San Ace 38
Low Power Consumption Fan

Features

Low Power Consumption
Power consumption is reduced by approx. 22% compared with our conventional product*.

High Static Pressure
Maximum static pressure is increased by approx. 1.9times compared with our conventional product*.

*: Specification of Model No.9GA0312P3K001.
Our conventional product is 38 x 38 x 28 mm “San Ace 38”, Model No.9GV0312P3K01.

38×38×28mm GA type

Specifications

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM Duty Cycle [%] Note1)	Rated Current [A]	Rated Input [W]	Rated Speed [min⁻¹]	Max. Air Flow [m³/min]	Max. Air Flow [CFM]	Max. Static Pressure [Pa]	Max. Static Pressure [inchH2O]	SPL [dB(A)]	Operating Temperature [℃]	Note2) Expected Life [h]
9GA0312P3K001(0011)	12	10.8 to 13.2	100	0.62	7.4	25,000	0.60	21.2	800	3.21	59.0	−10 to +70	40,000/60℃ (70,000/40℃)
			0	0.06	0.7	3,000	0.07	2.5	11	0.04	15.0		
9GA0312P3J001(0011)			100	0.52	6.2	23,500	0.57	20.1	720	2.89	57.5		
			0	0.06	0.7	3,000	0.07	2.5	11	0.04	15.0		
9GA0312P3G001(0011)			100	0.33	4.0	19,000	0.45	15.9	460	1.85	53.0		
			0	0.06	0.7	3,000	0.07	2.5	11	0.04	15.0		

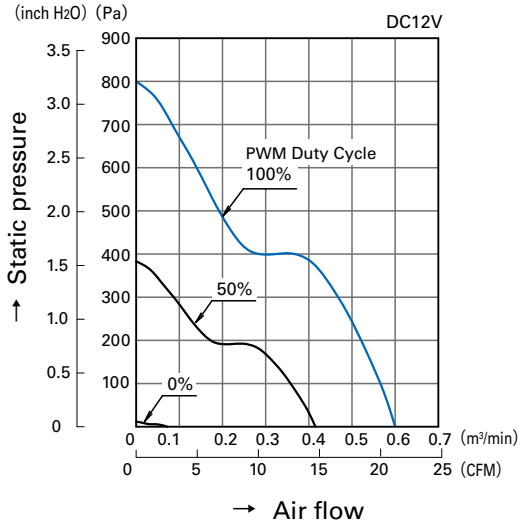
The numbers in ( ) represent ribless models.
Note1 : PWM Frequency : 25kHz
Note2 : Expected life at 40℃ ambient is just reference value.

Common Specifications

- ☐ Material ····· Frame, Impeller : Plastics (Flammability: UL94V-0)
- ☐ Expected Life ····· Varies for each model
  (L10: Survival rate: 90% at 60℃, rated voltage, and continuously run in a free air state)
- ☐ Motor Protection System ····· Current blocking function and Reverse polarity protection
- ☐ Dielectric Strength ····· 50/60 Hz, 500VAC, 1 minute (between lead conductor and frame)
- ☐ Sound Pressure Level (SPL) ····· Expressed as the value at 1m from air inlet side
- ☐ Operating Temperature ····· Varies for each model (Non-condensing)
- ☐ Storage Temperature ····· −30℃ to +70℃ (Non-Condensing)
- ☐ Lead Wire ····· ⊕Red ⊖Black Sensor: Yellow Control: Brown
- ☐ Mass ····· Approx. 52g

