



# 40x40x28 mm

**San Ace 40 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. 580.
- 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  
(For models without PWM control function, there is no speed control wiring.)
- Mass ..... 53 g

## Specifications

The models listed below **have ribs and pulse sensors with PWM control function.** For models without ribs, append "1" to the end of model numbers.

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]		
▶▶ 9GA0412P3K01	12	10.8 to 13.2	100	0.92	11.04	22000	0.81 28.6	799 3.21	61	-20 to +60	30000/60°C (53000/40°C)		
			0	0.1	1.2	6500	0.23 8.12	68 0.27	32				
▶▶ 9GA0412P3J01			100	0.49	5.88	18000	0.67 23.7	535 2.15	54				
			0	0.05	0.6	4500	0.16 5.7	33 0.13	22				
▶▶ 9GA0412P3G01			100	0.39	4.68	16500	0.61 21.5	450 1.81	53				
			0	0.05	0.6	4500	0.16 5.7	33 0.13	22				
▶▶ 9GA0412P3H01			24	21.6 to 26.4	100	0.28	3.36	14500	0.54 19.1	347 1.39	50	-20 to +70	40000/60°C (70000/40°C)
					0	0.04	0.48	3500	0.13 4.6	20 0.08	17		
▶▶ 9GA0412P3M01					100	0.21	2.52	12500	0.46 16.2	258 1.04	47		
					0	0.04	0.48	3500	0.13 4.6	20 0.08	17		
▶▶ 9GA0424P3J001					100	0.27	6.48	18000	0.67 23.7	535 2.15	54		
▶▶ 9GA0424P3G001					100	0.22	5.28	16500	0.61 21.5	450 1.81	53		
▶▶ 9GA0424P3H001	100	0.16	3.84	14500	0.54 19.1	347 1.39	50						
▶▶ 9GA0424P3M001	100	0.11	2.64	12500	0.46 16.2	258 1.04	47						

\* 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.

The models listed below **have ribs and pulse sensors.** For models without ribs, append "1" to the end of model numbers.

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]
9GA0412A301	12	10.8 to 13.2	0.13	1.56	10500	0.38 13.4	182 0.73	43	-10 to +70	40000/60°C (70000/40°C)

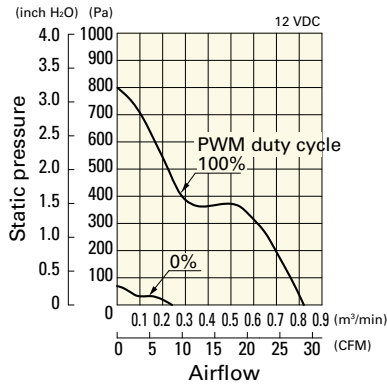
Note 1: Sensor and control options are available for selection. Refer to the table on p. 607.

Note 2: The ▶▶ mark indicates Short LeadTime Service applicable models. See p. 630 for details.

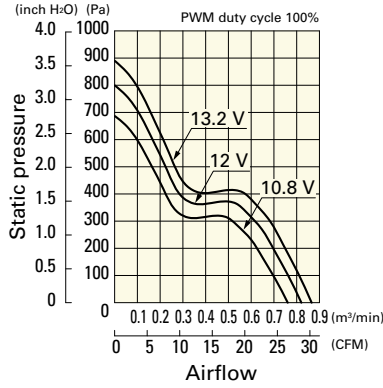
**Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example**

