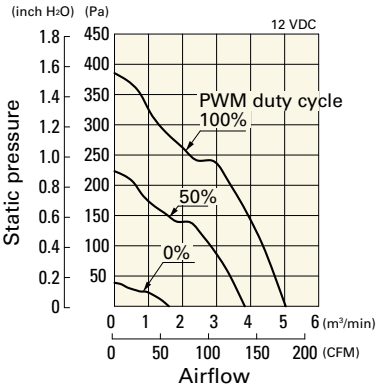
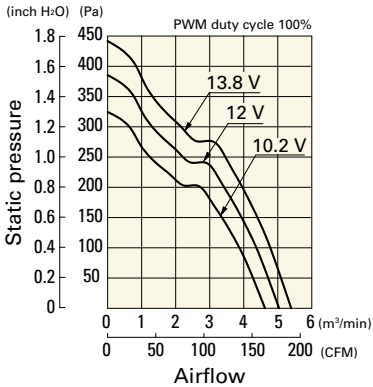


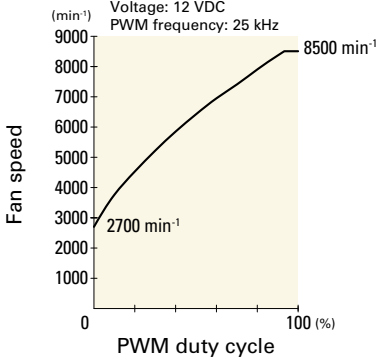
PWM duty cycle



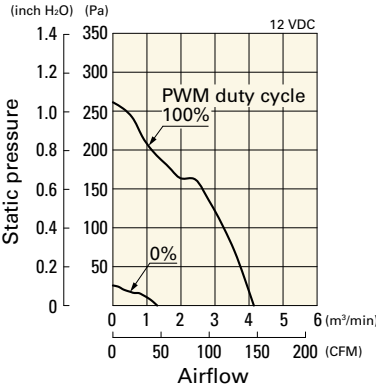
Operating voltage range



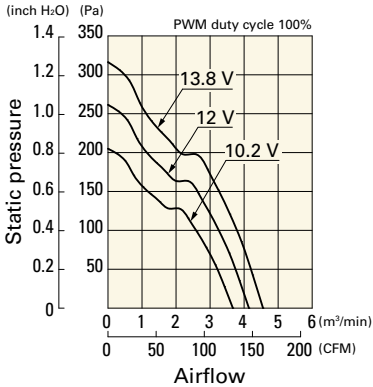
PWM duty - Speed characteristics example



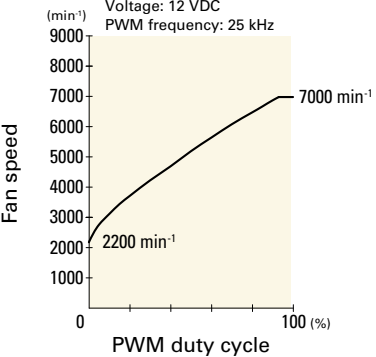
PWM duty cycle



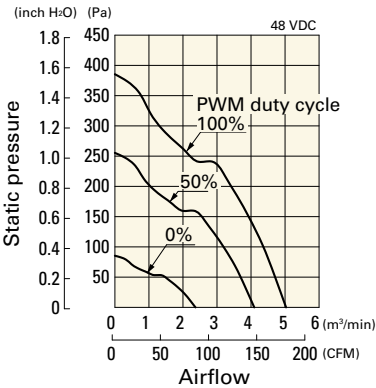
Operating voltage range



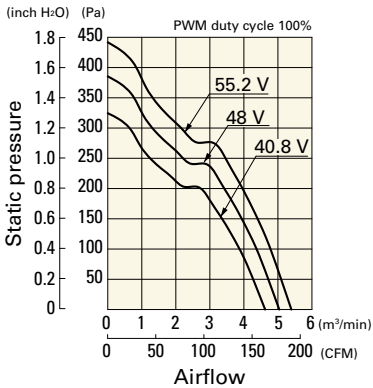
PWM duty - Speed characteristics example



