



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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San Ace 80 GA type

Low Power Consumption Fan

Features

Low Power Consumption

Power consumption is reduced by approximately 35% compared with our conventional product.*1

High Air Flow and High Static Pressure

Maximum air flow increased by approximately 1.2 times and maximum static pressure increased by approximately 1.7 times compared with our conventional product.*2

Low Noise

Sound pressure level is reduced by 2 dB(A) compared with our conventional product.*1



*1: Specification of Model No. 9GA0812P7S001.
Our conventional product is 80 x 80 x 15 mm "San Ace 80", Model No. 9PH0812P7S06.
*2: Specification of Model No. 9GA0812P7G001.
Our conventional product is 80 x 80 x 15 mm "San Ace 80", Model No. 9PH0812P7S06.

80x80x15mm

Specifications

With PWM control function · With pulse sensor

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 [m ³ /min] [CFM]	Max. Static Pressure [Pa] [inch H ₂ O]	SPL [dB(A)]	Operating Temperature [°C]	Expected Life [Note2] [h]
9GA0812P7G001	12	10.2 to 13.8	100	0.29	3.48	6,100	1.44 50.9	84.0 0.34	41	-20 to +70	40,000/60°C (70,000/40°C)
9GA0812P7S001			100	0.17	2.04	5,000	1.18 41.7	56.4 0.23	37		
9GA0824P7G001	24	20.4 to 27.6	100	0.13	3.12	6,100	1.44 50.9	84.0 0.34	41		
9GA0824P7S001			100	0.08	1.92	5,000	1.18 41.7	56.4 0.23	37		

Note1 : PWM Frequency : 25kHz Fans do not rotate when PWM duty cycle is 0%.
Note2 : Expected life at 40°C ambient is just reference value.

With pulse sensor

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	Rated Current [A]	Rated Input [W]	Rated Speed [min ⁻¹]	Max. Air Flow [m ³ /min] [CFM]	Max. Static Pressure [Pa] [inch H ₂ O]	SPL [dB(A)]	Operating Temperature [°C]	Expected Life [Note] [h]
9GA0812H7001	12	6 to 13.2	0.09	1.08	3,800	0.89 31.4	32.6 0.13	29	-20 to +70	40,000/60°C (70,000/40°C)
9GA0824H7001	24	12 to 26.4	0.05	1.20	3,800	0.89 31.4	32.6 0.13	29		

Note : Expected life at 40°C ambient is just reference value.

