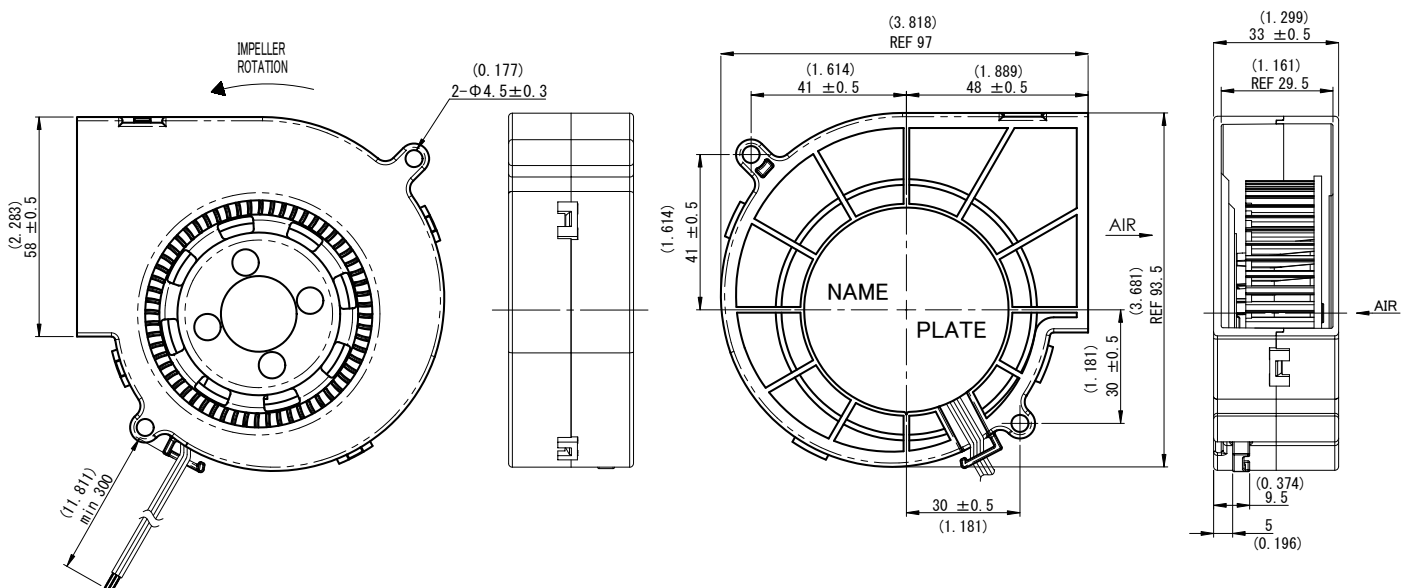
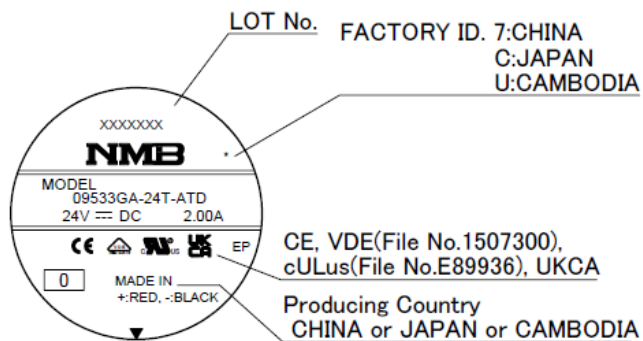
Bearing : Ball Bearing

Lead Wire : UL1007 AWG24

(+) : Red (-) : Black Tach: White

Outline

Name Plate



Unit: mm (inch)

Mouser Electronics

Authorized Distributor

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[09533GA-12K-AT-00](#) [09533GA-12M-AL-00](#) [09533GA-24L-AL-00](#) [09533GA-24M-AL-00](#) [09533GA-24K-AT-00](#)
[09533GA-12Q-AL-00](#) [09533GA-24K-AL-00](#) [09533GA-12K-AL-00](#) [09533GA-12M-AT-00](#)