



# 60×60×56 mm

## San Ace 60 9CRA 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. 608.
- 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 ..... Inlet ⊕Red ⊖Black (Sensor) Yellow (Control) Brown  
Outlet ⊕Orange ⊖Gray (Sensor) Purple (Control) White
- Mass ..... 200 g

### 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 <sup>-1</sup> ]		Max. airflow [m <sup>3</sup> /min] [CFM]		Max. static pressure [Pa] [inchH <sub>2</sub> O]		SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
						Inlet	Outlet	Inlet	Outlet	Inlet	Outlet			
9CRA0612P6K001	12	10.8 to 13.2	100	3.1	37.2	18300	15800	2.28	80.5	1130	4.54	73	-20 to +70	30000/60°C (53000/40°C)
			0	0.17	2.0	3800	3300	0.47	16.6	49	0.2	35		
9CRA0612P6J001			100	2.3	27.6	16800	14500	2.1	74.2	950	3.82	70		
			0	0.15	1.8	3800	3300	0.47	16.6	49	0.2	35		
9CRA0612P6G001			100	1.3	15.6	13500	11400	1.65	58.3	620	2.49	65		
			0	0.1	1.2	3000	2500	0.36	12.7	31	0.12	29		

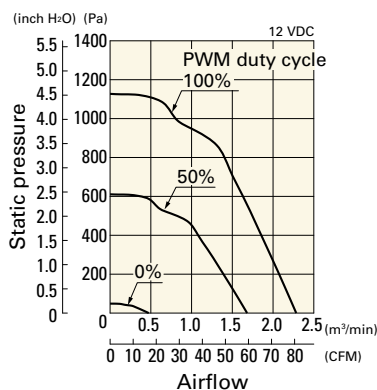
PWM frequency is 25 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

Note: The mark indicates Short Lead Time Service applicable models. See p. 664 for details.

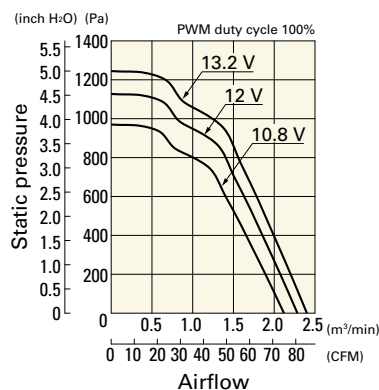
### Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9CRA0612P6K001** With pulse sensor with PWM control

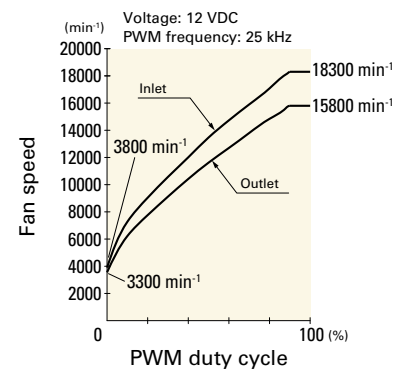
PWM duty cycle



Operating voltage range



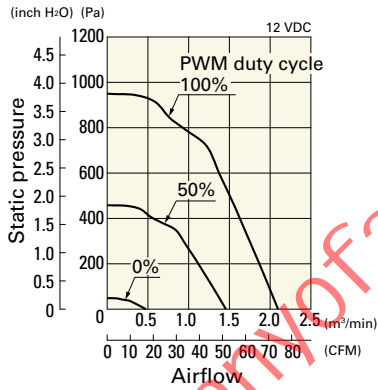
PWM duty - Speed characteristics example



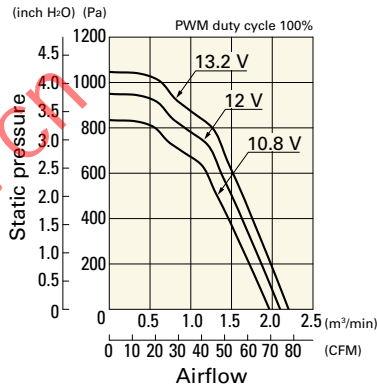
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9CRA0612P6J001 With pulse sensor with PWM control

