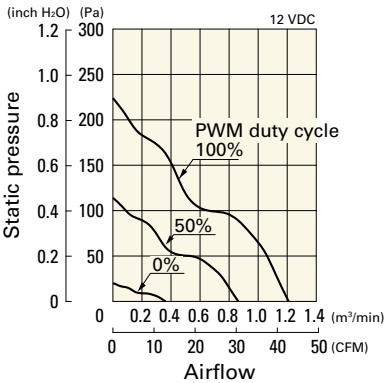
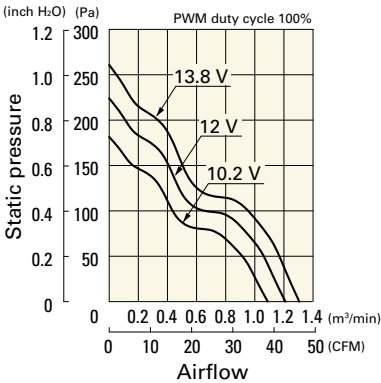


9G0612P4H001 With pulse sensor with PWM control

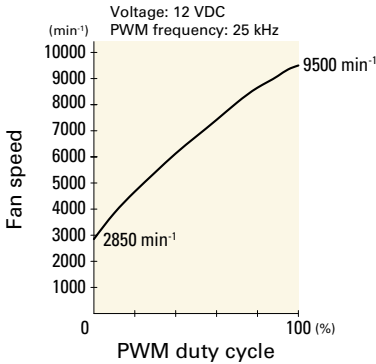
PWM duty cycle



Operating voltage range

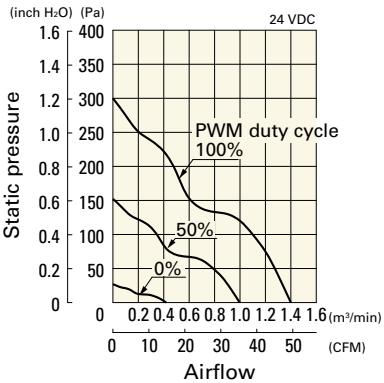


PWM duty - Speed characteristics example

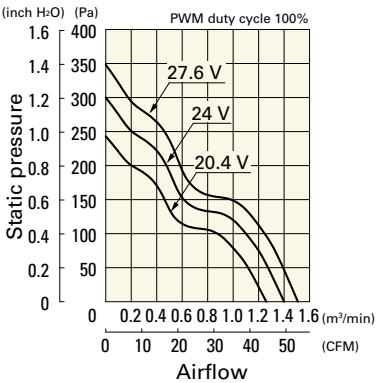


9G0624P4S001 With pulse sensor with PWM control

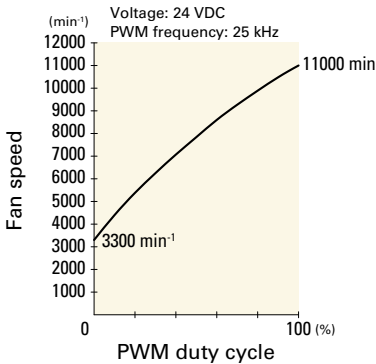
PWM duty cycle



Operating voltage range

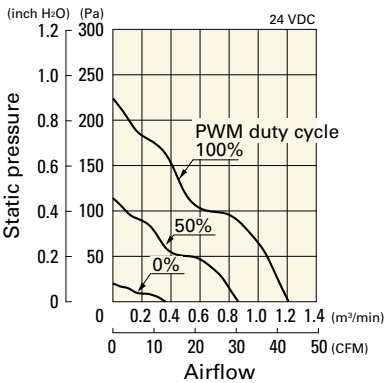


PWM duty - Speed characteristics example

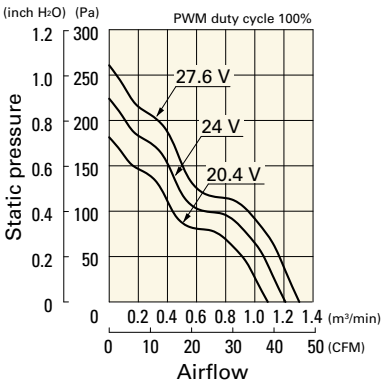


9G0624P4H001 With pulse sensor with PWM control

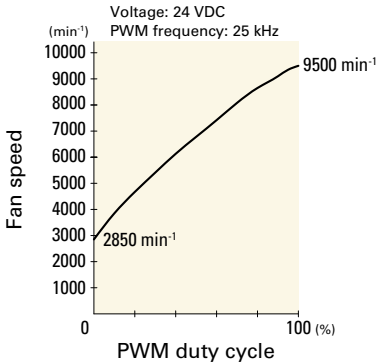
PWM duty cycle



Operating voltage range

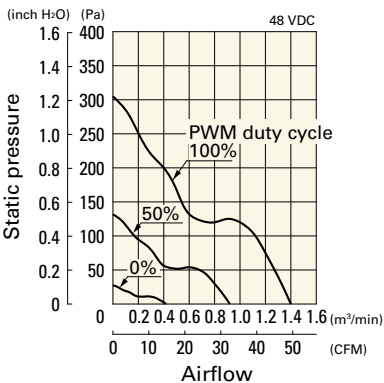


PWM duty - Speed characteristics example

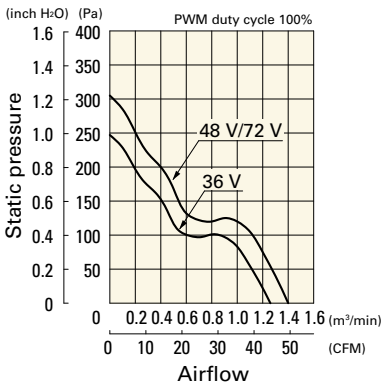


