



# 120×120×38 mm

San Ace 120W 9WV type US

## General Specifications

- Material ..... Frame: Aluminum (Black coating), 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. 573.
- 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 ..... 440 g
- Ingress protection ..... IP68

## Specifications

The models listed below **have pulse sensors with PWM control function.**

| 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]          |
|---------------|-------------------|-----------------------------|--------------------|-------------------|-----------------|----------------------------------|------------------------------------------|--------------------------------------------------|--------------|----------------------------|----------------------------|
| 9WV1212P1J001 | 12                | 10.2 to 13.8                | 100                | 3                 | 36              | 6400                             | 6.35 224.0                               | 360 1.45                                         | 64           | -20 to +70                 | 60000/60°C<br>(90000/40°C) |
|               |                   |                             | 0                  | 0.2               | 2.4             | 1500                             | 1.49 52.6                                | 19.8 0.08                                        | 33           |                            |                            |
| 9WV1224P1J601 | 24                | 20.4 to 27.6                | 100                | 1.5               | 36              | 6400                             | 6.35 224.0                               | 360 1.45                                         | 64           |                            |                            |
|               |                   |                             | 0                  | 0.12              | 2.88            | 1500                             | 1.49 52.6                                | 26.1 0.105                                       | 33           |                            |                            |
| 9WV1224P1H001 | 48                | 40.8 to 55.2                | 100                | 0.8               | 19.2            | 5200                             | 5.16 182                                 | 237 0.95                                         | 58           |                            |                            |
|               |                   |                             | 0                  | 0.06              | 2.88            | 1500                             | 1.49 52.6                                | 26.1 0.105                                       | 33           |                            |                            |

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

The following sensor and control options are available for selection.

Available for all models. **Without sensor**

Differs according to the model. Refer to the table on p. 613. **Pulse sensor** **Lock sensor**

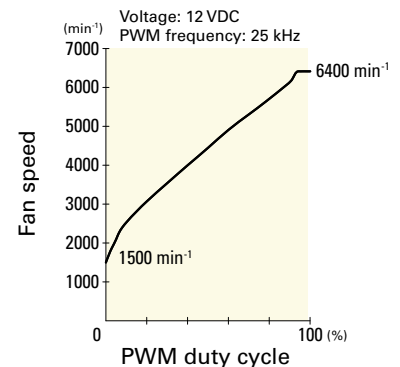
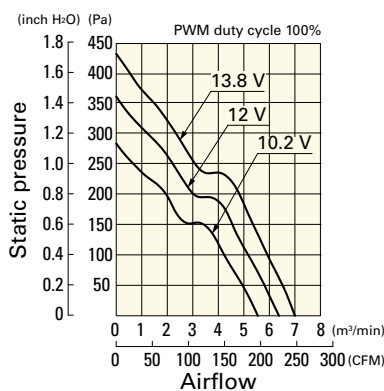
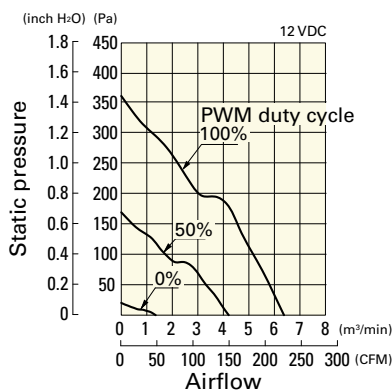
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9WV1212P1J001** With pulse sensor with PWM control function

PWM duty cycle

Operating voltage range

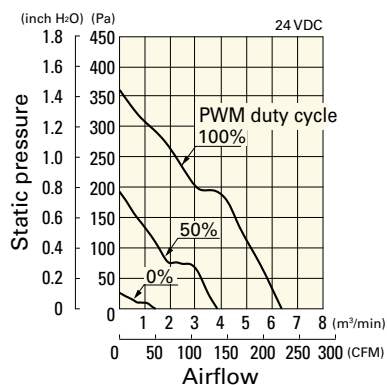
PWM duty - Speed characteristics example



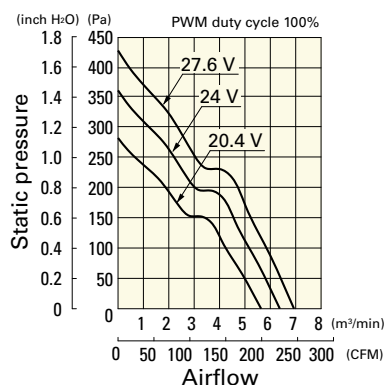
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9WV1224P1J601** With pulse sensor with PWM control function