Common Specifications

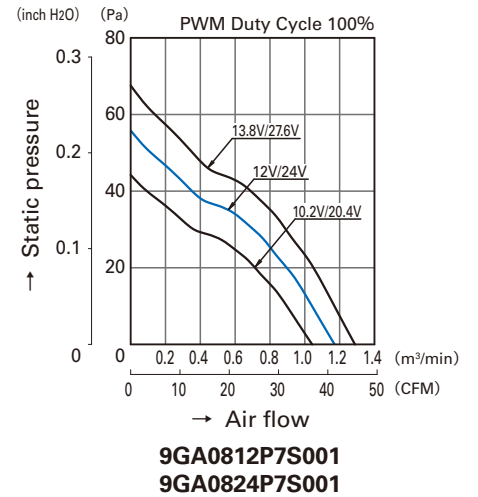
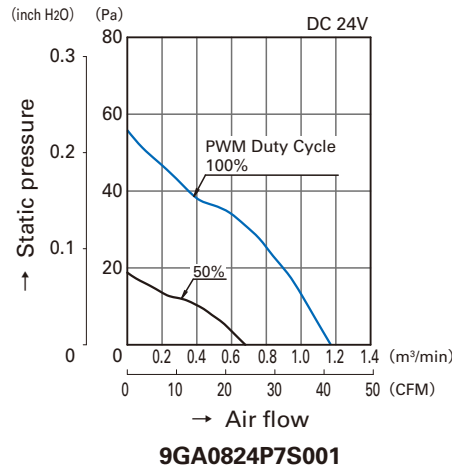
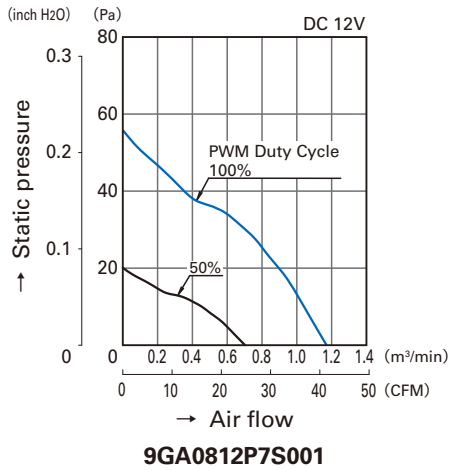
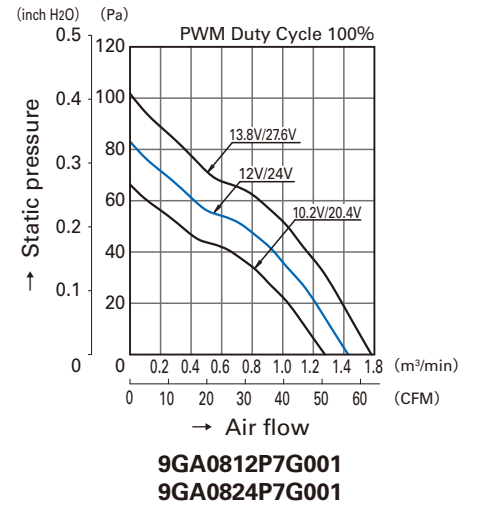
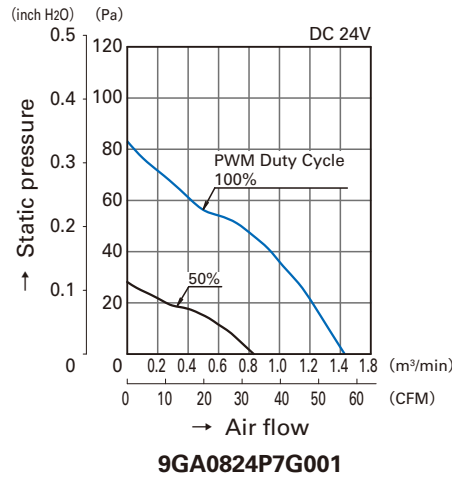
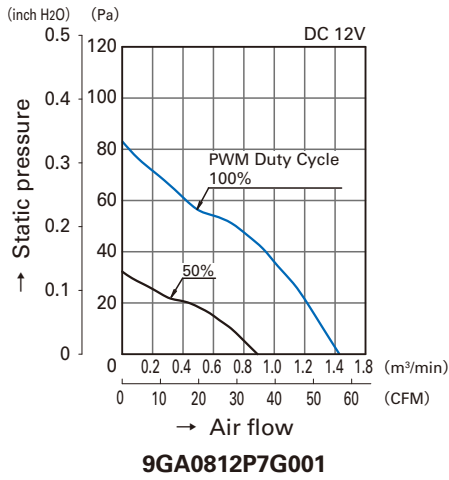
- Material Frame, Impeller : Plastics (Flammability: UL94V-0)
- Expected Life Varies for each model
(L10: Survival rate: 90% at 60°C, rated voltage, and continuously run in a free air state)
- Motor Protection System Current blocking function and Reverse polarity protection
- Dielectric Strength 50/60 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(With PWM control function): Brown
- Mass Approx. 65g

