60×60×38 mm

San Ace 60 9HV 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 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
- Mass ..... 135 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.

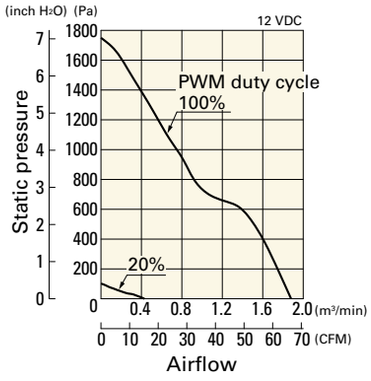
Model no.	Rated voltage [V]	Operating voltage range [V]	PWM duty cycle* [%]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	SPL [dB (A)]	Operating temperature [˚C]	Expected life [h]
9HV0612P1J001	12	10.8 to 12.6	100	2.7	32.4	21700	1.88	66.4	1750	7.0	68	-20 to +70	40000/60˚C (70000/40˚C)
			20	0.17	2.04	5300	0.43	15.2	102	0.41	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.

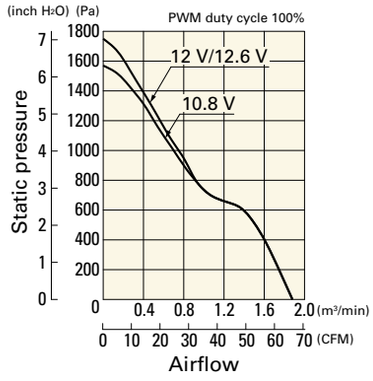
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9HV0612P1J001 With pulse sensor with PWM control

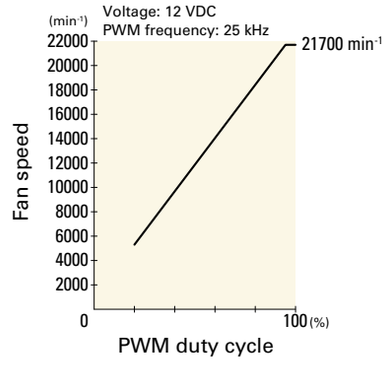
PWM duty cycle



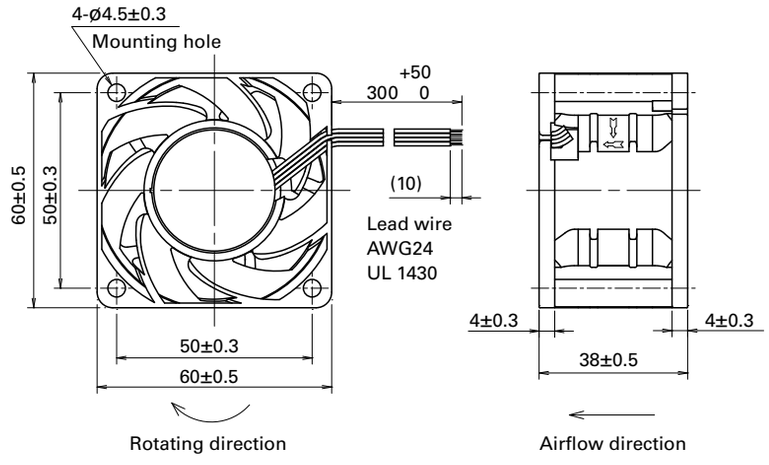
Operating voltage range



PWM duty - Speed characteristics example



Dimensions (unit: mm) (With ribs)



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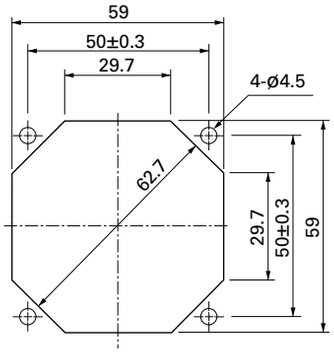
Inlet side, Outlet side



