



# 60x60x15 mm

**San Ace 60 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  
(For models without PWM control function, there is no speed control wiring.)
- Mass ..... 50 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>2</sup> /min] [CFM]	Max. static pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]		
9GA0612P7G01	12	10.2 to 13.8	100	0.16	1.92	5900	0.68 24	80 0.32	38	-20 to +70	40000/60°C (70000/40°C)		
			0	0.05	0.6	1500	0.17 6.0	5.2 0.02	10				
9GA0612P7H01	12	10.2 to 13.8	100	0.1	1.2	4900	0.56 19.7	55.6 0.223	34				
			0	0.03	0.36	1300	0.15 5.3	3.9 0.015	8				
9GA0624P7G01	24	20.4 to 27.6	100	0.08	1.92	5900	0.68 24.0	80 0.32	38				

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

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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>2</sup> /min] [CFM]	Max. static pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9GA0612G701	12	6 to 13.8	0.16	1.92	5900	0.68 24	80 0.32	38	-20 to +70	40000/60°C (70000/40°C)
9GA0612H701			0.1	1.2	4900	0.56 19.7	55.6 0.223	34		60000/60°C (90000/40°C)
9GA0612M701			0.08	0.96	3900	0.45 15.9	35.3 0.142	28		40000/60°C (70000/40°C)
9GA0612L701			0.03	0.36	2800	0.31 10.9	18 0.072	17		
9GA0624M701	24	12 to 27.6	0.05	1.2	3900	0.45 15.9	35.3 0.142	28		

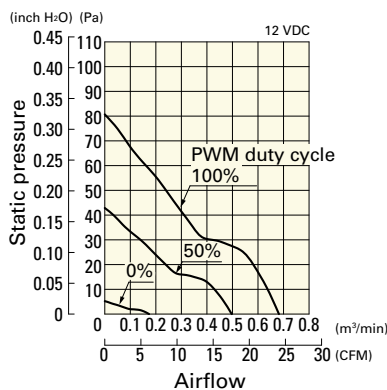
Note 1: Sensor and control options are available for selection. Refer to the table on p. 629.

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

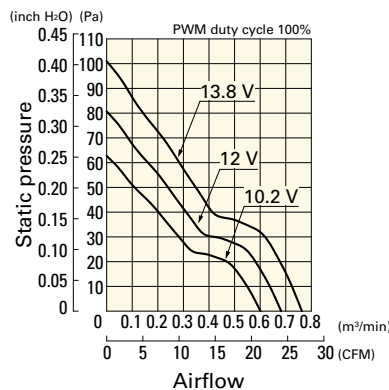
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GA0612P7G01** With pulse sensor with PWM control function

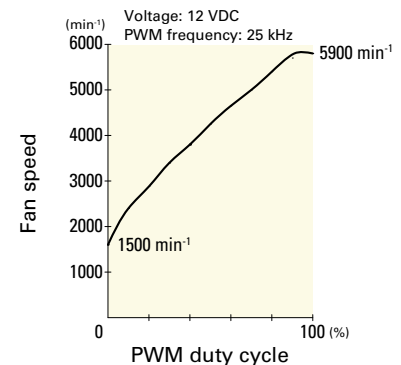
PWM duty cycle



Operating voltage range



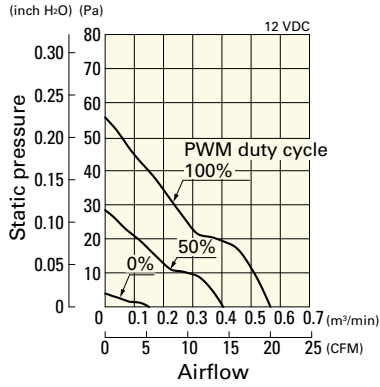
PWM duty - Speed characteristics example



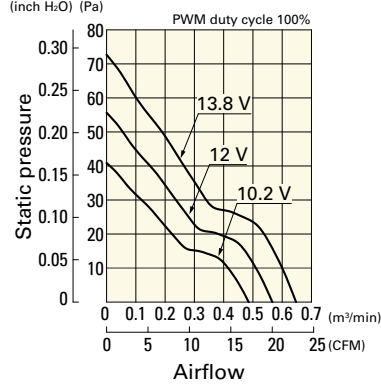
**Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example**

