

# 80×80×32 mm

San Ace 80 9GA type Low Power Consumption Fan 



## General Specifications

- Material ..... Frame: Plastic (Flammability: UL 94V-0), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life ..... See the table below. (L10 life: 90% survival rate for continuous operation in free air at 60°C, rated voltage)
- Motor protection function ..... Locked rotor burnout protection, Reverse polarity protection  
For details, please refer to p. 547.
- Dielectric strength ..... 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and frame)
- Insulation resistance ..... 10 MΩ or more with a 500 VDC megger (between lead wire conductors and frame)
- Sound pressure level (SPL) ..... At 1 m away from the air inlet
- Storage temperature ..... -30 to +70°C (Non-condensing)
- Lead wire ..... ⊕Red ⊖Black (Sensor) Yellow (Control) Brown  
(For models without PWM control function, there is no speed control wiring.)
- Mass ..... 130 g

## Specifications

The models listed below **have ribs and pulse sensors with PWM control function**. For models without ribs, append "1" to the end of model numbers.

| Model no.     | Rated voltage [V] | Operating voltage range [V] | PWM duty cycle* [%] | Rated current [A] | Rated input [W] | Rated speed [min <sup>-1</sup> ] | Max. airflow [m <sup>3</sup> /min] [CFM] | Max. static pressure [Pa] [inchH <sub>2</sub> O] | SPL [dB (A)] | Operating temperature [°C] | Expected life [h] |
|---------------|-------------------|-----------------------------|---------------------|-------------------|-----------------|----------------------------------|--|--|--------------|----------------------------|-------------------|
| 9GA0812P2S001 | 12                | 10.2 to 13.8                | 100                 | 0.83              | 9.96            | 9700                             | 2.45 86.5                                | 360 1.45   | 57           | -20 to +70                 | 40000/60°C        |
|               |                   |                             | 0                   | 0.08              | 0.96            | 2800                             | 0.71 25.1                                | 30 0.12  | 24           |                            |                   |
| 100           |                   |                             | 0.59                | 7.08              | 8700            | 2.2 77.7                         | 294 1.18                                 | 54   |              |                            |                   |
| 9GA0812P2H001 |                   | 0                           | 0.05                | 0.6               | 2600            | 0.66                             | 23.3                                     | 26   | 0.105        | 21                         |                   |
|               |                   |                             |                     |                   |                 |                                  |  |  |              |                            |                   |
| 9GA0812P2M001 |                   | 10.2 to 12.6                | 0                   | 0.04              | 0.48            | 1400                             | 0.35                                     | 12.3   | 7.5          | 0.03                       |                   |
|               | 100               |                             |                     |                   |                 |                                  |  |  |              |                            | 0.42              |
| 9GA0824P2S001 | 24                | 20.4 to 27.6                | 100                 | 0.42              | 10.1            | 9700                             | 2.45 86.5                                | 360 1.45   | 57           | -20 to +70                 |                   |
|               |                   |                             | 0                   | 0.05              | 1.2             | 2800                             | 0.71 25.1                                | 30 0.12  | 24           |                            |                   |
| 9GA0848P2S001 | 48                | 40.8 to 55.2                | 100                 | 0.22              | 10.56           | 9700                             | 2.45 86.5                                | 360 1.45   | 57           | -10 to +70                 |                   |
|               |                   |                             | 0                   | 0.04              | 1.92            | 2800                             | 0.71 25.1                                | 30 0.12  | 24           |                            |                   |

\* PWM frequency: 25 kHz

The following sensor and control options are available for selection.

