



40x40x28 mm

San Ace 40W 9WPA type

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 indoor 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. 608.
- 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, there is no speed control wiring.)
- Mass 60 g
- Ingress protection IP68 For more information on IP rating, refer to p. 617.

Specifications

The models listed below **have ribs and a pulse sensor with PWM control**. 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 ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
▶ 9WPA0412P3G001	12	10.8 to 13.2	100	0.50	6.0	22200	0.63 22.2	555 2.22	53	-20 to +70	40000/60°C (70000/40°C)
			20	0.06	0.72	5000	0.14 4.9	28.1 0.11	21		
▶ 9WPA0424P3G001	24	21.6 to 26.4	100	0.25	6.0	22200	0.63 22.2	555 2.22	53		
			20	0.06	1.44	9200	0.26 9.1	95 0.38	34		

* 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 a pulse sensor**. 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 ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9WPA0412H3001	12	7 to 13.8	0.34	4.1	18500	0.52 18.3	375 1.51	48	-20 to +70	40000/60°C (70000/40°C)
9WPA0424H3001	24	14 to 27.6	0.17	4.1	18500	0.52 18.3	375 1.51	48		

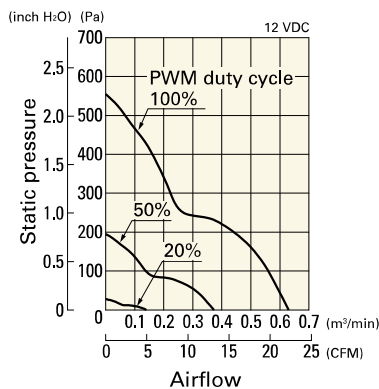
Note 1: Sensor and control options are available for selection. Refer to the table on p. 652.

Note 2: The ▶ mark indicates Short LeadTime Service applicable models. See p. 664 for details.

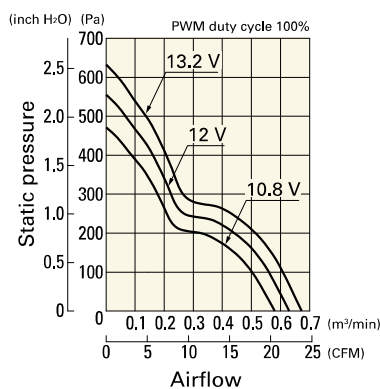
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9WPA0412P3G001 With pulse sensor with PWM control

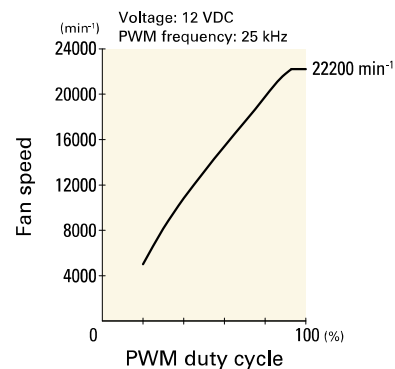
PWM duty cycle



Operating voltage range



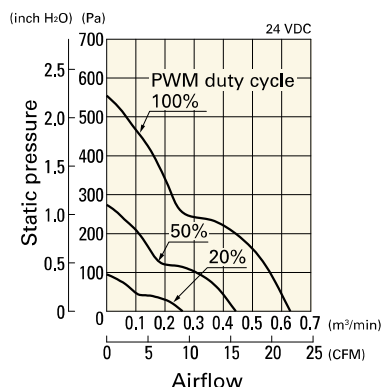
PWM duty - Speed characteristics example



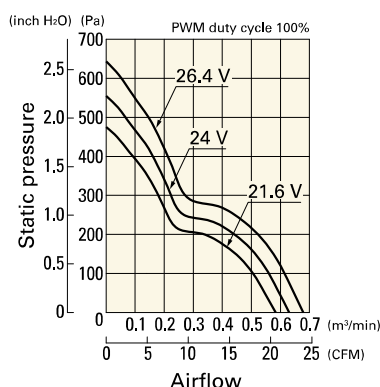
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9WPA0424P3G001 With pulse sensor with PWM control