Options

Finger guards page: p. 598

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

Resin filter kits page: p. 606

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

Resin finger guards page: p. 605

Model no.: 109-1003G

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60×60×38 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. 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
- Mass ..... 130 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]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	SPL [dB (A)]	Operating temperature [˚C]	Expected life [h]
9GA0612P1J03	12	10.8 to 12.6	100	1.5	18.0	17500	1.75	62	820	3.3	63	-20 to +60	40000/60˚C (70000/40˚C)
			20	0.1	1.2	4000	0.4	14	43	0.17	24		
9GA0612P1K03		10.8 to 13.2	100	0.95	11.4	14800	1.5	53	600	2.4	59	-20 to +70	
			20	0.1	1.2	4000	0.4	14	43	0.17	24		
9GA0612P1K60			100	0.95	11.4	14800	1.5	53	675	2.7	59	-20 to +60	
			0	0.05	0.6	1480	0.134	4.7	8.3	0.03	16		
9GA0612P1H03			100	0.55	6.6	11500	1.15	40	375	1.5	52	-20 to +70	
			20	0.06	0.72	2600	0.27	9.5	20	0.08	19		
9GA0624P1J03	24	21.6 to 25.2	100	0.75	18.0	17500	1.75	62	820	3.3	63	-20 to +60	
			20	0.1	2.4	6200	0.63	22	104	0.42	35		
9GA0624P1K03		21.6 to 26.4	100	0.5	12	14800	1.5	53.0	600	2.4	59	-20 to +70	
			20	0.06	1.44	5000	0.5	17.7	70	0.28	28		
9GA0648P1K03	48	43.2 to 52.8	100	0.24	11.52	14800	1.5	53	600	2.4	59	-10 to +70	
			20	0.03	1.44	4000	0.4	14	43	0.17	24		

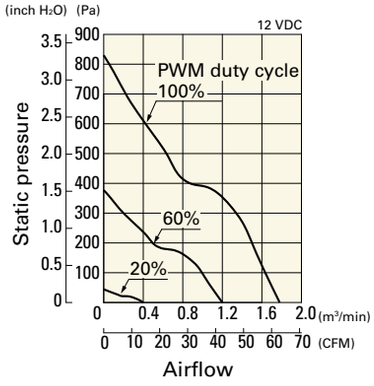
* PWM frequency is 25 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

Note: Sensor and control options are available for selection. Refer to the table on p. 648 to 649.

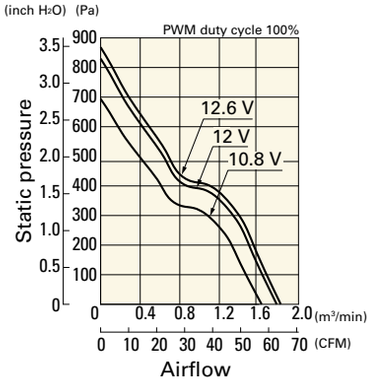
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GA0612P1J03 With pulse sensor with PWM control

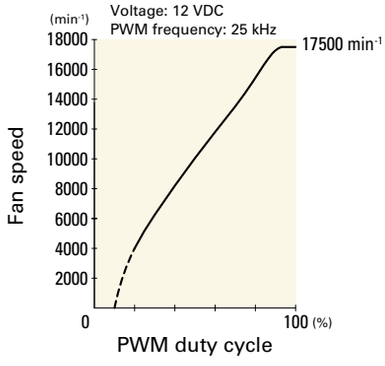
PWM duty cycle



Operating voltage range



PWM duty - Speed characteristics example



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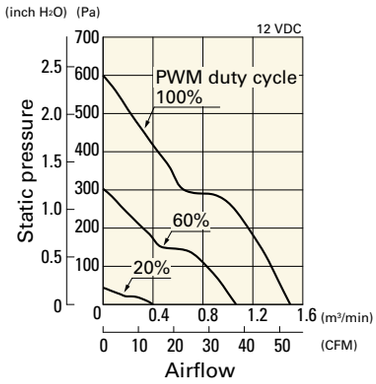
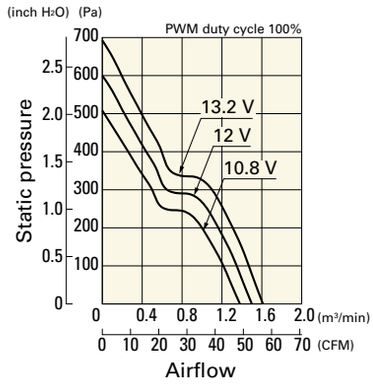
9GA0612P1K03 With pulse sensor with PWM control

