

# 92x92x25 mm

## San Ace 92 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 ..... 125 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] |
|--------------|-------------------|-----------------------------|---------------------|-------------------|-----------------|----------------------------------|------------------------------------------|--------------------------------------------------|--------------|----------------------------|-------------------|
| 9GA0912P4J03 | 12                | 10.2 to 13.8                | 100                 | 0.39              | 4.68            | 5000                             | 2.2 77.7                                 | 105 0.42                                         | 43           | -20 to +70                 | 60000/60°C        |
|              |                   |                             | 0                   | 0.06              | 0.72            | 1500                             | 0.65 23.3                                | 9.4 0.04                                         | 14           |                            |                   |
| 9GA0912P4G03 |                   |                             | 100                 | 0.28              | 3.36            | 4400                             | 1.93 68.2                                | 81 0.33                                          | 39           |                            |                   |
|              |                   |                             | 0                   | 0.06              | 0.72            | 1500                             | 0.65 23.3                                | 9.4 0.04                                         | 14           |                            |                   |
| 9GA0912P4S03 |                   |                             | 100                 | 0.2               | 2.4             | 3800                             | 1.67 59.0                                | 60.6 0.24                                        | 35           |                            |                   |
|              |                   |                             | 0                   | 0.06              | 0.72            | 1500                             | 0.65 23.3                                | 9.4 0.04                                         | 14           |                            |                   |
| 9GA0924P4J03 | 24                | 20.4 to 27.6                | 100                 | 0.2               | 4.8             | 5000                             | 2.2 77.7                                 | 105 0.42                                         | 43           |                            |                   |
|              |                   |                             | 0                   | 0.04              | 0.96            | 1500                             | 0.65 23.3                                | 9.4 0.04                                         | 14           |                            |                   |
| 9GA0924P4G03 |                   |                             | 100                 | 0.15              | 3.6             | 4400                             | 1.93 68.2                                | 81 0.33                                          | 39           |                            |                   |
|              |                   |                             | 0                   | 0.04              | 0.96            | 1500                             | 0.65 23.3                                | 9.4 0.04                                         | 14           |                            |                   |
| 9GA0924P4S03 |                   |                             | 100                 | 0.12              | 2.88            | 3800                             | 1.67 59.0                                | 60.6 0.24                                        | 35           |                            |                   |
|              |                   |                             | 0                   | 0.04              | 0.96            | 1500                             | 0.65 23.3                                | 9.4 0.04                                         | 14           |                            |                   |

\* PWM frequency: 25 kHz

The following sensor and control options are available for selection.

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

Differs according to the model. Refer to the table on p. 572. **Lock 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] |
|-------------|-------------------|-----------------------------|-------------------|-----------------|----------------------------------|------------------------------------------|--------------------------------------------------|--------------|----------------------------|-------------------|
| 9GA0912H401 | 12                | 10.2 to 13.8                | 0.19              | 2.28            | 3300                             | 1.45 51.2                                | 45.6 0.18                                        | 31           | -20 to +70                 | 60000/60°C        |
| 9GA0912F401 |                   |                             | 0.14              | 1.68            | 2800                             | 1.23 43.5                                | 32.9 0.13                                        | 28           |                            |                   |
| 9GA0912M401 |                   |                             | 0.11              | 1.32            | 2400                             | 1.05 37.1                                | 24 0.096                                         | 24           |                            |                   |
| 9GA0912L401 |                   |                             | 0.09              | 1.08            | 2000                             | 0.87 30.7                                | 16.7 0.067                                       | 21           |                            |                   |
| 9GA0912W401 |                   | 7 to 16                     | 0.19              | 2.28            | 3300                             | 1.45 51.2                                | 45.6 0.18                                        | 31           |                            |                   |
| 9GA0924H401 | 24                | 20.4 to 27.6                | 0.09              | 2.16            | 3300                             | 1.45 51.2                                | 45.6 0.18                                        | 31           |                            |                   |
| 9GA0924F401 |                   | 16 to 27.6                  | 0.08              | 1.92            | 2800                             | 1.23 43.5                                | 32.9 0.13                                        | 28           |                            |                   |
| 9GA0924M401 |                   | 14 to 27.6                  | 0.05              | 1.2             | 2400                             | 1.05 37.1                                | 24 0.096                                         | 24           |                            |                   |
| 9GA0924L401 |                   |                             | 0.03              | 0.72            | 2000                             | 0.87 30.7                                | 16.7 0.067                                       | 21           |                            |                   |
| 9GA0924W401 |                   | 12 to 28.8                  | 0.09              | 2.16            | 3300                             | 1.45 51.2                                | 45.6 0.18                                        | 31           |                            |                   |