Differs according to the model. Refer to the table on pp. 571 to 572. **Without sensor** **Pulse sensor**

The models listed below **have ribs and pulse sensors**. For models without ribs, append "1" to the end of model numbers.

| Model no.    | Rated voltage [V] | Operating voltage range [V] | Rated current [A] | Rated input [W] | Rated speed [min <sup>-1</sup> ] | Max. airflow [m <sup>3</sup> /min] [CFM] | Max. static pressure [Pa] [inchH <sub>2</sub> O] | SPL [dB (A)] | Operating temperature [°C] | Expected life [h] |
|--------------|-------------------|-----------------------------|-------------------|-----------------|----------------------------------|--|--|--------------|----------------------------|-------------------|
| 9GA0812A2001 | 12                | 6 to 13.2                   | 0.31              | 3.72            | 6000                             | 1.51 53.4                                | 137.7 0.55                                       | 44           | -20 to +70                 | 40000/60°C        |
| 9GA0812B2001 |                   | 6 to 13.8                   | 0.13              | 1.56            | 4000                             | 1.01 35.7                                | 61.2 0.25  | 33           |                            |                   |
| 9GA0812L2001 |                   | 7 to 13.8                   | 0.08              | 0.96            | 2600                             | 0.66 23.3                                | 26 0.1   | 21           |                            |                   |
| 9GA0824A2001 | 24                | 12 to 26.4                  | 0.15              | 3.6             | 6000                             | 1.51 53.4                                | 137.7 0.55                                       | 44           | -20 to +70                 | 40000/60°C        |
| 9GA0824B2001 |                   | 12 to 27.6                  | 0.08              | 1.92            | 4000                             | 1.01 35.7                                | 61.2 0.25  | 33           |                            |                   |
| 9GA0824L2001 |                   | 14 to 27.6                  | 0.05              | 1.2             | 2600                             | 0.66 23.3                                | 26 0.1   | 21           |                            |                   |

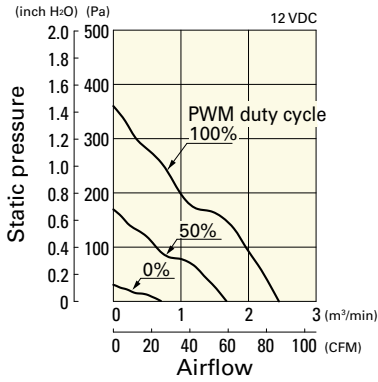
The following sensor and control options are available for selection.

Available for all models. **Without sensor** **Lock sensor**

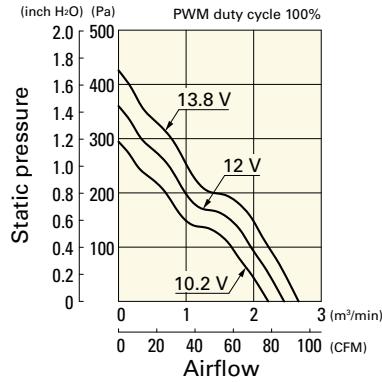
# Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GA0812P2S001** With pulse sensor with PWM control function