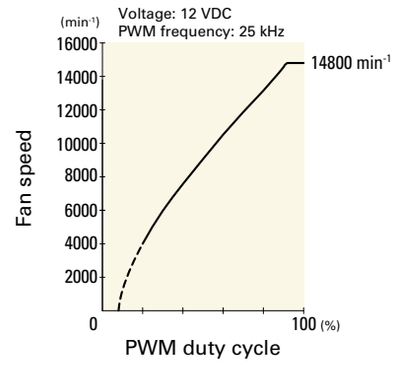
PWM duty cycle



Operating voltage range

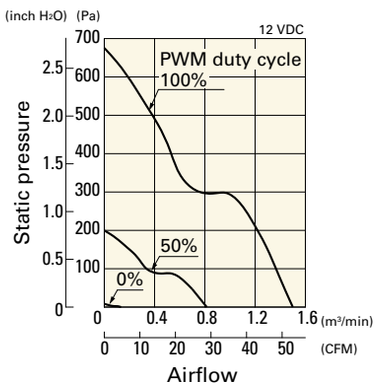


PWM duty - Speed characteristics example

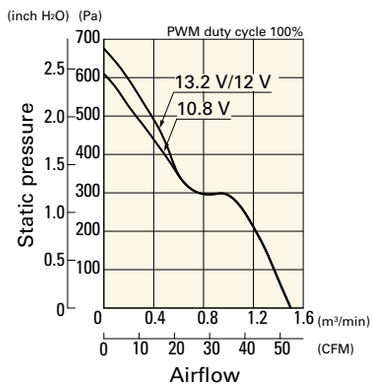


9GA0612P1K60 With pulse sensor with PWM control

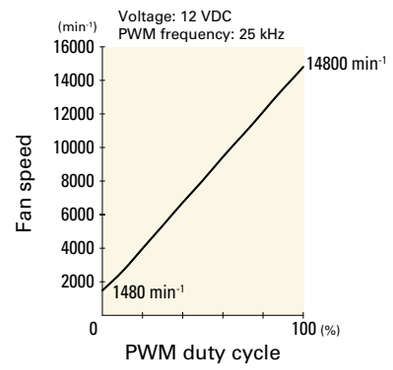
PWM duty cycle



Operating voltage range

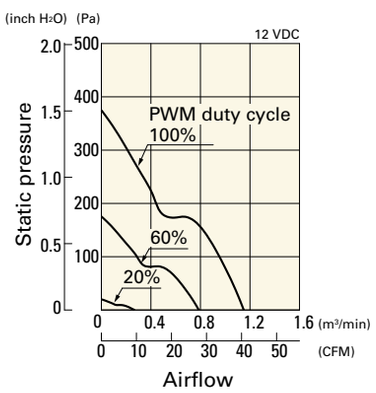


PWM duty - Speed characteristics example

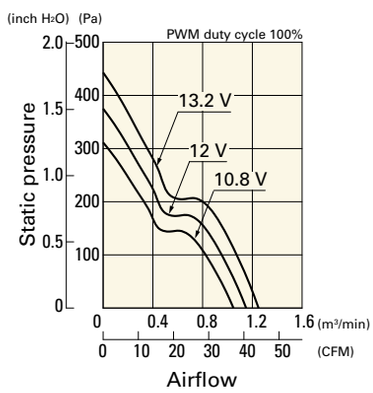


9GA0612P1H03 With pulse sensor with PWM control

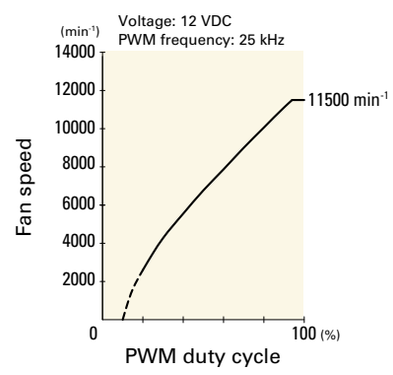
PWM duty cycle



Operating voltage range

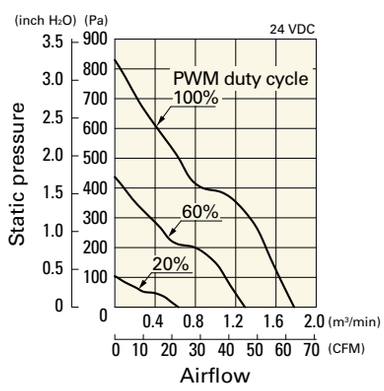


PWM duty - Speed characteristics example

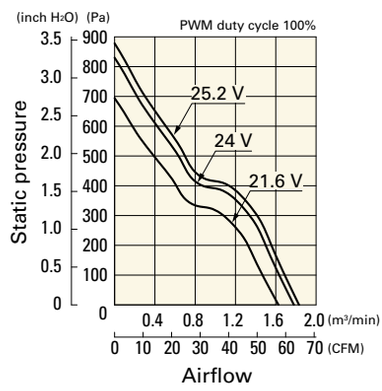


9GA0624P1J03 With pulse sensor with PWM control

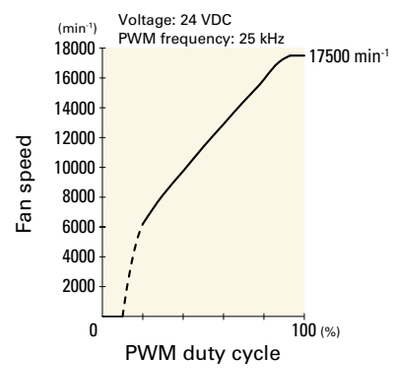