9G0648P4S001 With pulse sensor with PWM control

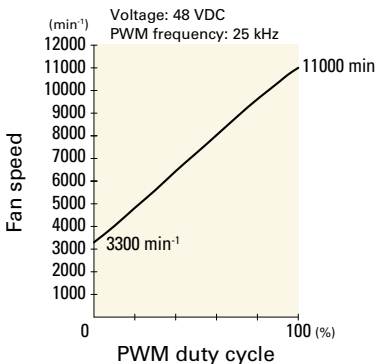
PWM duty cycle

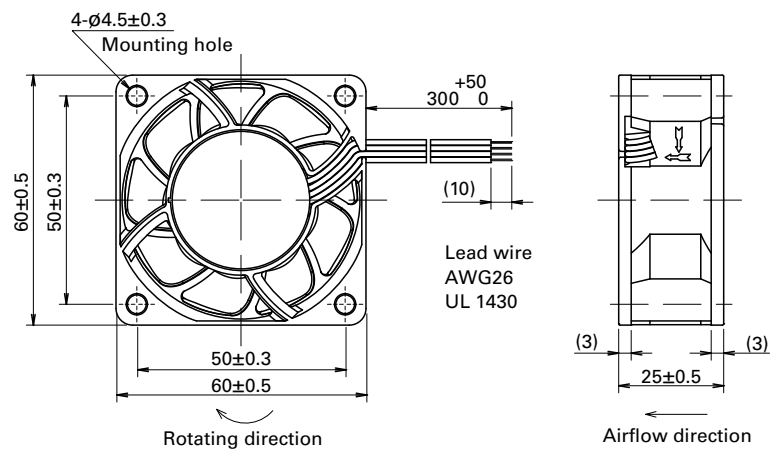


Operating voltage range

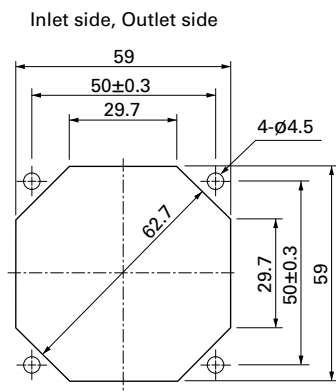


PWM duty - Speed characteristics example





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



Options

Finger guards page: p. 598

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

Resin finger guards page: p. 605

Model no.: 109-1003G

Resin filter kits page: p. 606

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

60×60×25 mm

San Ace 60 9RA type  



General Specifications

- Material Frame: Plastic (Flammability: UL 94V-0), Impeller: Plastic (Flammability: UL 94V-1)
- 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. 616.
- 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 70 g

