

DC Fan



# 52x52x15 mm

**San Ace 52 9GA** type Low Power Consumption Fan

## General Specifications

- Material ..... Frame: Plastic (Flammability: UL 94V-0), 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. 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 ..... 40 g

## Specifications

The models listed below **have ribs and 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]          |
|------------------|-------------------|-----------------------------|---------------------|-------------------|-----------------|----------------------------------|--|--|--------------|----------------------------|----------------------------|
| ▶▶ 9GA0512P7G001 | 12                | 10.2 to 13.8                | 100                 | 0.13              | 1.56            | 7800                             | 0.5 17.7                                 | 91.5 0.367                                       | 38           | -20 to +70                 | 40000/60°C<br>(70000/40°C) |
| ▶▶ 9GA0512P7A001 |                   |                             | 100                 | 0.08              | 0.96            | 6300                             | 0.4 14.1                                 | 59 0.237   | 32           |                            |                            |
| ▶▶ 9GA0512P7H001 |                   |                             | 100                 | 0.05              | 0.6             | 4300                             | 0.275 9.7                                | 27.5 0.11  | 22           |                            |                            |
| ▶▶ 9GA0512P7M001 |                   |                             | 100                 | 0.04              | 0.48            | 3400                             | 0.215 7.6                                | 17 0.068   | 16           |                            |                            |
| ▶▶ 9GA0524P7G001 | 24                | 20.4 to 27.6                | 100                 | 0.07              | 1.68            | 7800                             | 0.5 17.7                                 | 91.5 0.367                                       | 38           |                            |                            |
| ▶▶ 9GA0524P7A001 |                   |                             | 100                 | 0.05              | 1.2             | 6300                             | 0.4 14.1                                 | 59.0 0.237                                       | 32           |                            |                            |
| ▶▶ 9GA0524P7H001 |                   |                             | 100                 | 0.03              | 0.72            | 4300                             | 0.275 9.7                                | 27.5 0.11  | 22           |                            |                            |
| ▶▶ 9GA0524P7M001 |                   |                             | 100                 | 0.02              | 0.48            | 3400                             | 0.215 7.6                                | 17.0 0.068                                       | 16           |                            |                            |

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

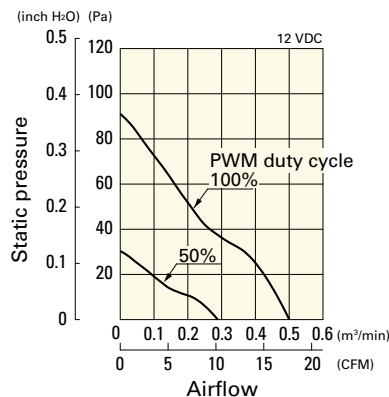
Note 1: Sensor and control options are available for selection. Refer to the table on pp. 628 to 629.

Note 2: The ▶▶ mark indicates Short LeadTime Service applicable models. See p. 654 for details.

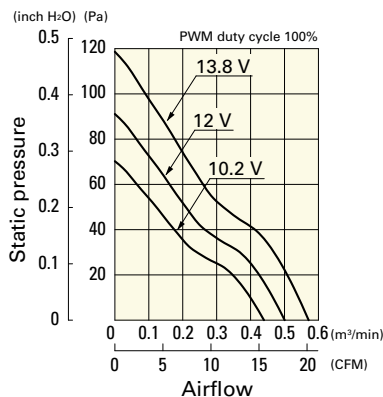
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GA0512P7G001** With pulse sensor with PWM control function

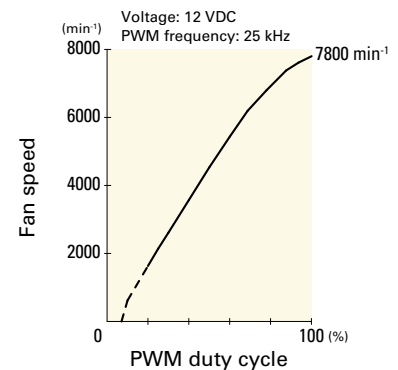
PWM duty cycle



Operating voltage range



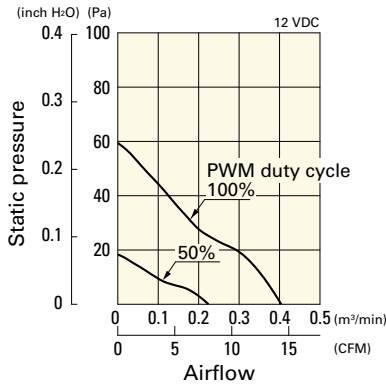
PWM duty - Speed characteristics example