**9GA0612P7H01** With pulse sensor with PWM control function

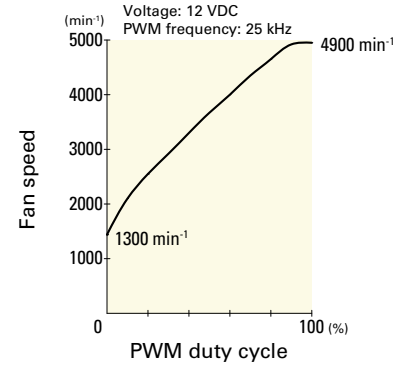
PWM duty cycle



Operating voltage range

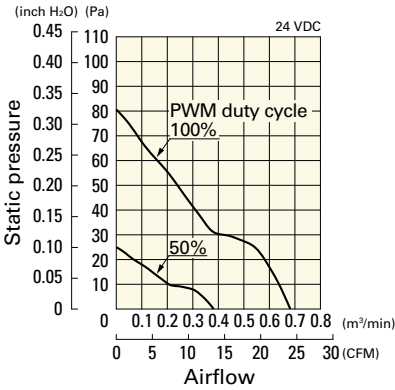


PWM duty - Speed characteristics example

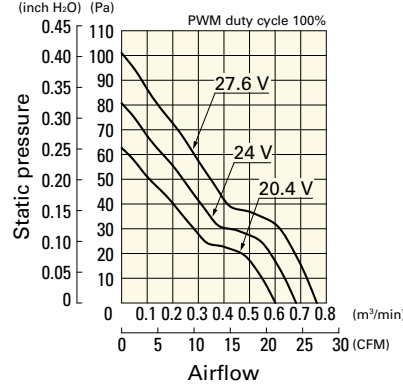


**9GA0624P7G01** With pulse sensor with PWM control function

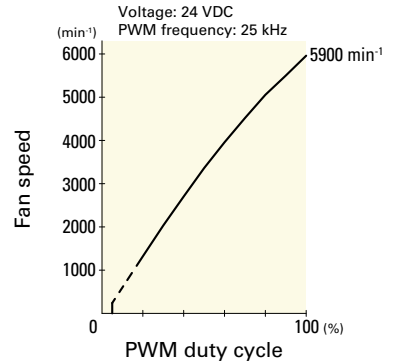
PWM duty cycle



Operating voltage range



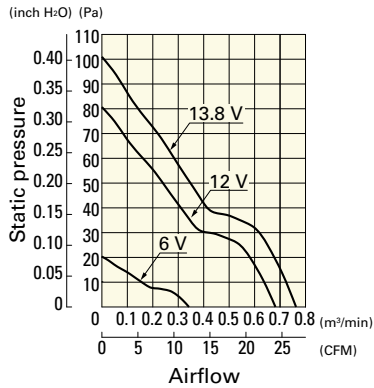
PWM duty - Speed characteristics example



