



92x92x25 mm

San Ace 92W 9WL type   US

General Specifications

- Material Frame: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-1)
- 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. 573.
- Dielectric strength 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and frame)
- Insulation resistance 10 MΩ or more with a 500 VDC megger (between lead wire conductors and frame)
- 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 170 g
- Ingress protection IP68

Specifications

The models listed below **have pulse sensors with PWM control function.**

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]
9WL0912P4J001	12	10.8 to 13.2	100	0.42	5.04	5000	2.2 77.7	105 0.42	44	-20 to +70	180000/60°C (215000/40°C)
			20	0.04	0.48	1200	0.52 18.4	6.04 0.024	11		
9WL0912P4G001			100	0.3	3.6	4400	1.93 68.2	81 0.33	40		
			20	0.04	0.48	1000	0.43 15.1	4.18 0.016	8		
9WL0912P4S001			100	0.22	2.64	3850	1.69 59.7	62.1 0.25	37		
			30	0.04	0.48	1400	0.61 21.5	8.21 0.032	13		
9WL0912P4H001			100	0.15	1.8	3150	1.38 48.7	41.6 0.17	32		
			30	0.04	0.48	1100	0.48 16.9	5.07 0.02	9		
9WL0924P4J001	24	21.6 to 26.4	100	0.21	5.04	5000	2.2 77.7	105 0.42	44		
			20	0.02	0.48	1100	0.48 16.9	5.07 0.02	9		
9WL0924P4S001			100	0.11	2.64	3850	1.69 59.7	62.1 0.25	37		
			30	0.02	0.48	1300	0.57 20.1	7.08 0.028	12		
9WL0924P4H001			100	0.07	1.68	3150	1.38 48.7	41.6 0.17	32		
			30	0.02	0.48	1000	0.43 15.1	4.18 0.016	8		

* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

The following sensor and control options are available for selection.

Differs according to the model. Refer to the table on pp. 611 to 612. **Without sensor** **Pulse sensor** **Lock sensor**

The models listed below **have pulse sensors.**

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]
9WL0912M4001	12	10.2 to 13.8	0.08	0.96	2400	1.05 37.1	24.1 0.097	24	-20 to +70	180000/60°C (215000/40°C)
9WL0924F4001	24	20.4 to 27.6	0.05	1.2	2800	1.22 43.1	32.8 0.13	29		
9WL0924M4001			0.04	0.96	2400	1.05 37.1	24.1 0.097	24		

The following sensor and control options are available for selection.

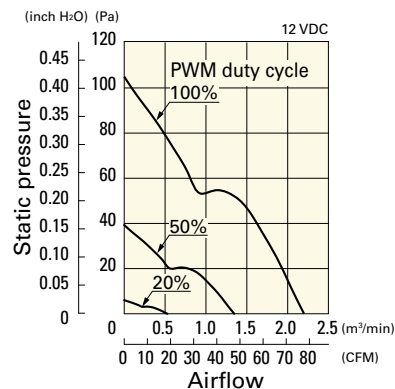
Available for all models. **Without sensor**

Differs according to the model. Refer to the table on p. 611. **Lock sensor**

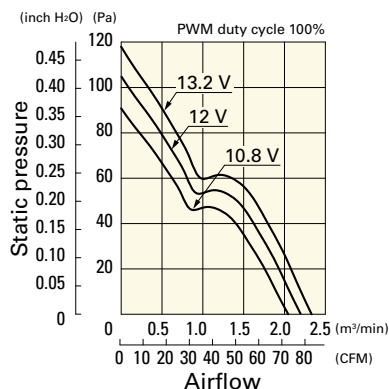
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9WL0912P4J001 With pulse sensor with PWM control function

