

# 60×60×25 mm

San Ace 60W 9WPA type   



## General Specifications

- Material ..... Frame: Plastic (Flammability: UL 94V-0), Impeller: Plastic (Flammability: UL 94V-1)
- Expected life ..... See the table below. (L10 life: 90% survival rate for continuous operation in indoor 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. 599.
- 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
- Mass ..... 110 g
- Ingress protection ..... IP68

## 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]          |
|----------------|-------------------|-----------------------------|---------------------|-------------------|-----------------|----------------------------------|------------------------------------------|--------------------------------------------------|--------------|----------------------------|----------------------------|
| 9WPA0612P4G001 | 12                | 10.8 to 13.2                | 100                 | 0.93              | 11.16           | 12000                            | 1.52 53.7                                | 357 1.44                                         | 56           | -20 to +70                 | 40000/60°C<br>(70000/40°C) |
|                |                   |                             | 20                  | 0.09              | 1.08            | 3500                             | 0.43 15.1                                | 30 0.12                                          | 22           |                            |                            |
| 9WPA0624P4G001 | 24                | 21.6 to 26.4                | 100                 | 0.46              | 11.04           | 12000                            | 1.52 53.7                                | 357 1.44                                         | 56           |                            |                            |
|                |                   |                             | 20                  | 0.05              | 1.2             | 3500                             | 0.43 15.1                                | 30 0.12                                          | 22           |                            |                            |

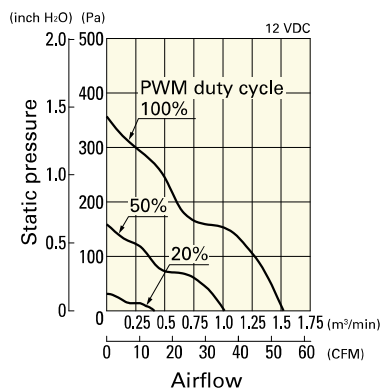
\* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

Note: Sensor and control options are available for selection. Refer to the table on p. 639.

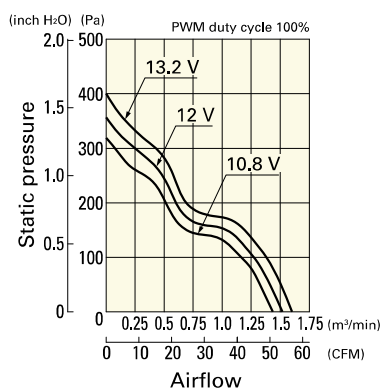
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9WPA0612P4G001** With pulse sensor with PWM control function

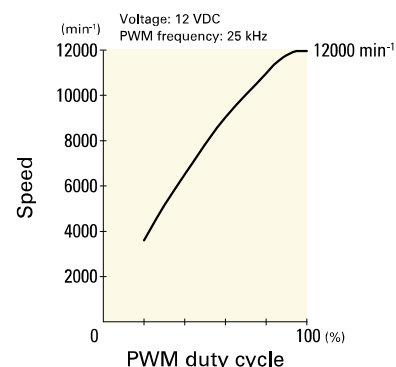
PWM duty cycle



Operating voltage range



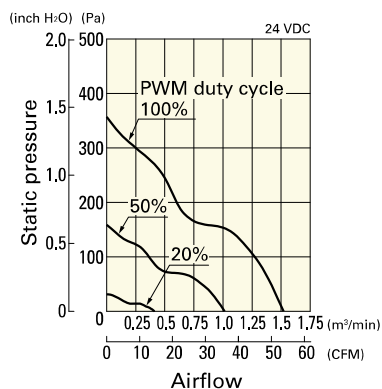
PWM duty - Speed characteristics example



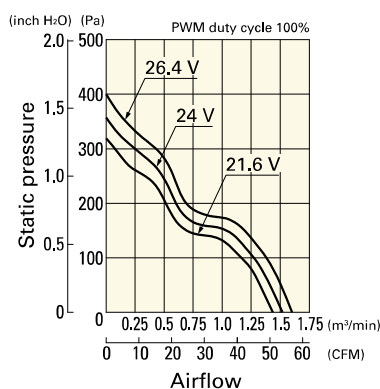
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9WPA0624P4G001** With pulse sensor with PWM control function

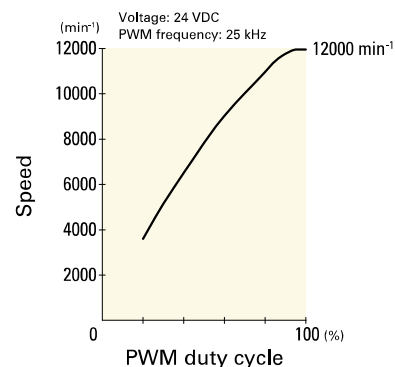
PWM duty cycle



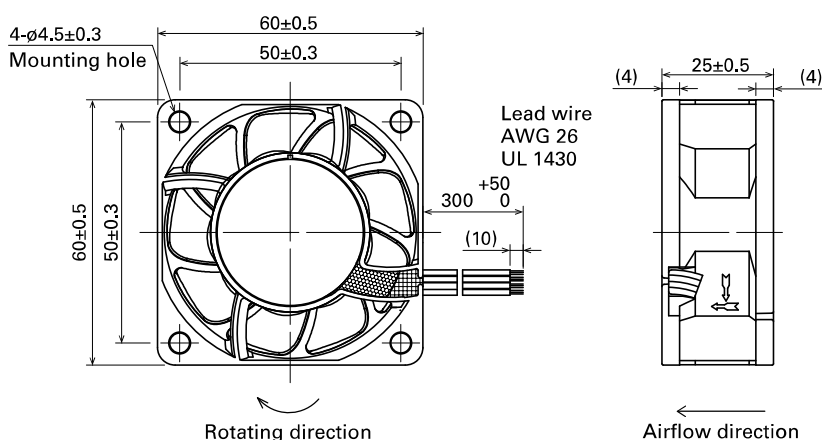
Operating voltage range



PWM duty - Speed characteristics example

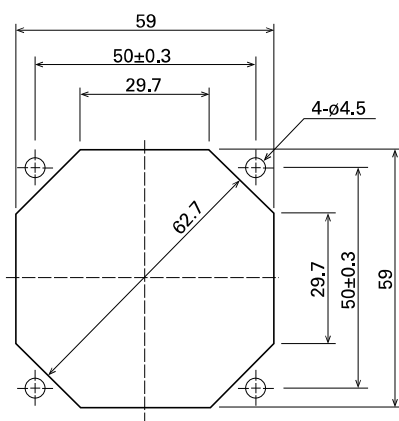


## Dimensions (unit: mm) (With ribs)



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

Inlet side, Outlet side



## Options

Finger guards

page: p. 584

Model no.: 109-139E, 109-139H

Resin finger guards

page: p. 591

Model no.: 109-1003G