

06023GS (Three Phase)

DC Blower Fan

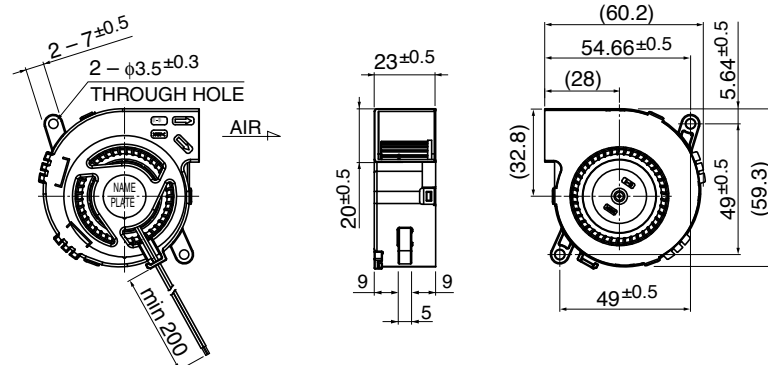
Φ60X23^L



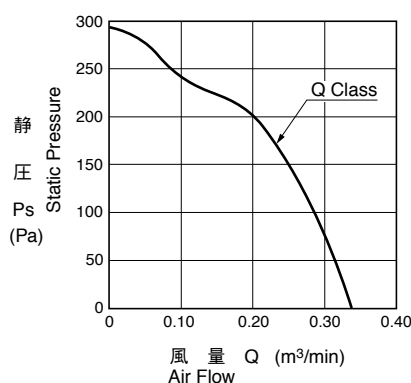
■ 一般仕様 General Specifications

モーター保護	自動復帰方式
Motor Protection	Auto Restart / Polarity Protection
絶縁抵抗	DC500V メガにて10MΩ以上
Insulation Resistance	10MΩ or over with a DC500V Megger
絶縁耐圧	AC700V 1s
Dielectric Withstand Voltage	
許容環境温度範囲	-10℃～+60℃ (Operating)
Allowable Ambient Temperature Range	-40℃～+70℃ (Storage)
	実用上さしつかえない状態で結露無きこと non-condensing environment

■ 外観図 Outline



■ 特性曲線 Characteristic Curves



■ 材質 Material

ケーシング	: プラスチック(ブラック) UL94V-0
インペラー	: プラスチック(ブラック) UL94V-0
軸受	: スリーブベアリング
リード線	: UL1061 AWG26 +: 赤 -: 黒
Casing	: Plastic (Black) UL94V-0
Impeller	: Plastic (Black) UL94V-0
Bearing	: Sleeve Bearing
Lead Wire	: UL1061 AWG26 +: Red, -: Black

■ 仕様 Specifications

型式 Model	管理番号 Product No.	定格電圧 Rating Voltage (V)	使用電圧範囲 Operating Voltage (V)	定格電流 Current (A)*1	定格入力 Input Power (W)*1	定格回転速度 Speed (min ⁻¹)*1	最大風量 Max. Air Flow (m³/min)*1 (CFM)*1	最大静圧 Max. Static Pressure (Pa)*1 (In H ₂ O)*1	騒音 Noise (dB)*1	質量 Mass (g)
06023GS-12Q-AE-	00	12	7.0 ~ 12.6	0.32	3.84	6000	0.34 11.9	294.0 1.17	43.5	52

回転方向: ラベルから見て時計方向 Rotation: Clockwise as seen from the label side

*1: Average Values in Free Air

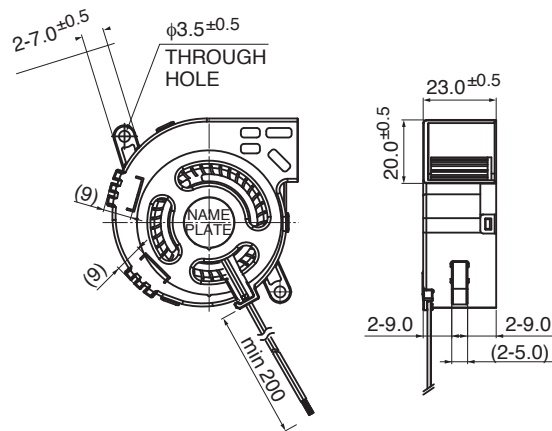
06023GS (Single Phase)