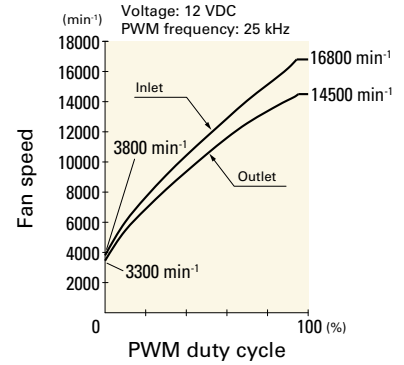
PWM duty cycle



Operating voltage range

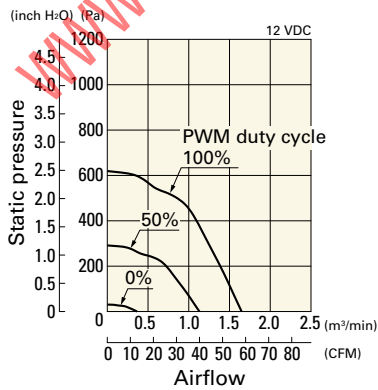


PWM duty - Speed characteristics example

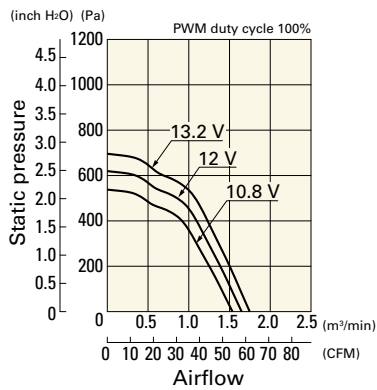


9CRA0612P6G001 With pulse sensor with PWM control

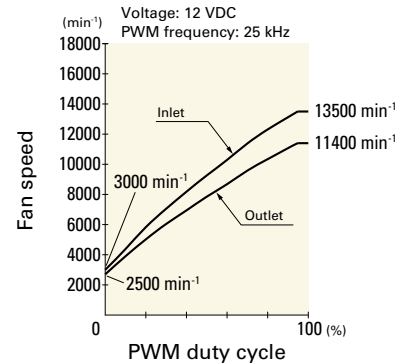
PWM duty cycle



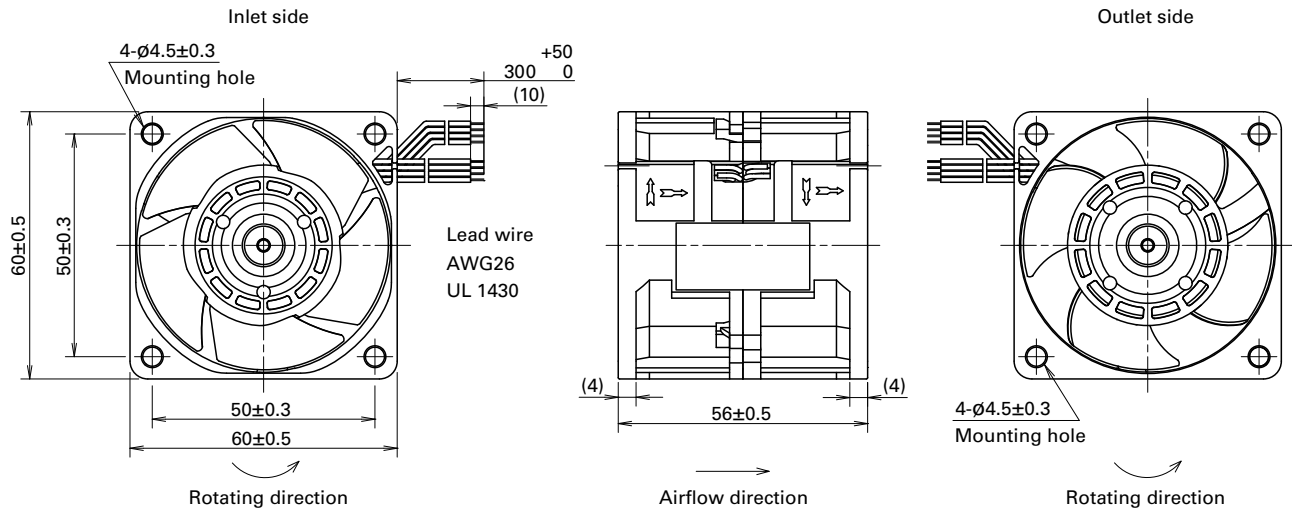
Operating voltage range

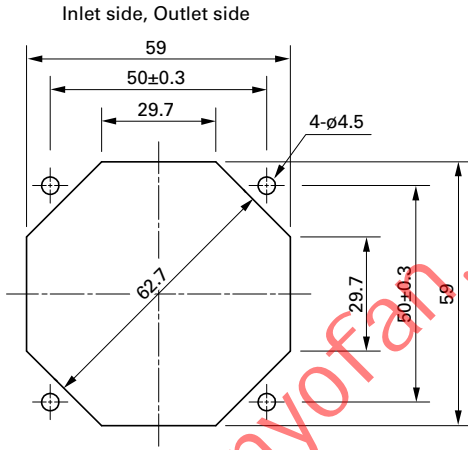


PWM duty - Speed characteristics example



## Dimensions (unit: mm)



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

Finger guards

page: p. 590

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

Resin finger guards

page: p. 597

Model no.: 109-1003G

Resin filter kits

page: p. 598

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