

09533GA (BG0903)

Φ95X33^L

DC Blower Fan



General Specifications

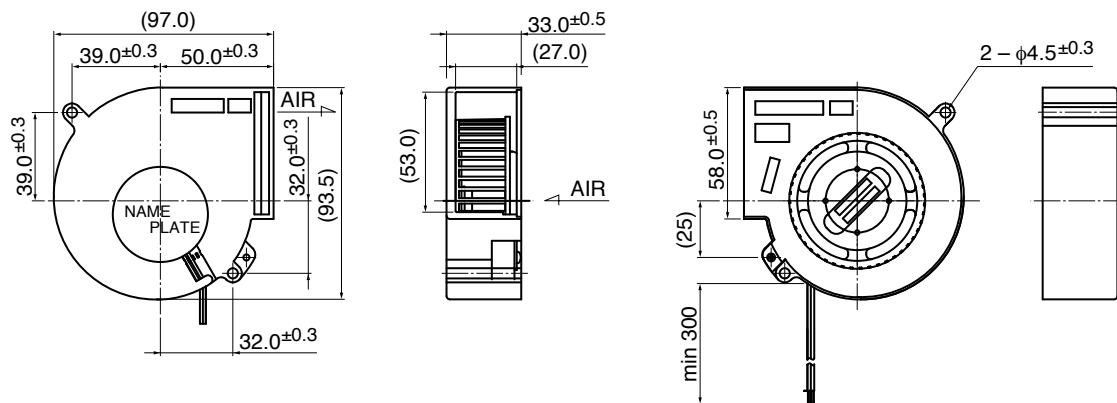
| | |
|-------------------------------------|--|
| Motor Protection | Auto Restart / Polarity Protection |
| Insulation Resistance | 10MΩ or over with a DC500V Megger |
| Dielectric Withstand Voltage | : AC700V 1s |
| Allowable Ambient Temperature Range | : - 10°C ~ + 60°C (Operating) - 40°C ~ + 70°C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

Expected Life

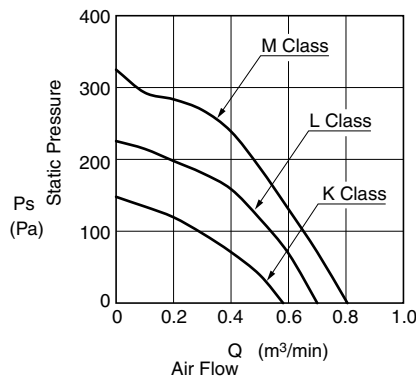
※ Failure Rate: 10% (L10 Life)

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 | Operating Voltage | Current | Input Power | Speed | Max. Air Flow | | Max. Static Pressure | | Noise | Mass |
|-----------------|-------------|----------------|-------------------|---------|-------------|------------------------|-------------------------|---------|----------------------|-----------------------|--------|------|
| | | (V) | (V) | (A)*1 | (W)*1 | (min ⁻¹)*1 | (m ³ /min)*1 | (CFM)*1 | (Pa) | (In H ₂ O) | (dB)*1 | (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

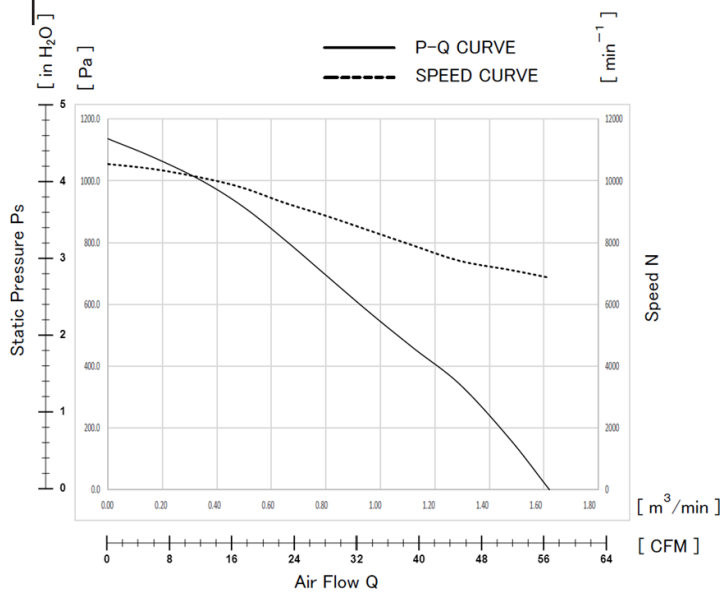
Dielectric Withstand Voltage:

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 ₂ O) | (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

