



140×140×38 mm

San Ace 140W 9WL type   

General Specifications

- Material Frame: Aluminum (Black coating), 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. 614.
- 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 740 g
- Ingress protection IP68 For more information on IP rating, refer to p. 621.

Specifications

The models listed below **have a pulse sensor with PWM control.**

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]		
9WL1412P1A001	12	10.2 to 13.8	100	3.72	44.64	6900	8.0 282	516 2.07	68	-20 to +70	10000/60°C (135000/40°C)		
			20	0.27	3.24	2300	2.66 93	80 0.32	39				
9WL1412P1H001			100	1.7	20.4	5200	6.0 212	300 1.2	62				
			20	0.27	3.24	2300	2.66 93	80 0.32	39				
9WL1412P1M001			100	0.6	7.2	3300	3.7 130	170 0.68	46				
			20	0.16	1.92	1300	1.45 51	26 0.1	29				
9WL1424P1A001			24	20.4 to 27.6	100	1.86	44.64	6900	8.0 282			516 2.07	68
					20	0.17	4.08	2300	2.66 93			80 0.32	39
9WL1424P1H001					100	0.85	20.4	5200	6.0 212			300 1.2	62
					20	0.16	3.84	2300	2.66 93			80 0.32	39
9WL1424P1M001					100	0.3	7.2	3300	3.7 130			170 0.68	46
					20	0.11	2.64	1300	1.45 51			26 0.1	29
9WL1448P1A001	48	40.8 to 55.2			100	0.92	44.16	6900	8.0 282	516 2.07	68		
					20	0.11	5.28	2300	2.66 93	80 0.32	39		
9WL1448P1H001					100	0.42	20.16	5200	6.0 212	300 1.2	62		
					20	0.11	5.28	2300	2.66 93	80 0.32	39		
9WL1448P1M001					100	0.15	7.2	3300	3.7 130	170 0.68	46		
					20	0.09	4.32	1300	1.45 51	26 0.1	29		

* 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 a pulse sensor.**

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]
9WL1448L1001	48	40.8 to 55.2	0.11	5.3	2300	2.6 91.9	80 0.32	39	-20 to +70	10000/60°C (135000/40°C)

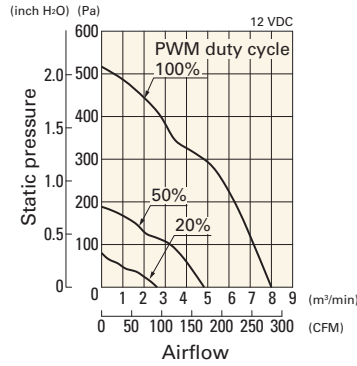
Note: Sensor and control options are available for selection. Refer to the table on pp. 655 to 656.

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

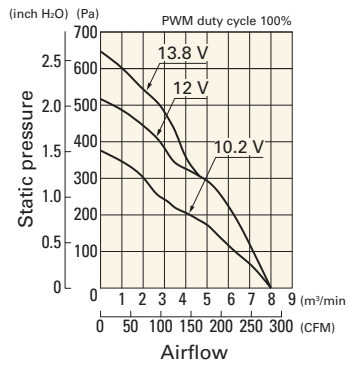
DC
Splash Proof Fan 140 mm sq.

