San Ace 80 GA type

Low power consumption fan

Features

Energy-saving

Power consumption is reduced by approx. 71 % compared with our conventional product*1.

Low sound pressure level

Sound pressure level is reduced by 4.5 dB(A) compared with our conventional product*1.

High air flow and High static pressure

Max. air flow: increased to approx. 1.6 times
Max. static pressure: increased to approx. 2.4 times
compared with our conventional product*2.

*1: Specification of Model No. 9GA0812P6M001. When air flow and static pressure are almost identical.
Our conventional product is 80sq.x20mm thick. San Ace 80, Model No. 109P0812H601.
*2: Specification of Model No. 9GA0812P6G001. Our conventional product is 80sq.x20mm thick. San Ace 80, Model No. 109P0812C601.

ECO PRODUCTS

80×80×20mm

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 [℃]	Expected Life Note2) [h]
9GA0812P6G001	12	10.2 to 13.8	100	0.3	3.6	5,850	1.72	60.78	110	0.44	45	−10 to +70	40,000/60℃ (70,000/40℃)
9GA0812P6M001				0.06	0.72	2,900	0.84	29.68	27	0.11	26.5		60,000/60℃
9GA0824P6G001	24	20.4 to 27.6	100	0.15	3.6	5,850	1.72	60.78	110	0.44	45		40,000/60℃ (70,000/40℃)
9GA0824P6M001				0.03	0.72	2,900	0.84	29.68	27	0.11	26.5		60,000/60℃

Note1 : Does not rotate when PWM duty cycle is 0%.
Note2 : Expected life at 40 degreeC ambient is just reference value.

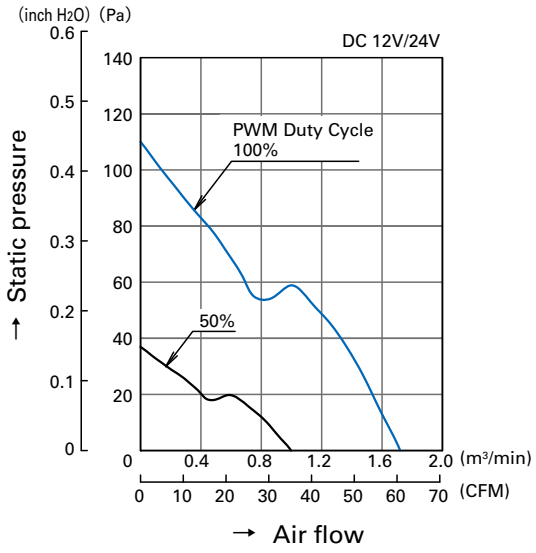
※PWM Frequency : 25kHz

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. 80g

Air Flow - Static Pressure Characteristics

• PWM Duty Cycle



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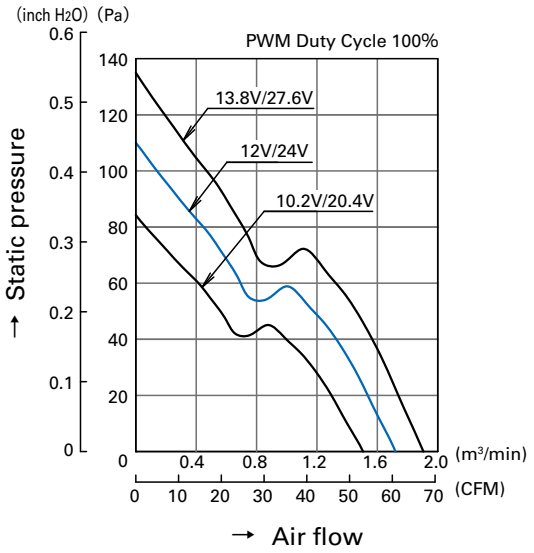
• Operating Voltage Range



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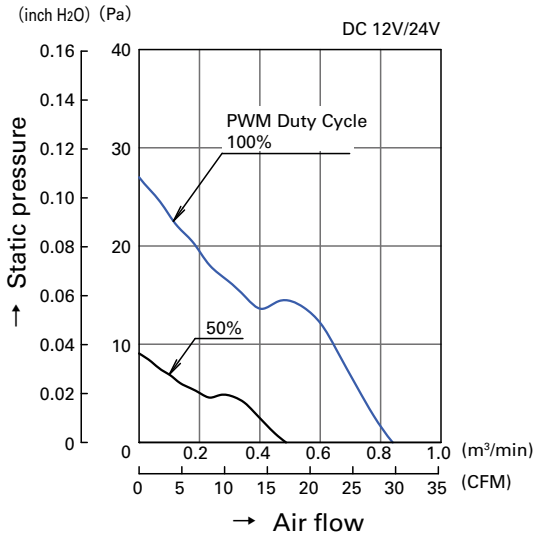