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 [m³/min] [CFM]	Max. static pressure [Pa] [inchH₂O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9RA0612P4J001	12	10.8 to 13.2	100	0.35	4.2	7700	1.1 38.8	130 0.52	41	-20 to +70	60000/60°C (90000/40°C)
			30	0.05	0.6	1900	0.27 9.5	8.1 0.03	13		
9RA0624P4J001	24	21.6 to 26.4	100	0.18	4.32	7700	1.1 38.8	130 0.52	41		
			20	0.03	0.72	1700	0.24 8.5	6.5 0.02	11		
9RA0648P4J001	48	43.2 to 52.8	100	0.1	4.8	7700	1.1 38.8	130 0.52	41		
			20	0.03	1.44	1800	0.25 8.8	7.1 0.03	12		

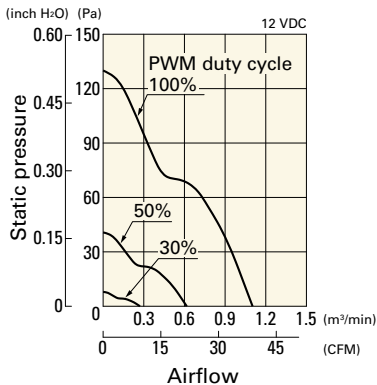
* PWM frequency is 25 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

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

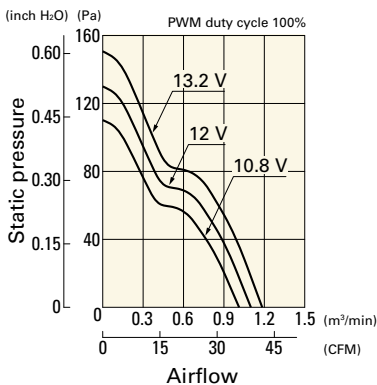
Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. airflow [m³/min] [CFM]	Max. static pressure [Pa] [inchH₂O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9RA0612J4001	12	7 to 13.8	0.35	4.2	7700	1.1 38.8	130 0.52	41	-20 to +70	60000/60°C (90000/40°C)
9RA0612G4001			0.15	1.8	5600	0.8 28.2	69 0.28	36		
9RA0612S4001			0.1	1.2	4600	0.66 23.3	46 0.18	30		
9RA0612H4001			0.07	0.84	3800	0.54 19.1	32 0.13	26		
9RA0612F4001		6 to 13.8	0.05	0.6	3200	0.46 16.2	22 0.09	21		
9RA0612M4001			0.04	0.48	2600	0.37 13	14.8 0.06	17		
9RA0624J4001	24	14 to 27.6	0.18	4.32	7700	1.1 38.8	130 0.52	41		
9RA0624G4001			0.08	1.92	5600	0.8 28.2	69 0.28	36		
9RA0624S4001			0.06	1.44	4600	0.66 23.3	46 0.18	30		
9RA0624H4001			0.05	1.2	3800	0.54 19.1	32 0.13	26		
9RA0624F4001		12 to 27.6	0.04	0.96	3200	0.46 16.2	22 0.09	21		
9RA0624M4001		14 to 27.6	0.03	0.72	2600	0.37 13	14.8 0.06	17		
9RA0648J4001		36 to 55.2	0.1	4.8	7700	1.1 38.8	130 0.52	41		
9RA0648G4001			0.06	2.88	5600	0.8 28.2	69 0.28	36		

Note: Sensor and control options are available for selection. Refer to the table on p. 654 to 655.

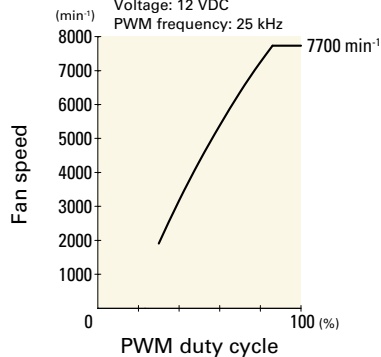
PWM duty cycle



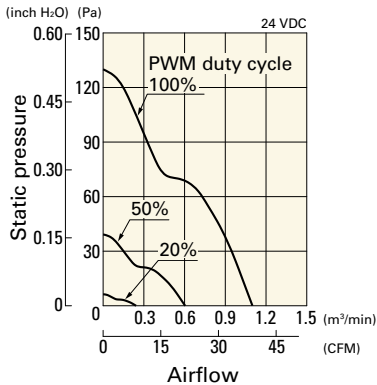
Operating voltage range



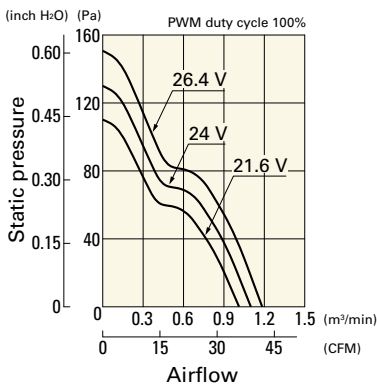
PWM duty - Speed characteristics example