PWM duty cycle



Operating voltage range



PWM duty - Speed characteristics example



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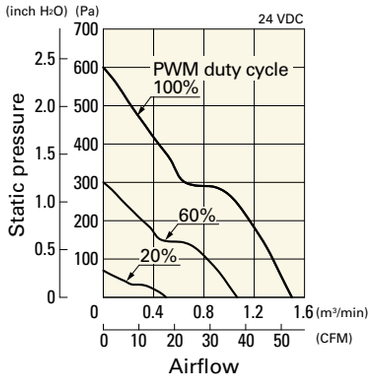
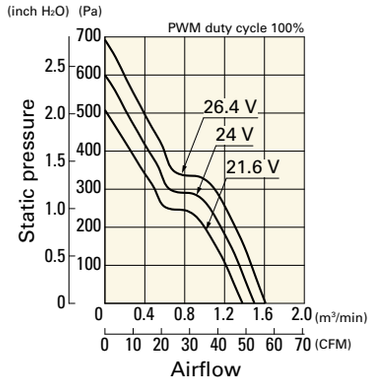
9GA0624P1K03 With pulse sensor with PWM control

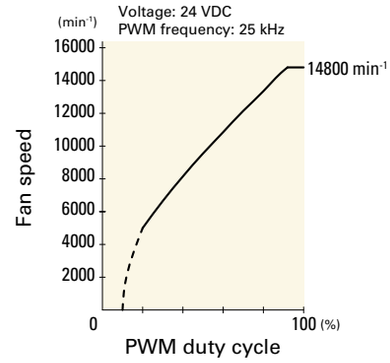
PWM duty cycle



Operating voltage range

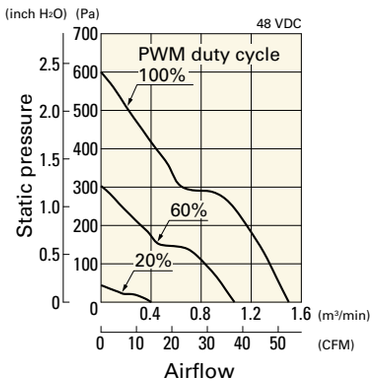


PWM duty - Speed characteristics example

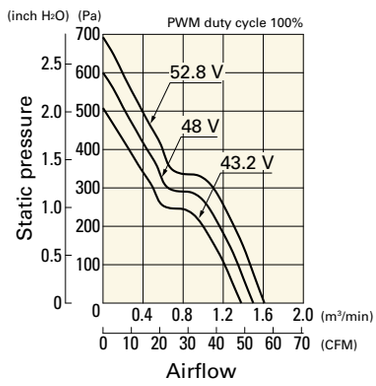


9GA0648P1K03 With pulse sensor with PWM control

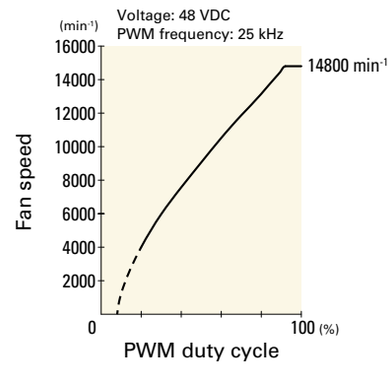
PWM duty cycle



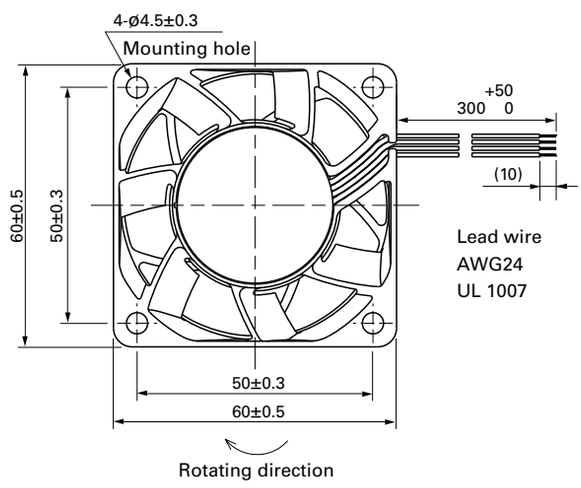
Operating voltage range

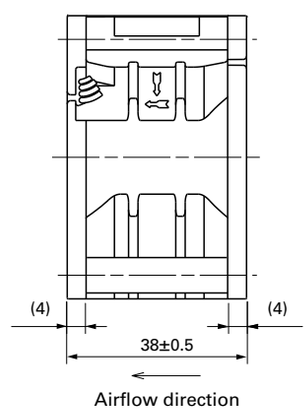


PWM duty - Speed characteristics example



Dimensions (unit: mm) (With ribs)





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