Air Flow - Static Pressure Characteristics

With PWM control function · With pulse sensor

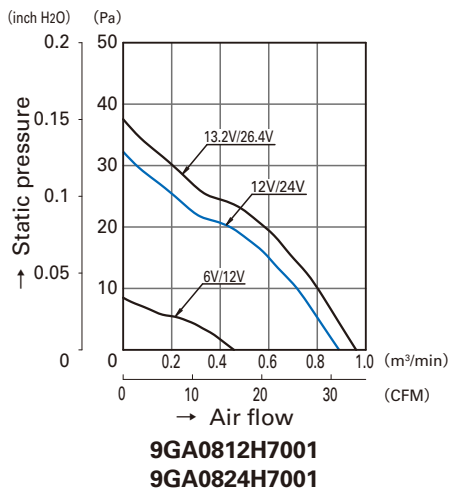
· PWM Duty Cycle

· Operating Voltage Range

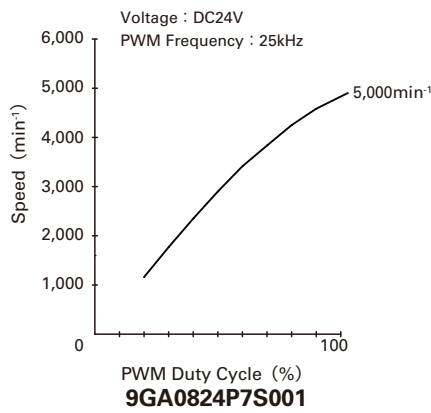
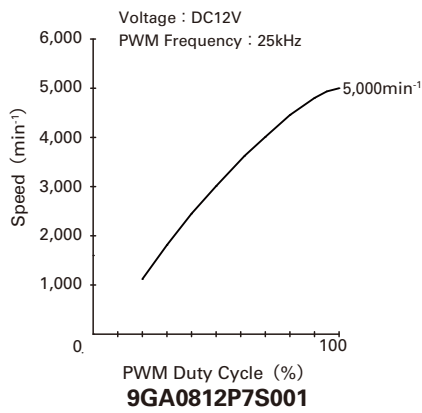
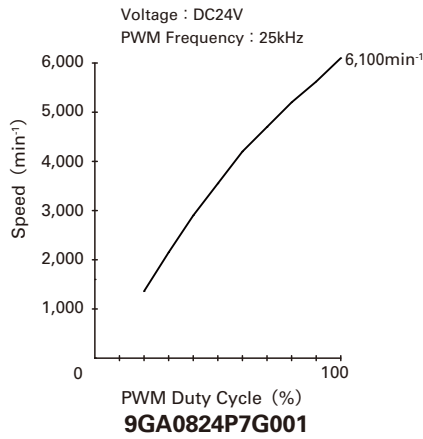
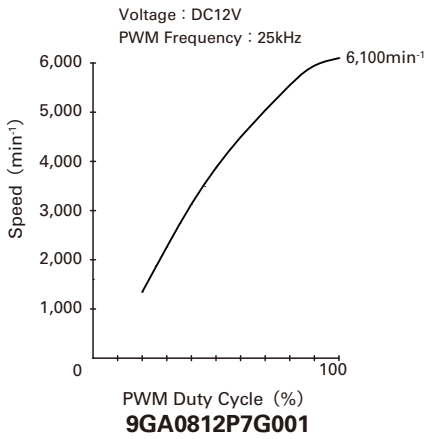


With pulse sensor

· Operating Voltage Range

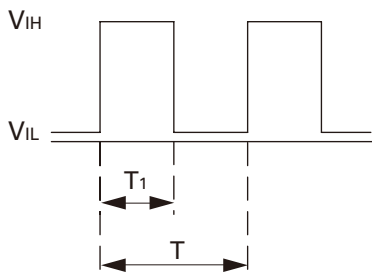


PWM Duty - Speed Characteristics Example



PWM Input Signal Example

Input Signal Waveform



$V_{IH}=4.75V$ to $5.25V$

$V_{IL}=0V$ to $0.4V$

$$\text{PWM Duty Cycle (\%)} = \frac{T_1}{T} \times 100$$

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

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

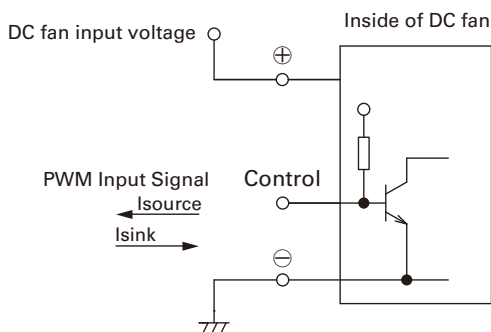
Sink Current : 1mA Max. at control voltage 5.25V

Control Terminal Voltage : 5.25V 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. Fans do not rotate when PWM duty cycle is 0%.

