

# 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.



Low Power Consumption Fan 38mm

## 38×38×28mm GA type

### Specifications

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM Duty Cycle [%] <sup>Note1</sup>	Rated Current [A]	Rated Input [W]	Rated Speed [min <sup>-1</sup> ]	Max. Air Flow [m <sup>3</sup> /min] [CFM]	Max. Static Pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB(A)]	Operating Temperature [°C]	Expected Life [h] <sup>Note2</sup>
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°C (70,000/40°C)
			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°C ambient is just reference value.

### Common Specifications

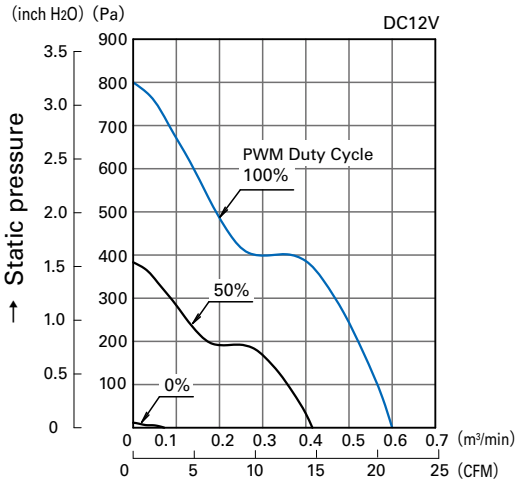
- Material ..... Frame, Impeller : Plastics (Flammability: UL94V-0)
- Expected Life ..... Varies for each model  
(L10: Survival rate: 90% at 60°C, rated voltage, and continuously run in a free air state)
- Motor Protection System ..... Current blocking function and Reverse polarity protection
- Dielectric 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°C to +70°C (Non-Condensing)
- Lead Wire ..... ⊕Red ⊖Black Sensor: Yellow Control: Brown
- Mass ..... Approx. 52g

38mm

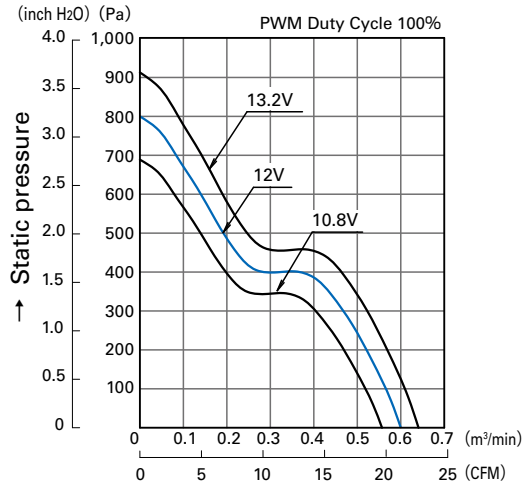
## Air Flow - Static Pressure Characteristics