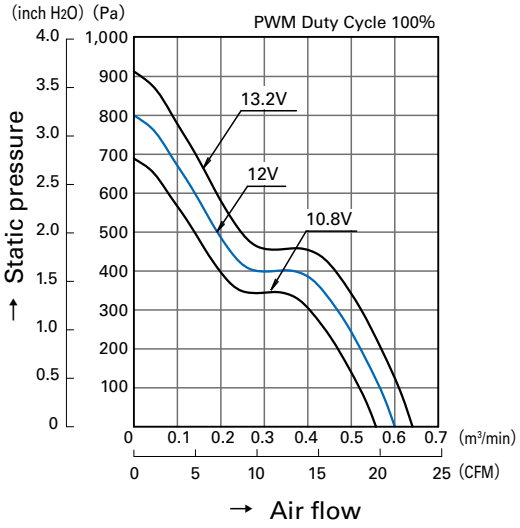
Air Flow - Static Pressure Characteristics

- PWM Duty Cycle



9GA0312P3K001(0011)

- Operating Voltage Range



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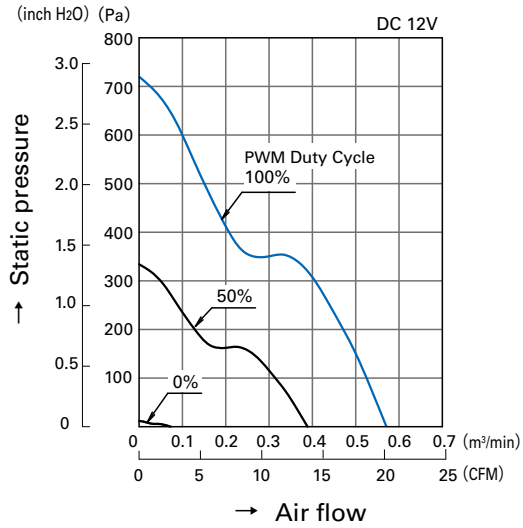

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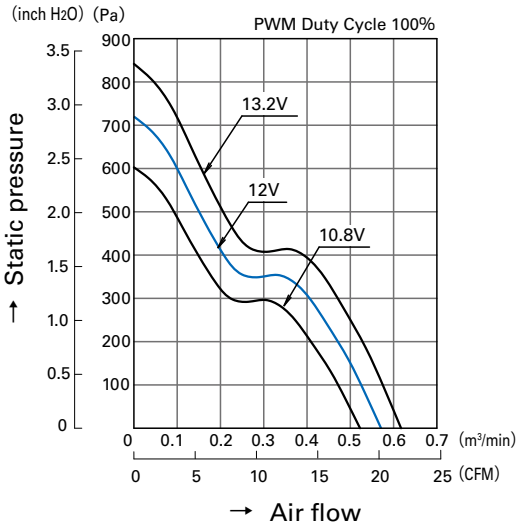

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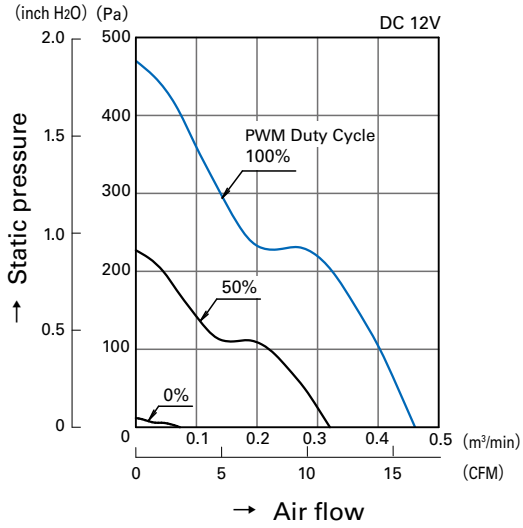

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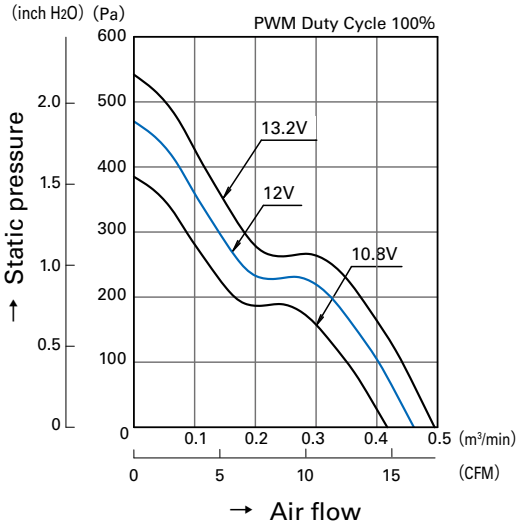

