

**40**mm sq.

# San Ace 40

10mm thick, 15mm thick, 20mm thick  
**28mm thick (GE type)**  
 28mm thick (GV type), 28mm thick



## General Specifications With a pulse sensor

With PWM speed control function

- Material ..... Frame: Aluminum, Impeller: Plastics (Flammability: UL94V-0)
- Life Expectancy ..... Varies for each model (L10: Survival rate: 90% at 60°C, rated voltage, and continuously run in a free air state)
- Lead Wire ..... ⊕ red ⊖ black (Sensor) yellow (Control) brown
- Storage Temperature ..... -30°C to +70°C (Non-condensing)

**40×40×28mm** (Mass : 55g)

**Low vibration GE type**

## Specifications

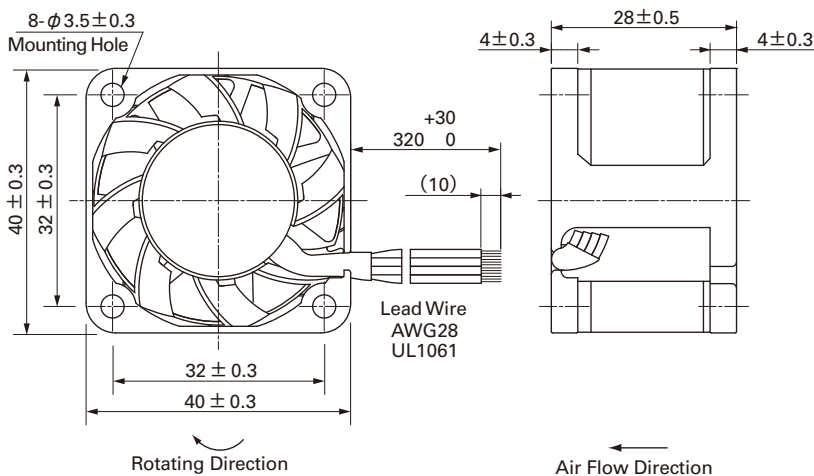
Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM duty cycle※ [%]	Rated Current [A]	Rated Input [W]	Rated Speed [min <sup>-1</sup> ]	Air Flow [m <sup>3</sup> /min] [CFM]	Static Pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB(A)]	Operating Temperature [°C]	Life Expectancy [h]
9GE0412P3J03	12	10.8 to 13.2	100	0.65	7.8	15,000	0.69 24.4	343.0 1.378	56	-10 to +60	40,000
			0	0.05	0.6	2,650	0.12 4.2	10.7 0.042	14		

※PWM Frequency : 25kHz

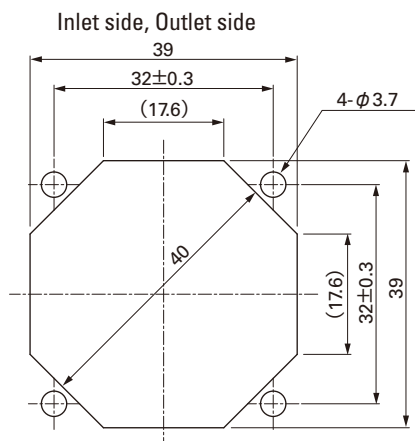
**Without Sensor** **Pulse Sensor** **PWM Control** Available in all models.

**Lock Sensor** Please inquire as the availability of these functions depend on the model.

## Dimensions (Unit : mm)



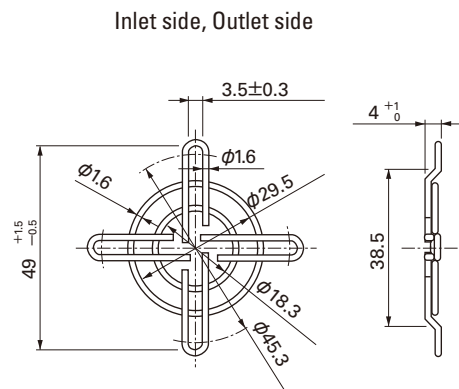
## Reference dimension of mounting holes and vent opening (Unit : mm)



## Options (Unit : mm)

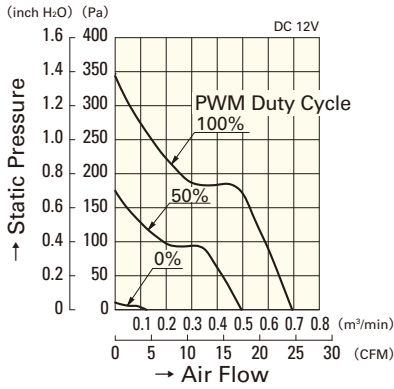
### Finger guards

Model : 109-059 Surface treatment : Nickel-chrome plating (silver) Color



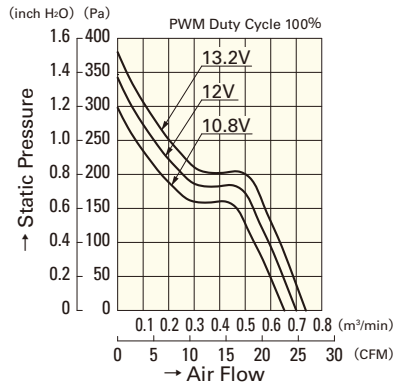
## Air Flow and Static Pressure Characteristics

### PWM Duty Cycle



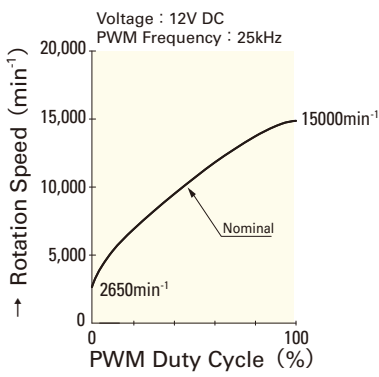
9GE0412P3J03

### Operating Voltage Range



9GE0412P3J03

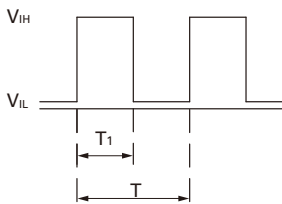
## PWM Duty - Speed Characteristics Example



9GE0412P3J03

## PWM Input Signal Example

### Input Signal Wave Form



$V_{IH}=2.8V$  to  $3.8V$

$V_{IL}=0V$  to  $0.4V$

$$\text{PWM Duty Cycle (\%)} = \frac{T_1}{T} \times 100$$

$$\text{PWM Frequency 25 (kHz)} = \frac{1}{T}$$

Source Current ( $I_{source}$ ): 2mA Max. at control voltage 0V

Sink Current ( $I_{sink}$ ): 2mA Max. at control voltage 3.8V

Control Terminal Voltage: 3.8V Max. (Open Circuit)

When the control lead wire is no connecting, the speed is the same speed as at 100% of PWM duty cycle.

This fan speed should be controlled by PWM input signal of either TTL input or open collector, drain input.

## Connection Schematic