- PWM Duty Cycle

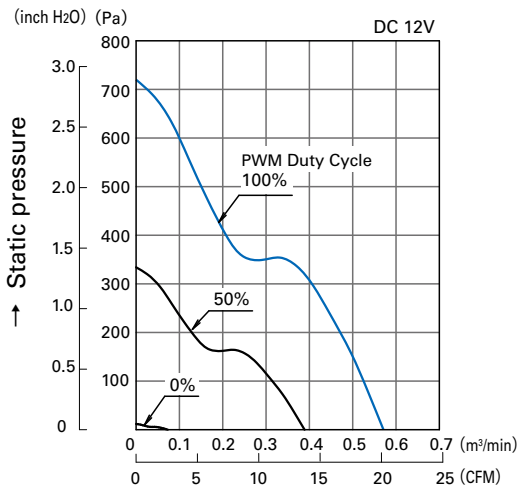
- Operating Voltage Range



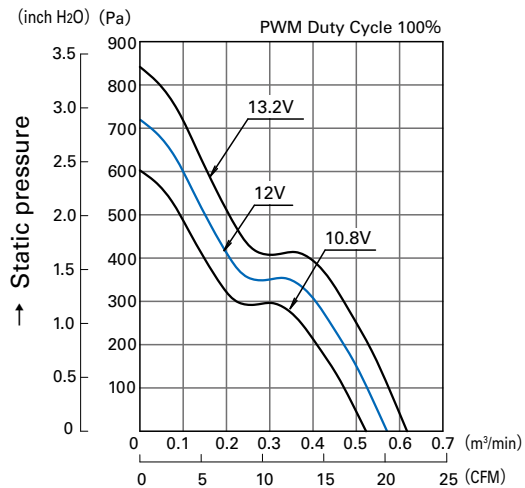
**9GA0312P3K001(0011)**



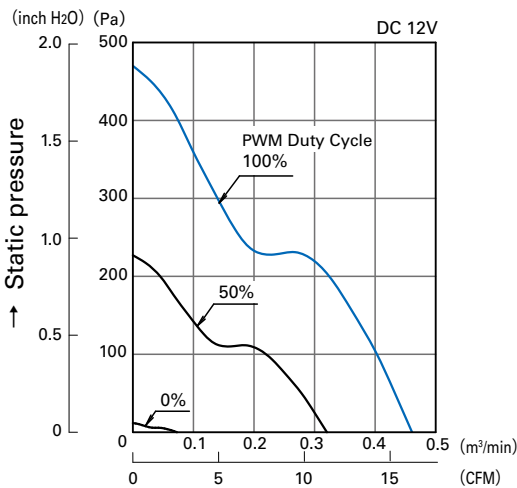
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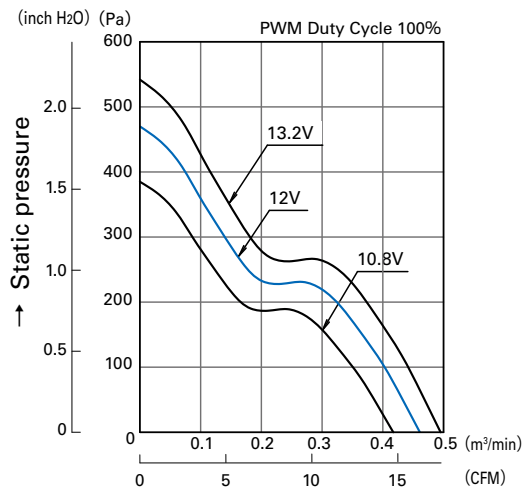
**9GA0312P3J001(0011)**



**9GA0312P3J001(0011)**

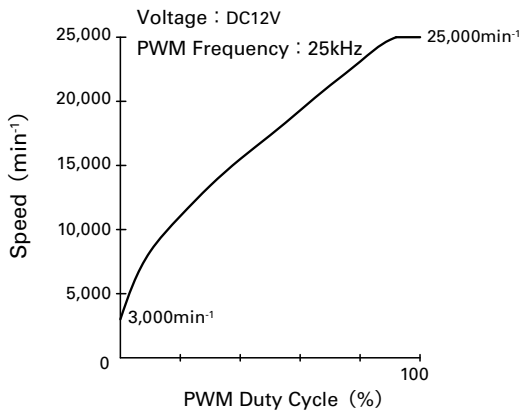


**9GA0312P3G001(0011)**

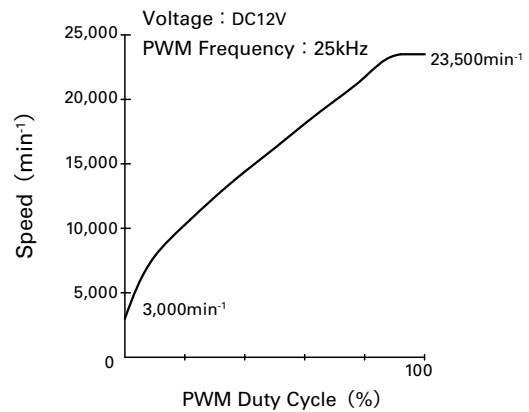


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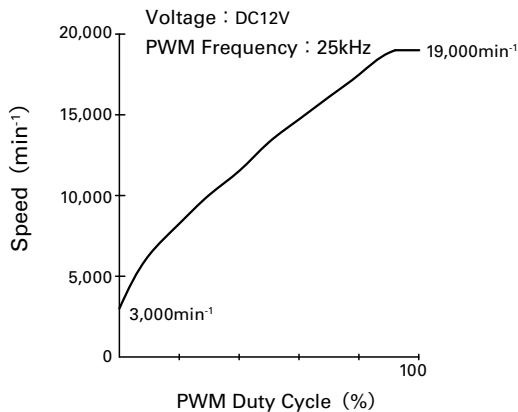
**PWM Duty - Speed Characteristics Example**