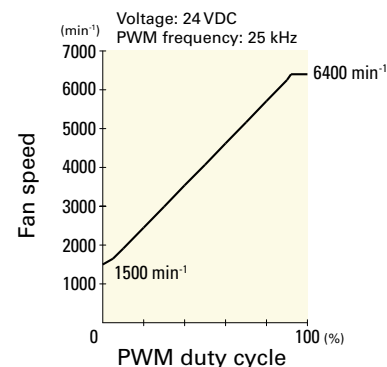
PWM duty cycle



Operating voltage range

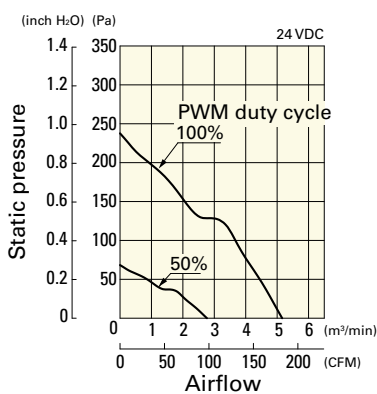


PWM duty - Speed characteristics example

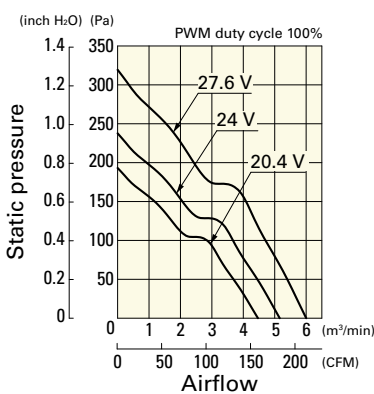


**9WV1224P1H001** With pulse sensor with PWM control function

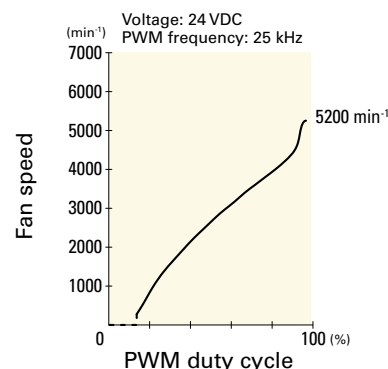
PWM duty cycle



Operating voltage range

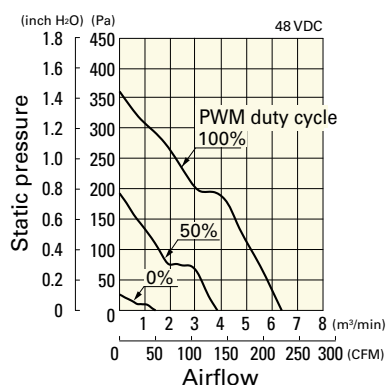


PWM duty - Speed characteristics example

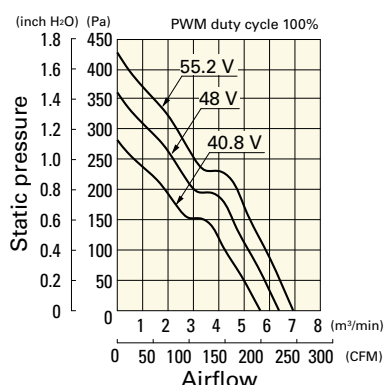


**9WV1248P1J001** With pulse sensor with PWM control function

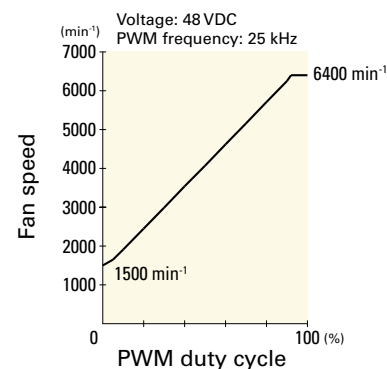
PWM duty cycle



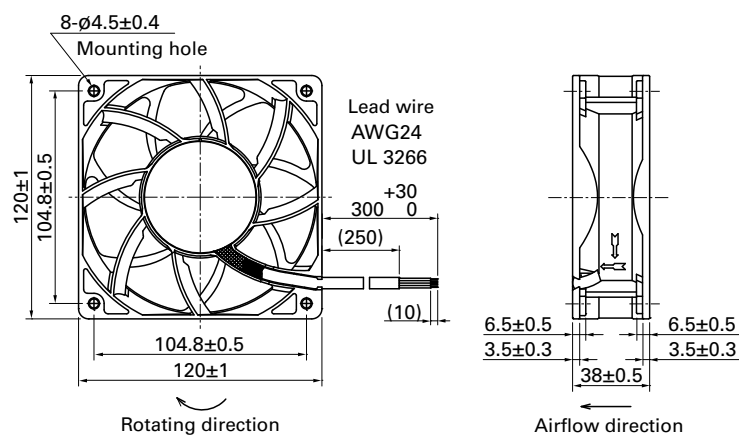
Operating voltage range



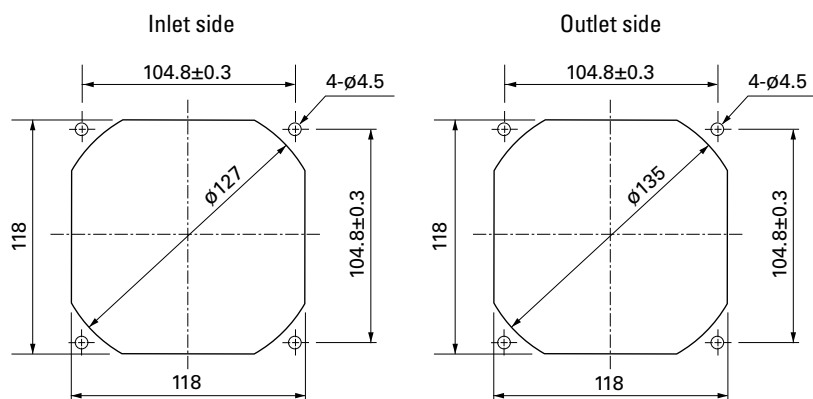
PWM duty - Speed characteristics example



## Dimensions (unit: mm)



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



## Options

### Finger guards

page: p. 559

Model no.: 109-019E, 109-019K, 109-019C, 109-019H

### Resin finger guards

page: p. 565

Model no.: 109-1000G