9WL1412P1A001 With pulse sensor with PWM control

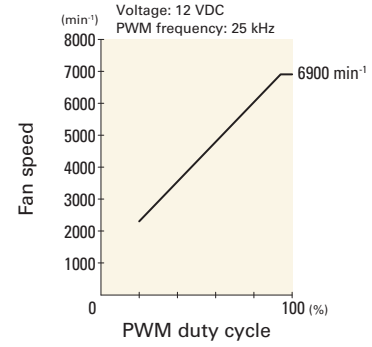
PWM duty cycle



Operating voltage range

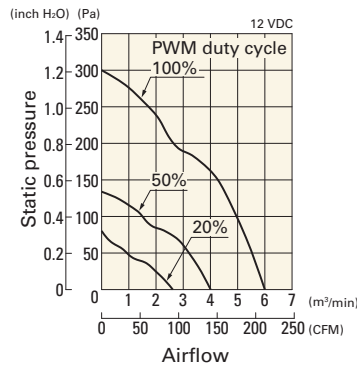


PWM duty - Speed characteristics example

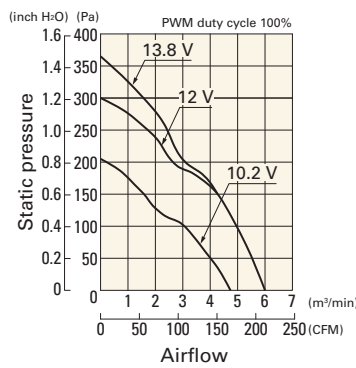


9WL1412P1H001 With pulse sensor with PWM control

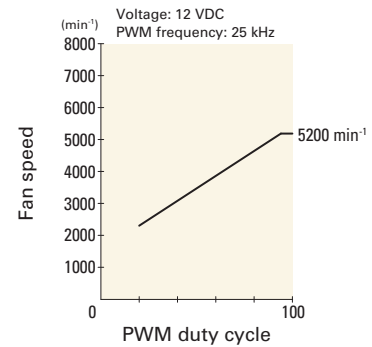
PWM duty cycle



Operating voltage range

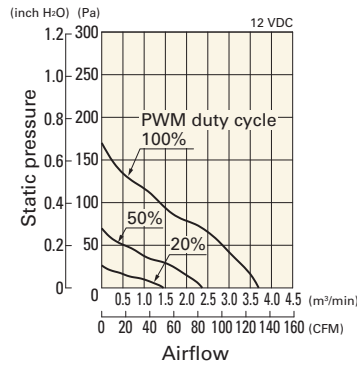


PWM duty - Speed characteristics example

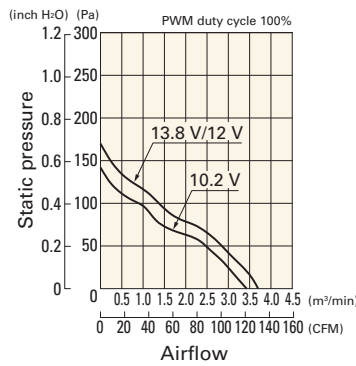


9WL1412P1M001 With pulse sensor with PWM control

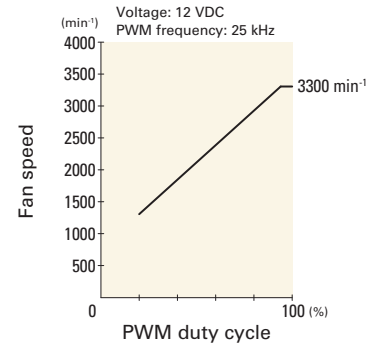
PWM duty cycle



Operating voltage range

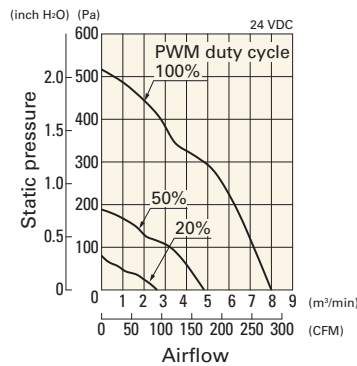


PWM duty - Speed characteristics example

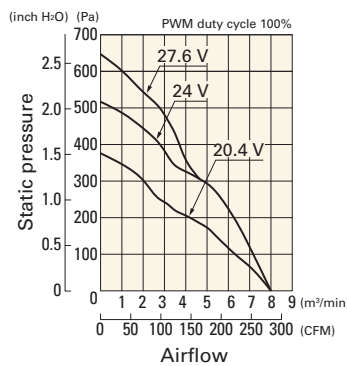


9WL1424P1A001 With pulse sensor with PWM control

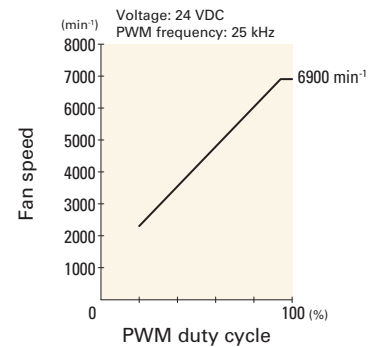
PWM duty cycle



Operating voltage range



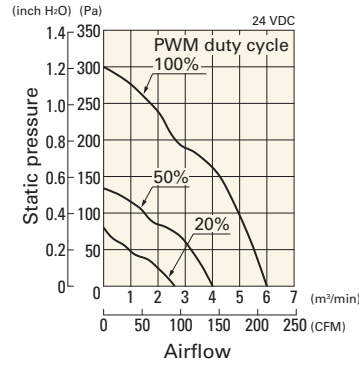
PWM duty - Speed characteristics example