**Airflow - Static Pressure Characteristics**

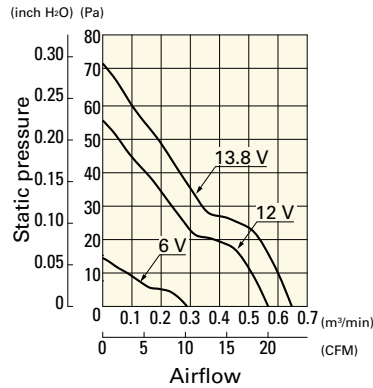
**9GA0612G701** With pulse sensor

Operating voltage range



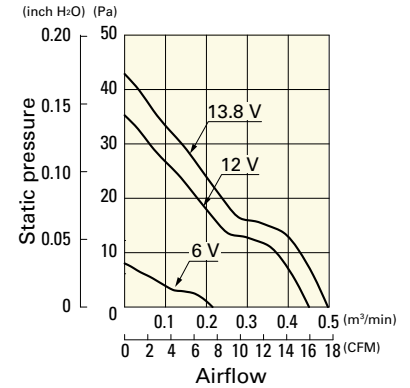
**9GA0612H701** With pulse sensor

Operating voltage range



**9GA0612M701** With pulse sensor

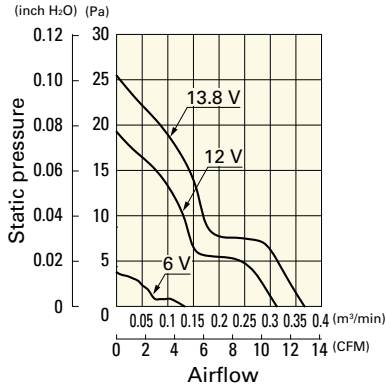
Operating voltage range



**Airflow - Static Pressure Characteristics**

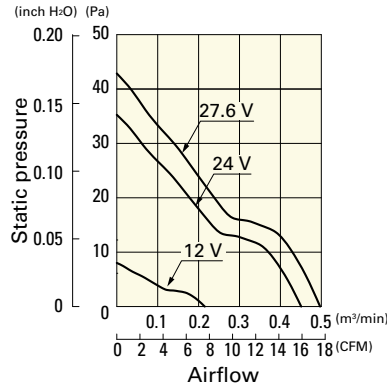
**9GA0612L701** With pulse sensor

Operating voltage range

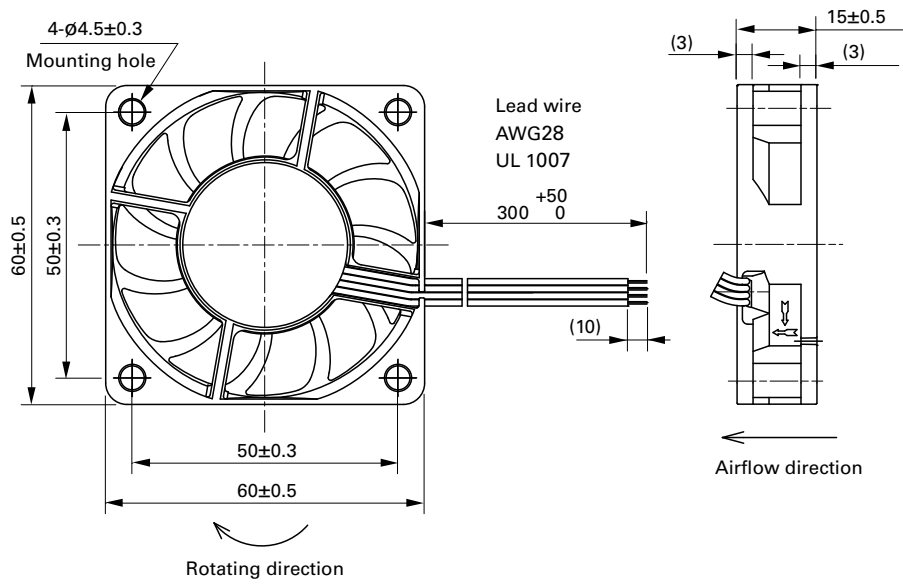


**9GA0624M701** With pulse sensor

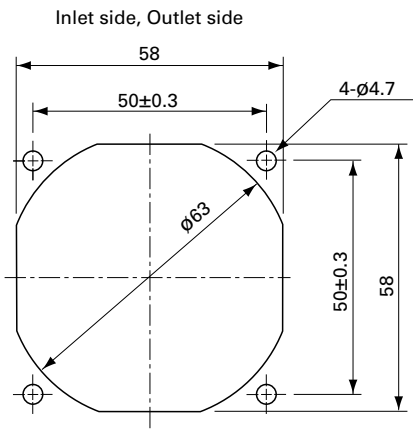
Operating voltage range



**Dimensions (unit: mm)** (With pulse sensor with PWM control function)



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



**Options**

Finger guards

page: p. 584

Model no.: 109-139E, 109-139H

Resin finger guards

page: p. 591

Model no.: 109-1003G

Resin filter kits

page: p. 592

Model no.: 109-1003F13 (13PPI), 109-1003F20 (20PPI),  
109-1003F30 (30PPI), 109-1003F40 (40PPI)