**9GA0412P3K01** With pulse sensor with PWM control function

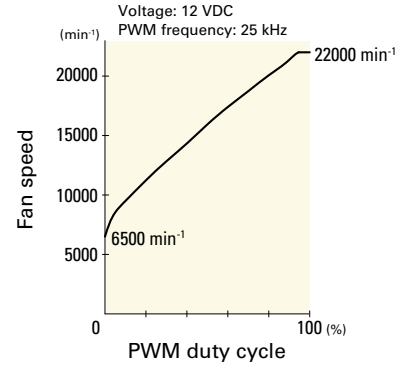
PWM duty cycle



Operating voltage range

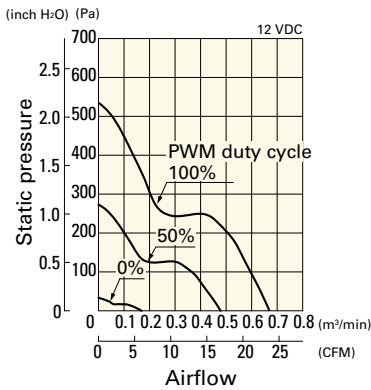


PWM duty - Speed characteristics example

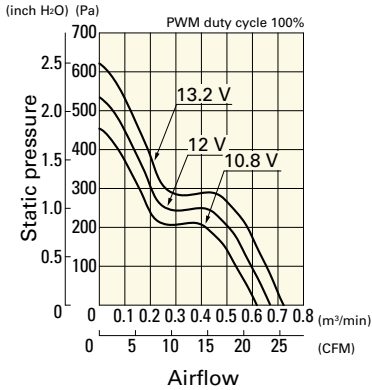


**9GA0412P3J01** With pulse sensor with PWM control function

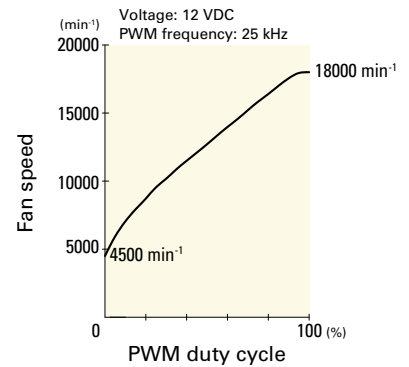
PWM duty cycle



Operating voltage range

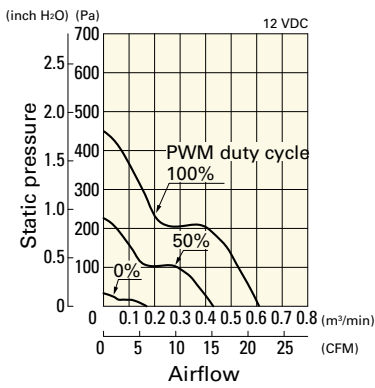


PWM duty - Speed characteristics example

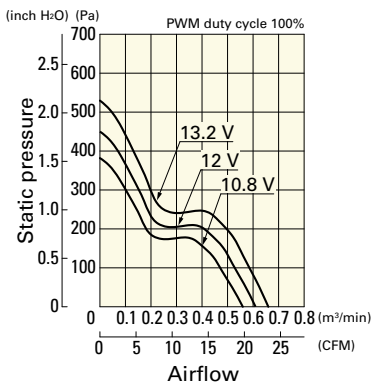