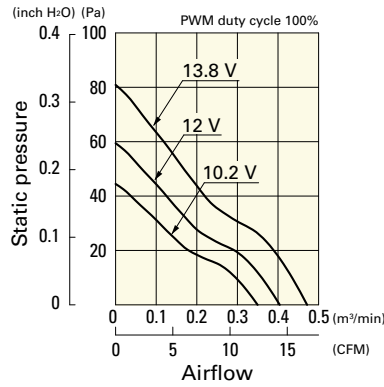
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**9GA0512P7A001** With pulse sensor with PWM control function

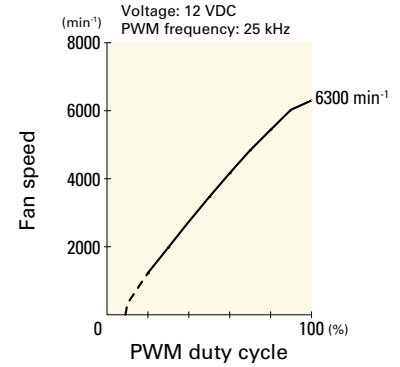
PWM duty cycle



Operating voltage range

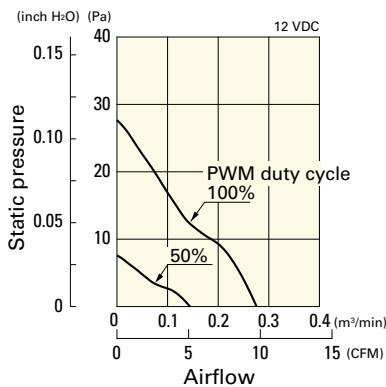


PWM duty - Speed characteristics example

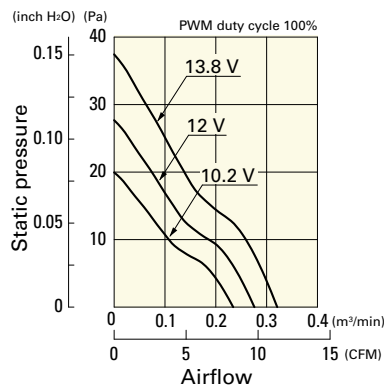


**9GA0512P7H001** With pulse sensor with PWM control function

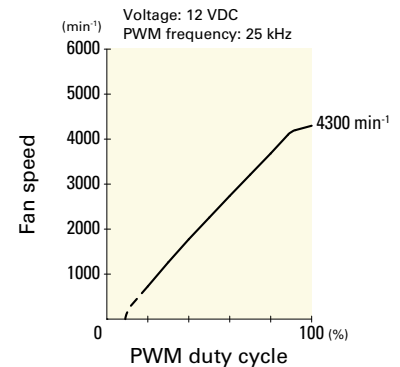
PWM duty cycle



Operating voltage range

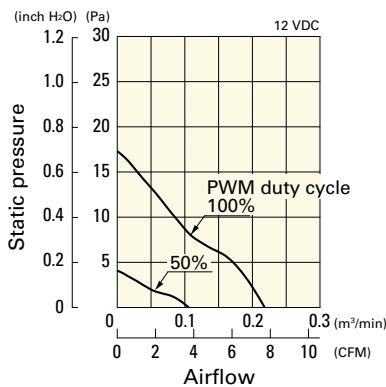


PWM duty - Speed characteristics example

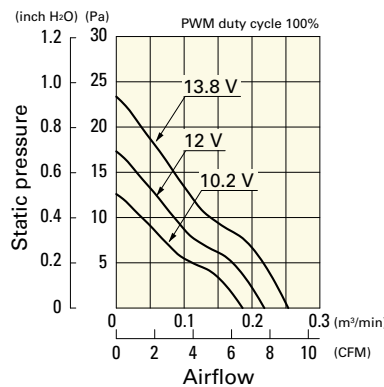