DC Blower Fan

Φ60X23^L



Outline



General Specifications

Motor Protection Auto Restart / Polarity Protection Insulation Resistance
10MΩ or over with a DC500V Megger

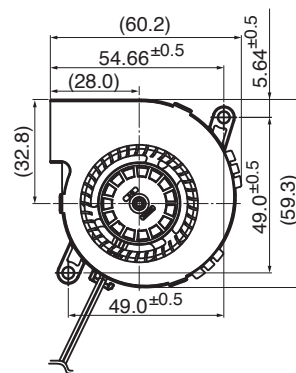
Dielectric Withstand Voltage : AC700V 1s

Allowable Ambient : -10°C ~ +70°C (Operating)

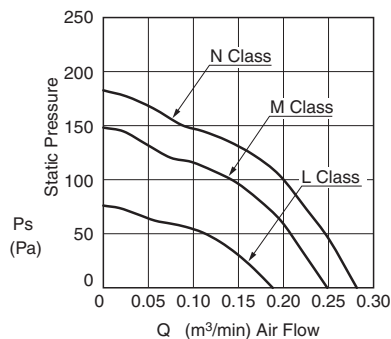
Temperature Range : -40°C ~ +70°C (Storage)
non-condensing environment

Expected Life ※ Failure Rate: 10% (L10 Life)

60°C 20,000 (Hours)



Characteristic Curves



Material

Casing Lower : Plastic (Black) UL94V-0
Impeller : Plastic (Black) UL94V-0
Bearing : Sleeve Bearing
Lead Wire : UL1061 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 (m³/min)*1 (CFM)*1	Max. Static Pressure (Pa)*1 (In H ₂ O)*1	Noise (dB)*1	Mass (g)
06023GS-12L-AAE	0	12	7.0 ~ 13.8	0.07	0.84	3500	0.18 6.4	75 0.30	28.0	51
06023GS-12M-AAE	0			0.17	2.04	4500	0.24 8.5	145 0.58	36.0	
06023GS-12N-AAE	0			0.24	2.88	5000	0.28 9.9	180 0.72	39.0	

Rotation: Clockwise as seen from the label side

*1: Average Values in Free Air

General Specifications

Motor Type: Three Phase DC Brushless Motor

Motor Protection:

Auto Restart

Insulation Resistance:

10M Ω or over with a DC500V Megger

Dielectric Withstand Voltage:

AC 700V 1s or 500V 1min

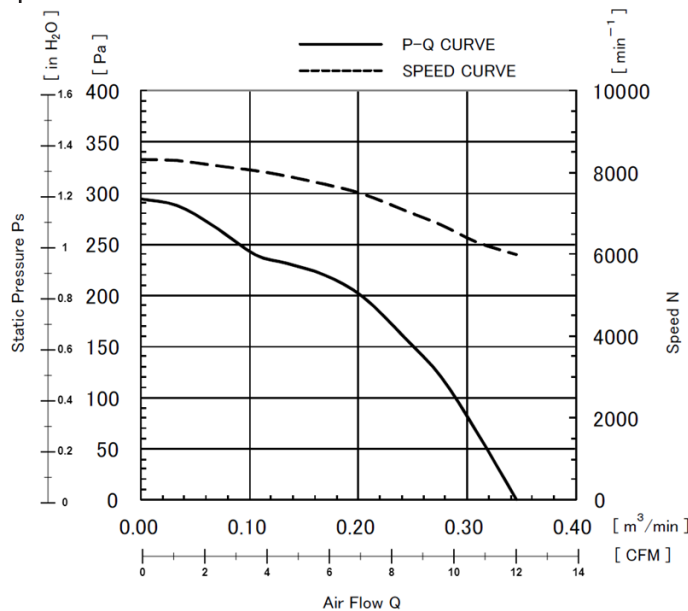
Allowable Ambient Temperature Range:

-10°C ~ +60°C (Operating)

-40°C ~ +70°C (Storage)

(non-condensing environment)