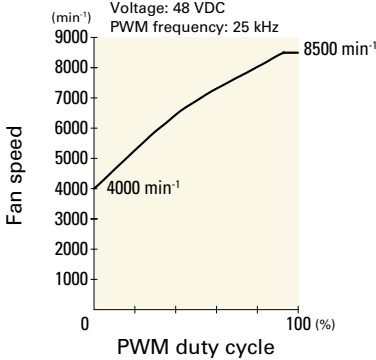
PWM duty cycle



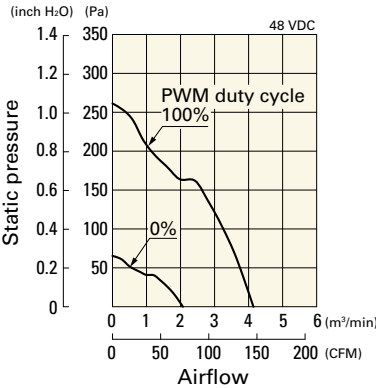
Operating voltage range



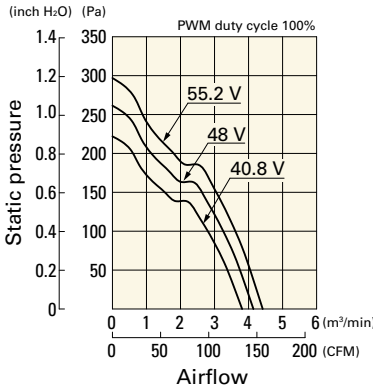
PWM duty - Speed characteristics example



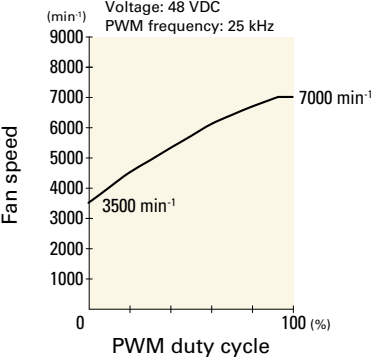
PWM duty cycle

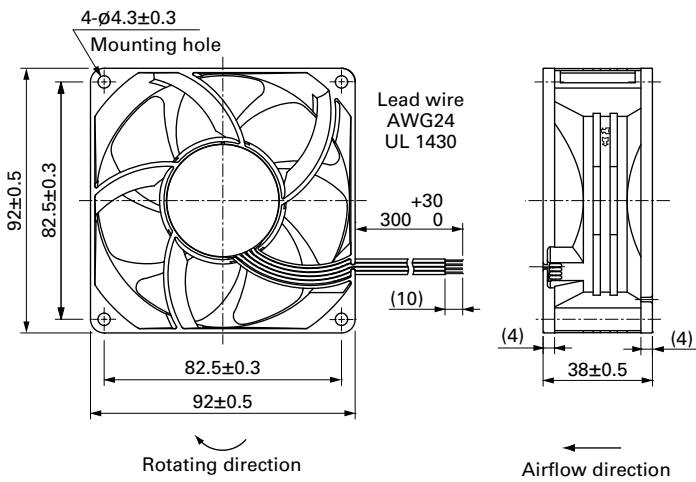


Operating voltage range

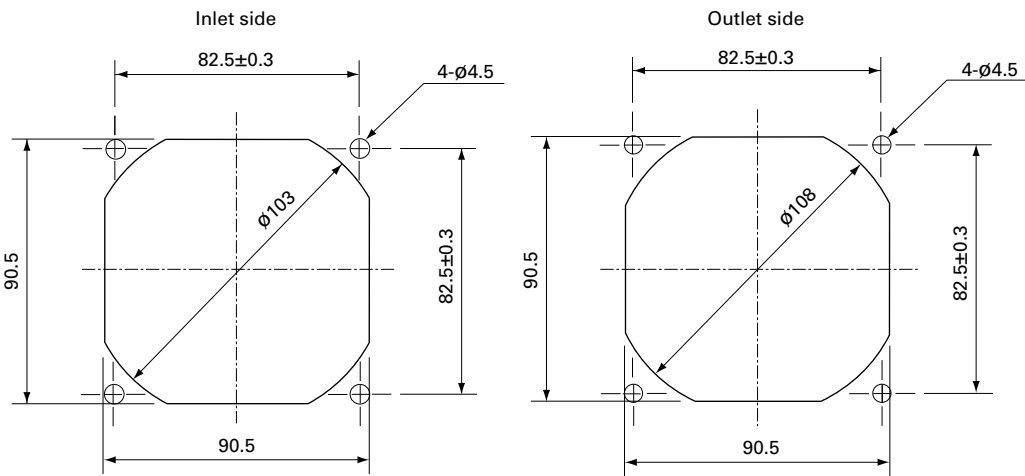


PWM duty - Speed characteristics example





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



Options

Finger guards

page: p. 598

Model no.: 109-099E, 109-099H

Resin finger guards

page: p. 605

Model no.: 109-1001G

Resin filter kits

page: p. 606

Model no.: 109-1001F13 (13PPI), 109-1001F20 (20PPI),
109-1001F30 (30PPI), 109-1001F40 (40PPI)

