

# 80x80x38 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) Expected life at 40°C is for reference only.
- Motor protection function ..... Locked rotor burnout protection, Reverse polarity protection  
For details, please refer to p. 614.
- Dielectric strength ..... 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and frame)
- Insulation resistance ..... 10 MΩ min. at 500 VDC (between lead wire conductors and frame)
- Sound pressure level (SPL) ..... A-weighted 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
- Mass ..... 160 g

## Specifications

The models listed below **have ribs and a pulse sensor with PWM control**. 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]          |          |    |
|--------------|-------------------|-----------------------------|---------------------|-------------------|-----------------|----------------------------------|--|--|--------------|----------------------------|----------------------------|----------|----|
| 9GA0812P1G61 | 12                | 10.8 to 13.2                | 100                 | 1.2               | 14.4            | 10500                            | 2.85 100.6                               | 480 1.93   | 60           | -20 to +70                 | 40000/60°C<br>(70000/40°C) |          |    |
|              |                   |                             | 0                   | 0.07              | 0.48            | 2000                             | 0.51 18.0                                | 28.7 0.11  | 21           |                            |                            |          |    |
| 9GA0812P1S61 |                   |                             | 100                 | 0.94              | 11.28           | 9550                             | 2.6 91.8                                 | 480 1.93   | 59           |                            |                            |          |    |
|              |                   |                             | 0                   | 0.1               | 1.2             | 2900                             | 0.74 26.1                                | 60 0.24  | 27           |                            |                            |          |    |
| 9GA0812P1H61 |                   |                             | 100                 | 0.6               | 7.2             | 8250                             | 2.25 79.4                                | 380 1.53   | 55           |                            |                            |          |    |
|              |                   |                             | 0                   | 0.08              | 0.96            | 2500                             | 0.64 22.6                                | 45 0.18  | 24           |                            |                            |          |    |
| 9GA0824P1S61 | 24                | 20.4 to 27.6                | 100                 | 0.47              | 11.28           | 9550                             | 2.6 91.8                                 | 480 1.93   | 59           |                            |                            |          |    |
|              |                   |                             | 0                   | 0.06              | 1.44            | 2900                             | 0.74 26.1                                | 60 0.24  | 27           |                            |                            |          |    |
| 9GA0824P1H61 |                   |                             | 100                 | 0.3               | 7.2             | 8250                             | 2.25 79.4                                | 380 1.53   | 55           |                            |                            |          |    |
|              |                   |                             | 0                   | 0.05              | 1.2             | 2500                             | 0.64 22.6                                | 45 0.18  | 24           |                            |                            |          |    |
| 9GA0848P1S61 |                   |                             | 48                  | 40.8 to 55.2      | 100             | 0.25                             | 12                                       | 9550   | 2.6 91.8     |                            |                            | 480 1.93 | 59 |
|              |                   |                             |                     |                   | 0               | 0.04                             | 1.92                                     | 2900   | 0.74 26.1    |                            |                            | 60 0.24  | 27 |

\* PWM frequency is 25 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

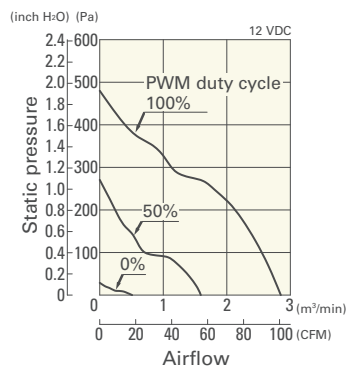
Note 1: Sensor and control options are available for selection. Refer to the table on pp. 643 to 644.

Note 2: The mark indicates Short LeadTime Service applicable models. See p. 668 for details.

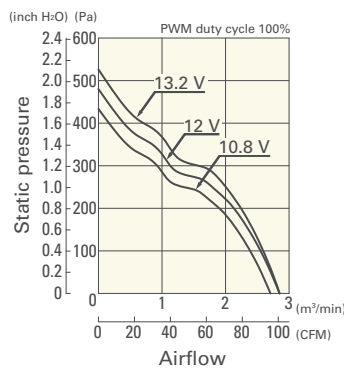
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GA0812P1G61** With pulse sensor with PWM control