Characteristics Curves



DC Blower Fan 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
- Cost savings with sleeve bearing, yet reliable
- Concentrated airflow to effectively cool target
- Smooth PQ curve with no knee

Applications

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

Life Expectancy L10

60°C 20,000 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)		
06023GS-12Q-AE-00	12	7.0 ~ 12.6	0.32	0.42	3.84	5.04	6000	12.01	0.34	1.18	294	43.5	52

*1: Values in Free Air

Materials

Casing : Plastic (Black UL94V-0)

Casing Upper : Steel

Impeller : Plastic (Black UL94V-0)

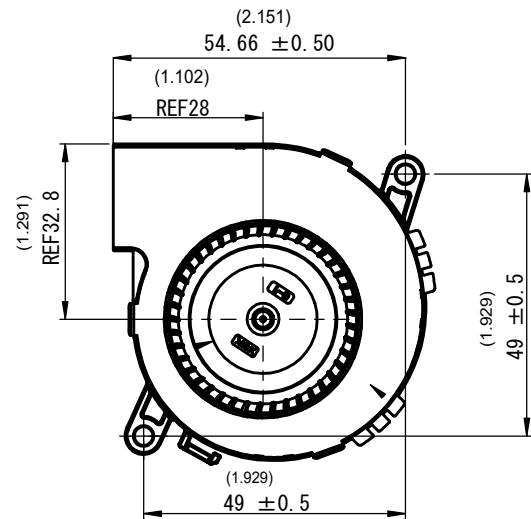
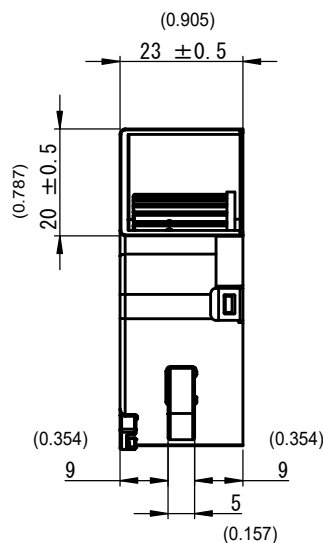
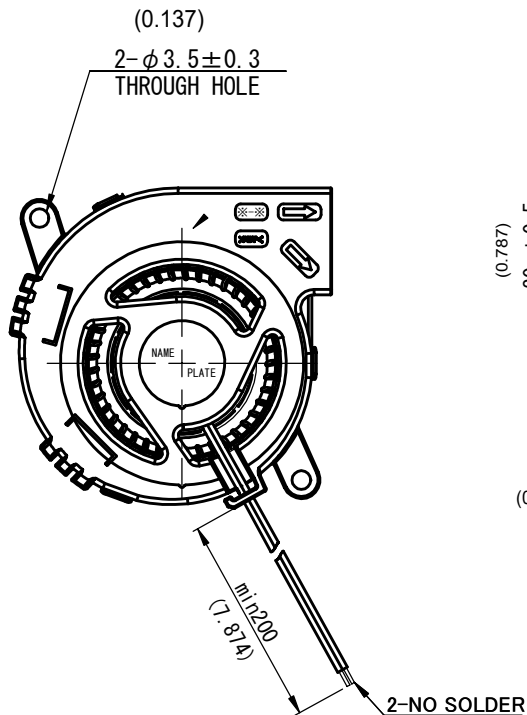
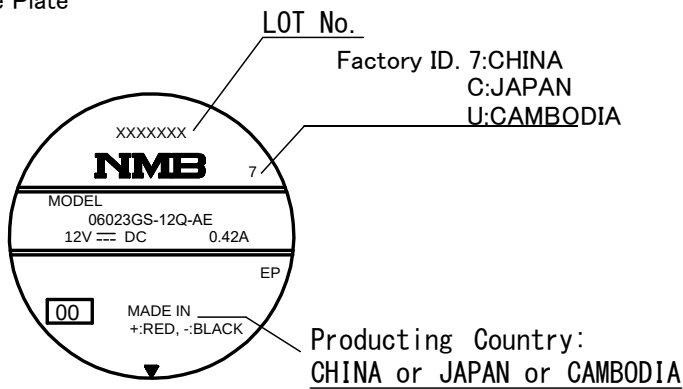
Bearing : Sleeve Bearing