**9GA0512P7M001** With pulse sensor with PWM control function

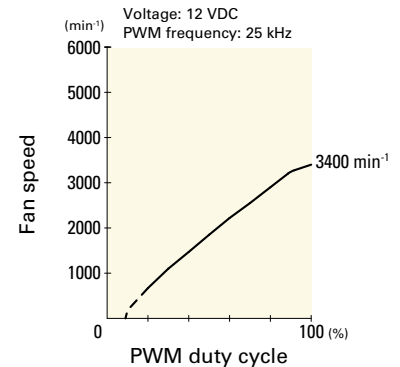
PWM duty cycle



Operating voltage range

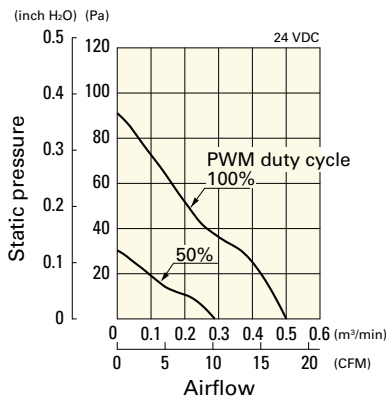


PWM duty - Speed characteristics example

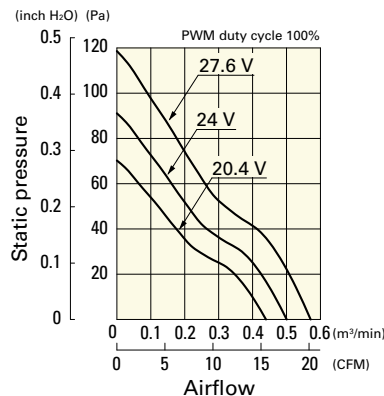


**9GA0524P7G001** With pulse sensor with PWM control function

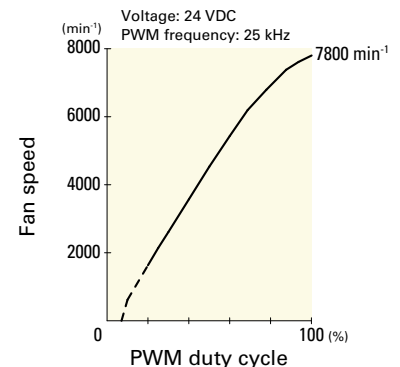
PWM duty cycle



Operating voltage range



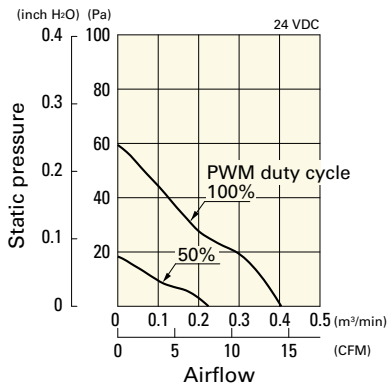
PWM duty - Speed characteristics example



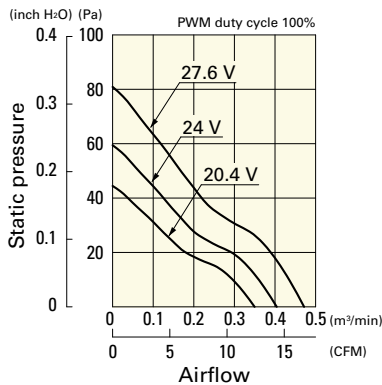
**Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example**

