

# 40×40×28 mm

## San Ace 40 9GE type Low Vibration Fan



### General Specifications

- Material ..... Frame: Aluminum, 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. 608.
- 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 ..... 55 g

### Specifications

The models listed below **have a pulse sensor with PWM control.**

| 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]          |
|--------------|-------------------|-----------------------------|--------------------|-------------------|-----------------|----------------------------------|------------------------------------------|--------------------------------------------------|--------------|----------------------------|----------------------------|
| 9GE0412P3K03 | 12                | 10.8 to 13.2                | 100                | 0.84              | 10.08           | 16500                            | 0.76 26.8                                | 415 1.666                                        | 58           | -20 to +60                 | 40000/60°C<br>(70000/40°C) |
|              |                   |                             | 0                  | 0.07              | 0.84            | 3000                             | 0.13 4.6                                 | 13 0.052                                         | 17           |                            |                            |
| 9GE0412P3J03 |                   |                             | 100                | 0.65              | 7.8             | 15000                            | 0.69 24.4                                | 343.0 1.378                                      | 56           |                            |                            |
|              |                   |                             | 0                  | 0.05              | 0.6             | 2650                             | 0.12 4.2                                 | 10.7 0.042                                       | 14           |                            |                            |
| 9GE0412P3G03 |                   |                             | 100                | 0.47              | 5.64            | 13000                            | 0.6 21.2                                 | 260 1.044                                        | 52           |                            |                            |
|              |                   |                             | 0                  | 0.05              | 0.6             | 2400                             | 0.11 3.9                                 | 8.2 0.033                                        | 13           |                            |                            |

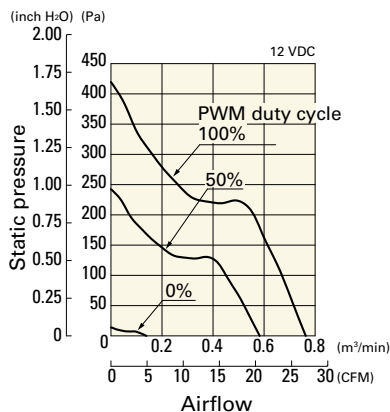
\* PWM frequency is 25 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

Note: Sensor and control options are available for selection. Refer to the table on p. 641.

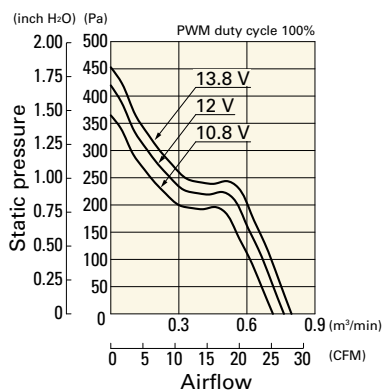
### Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GE0412P3K03** With pulse sensor with PWM control

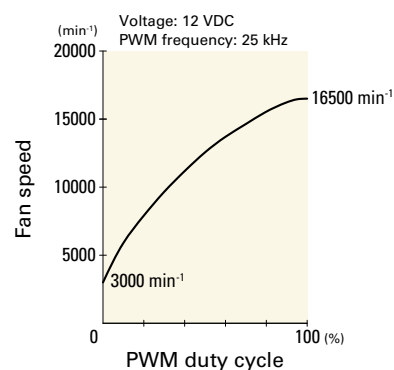
PWM duty cycle



Operating voltage range



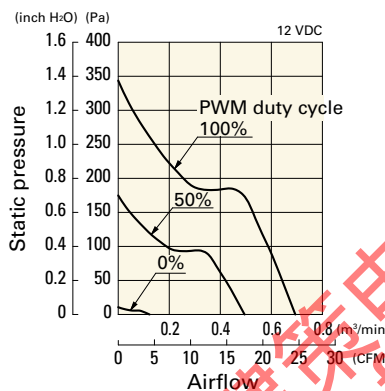
PWM duty - Speed characteristics example



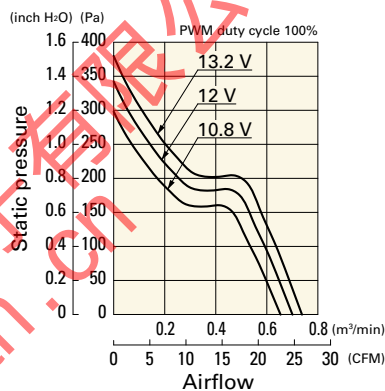
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GE0412P3J03 With pulse sensor with PWM control

