



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**40**mm sq.

# San Ace 40



## General Specifications

- Material ..... Frame: Plastics (Flammability: UL94V-0),  
Impeller: Plastics (Flammability: UL94V-0)
- Expected Life ..... Refer to specifications (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  
(For models without PWM control function, there is no  
speed control wiring.)
- Storage Temperature ..... -30°C to +70°C (Non-condensing)

**40×40×15mm** (Mass : 28g) **9GA type** High Airflow Low Power Consumption Fan



## Specifications

The following nos. **have PWM controls, pulse sensors, and ribs.**

| Model No.            | Rated Voltage [V] | Operating Voltage Range [V] | PWM duty cycle <sup>Note①</sup> [%] | 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]            |
|----------------------|-------------------|-----------------------------|-------------------------------------|-------------------|-----------------|----------------------------------|------------------------------------------|--------------------------------------------------|-------------|----------------------------|------------------------------|
| <b>9GA0412P7G001</b> | 12                | 10.2 to 13.8                | 100                                 | 0.17              | 2.04            | 13,100                           | 0.36 12.7                                | 192 0.77                                         | 42          | -20 to +70                 | 40,000/60°C<br>(70,000/40°C) |

Note: Fan does not rotate when PWM duty cycle is 0%.

※PWM Frequency : 25kHz

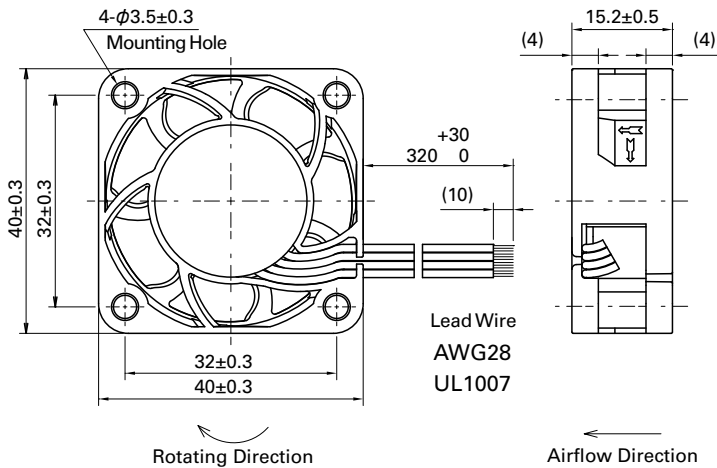
## The following nos. **have pulse sensors and ribs.**

| Model No.           | Rated Voltage [V] | Operating Voltage Range [V] | 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]            |
|---------------------|-------------------|-----------------------------|-------------------|-----------------|----------------------------------|------------------------------------------|--------------------------------------------------|-------------|----------------------------|------------------------------|
| <b>9GA0412G7001</b> | 12                | 7 to 13.8                   | 0.17              | 2.04            | 13,100                           | 0.36 12.7                                | 192 0.77                                         | 42          | -20 to +70                 | 40,000/60°C<br>(70,000/40°C) |
| <b>9GA0412H7001</b> |                   |                             | 0.06              | 0.72            | 7,300                            | 0.2 7.1                                  | 59.6 0.24                                        | 28          |                            |                              |

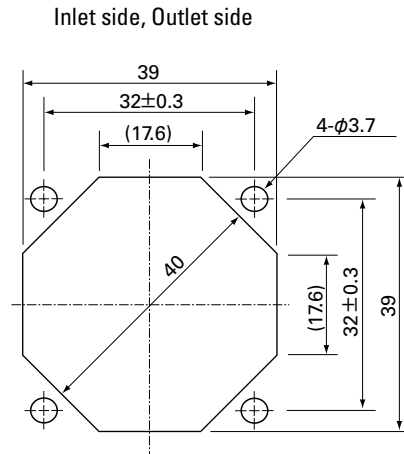
Other sensor specifications are available as options. Please refer to the index (p. 504).