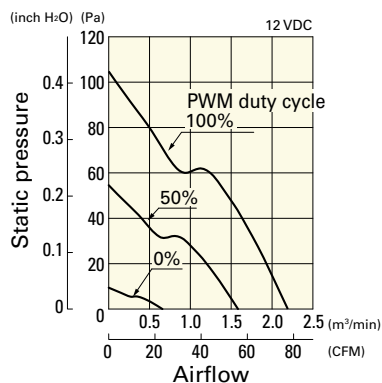
The following sensor and control options are available for selection.

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

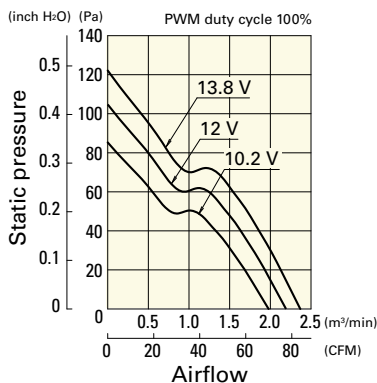
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GA0912P4J03** With pulse sensor with PWM control function

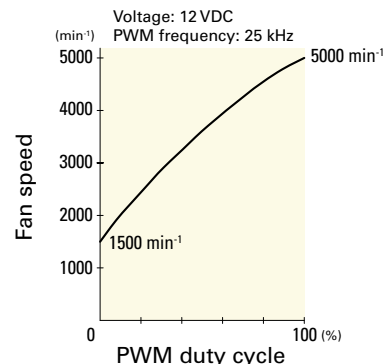
PWM duty cycle



Operating voltage range

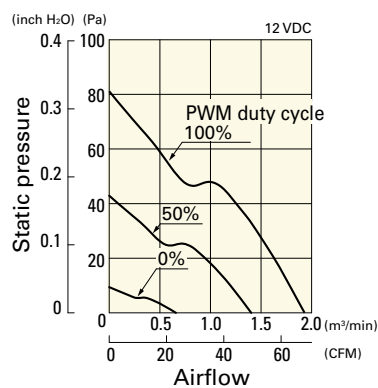


PWM duty - Speed characteristics example

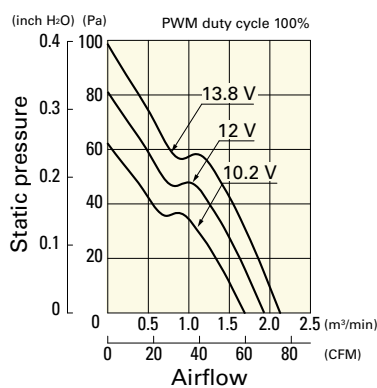


**9GA0912P4G03** With pulse sensor with PWM control function

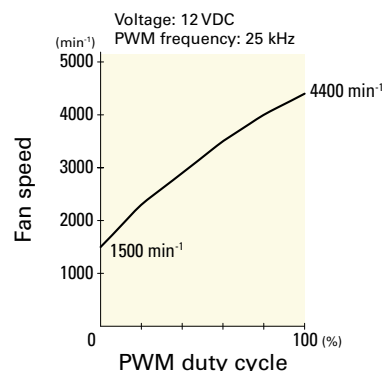
PWM duty cycle



Operating voltage range

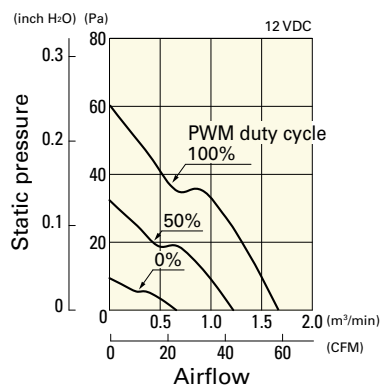