**9GA0412P3G01** With pulse sensor with PWM control function

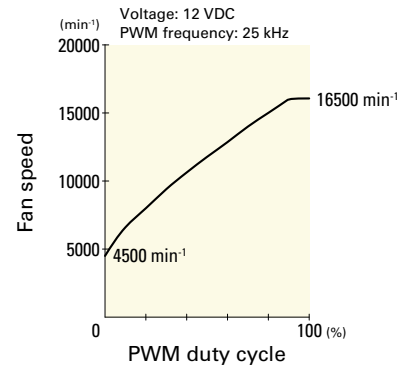
PWM duty cycle



Operating voltage range

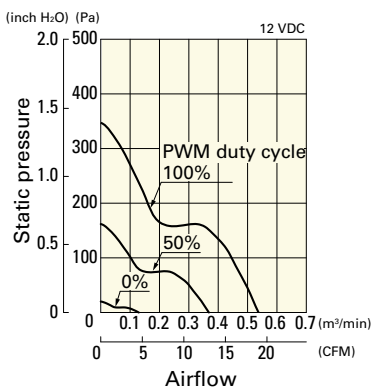


PWM duty - Speed characteristics example

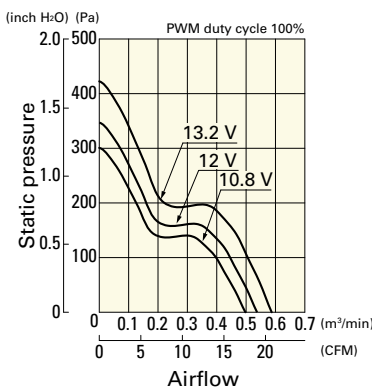


**9GA0412P3H01** With pulse sensor with PWM control function

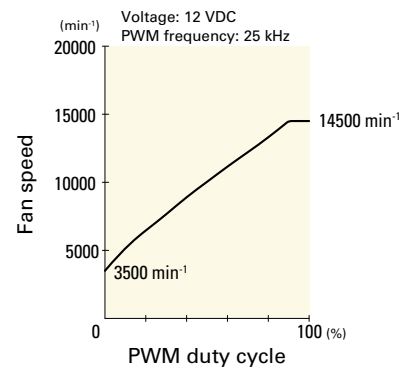
PWM duty cycle



Operating voltage range



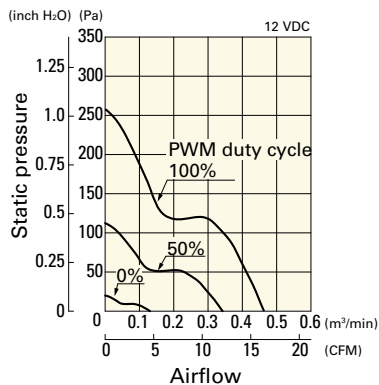
PWM duty - Speed characteristics example



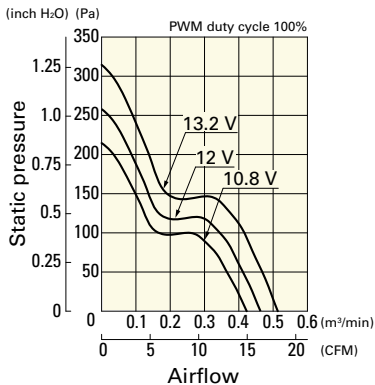
**Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example**