## Dimensions (unit: mm)

(With PWM control function · With pulse sensor)



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

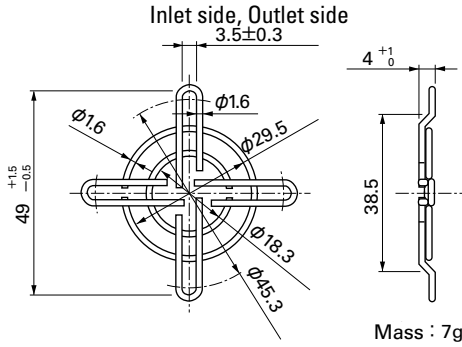


**Options (unit: mm)**

**Finger Guards**

Model : 109-059      Surface treatment : Nickel-chrome plating (silver)  
 : 109-059H      : Cation electropainting (black)

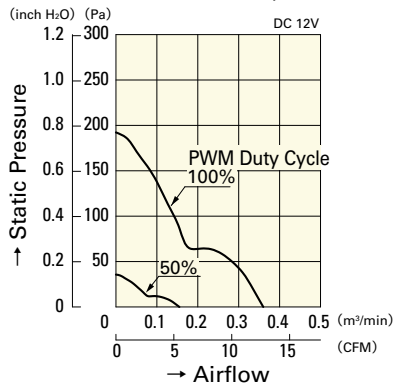
Color



**Airflow - Static Pressure Characteristics**

**PWM Duty Cycle**

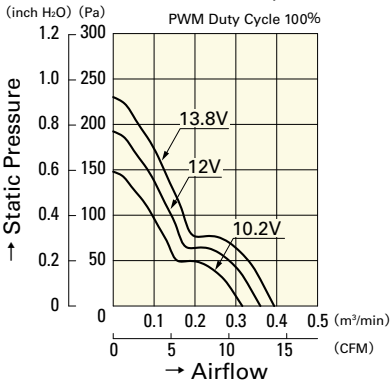
With PWM control function · With pulse sensor



**9GA0412P7G001**

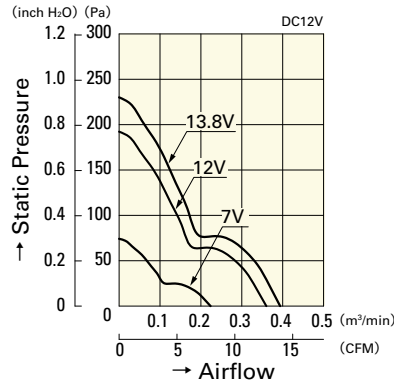
**Operating Voltage Range**

With PWM control function · With pulse sensor



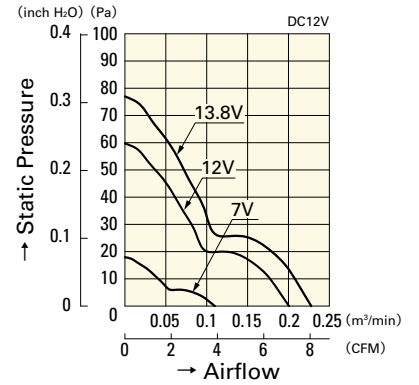
**9GA0412P7G001**

With pulse sensor



**9GA0412G7001**

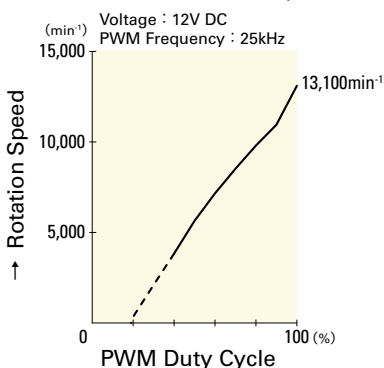
With pulse sensor



**9GA0412H7001**

**PWM Duty - Speed Characteristics Example**

With PWM control function · With pulse sensor



**9GA0412P7G001**