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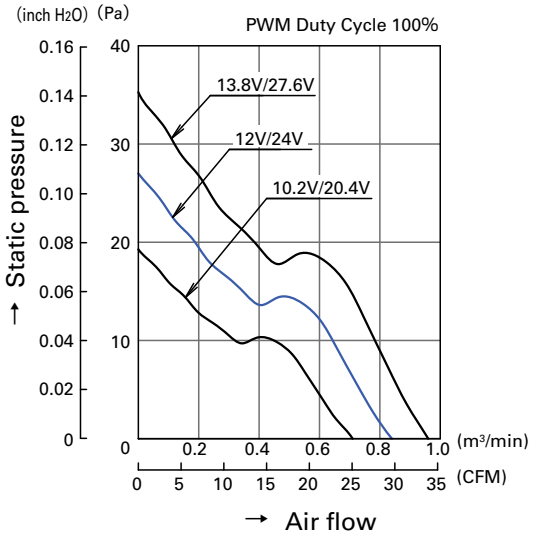

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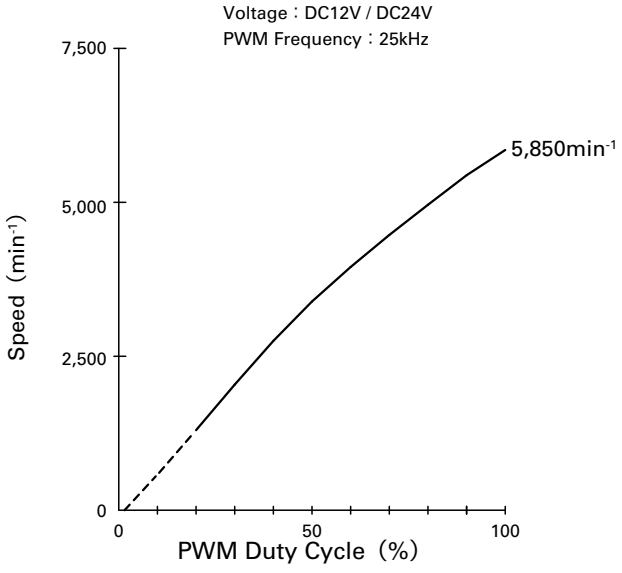
PWM Duty - Speed Characteristics Example



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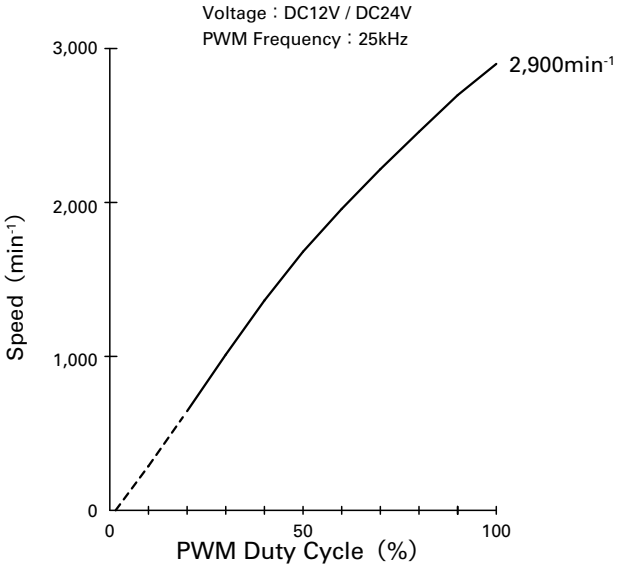

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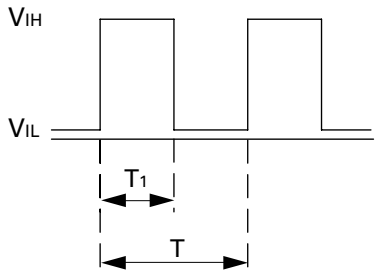
PWM Input Signal Example

Input Signal Wave Form



V_{IH}=4.75V to 5.25V

V_{IL}=0V to 0.4V

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

PWM Frequency 25 (kHz) = $\frac{1}{T}$

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

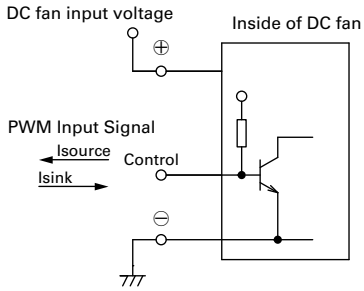
Sink Current (Isink) : 1mA Max. at control voltage 5.25V

Control Terminal Voltage : 5.25V Max. (Open Circuit)