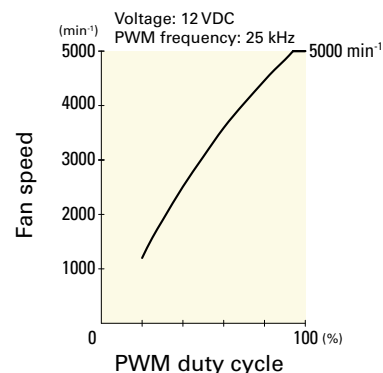
PWM duty cycle



Operating voltage range

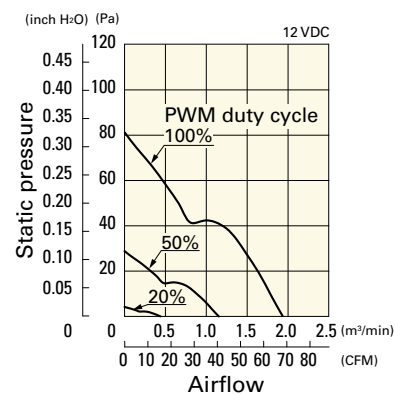


PWM duty - Speed characteristics example

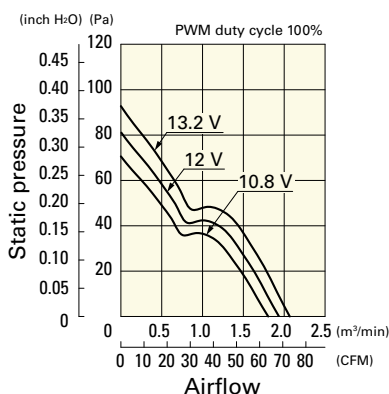


9WL0912P4G001 With pulse sensor with PWM control function

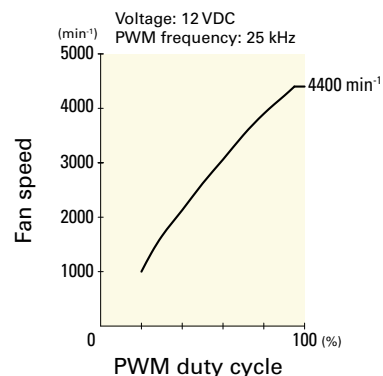
PWM duty cycle



Operating voltage range

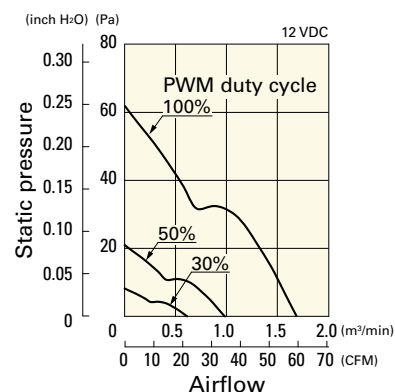


PWM duty - Speed characteristics example

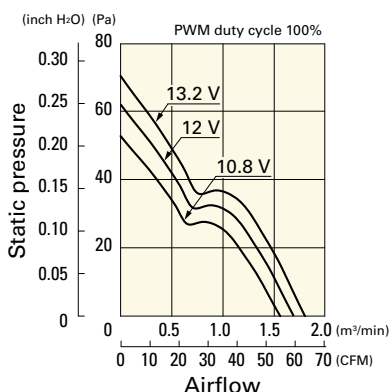


9WL0912P4S001 With pulse sensor with PWM control function

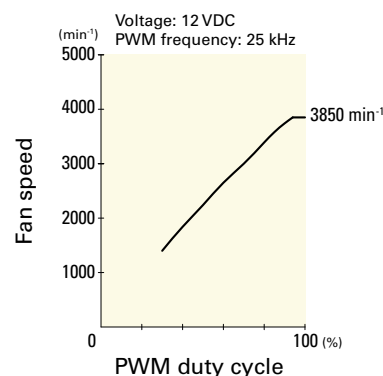
PWM duty cycle



Operating voltage range

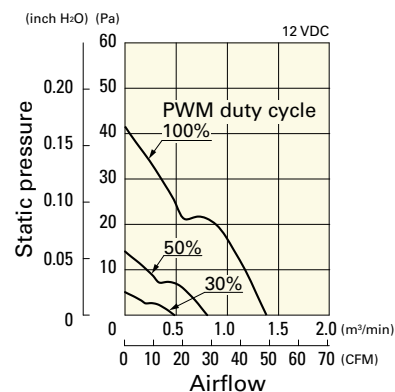


PWM duty - Speed characteristics example

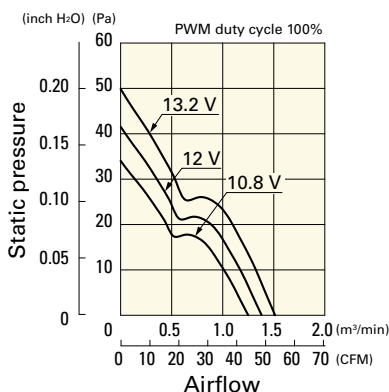


9WL0912P4H001 With pulse sensor with PWM control function

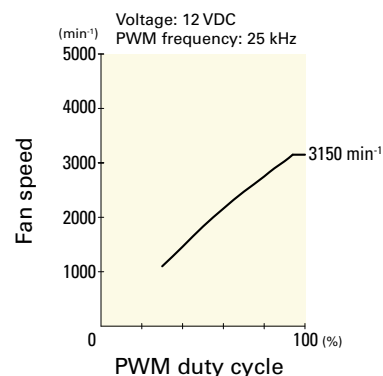
PWM duty cycle



Operating voltage range



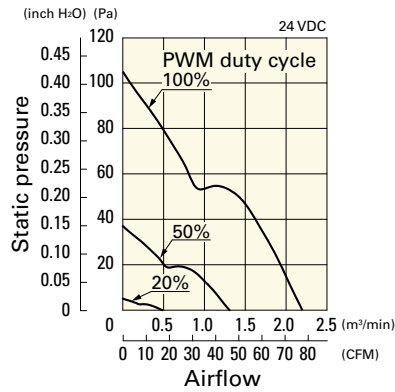
PWM duty - Speed characteristics example