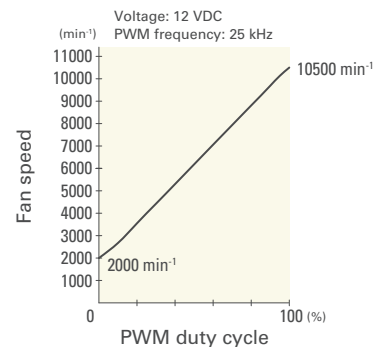
PWM duty cycle



Operating voltage range

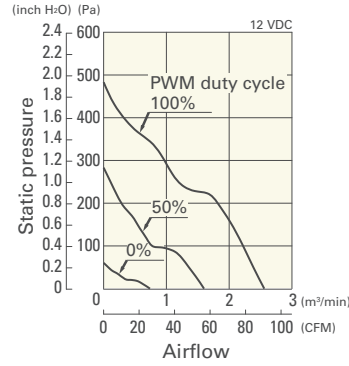


PWM duty - Speed characteristics example

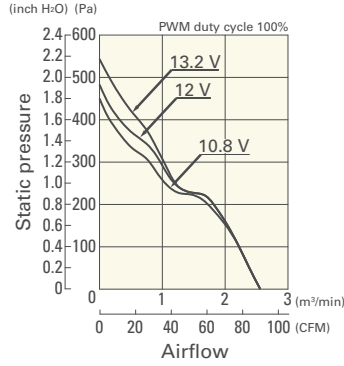


**9GA0812P1S61** With pulse sensor with PWM control

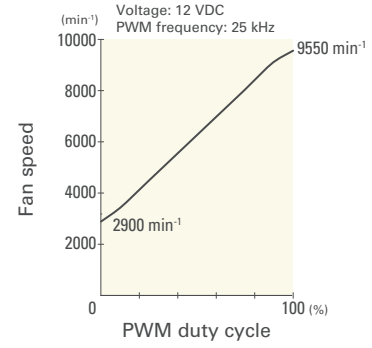
PWM duty cycle



Operating voltage range

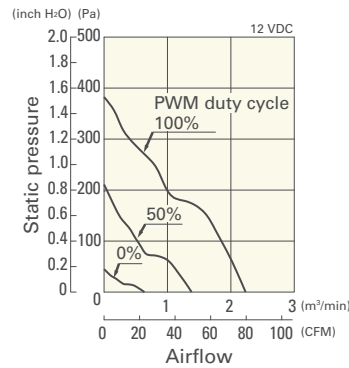


PWM duty - Speed characteristics example

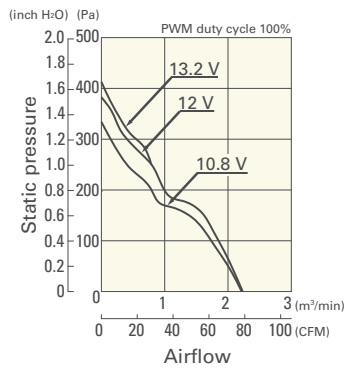


**9GA0812P1H61** With pulse sensor with PWM control

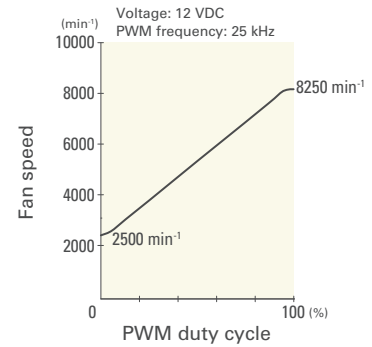
PWM duty cycle



Operating voltage range

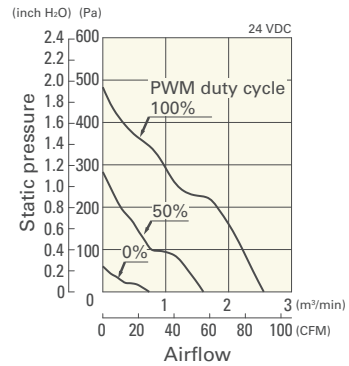


PWM duty - Speed characteristics example

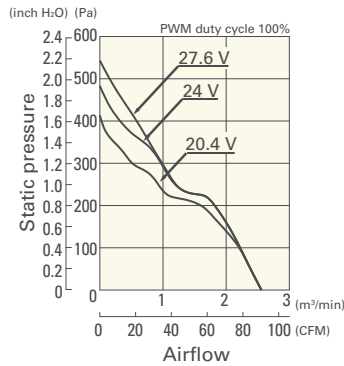


**9GA0824P1S61** With pulse sensor with PWM control

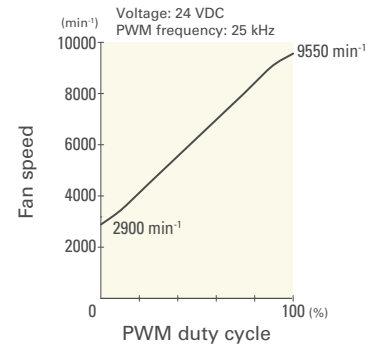
PWM duty cycle



Operating voltage range

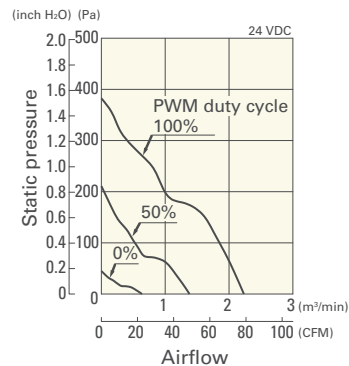


PWM duty - Speed characteristics example