(+) : Red (-) : Black

Lead Wire : UL1061 AWG26

Outline

Name Plate



Unit: mm (inch)

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

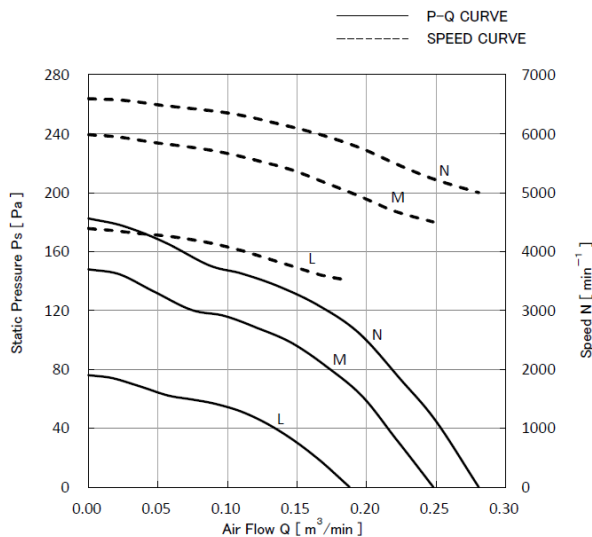
Dielectric Withstand Voltage:

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
- Cost savings with sleeve bearing, yet reliable
- Concentrated airflow to effectively cool target
- Smooth PQ curve with no knee
- Tacho Signal output for speed monitoring

Applications

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

Life Expectancy L10

60°C 20,000 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)		
06023GS-12L-ATE-0	12	7.0 ~ 13.8	0.07	0.10	.84	1.20	3500	6.36	0.18	0.30	75	28.0	51
06023GS-12M-ATE-0			0.17	0.22	2.04	2.64	4500	8.83	0.24	0.58	145	36.0	
06023GS-12N-ATE-0			0.24	0.32	2.88	3.84	5000	9.89	0.28	0.72	180	39.0	

*1: Values in Free Air

TACHO Specifications

TACHOMETER SIGNAL

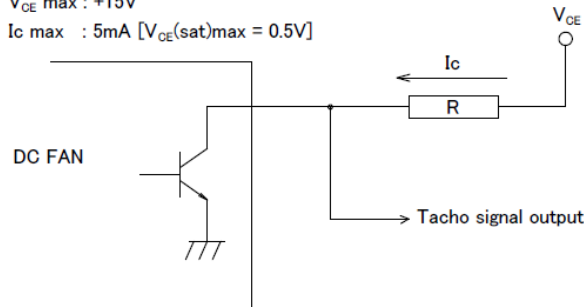
1. OUTPUT CIRCUIT : OPEN COLLECTOR
2. Specification

$T_a=25^{\circ}\text{C}$

Absolute Maximum Ratings at $T_a=25^{\circ}\text{C}$

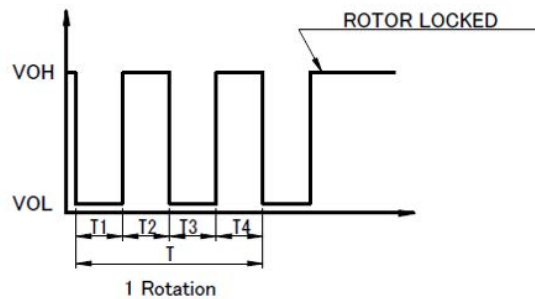
V_{CE} max : +15V

I_C max : 5mA [$V_{CE(sat)}$ max = 0.5V]