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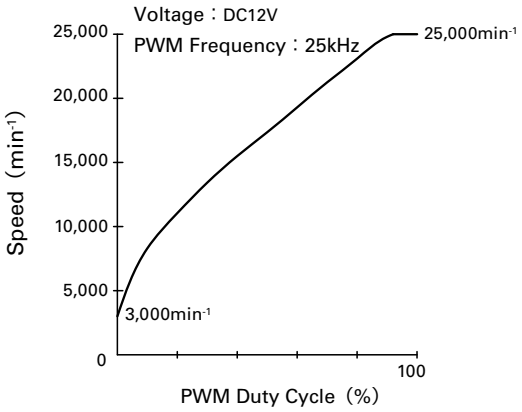
PWM Duty - Speed Characteristics Example



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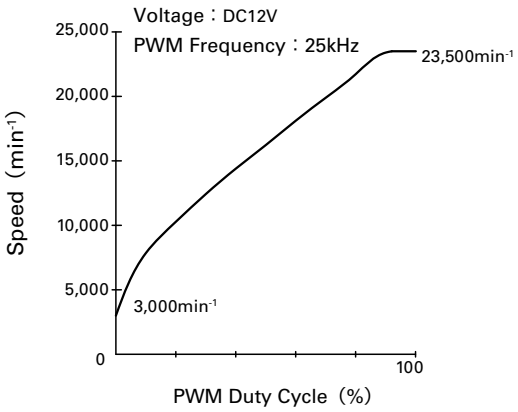

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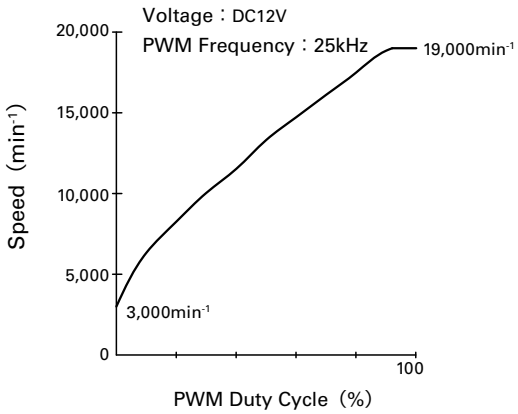

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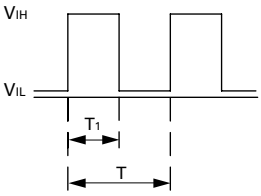
PWM Input Signal Example

Input Signal Wave Form



V_{IH}=2.8V to 3.8V

V_{IL}=0V to 0.4V

PWM Duty Cycle（%）= $\frac{T1}{T} \times 100$

PWM Frequency 25（kHz）= $\frac{1}{T}$

Source Current : 1mA Max. at control voltage 0V

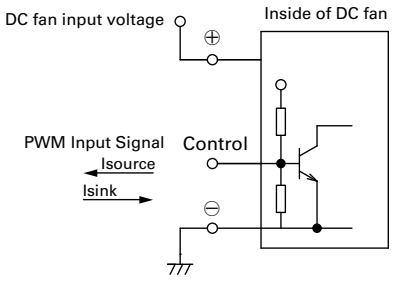
Sink Current : 1mA Max. at control voltage 3.8V

Control Terminal Voltage : 3.8V Max. (Open Circuit)

When the control lead wire is open,
the fan speed is the same as the one at a PWM duty cycle of 100%.

Either TTL input, open collector or open drain can be used for
PWM control input signal.