PWM duty - Speed characteristics example

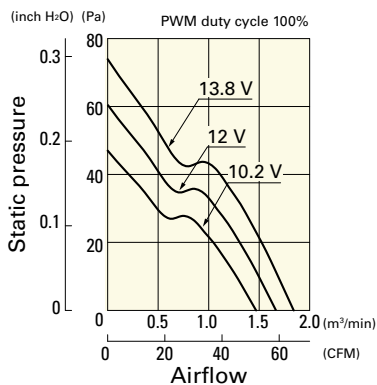


**9GA0912P4S03** With pulse sensor with PWM control function

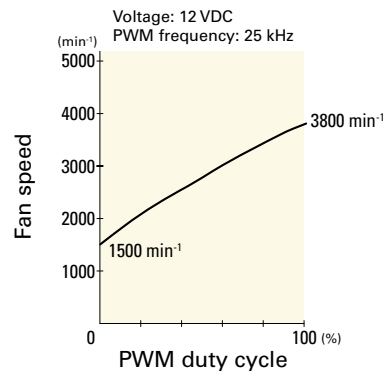
PWM duty cycle



Operating voltage range

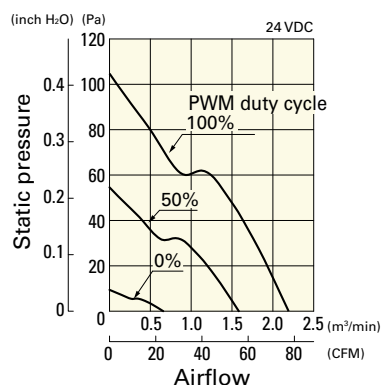


PWM duty - Speed characteristics example

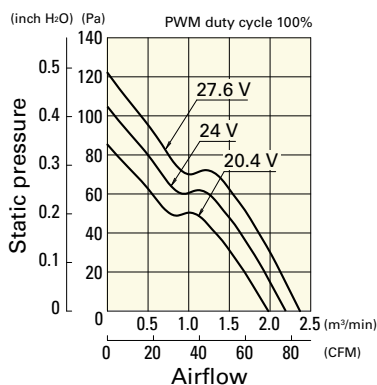


**9GA0924P4J03** With pulse sensor with PWM control function

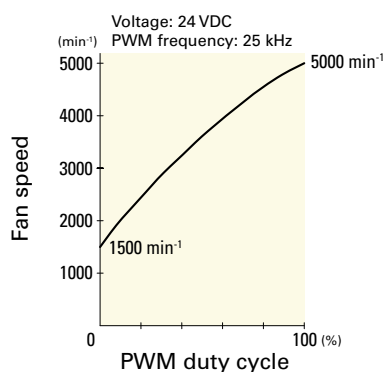
PWM duty cycle



Operating voltage range



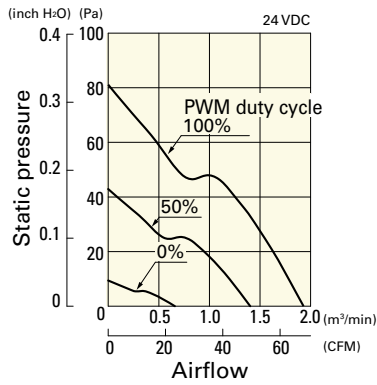
PWM duty - Speed characteristics example



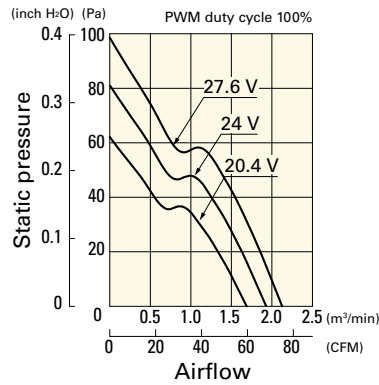
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GA0924P4G03** With pulse sensor with PWM control function