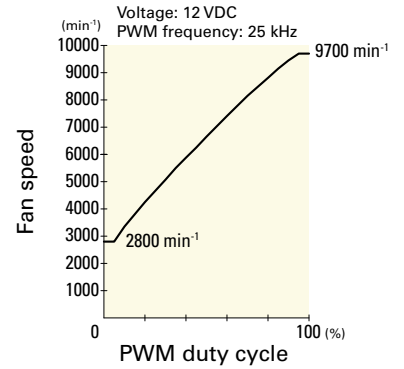
PWM duty cycle



Operating voltage range

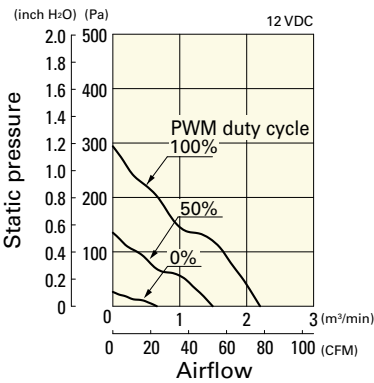


PWM duty - Speed characteristics example

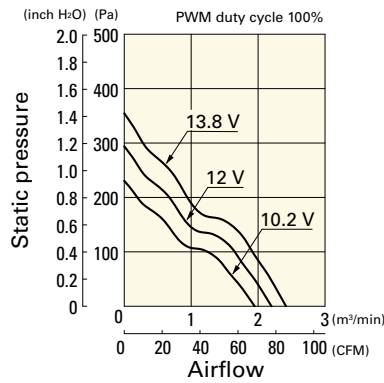


**9GA0812P2H001** With pulse sensor with PWM control function

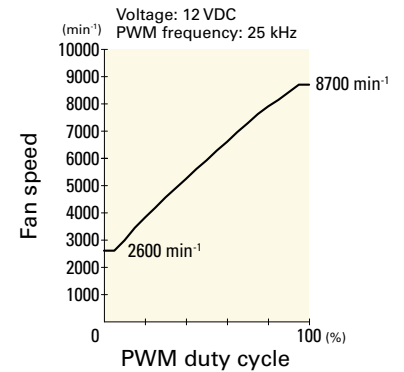
PWM duty cycle



Operating voltage range

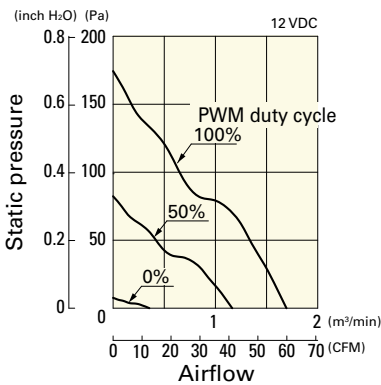


PWM duty - Speed characteristics example

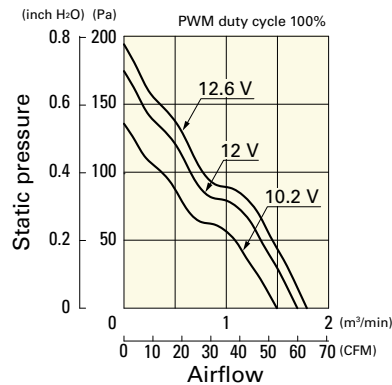


**9GA0812P2M001** With pulse sensor with PWM control function

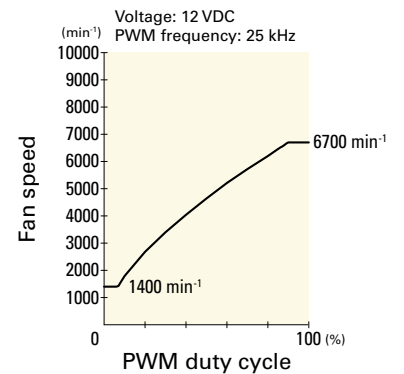