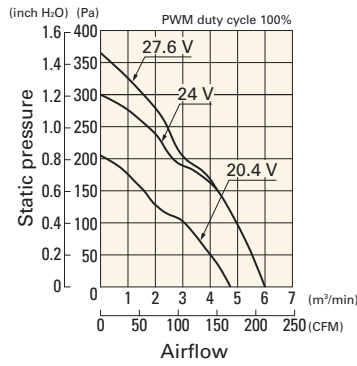
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9WL1424P1H001 With pulse sensor with PWM control

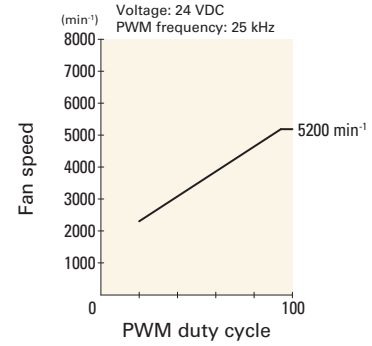
PWM duty cycle



Operating voltage range

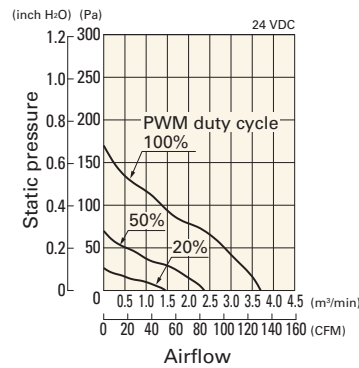


PWM duty - Speed characteristics example

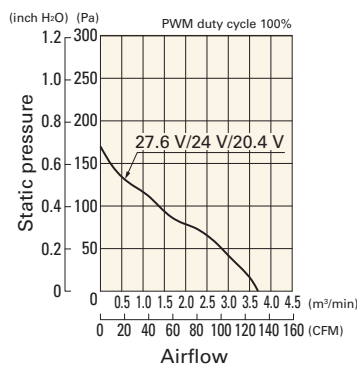


9WL1424P1M001 With pulse sensor with PWM control

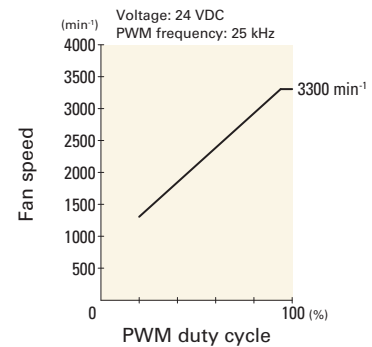
PWM duty cycle



Operating voltage range

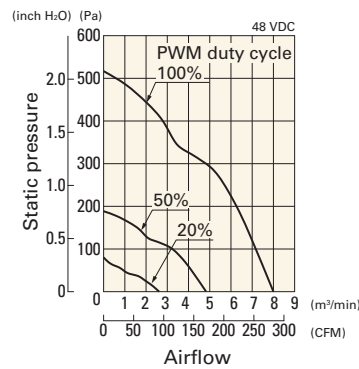


PWM duty - Speed characteristics example

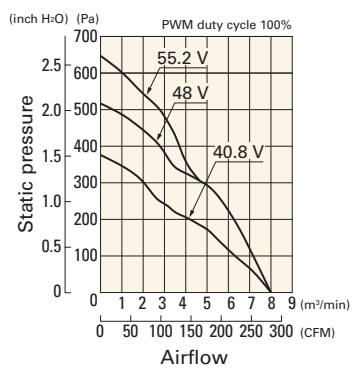


9WL1448P1A001 With pulse sensor with PWM control

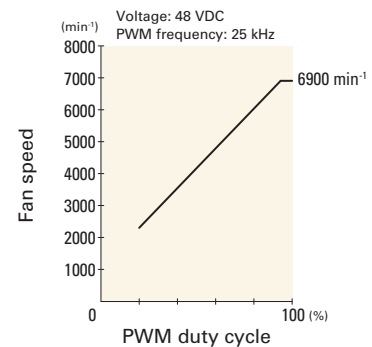
PWM duty cycle



Operating voltage range

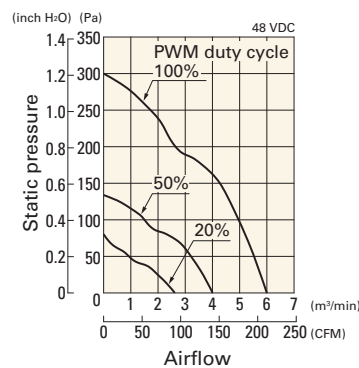