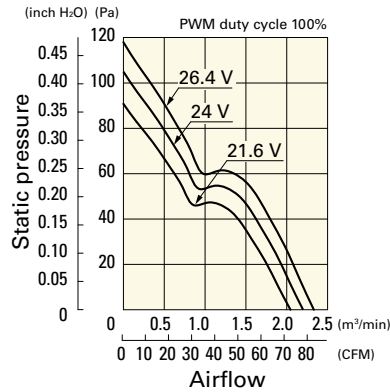
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9WL0924P4J001 With pulse sensor with PWM control function

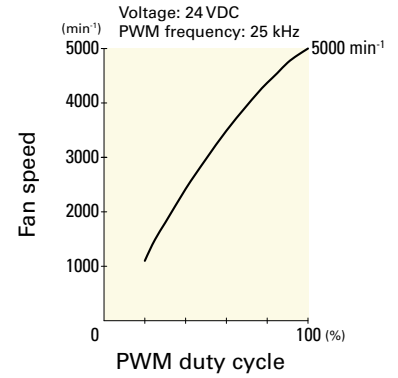
PWM duty cycle



Operating voltage range

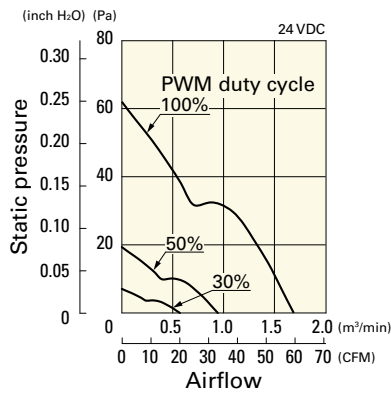


PWM duty - Speed characteristics example

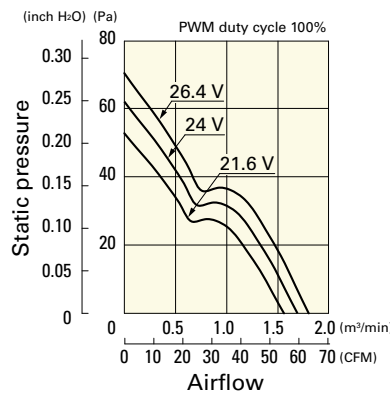


9WL0924P4S001 With pulse sensor with PWM control function

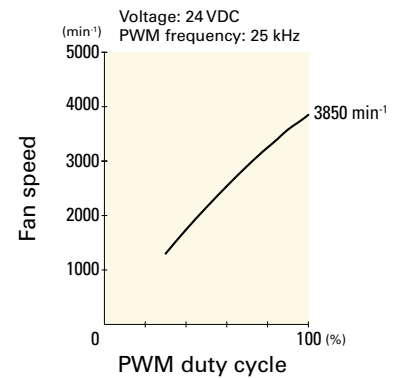
PWM duty cycle



Operating voltage range

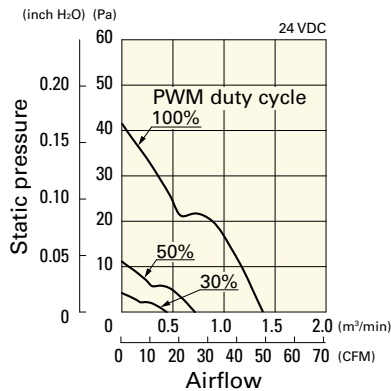


PWM duty - Speed characteristics example

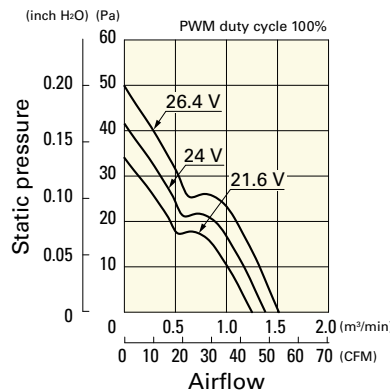


9WL0924P4H001 With pulse sensor with PWM control function

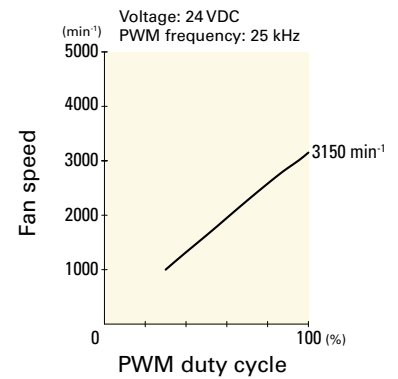