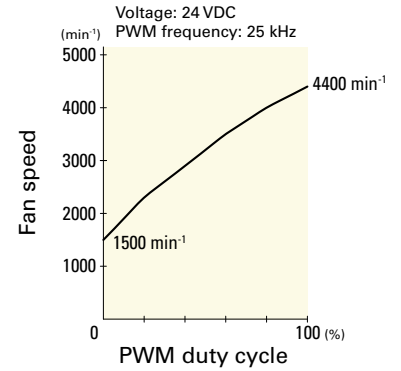
PWM duty cycle



Operating voltage range

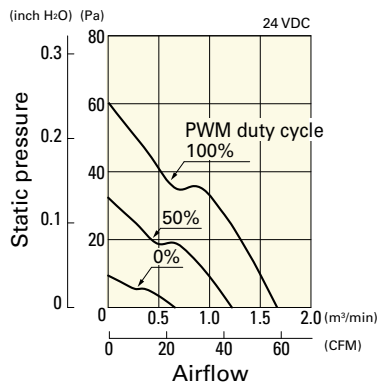


PWM duty - Speed characteristics example

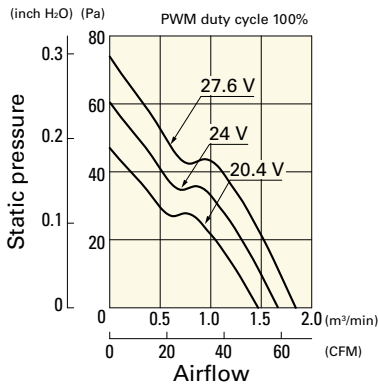


**9GA0924P4S03** With pulse sensor with PWM control function

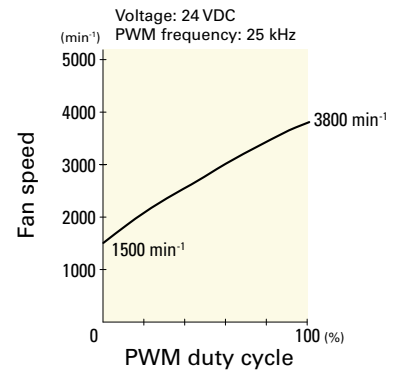
PWM duty cycle



Operating voltage range

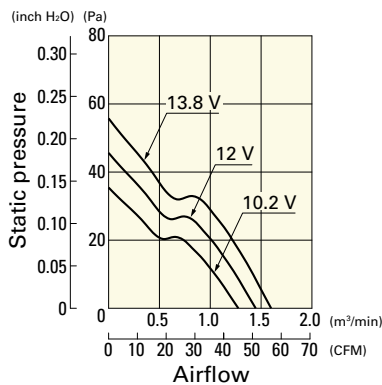


PWM duty - Speed characteristics example



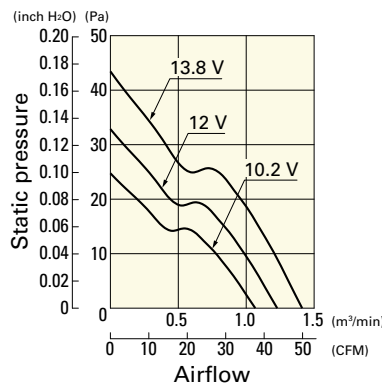
**9GA0912H401** With pulse sensor

Operating voltage range



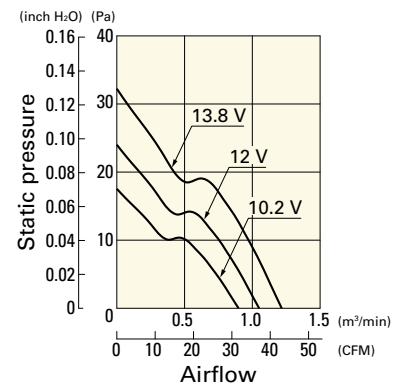
**9GA0912F401** With pulse sensor

Operating voltage range



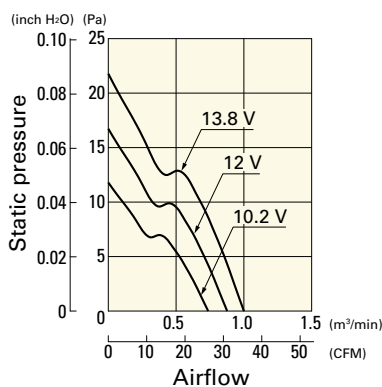
**9GA0912M401** With pulse sensor

Operating voltage range



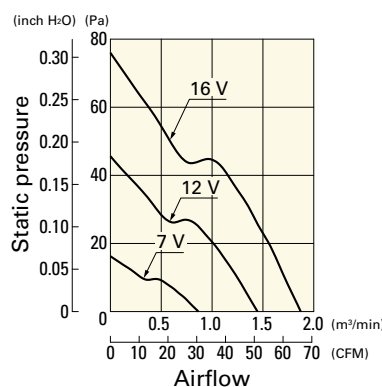
**9GA0912L401** With pulse sensor

Operating voltage range



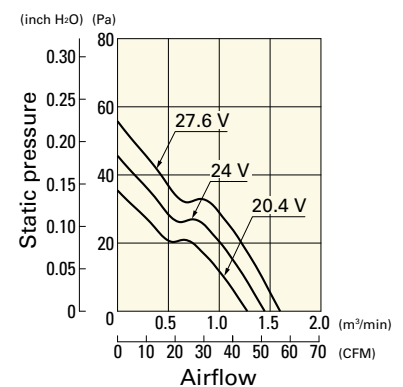
**9GA0912W401** With pulse sensor

Operating voltage range



**9GA0924H401** With pulse sensor

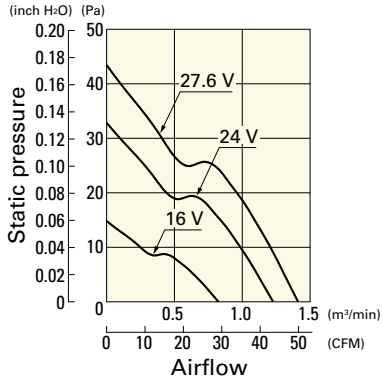