PWM duty - Speed characteristics example

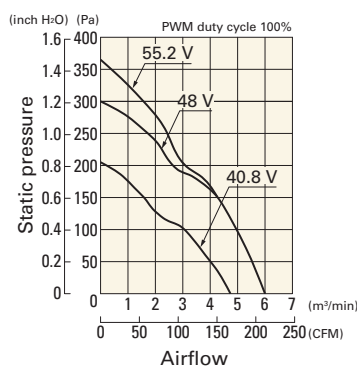


9WL1448P1H001 With pulse sensor with PWM control

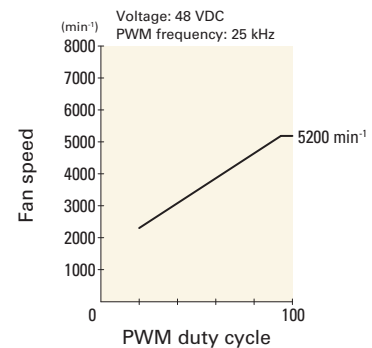
PWM duty cycle



Operating voltage range



PWM duty - Speed characteristics example

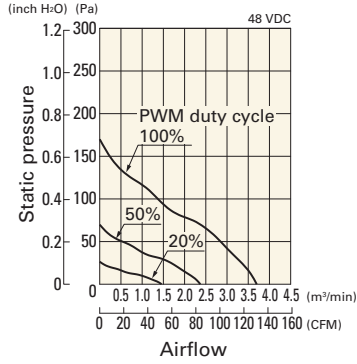


DC
Splash Proof Fan 140 mm sq.

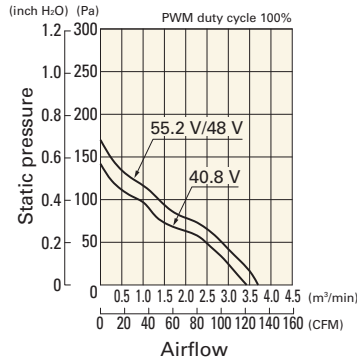
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9WL1448P1M001 With pulse sensor with PWM control

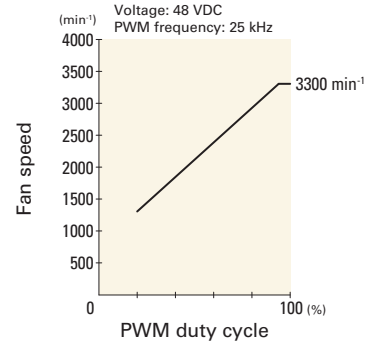
PWM duty cycle



Operating voltage range



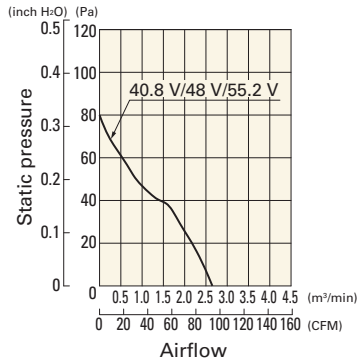
PWM duty - Speed characteristics example



Airflow - Static Pressure Characteristics

9WL1448L1001 With pulse sensor

Operating voltage range



Dimensions (unit: mm) (With pulse sensor with PWM control)