PWM duty cycle



Operating voltage range



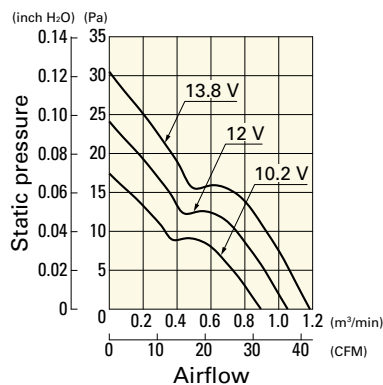
PWM duty - Speed characteristics example



Airflow - Static Pressure Characteristics

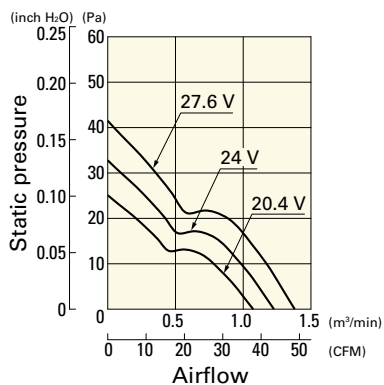
9WL0912M4001 With pulse sensor

Operating voltage range



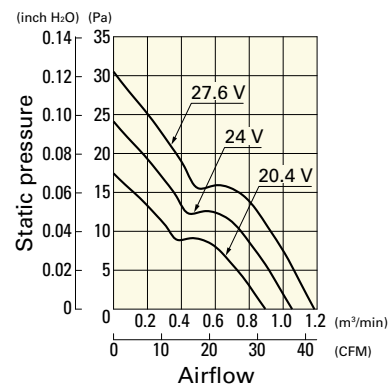
9WL0924F4001 With pulse sensor

Operating voltage range

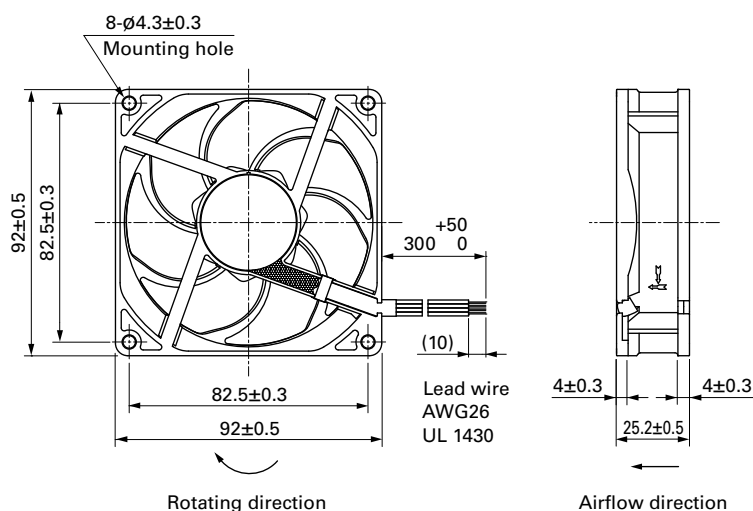


9WL0924M4001 With pulse sensor

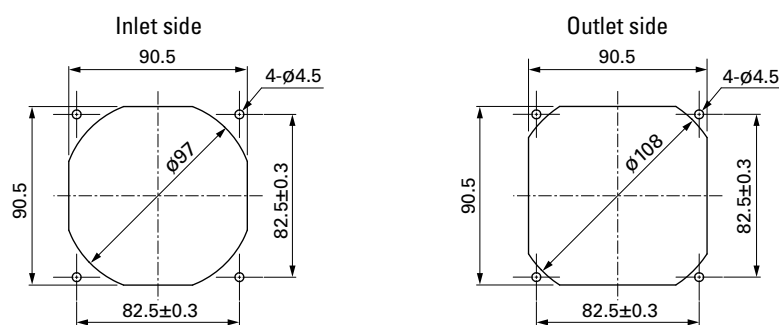
Operating voltage range



Dimensions (unit: mm)



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



Options

Finger guards

page: p. 558

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

Resin finger guards

page: p. 565

Model no.: 109-1001G