PWM duty cycle



Operating voltage range

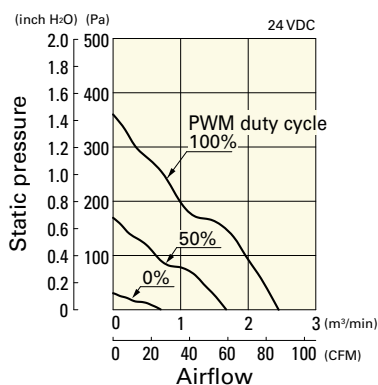


PWM duty - Speed characteristics example

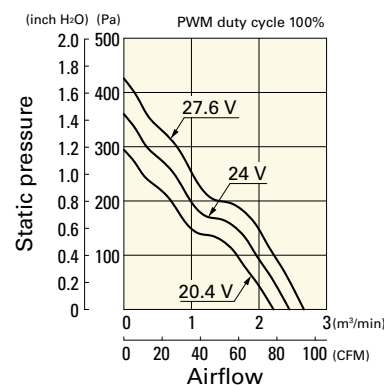


**9GA0824P2S001** With pulse sensor with PWM control function

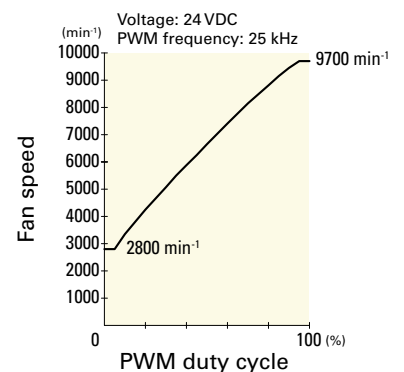
PWM duty cycle



Operating voltage range



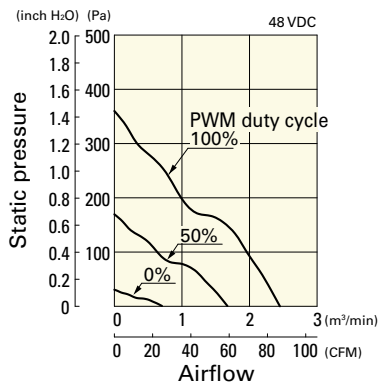
PWM duty - Speed characteristics example



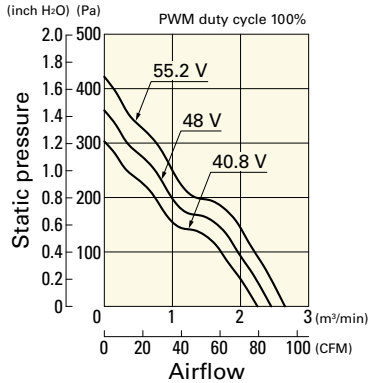
# Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GA0848P2S001** With pulse sensor with PWM control function