Operating voltage range



## Airflow - Static Pressure Characteristics

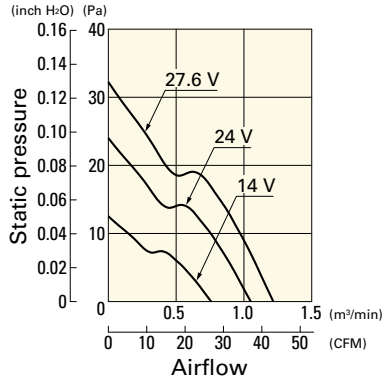
### 9GA0924F401 With pulse sensor

Operating voltage range



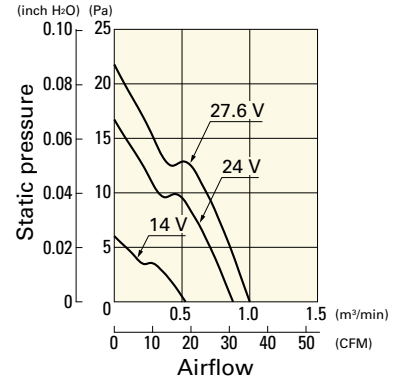
### 9GA0924M401 With pulse sensor

Operating voltage range



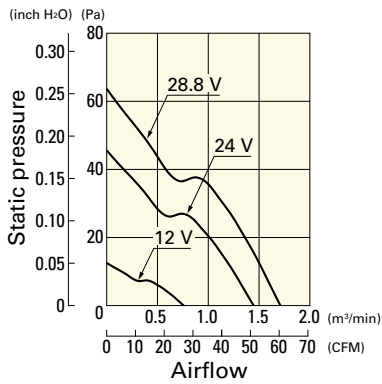
### 9GA0924L401 With pulse sensor

Operating voltage range

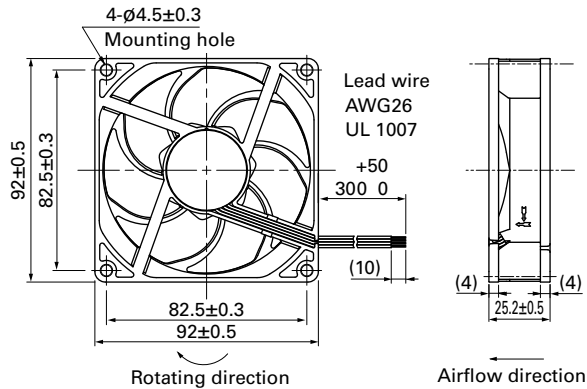


### 9GA0924W401 With pulse sensor

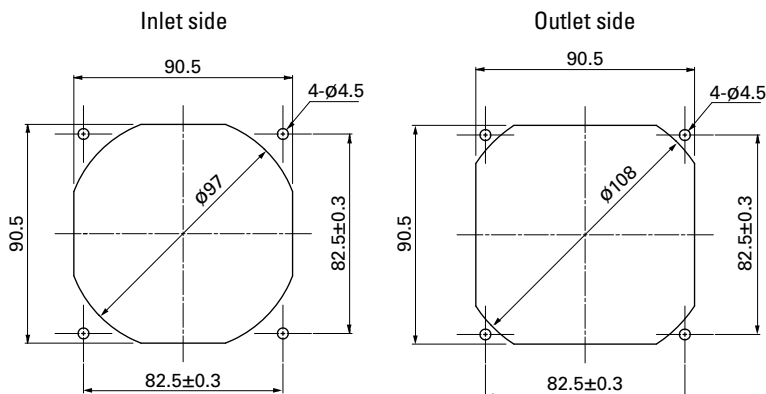
Operating voltage range



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



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



## Options

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### Finger guards

page: p. 532

Model no.: 109-099E, 109-099H, 109-099C

### Resin finger guards

page: p. 539

Model no.: 109-1001G

### Resin filter kits

page: p. 540

Model no.: 109-1001F13 (13PPI), 109-1001F20 (20PPI),  
109-1001F30 (30PPI), 109-1001F40 (40PPI)