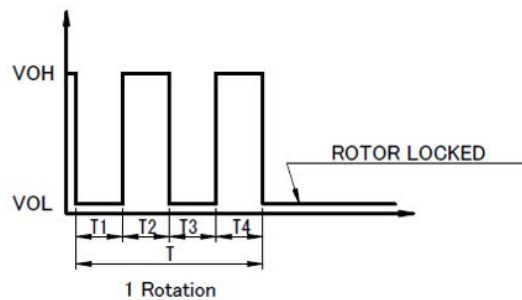


3. OUTPUT WAVEFORM : AT RATED VOLTAGE
4. OUTPUT SIGNAL VOLTAGE

3-1 Case-1



3-2 Case-2



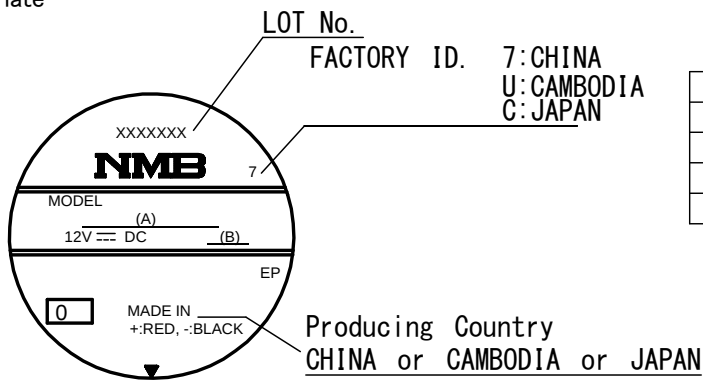
- 1) When the rotor is locked at VOH position of signal, signal keeps VOH position.
- 2) When the rotor is locked at VOL position of signal, signal keeps VOL position.
- 3) $T = T_1 + T_2 + T_3 + T_4 = 60/m = 1 \text{ rotation}$
 m : Fan Rotation Speed (min^{-1})
Tach Duty Cycle = $50\% \pm 10\%$

Materials

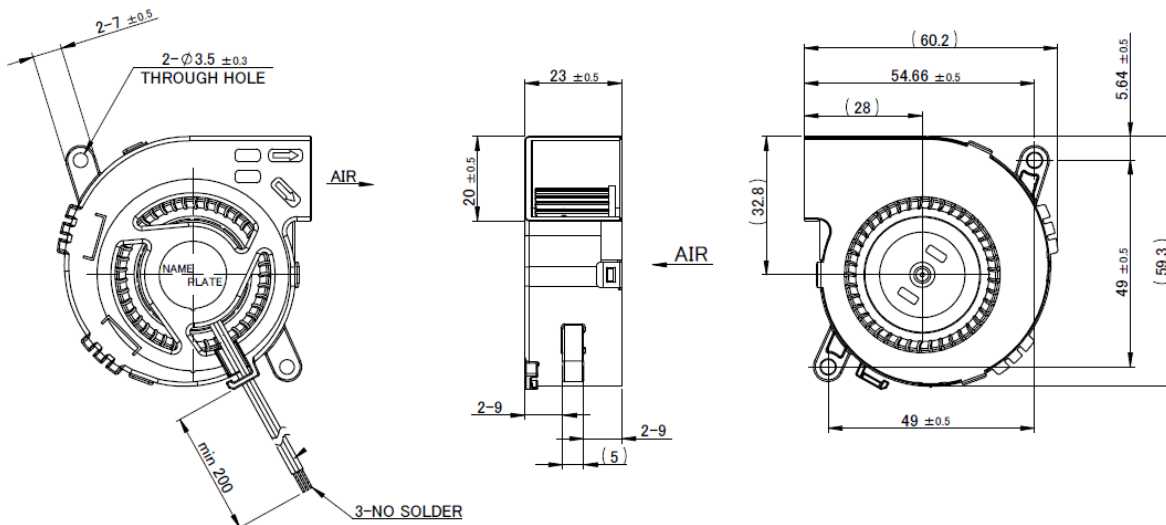
Casing	: Plastic (Black UL94V-0)
Casing Upper	: Steel
Impeller	: Plastic (Black UL94V-0)
Bearing	: Sleeve Bearing
Lead Wire	: UL1061 AWG26 (+) : Red (-) : Black Tach : White

Outline

Name Plate



(A)	(B)
Model Name	Current
06023GS-12L-ATE	0.10
06023GS-12M-ATE	0.22
06023GS-12N-ATE	0.32



Unit: mm (inch)

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[MinebeaMitsumi:](#)

[06023GS-12L-ATE-0](#) [06023GS-12N-ATE-0](#) [06023GS-12Q-AE-00](#) [06023GS-12M-ATE-0](#)