Example of Connection Schematic



Specifications for Pulse Sensors

Output circuit : Open collector

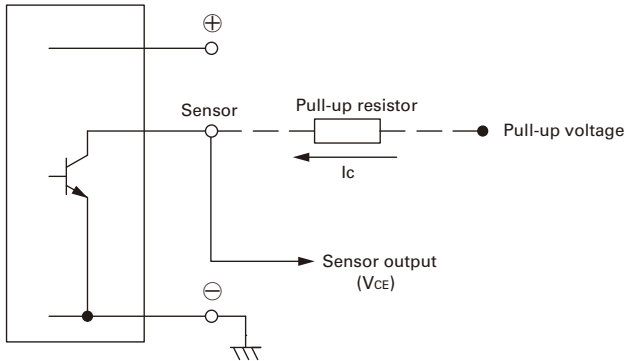
Rated Voltage 12V Fan

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

Rated Voltage 24V Fan

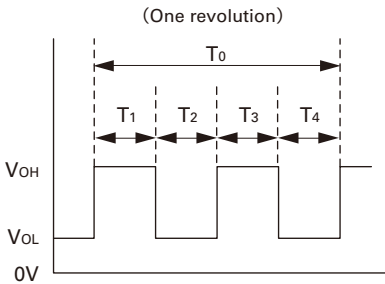
$V_{CE} = +27.6V$ MAX.
 $I_c = 5mA$ MAX. [$V_{OL} = V_{CE} (SAT) = 0.8V$ MAX.]

Inside of DC fan



Output Waveform (Need pull-up resistor)

In case of steady running

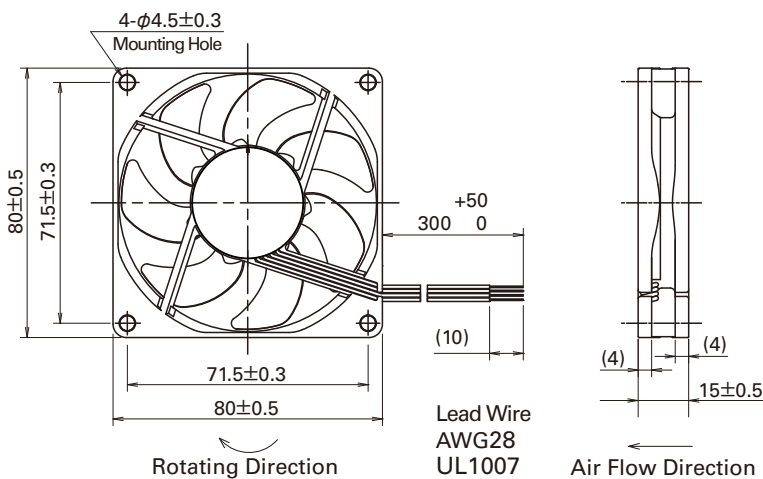


$$T_{1\sim4} \doteq (1/4) T_0$$

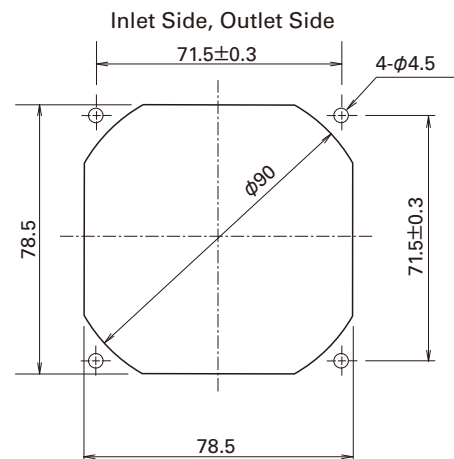
$$T_{1\sim4} \doteq (1/4) T_0 = 60/4N \text{ (sec)}$$

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

Dimensions (unit : mm) (With PWM control function, with pulse sensor)



Reference Dimension of Mounting Holes and Vent Opening (unit : mm)



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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Specifications are subject to change without notice.

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