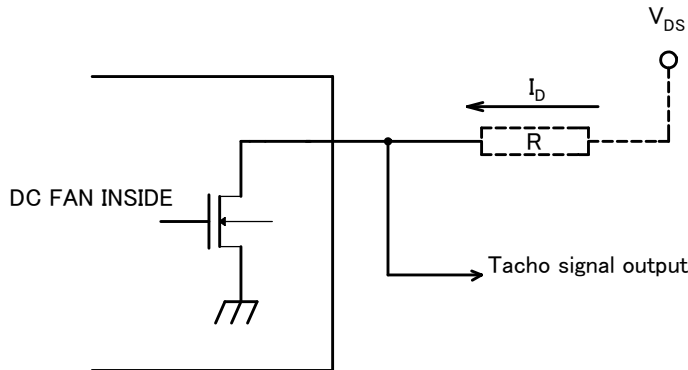
TACHO SIGNAL

1. OUTPUT CIRCUIT : OPEN DRAIN
2. SPECIFICATION

Absolute Maximum Ratings at Ta=25°C

V_{DS} max : +15V

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

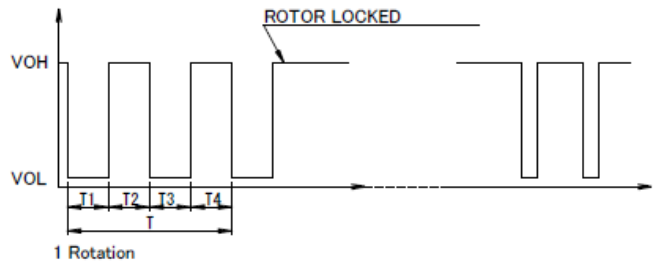


TACHO SIGNAL CIRCUIT

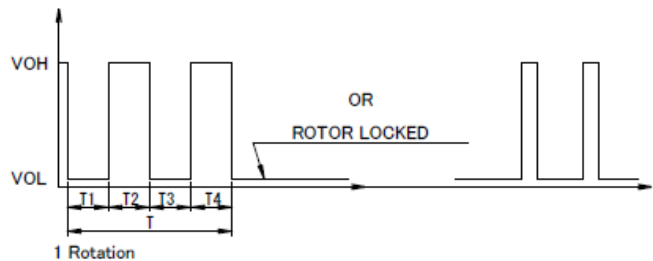
3. OUTPUT WAVEFORM: AT RATED VOLTAGE

OUTPUT SIGNAL VOLTAGE

3-1 Case-1



3-2 Case-2



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

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

3) $T = T1 + T2 + T3 + T4 = 60 / m = 1$ rotation

m : min⁻¹

Tach Duty Cycle = 50% ± 10%

Materials

Casing : Plastic (Black UL94V-0)

Impeller : Plastic (Black UL94V-0)

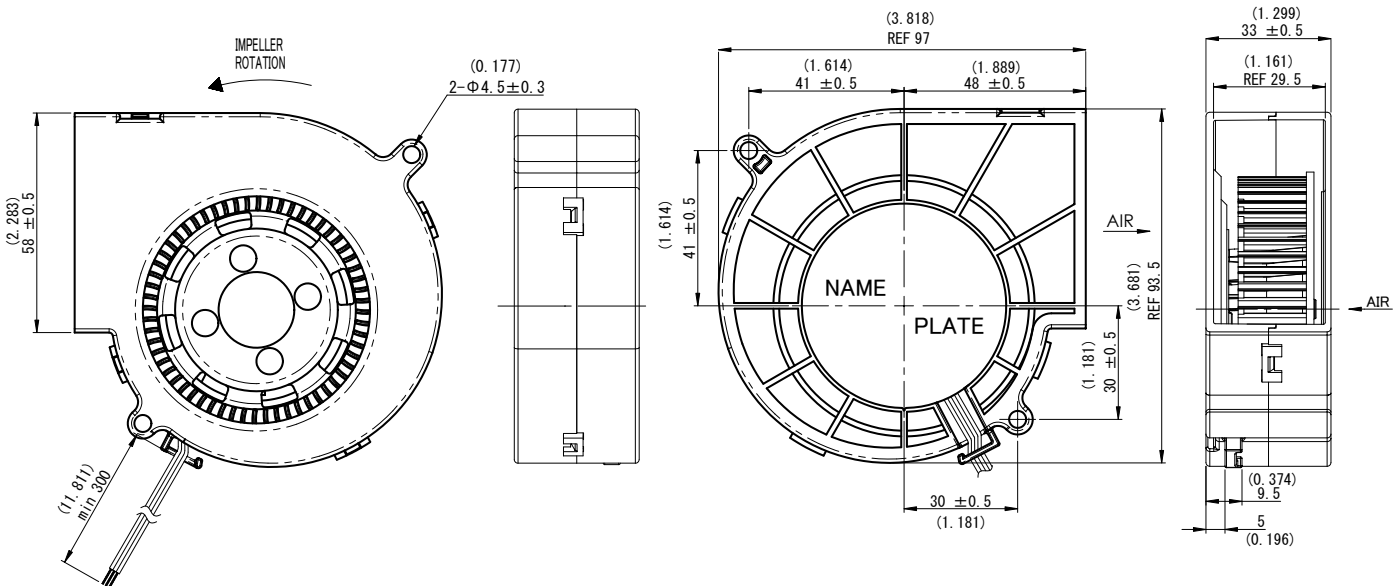
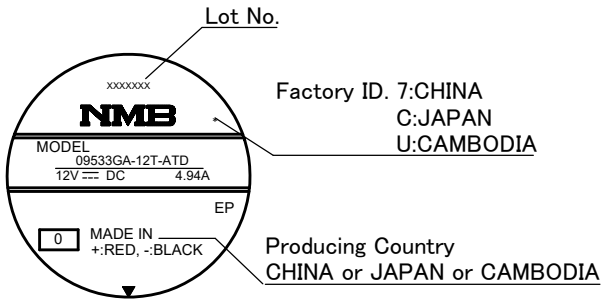
Bearing : Ball Bearing