92x92x38 mm

San Ace 92 9RA type  



DC Fan 92 mm sq. D

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 210 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 [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9RA0912P1J001	12	10.8 to 13.2	100	1.24	14.9	6400	3.28 116	192 0.77	50	-20 to +70	40000/60°C (70000/40°C)
			20	0.07	0.8	1600	0.82 29	12.0 0.05	12		
9RA0912P1G001			100	0.96	11.5	5800	2.97 105	158 0.63	47		
			20	0.06	0.7	1400	0.72 25	9.2 0.04	10		
9RA0924P1J001	24	21.6 to 26.4	100	0.62	14.9	6400	3.28 116	192 0.77	50		
			20	0.07	1.7	2200	1.13 40	22.7 0.09	19		
9RA0924P1G001			100	0.48	11.5	5800	2.97 105	158 0.63	47		
			20	0.05	1.2	2000	1.02 36	18.8 0.08	17		
9RA0948P1J001	48	43.2 to 52.8	100	0.31	14.9	6400	3.28 116	192 0.77	50		
			20	0.03	1.4	2000	1.02 36	18.8 0.08	17		
9RA0948P1G001			100	0.25	12.0	5800	2.97 105	158 0.63	47		
			20	0.03	1.4	1700	0.87 31	13.6 0.05	13		

* 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.

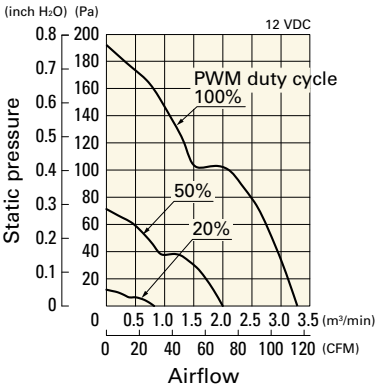
The models listed below **have ribs and a pulse sensor**. For models without ribs, append "1" to the end of model numbers.

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]
9RA0912J1001	12	7 to 13.2	1.24	14.9	6400	3.28 116	192 0.77	50	-20 to +70	40000/60°C (70000/40°C)
9RA0912G1001		7 to 13.8	0.96	11.5	5800	2.97 105	158 0.63	47		
9RA0912H1001			0.52	6.2	4650	2.36 83	102 0.41	40		
9RA0924J1001	24	14 to 26.4	0.62	14.9	6400	3.28 116	192 0.77	50		
9RA0924G1001		14 to 27.6	0.48	11.5	5800	2.97 105	158 0.63	47		
9RA0924H1001			0.26	6.2	4650	2.36 83	102 0.41	40		
9RA0948J1001	48	36 to 52.8	0.31	14.9	6400	3.28 116	192 0.77	50		
9RA0948G1001		36 to 55.2	0.25	12.0	5800	2.97 105	158 0.63	47		
9RA0948H1001			0.14	6.7	4650	2.36 83	102 0.41	40		

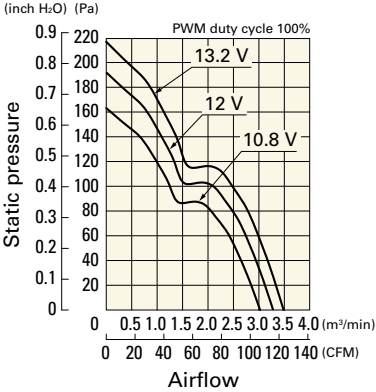
Note: Sensor and control options are available for selection. Refer to the table on p. 656 to 657.