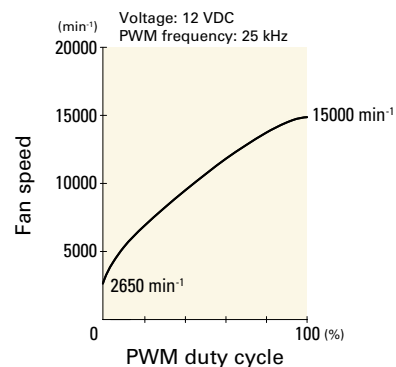
PWM duty cycle



Operating voltage range

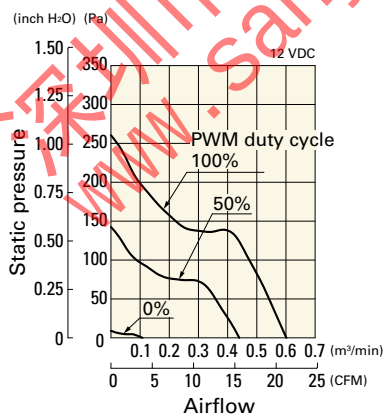


PWM duty - Speed characteristics example

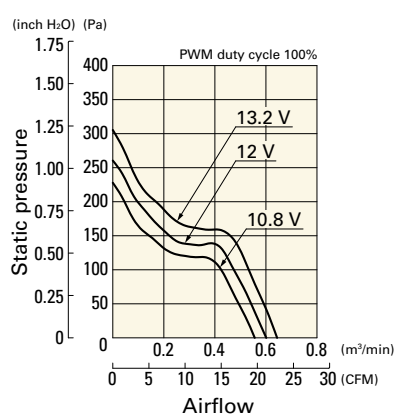


9GE0412P3G03 With pulse sensor with PWM control

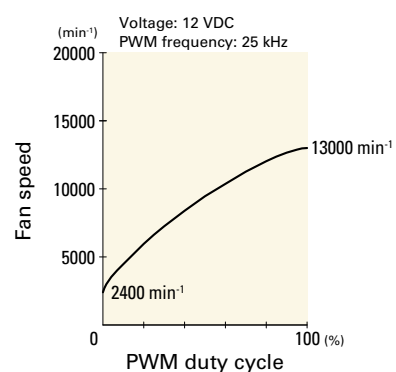
PWM duty cycle



Operating voltage range

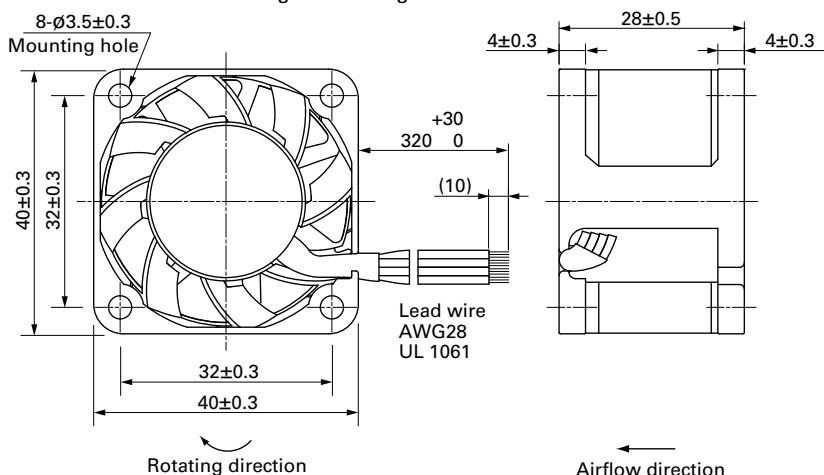


PWM duty - Speed characteristics example

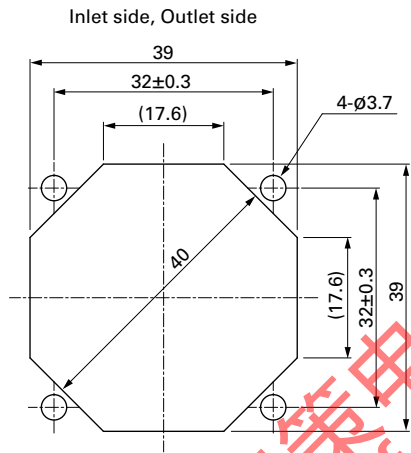


## Dimensions (unit: mm)

Screw-mount the fan through both flanges.



**DC Fan 40 mm sq.**



Finger guards

page: p. 590

Model no.: 109-059, 109-059H