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

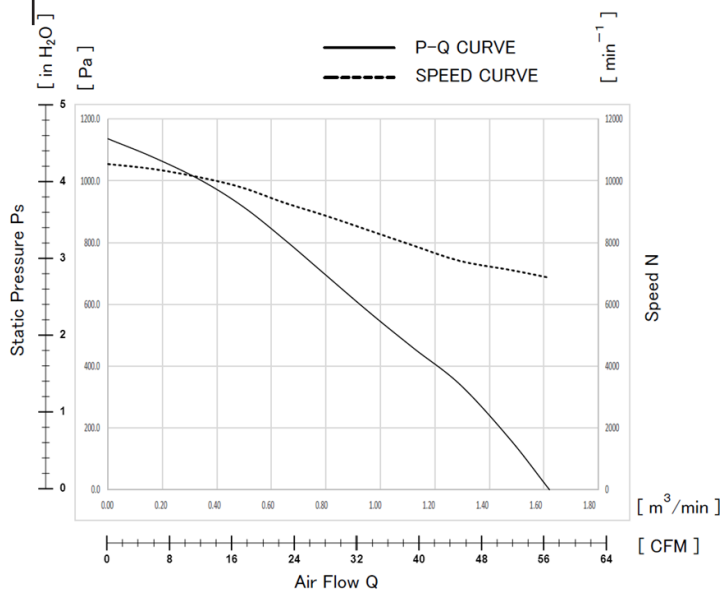
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| MODEL | Rating Voltage (V) | Operating Voltage (V) | Current | | Input Power | | Speed (min ⁻¹)*1 | Max. Air Flow | | Max. Static Pressure | | Noise (dB)*1 | Mass (g) |
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| | | | Avg (A)*1 | Max (A)*1 | Avg (W)*1 | Max (W)*1 | | (CFM) | (m ³ /min) | (in H ₂ O) | (Pa) | | |
| 09533GA-24T-ATD-0 | 24 | 12.0~ 26.4 | 1.85 | 2.00 | 44.40 | 48.00 | 6850 | 56.50 | 1.60 | 4.46 | 1110 | 67.0 | 200 |

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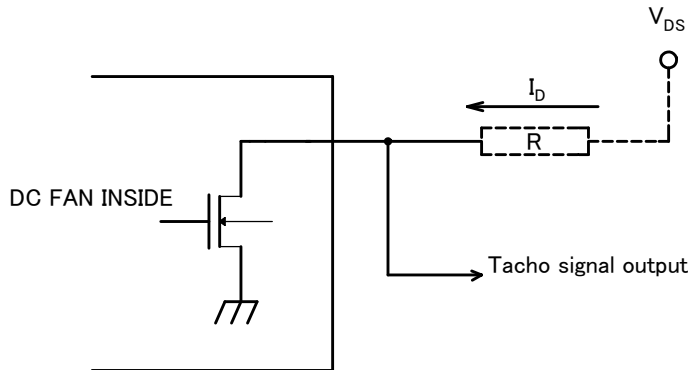
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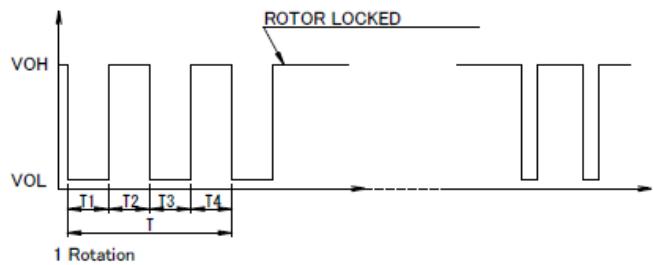