9RA0912P1J001 With pulse sensor with PWM control

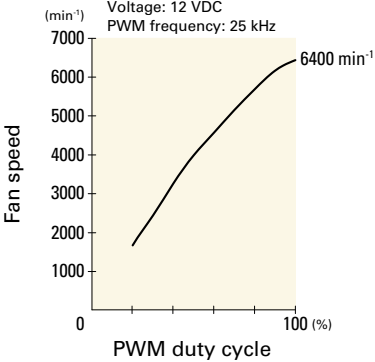
PWM duty cycle



Operating voltage range

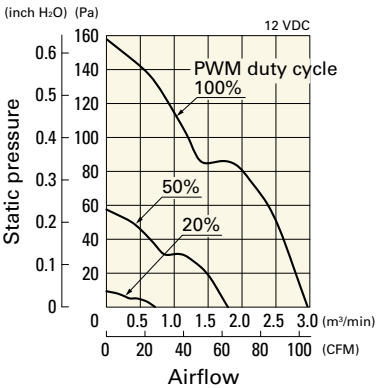


PWM duty - Speed characteristics example

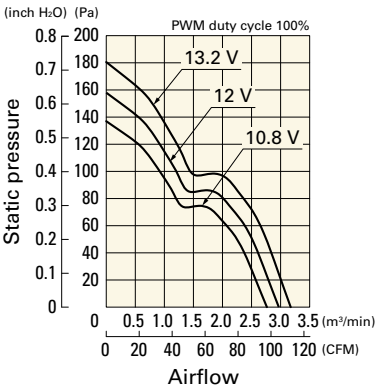


9RA0912P1G001 With pulse sensor with PWM control

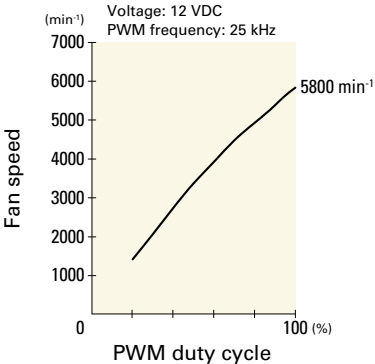
PWM duty cycle



Operating voltage range

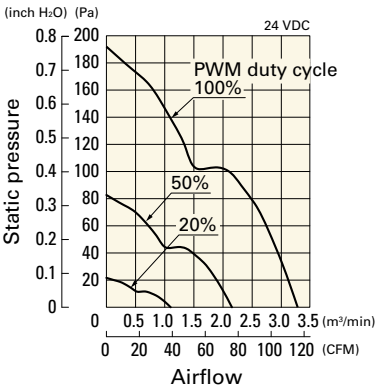


PWM duty - Speed characteristics example

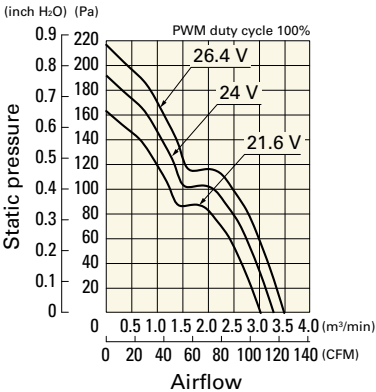


9RA0924P1J001 With pulse sensor with PWM control

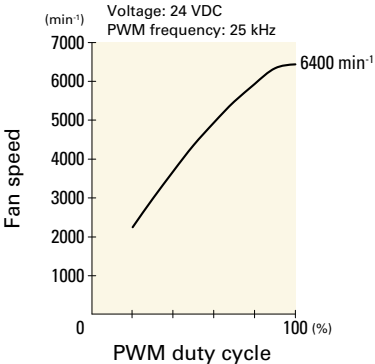
PWM duty cycle



Operating voltage range

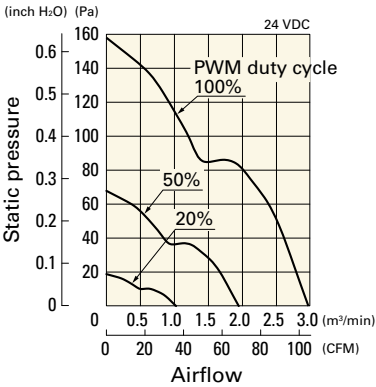


PWM duty - Speed characteristics example

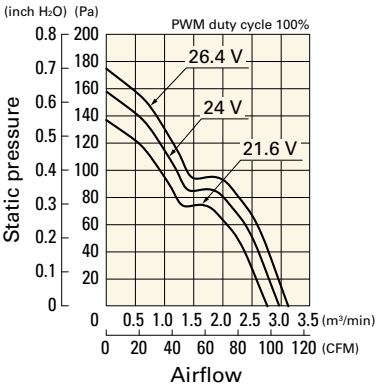