**9GA0412P3M01** With pulse sensor with PWM control function

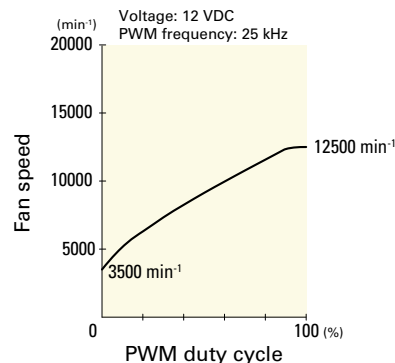
PWM duty cycle



Operating voltage range

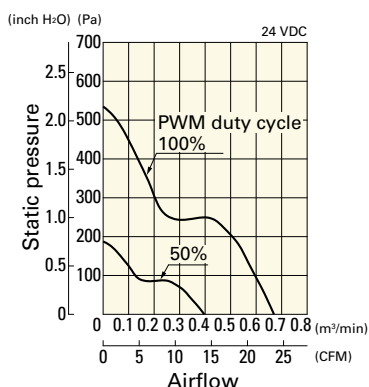


PWM duty - Speed characteristics example

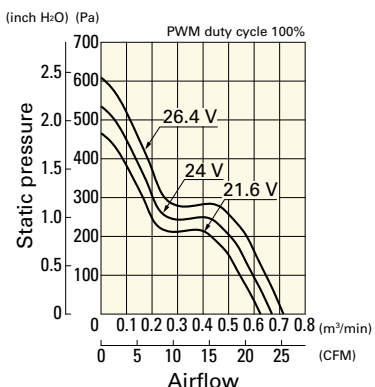


**9GA0424P3J001** With pulse sensor with PWM control function

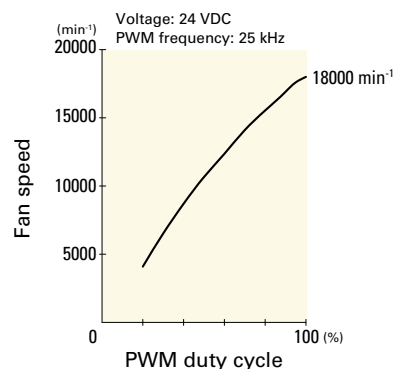
PWM duty cycle



Operating voltage range

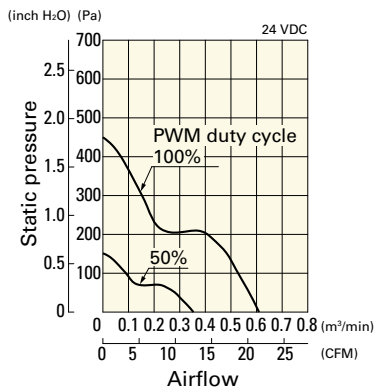


PWM duty - Speed characteristics example

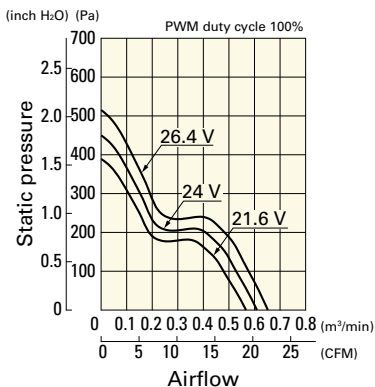


**9GA0424P3G001** With pulse sensor with PWM control function

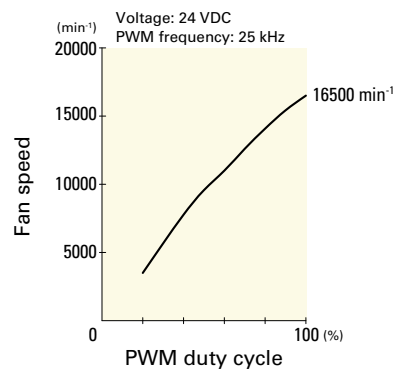
PWM duty cycle



Operating voltage range

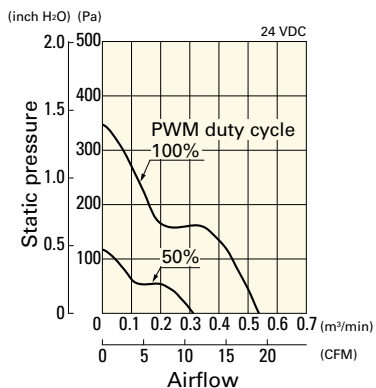


PWM duty - Speed characteristics example

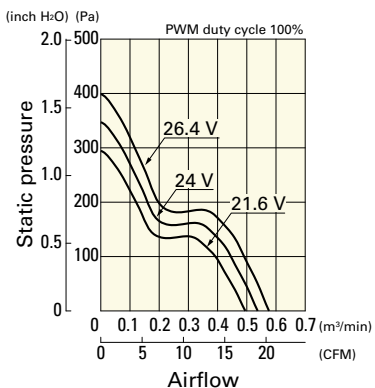


**9GA0424P3H001** With pulse sensor with PWM control function

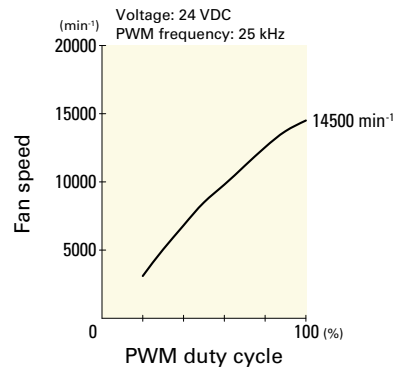
PWM duty cycle



Operating voltage range



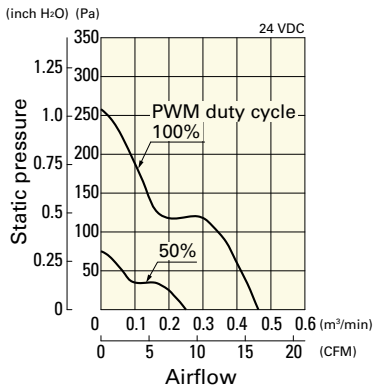
PWM duty - Speed characteristics example