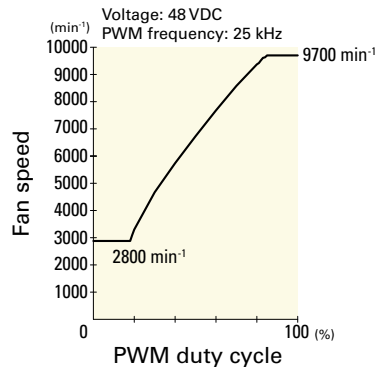
PWM duty cycle



Operating voltage range

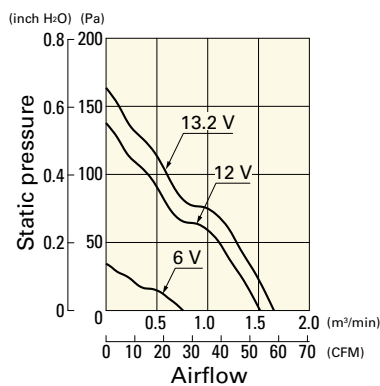


PWM duty - Speed characteristics example



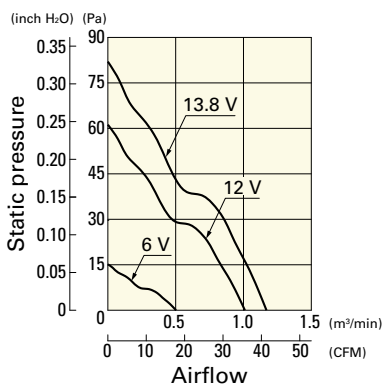
**9GA0812A2001** With pulse sensor

Operating voltage range



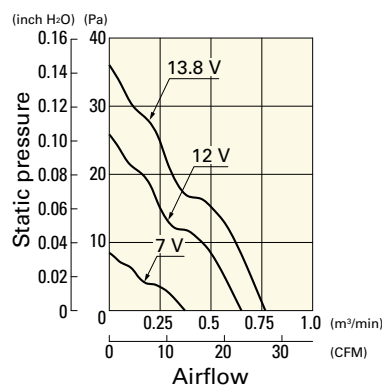
**9GA0812B2001** With pulse sensor

Operating voltage range



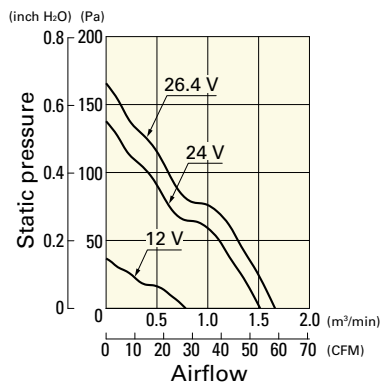
**9GA0812L2001** With pulse sensor

Operating voltage range



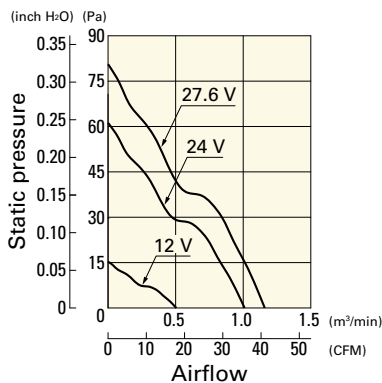
**9GA0824A2001** With pulse sensor

Operating voltage range



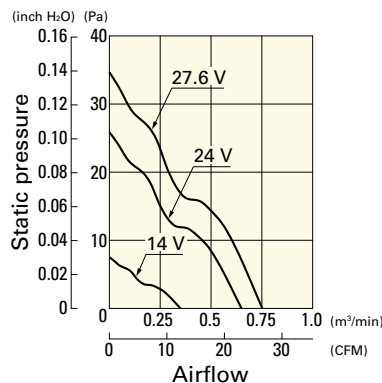
**9GA0824B2001** With pulse sensor

Operating voltage range

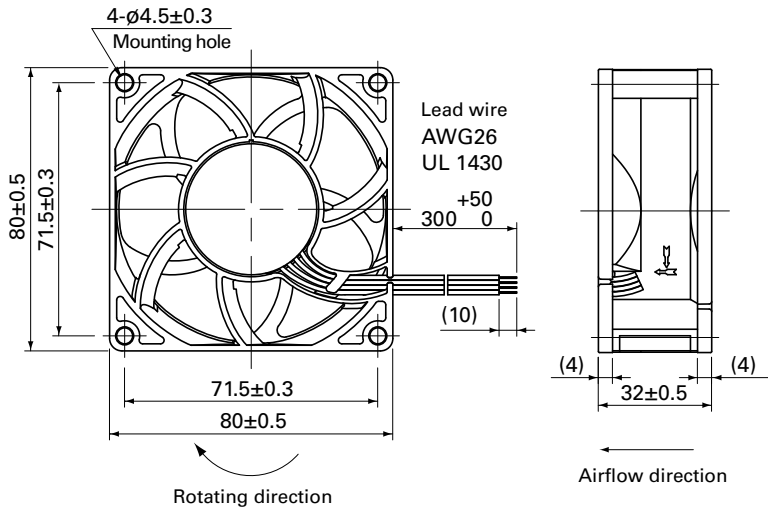


**9GA0824L2001** With pulse sensor

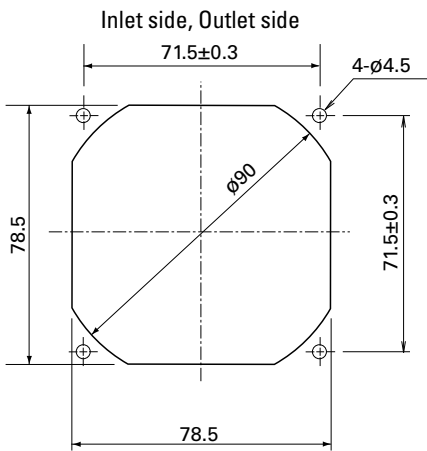
Operating voltage range



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



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



**Options**

Finger guards

page: p. 532

Model no.: 109-049E, 109-049H, 109-049C

Resin finger guards

page: p. 539

Model no.: 109-1002G

Resin filter kits

page: p. 540

Model no.: 109-1002F13 (13PPI), 109-1002F20 (20PPI),  
109-1002F30 (30PPI), 109-1002F40 (40PPI)