**9GA0524P7A001** With pulse sensor with PWM control function

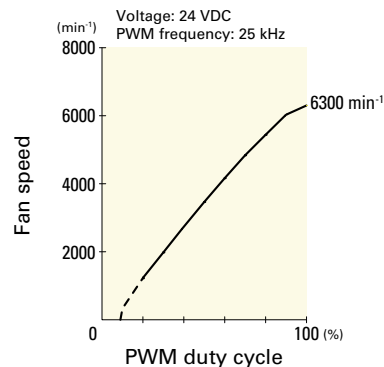
PWM duty cycle



Operating voltage range

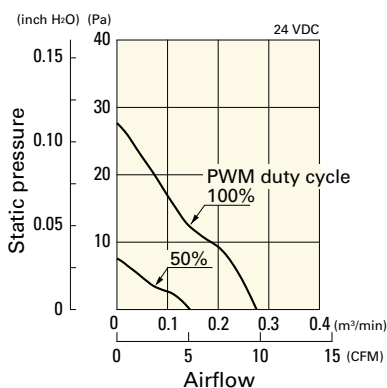


PWM duty - Speed characteristics example

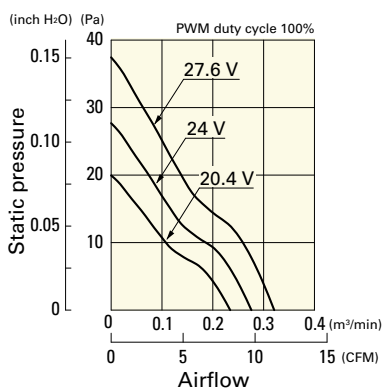


**9GA0524P7H001** With pulse sensor with PWM control function

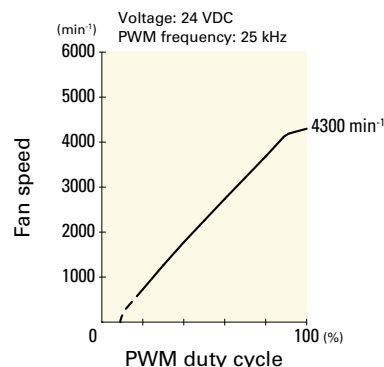
PWM duty cycle



Operating voltage range

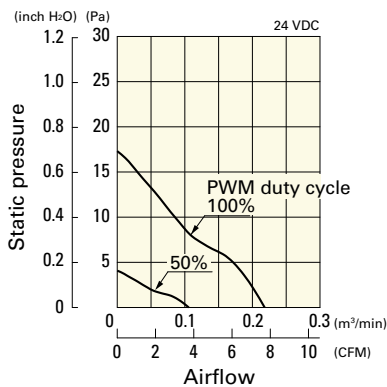


PWM duty - Speed characteristics example

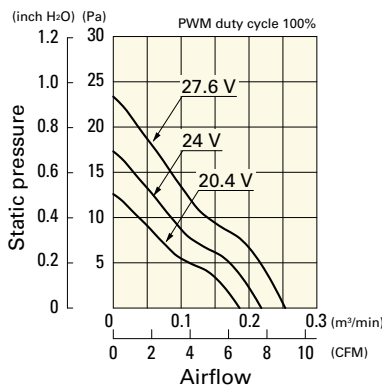


**9GA0524P7M001** With pulse sensor with PWM control function

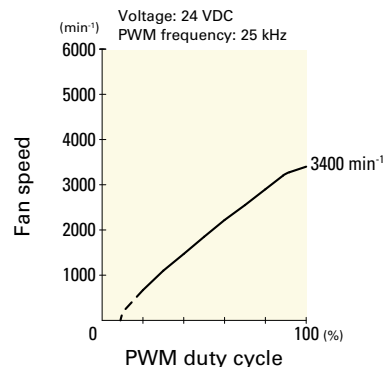
PWM duty cycle



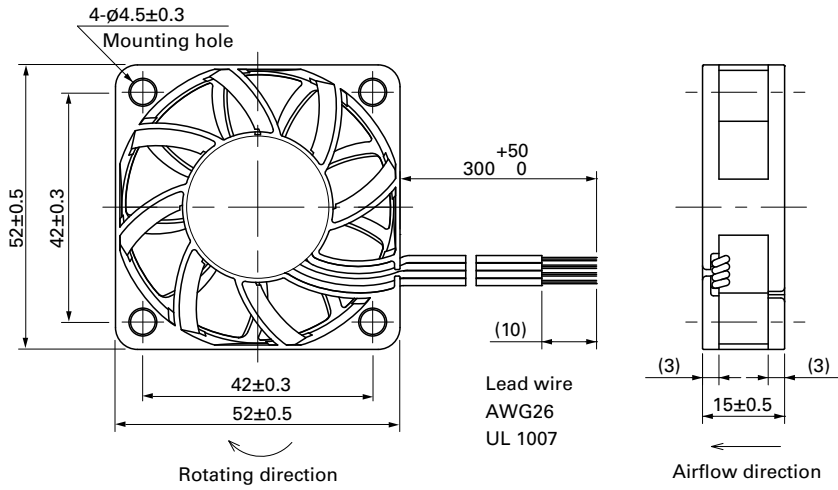
Operating voltage range



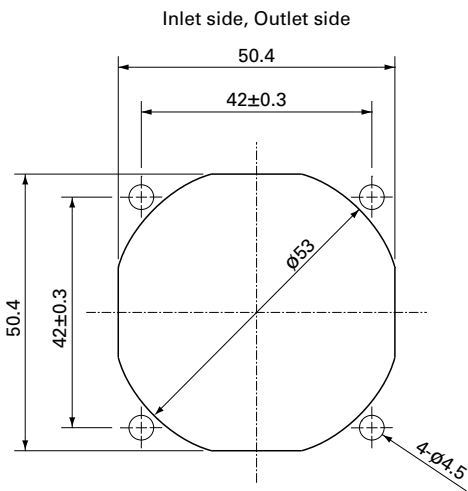
PWM duty - Speed characteristics example



**Dimensions (unit: mm)**



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



**Options**

Finger guards

page: p. 584

Model no.: 109-149, 109-149E