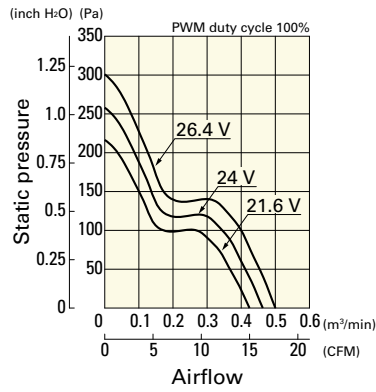
**Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example**

**9GA0424P3M001** With pulse sensor with PWM control function

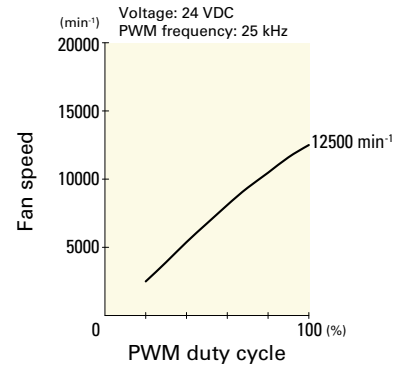
PWM duty cycle



Operating voltage range



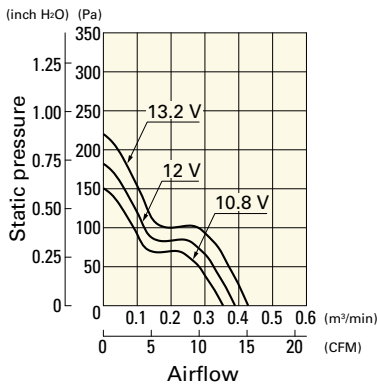
PWM duty - Speed characteristics example



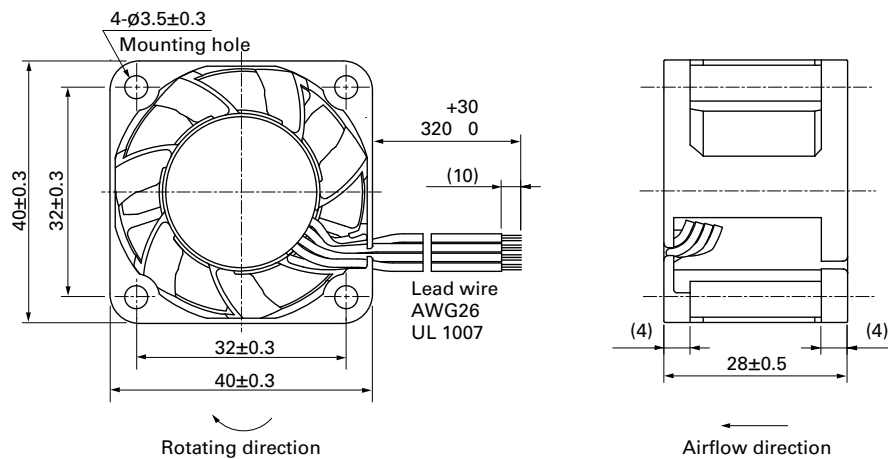
**Airflow - Static Pressure Characteristics**

**9GA0412A301** With pulse sensor

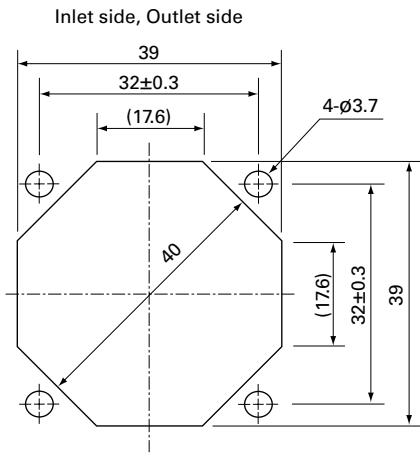
Operating voltage range



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



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



Options

Finger guards

page: p. 564

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