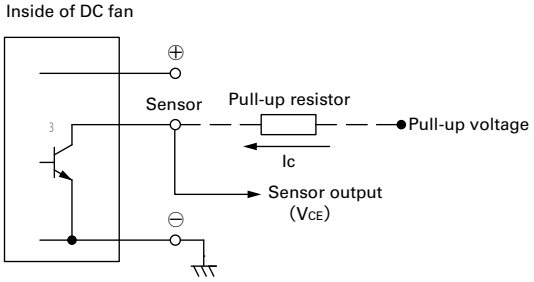
Connection Schematic



Pulse Sensor Specification

Output circuit : Open collector

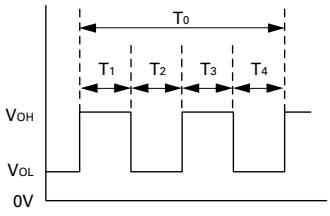
V_{CE}=+13.8V MAX.
Ic=5mA MAX. [V_{OL}=V_{CE}（SAT）=0.6V MAX.]



Output waveform （Need pull-up resistor）

In case of steady running

(One revolution)

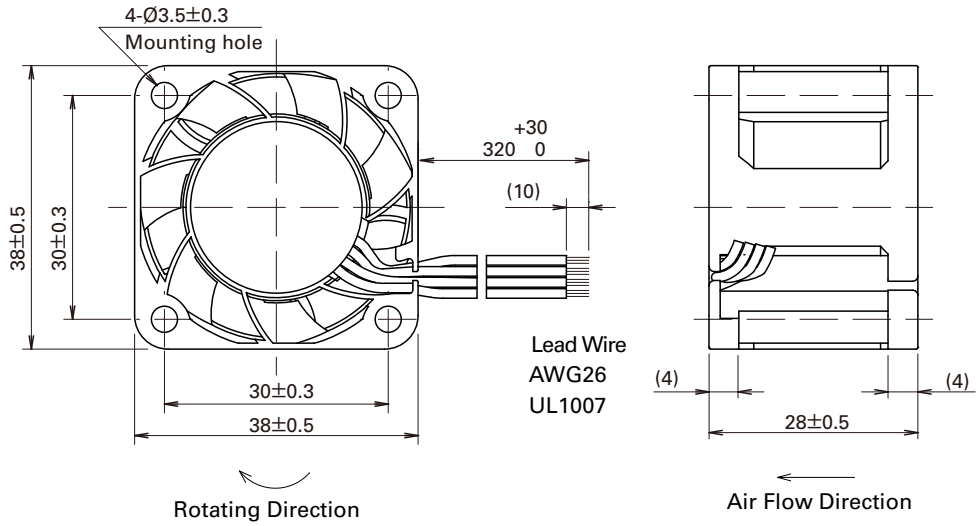


$T_{1\sim4} \fallingdotseq (1/4)\ T_0$

$T_{1\sim4} \fallingdotseq (1/4)\ T_0 = 60/4N$ (sec)

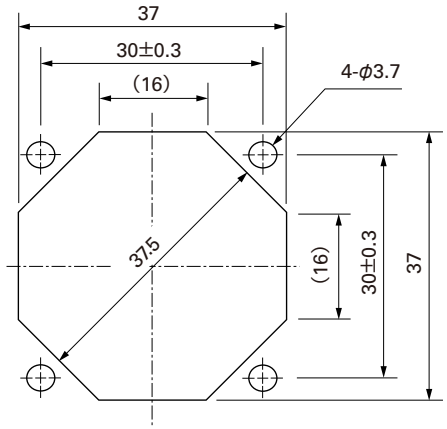
N=Fan speed (min^{-1})

Dimensions (unit : mm) (with ribs)



Reference dimension of mounting holes and vent opening (unit : mm)

Inlet Side , Outlet Side



Notice

●The products shown in the catalog are subject to Japanese Export Control Law. Diversion contrary to the law of exporting country is prohibited.
●To protect against electrolytic corrosion that may occur in locations with strong electromagnetic noise, we provide fans that are unaffected by electrolytic corrosion.

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