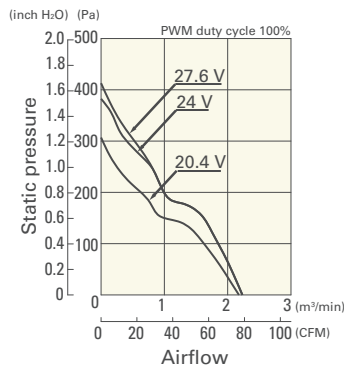


**9GA0824P1H61** With pulse sensor with PWM control

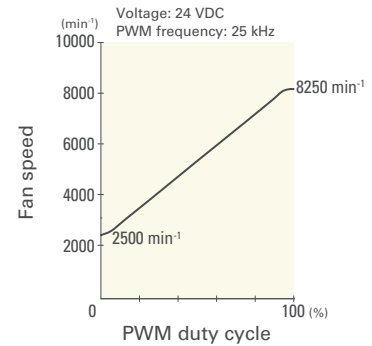
PWM duty cycle



Operating voltage range



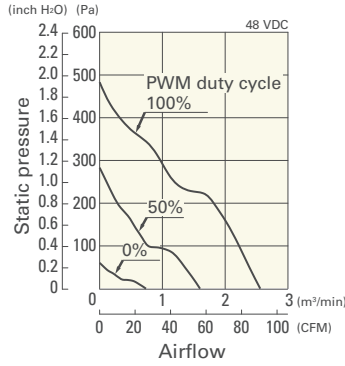
PWM duty - Speed characteristics example



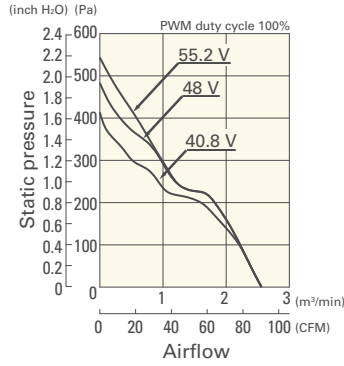
**Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example**

9GA0848P1S61 With pulse sensor with PWM control

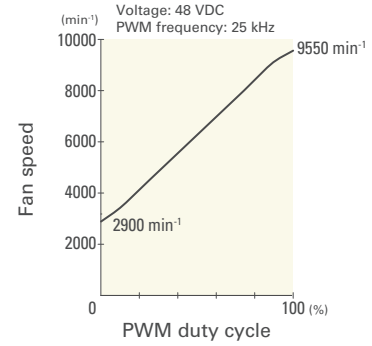
PWM duty cycle



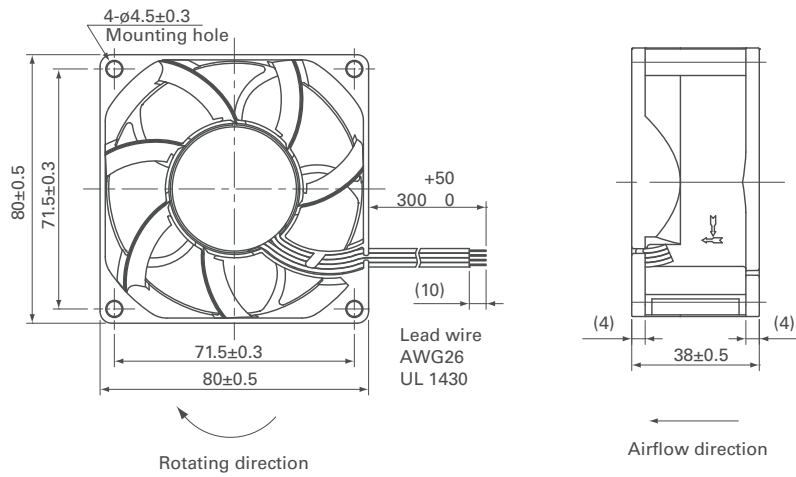
Operating voltage range



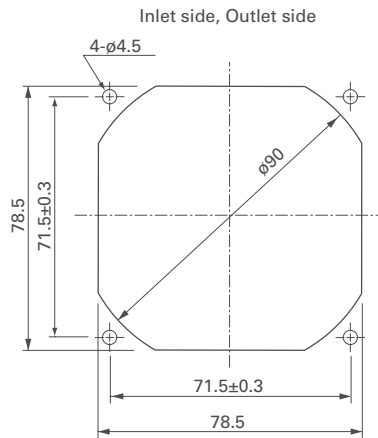
PWM duty - Speed characteristics example



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



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



**Options**

Finger guards page: p. 598  
Model no.: 109-049E, 109-049H

Resin finger guards page: p. 605  
Model no.: 109-1002G

Resin filter kits page: p. 606  
Model no.: 109-1002F13 (13PPI), 109-1002F20 (20PPI),  
109-1002F30 (30PPI), 109-1002F40 (40PPI)