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

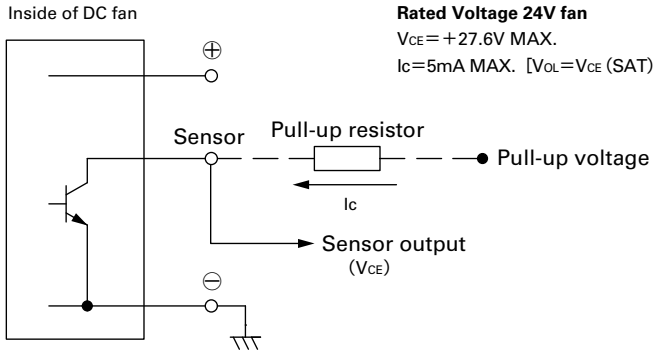
This fan speed should be controlled by PWM input signal of either
TTL input or open collector, drain input.

Connection Schematic



Specifications for Pulse Sensors

Output circuit : Open collector



Rated Voltage 12V fan

V_{CE}=+13.8V MAX.

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

Rated Voltage 24V fan

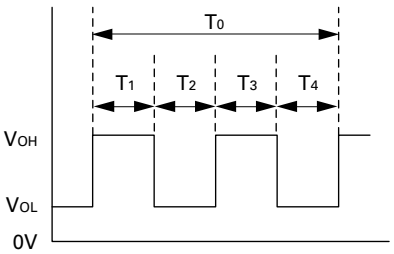
V_{CE}=+27.6V MAX.

Ic=5mA MAX. [V_{OL}=V_{CE} (SAT) =0.8V MAX.]

Output waveform (Need pull-up resistor)

In case of steady running

(One revolution)

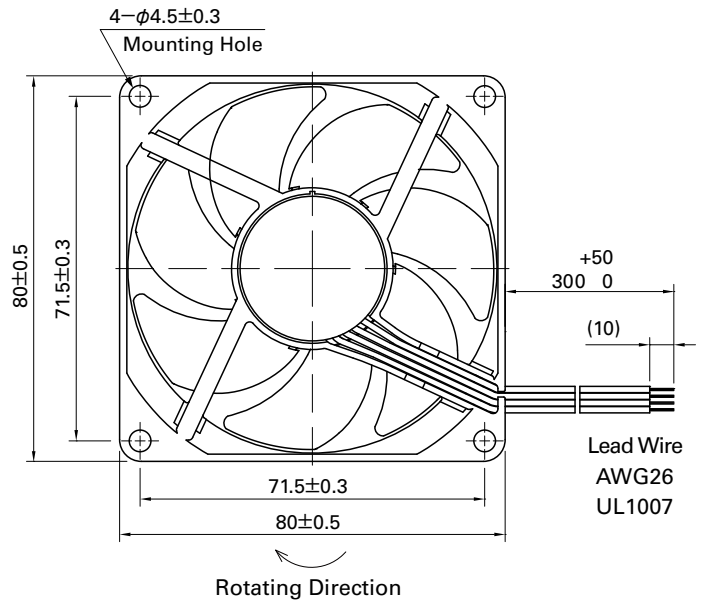


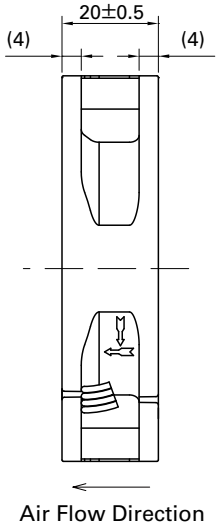
$T_{1\sim4} \fallingdotseq (1/4)\ T_0$

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

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

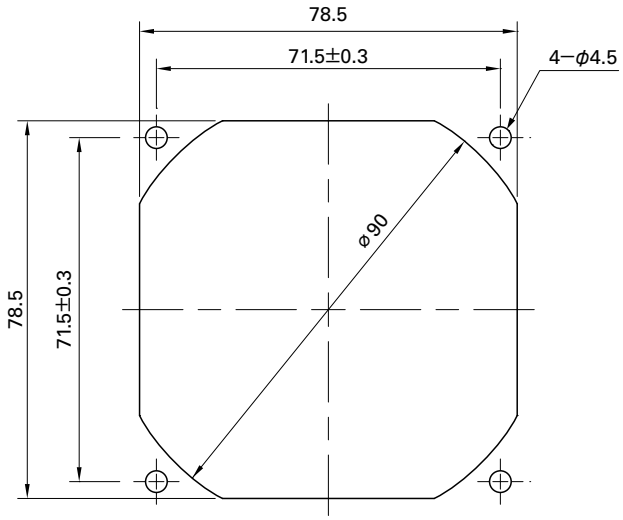
Dimensions (unit : mm)





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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