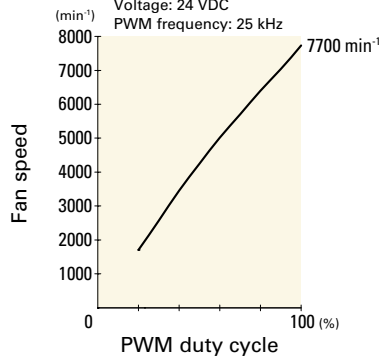
PWM duty cycle



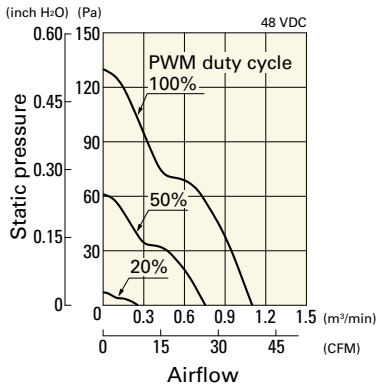
Operating voltage range



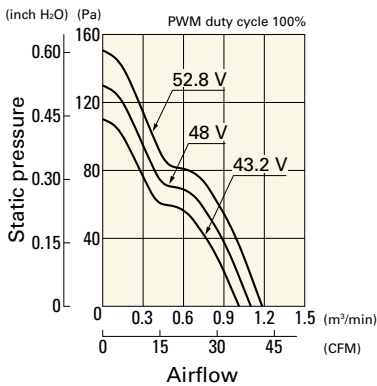
PWM duty - Speed characteristics example