**9GA0312P3K001(0011)**



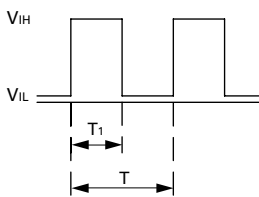
**9GA0312P3J001(0011)**



**9GA0312P3G001(0011)**

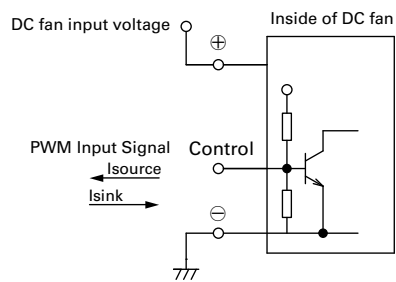
**PWM Input Signal Example**

**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.

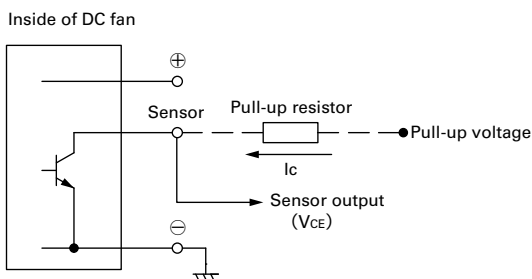
**Connection Schematic**



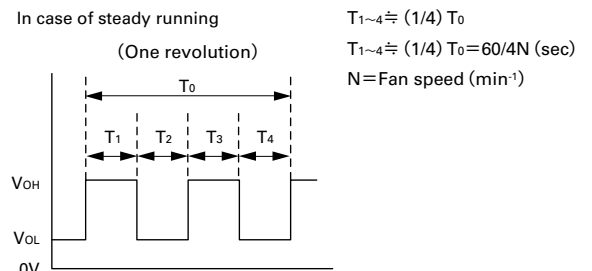
**Pulse Sensor Specification**

Output circuit : Open collector

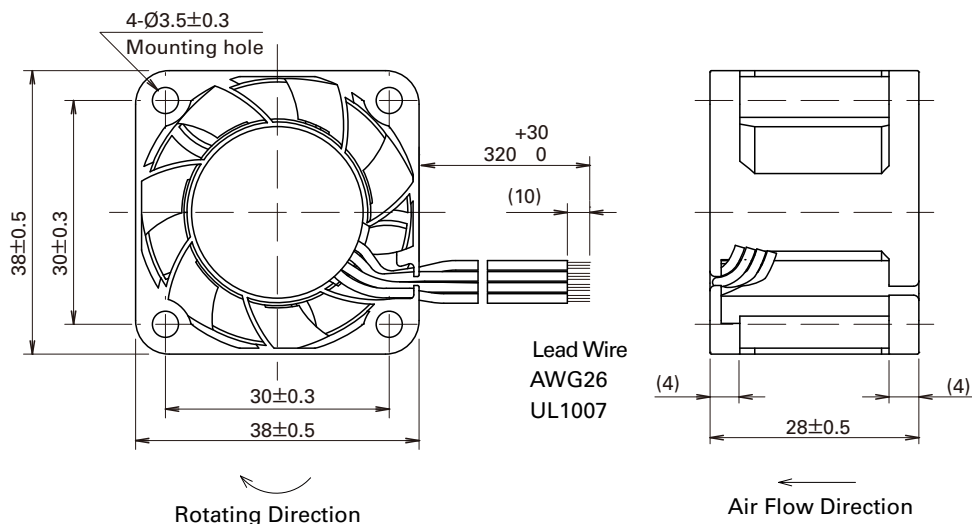
$V_{CE} = +13.8V$  MAX.  
 $I_c = 5mA$  MAX. [ $V_{OL} = V_{CE} (SAT) = 0.6V$  MAX.]



Output waveform (Need pull-up resistor)

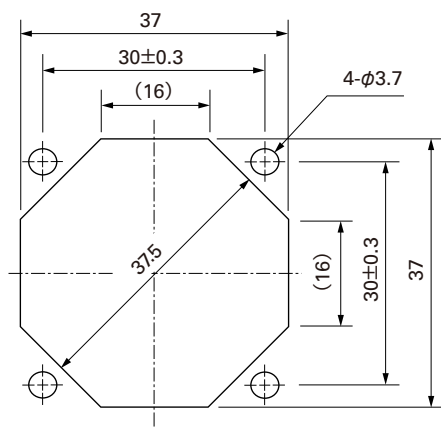


**Dimensions (unit : mm)** (with ribs)



**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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