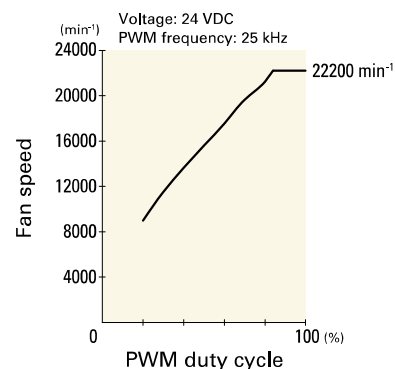
PWM duty cycle



Operating voltage range



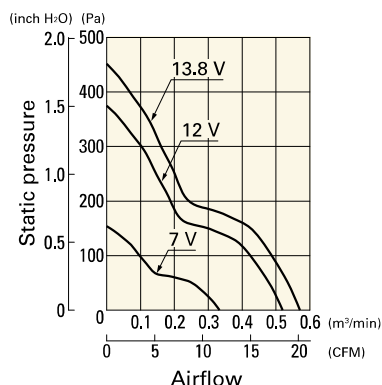
PWM duty - Speed characteristics example



Airflow - Static Pressure Characteristics

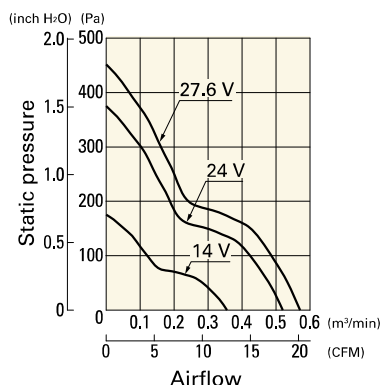
9WPA0412H3001 With pulse sensor

Operating voltage range

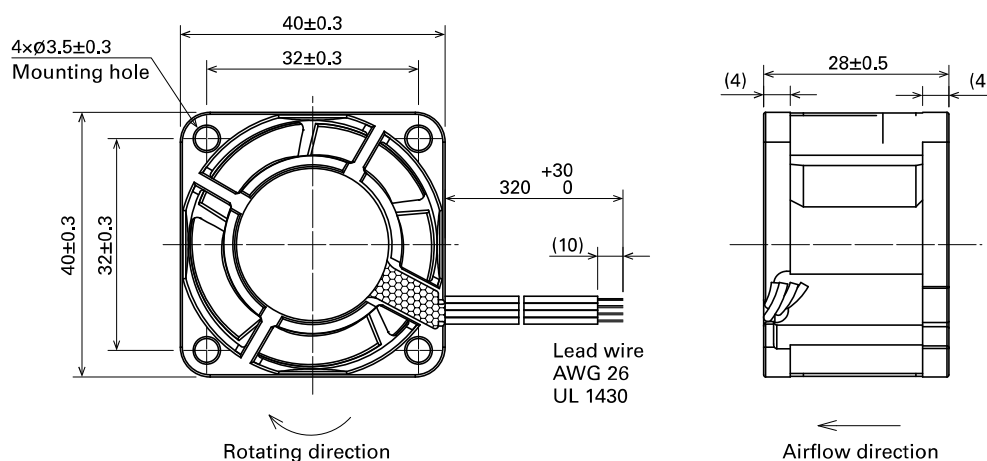


9WPA0424H3001 With pulse sensor

Operating voltage range

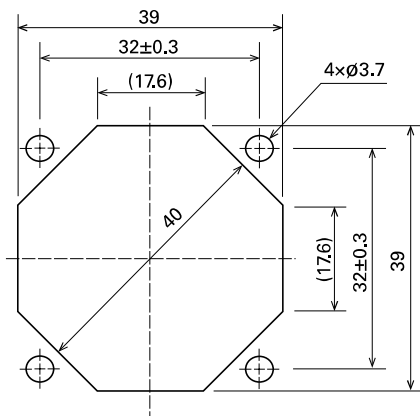


Dimensions (unit: mm) (Ribbed frame with pulse sensor with PWM control)



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

Inlet side, Outlet side



Options

Finger guards

page: p. 590

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