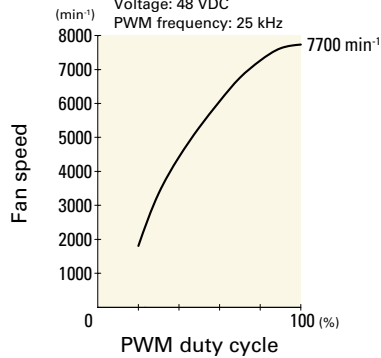
PWM duty cycle



Operating voltage range

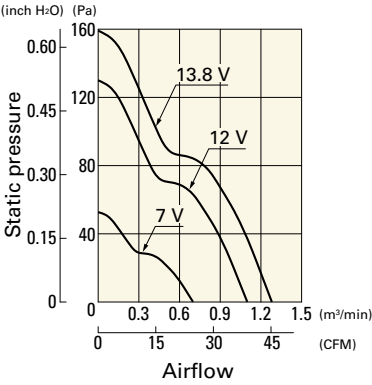


PWM duty - Speed characteristics example



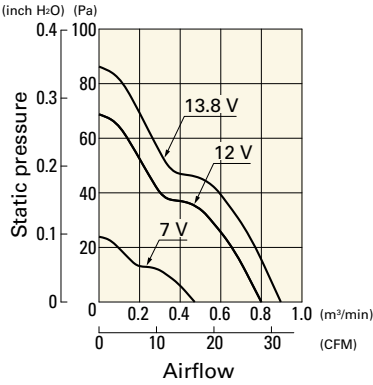
9RA0612J4001 With pulse sensor

Operating voltage range



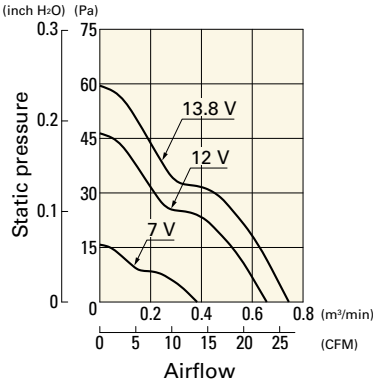
9RA0612G4001 With pulse sensor

Operating voltage range



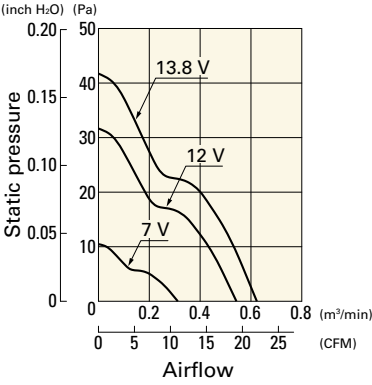
9RA0612S4001 With pulse sensor

Operating voltage range



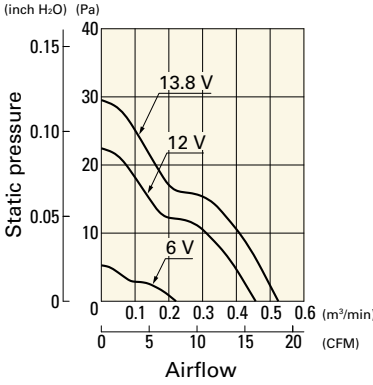
9RA0612H4001 With pulse sensor

Operating voltage range



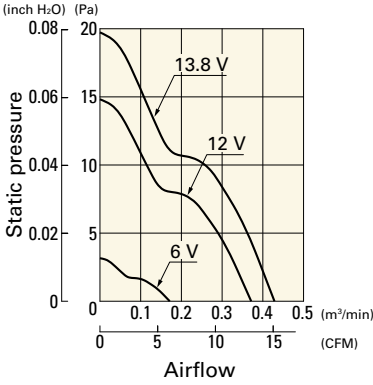
9RA0612F4001 With pulse sensor

Operating voltage range



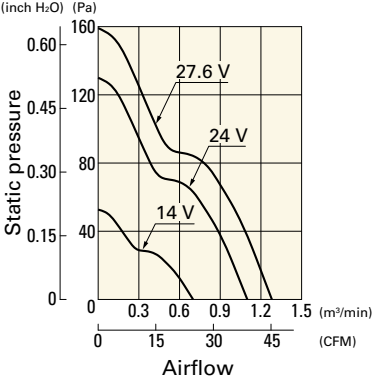
9RA0612M4001 With pulse sensor

Operating voltage range



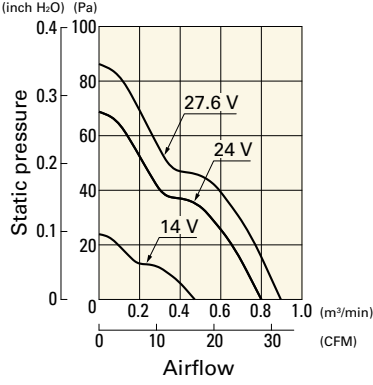
9RA0624J4001 With pulse sensor

Operating voltage range



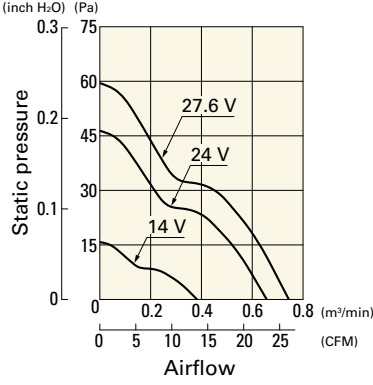
9RA0624G4001 With pulse sensor

Operating voltage range



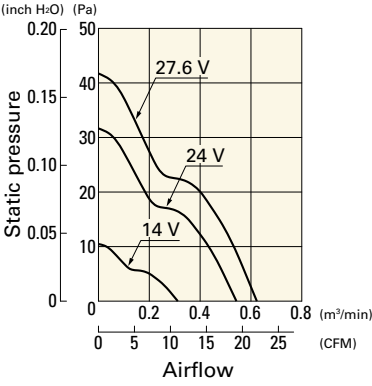
9RA0624S4001 With pulse sensor

Operating voltage range



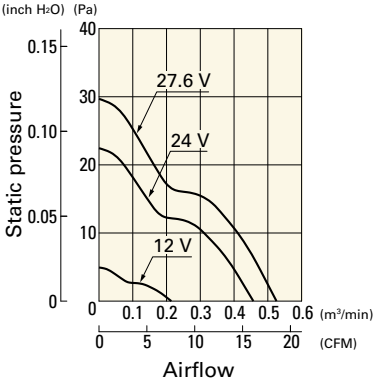
9RA0624H4001 With pulse sensor

Operating voltage range



9RA0624F4001 With pulse sensor

Operating voltage range



9RA0624M4001 With pulse sensor

Operating voltage range