TACHO SIGNAL CIRCUIT

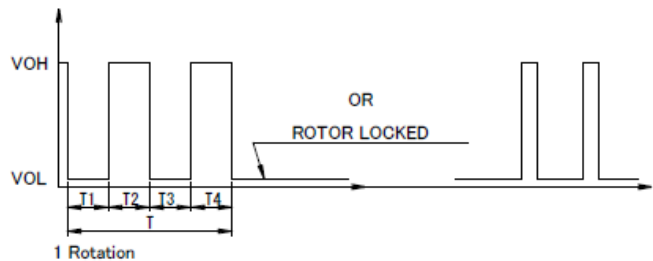
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$m : \text{min}^{-1}$

Tach Duty Cycle = $50\% \pm 10\%$

Materials

Casing : Plastic (Black UL94V-0)

Impeller : Plastic (Black UL94V-0)

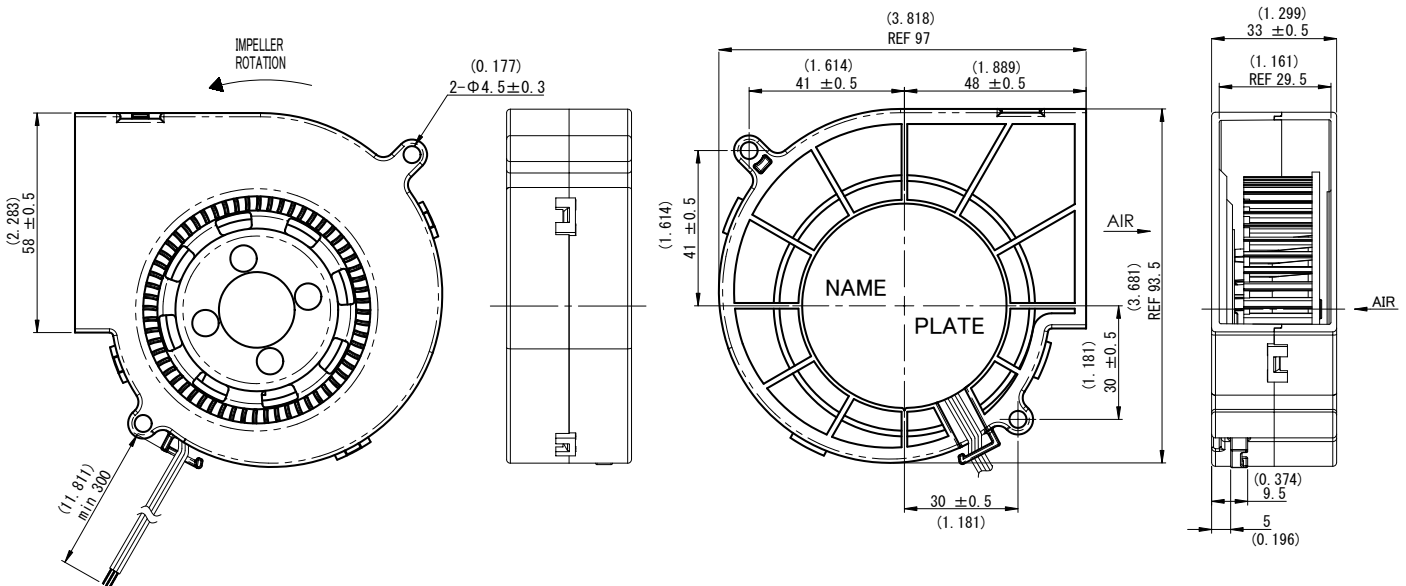
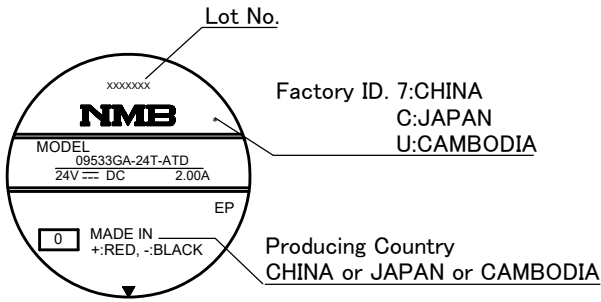
Bearing : Ball Bearing

Lead Wire : UL1007 AWG24

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

Outline

Name Plate



Unit: mm (inch)