9RA0924P1G001 With pulse sensor with PWM control

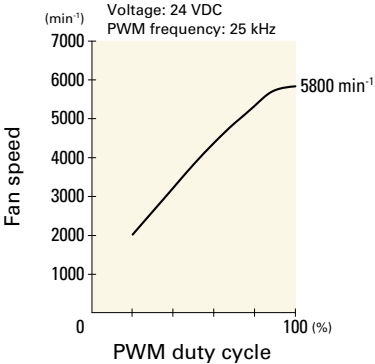
PWM duty cycle



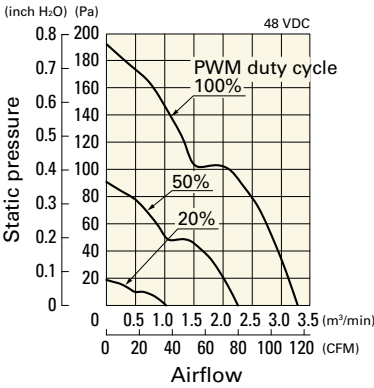
Operating voltage range



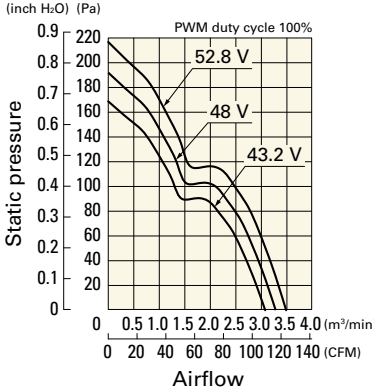
PWM duty - Speed characteristics example



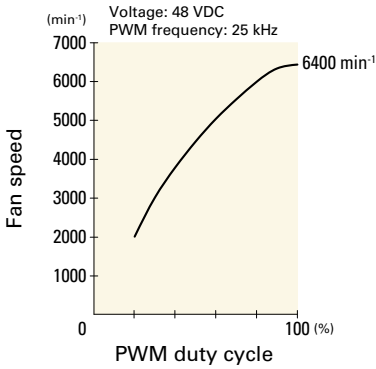
PWM duty cycle



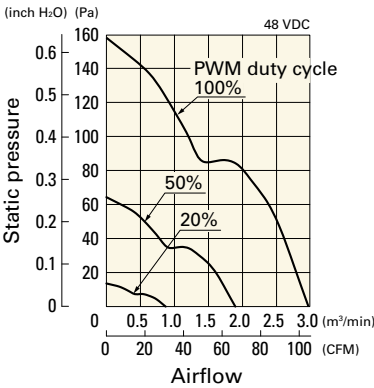
Operating voltage range



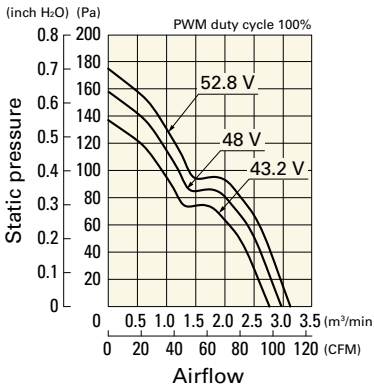
PWM duty - Speed characteristics example



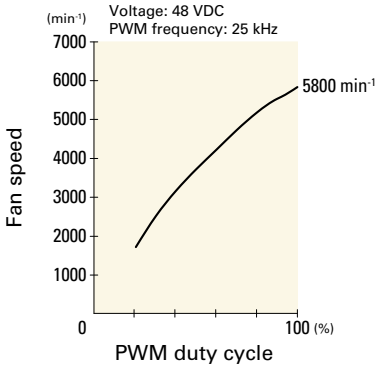
PWM duty cycle



Operating voltage range

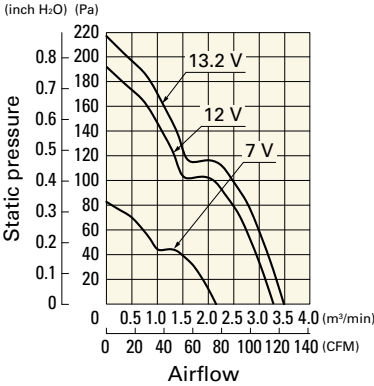


PWM duty - Speed characteristics example

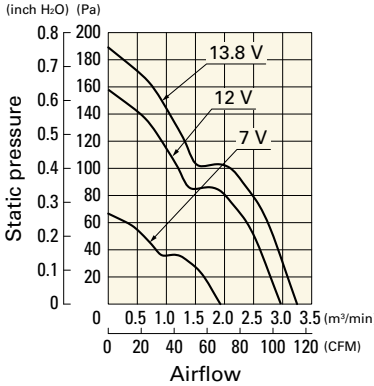


Airflow - Static Pressure Characteristics

Operating voltage range



Operating voltage range



Operating voltage range

