



60x60x76 mm

San Ace 60L 9CRLA 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 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 Inlet ⊕Red ⊖Black (Sensor) Yellow (Control) Brown
Outlet ⊕Orange ⊖Gray (Sensor) Purple (Control) White
- Mass 310 g

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]
						Inlet	Outlet	Inlet	Outlet	Inlet	Outlet			
9CRLA0612P0G001	12	10.8 to 13.2	100	3.0	36.0	16500	17800	2.1	74.1	1400	5.62	70	-20 to +70	100000/60°C (135000/40°C)
			20	0.4	4.8	5000	5400	0.64	22.6	128	0.51	43		

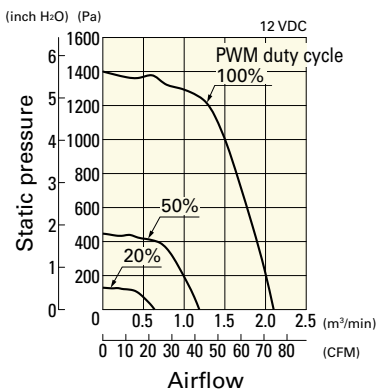
* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

The mark indicates Short Lead Time Service applicable models. See p. 626 for details.

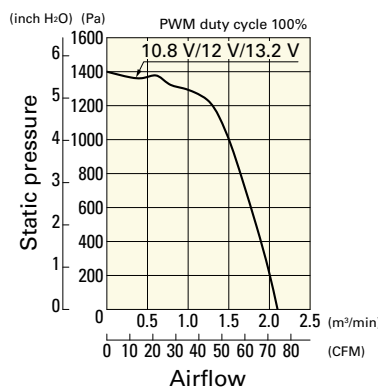
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9CRLA0612P0G001 With pulse sensor with PWM control function

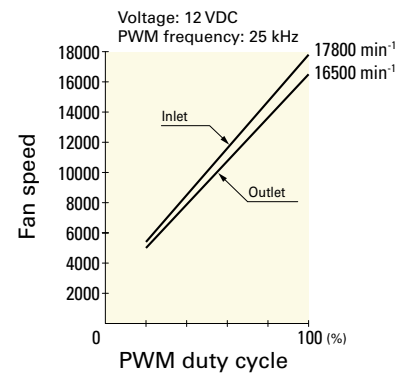
PWM duty cycle



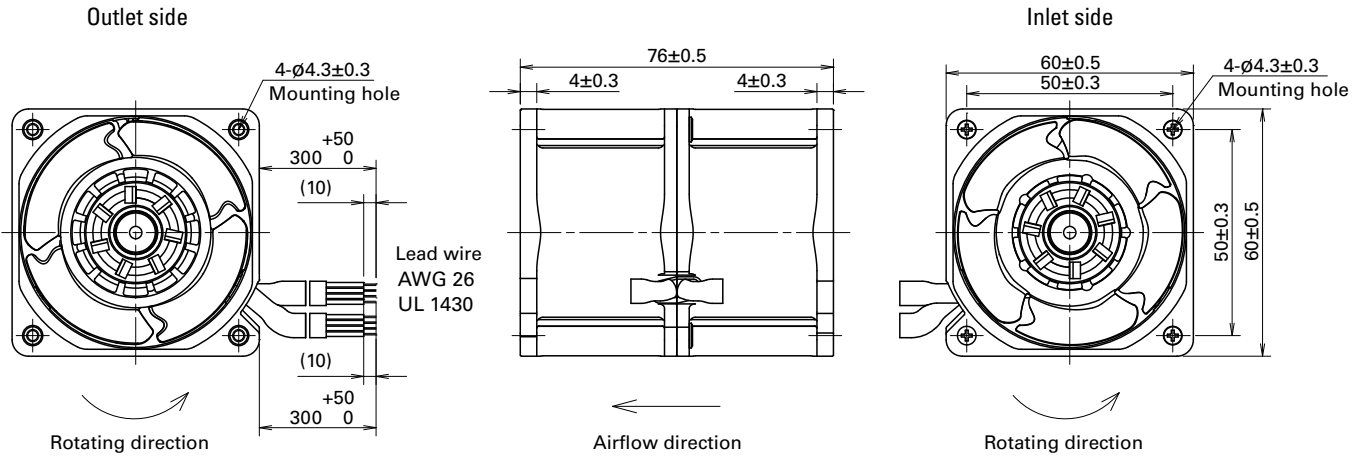
Operating voltage range



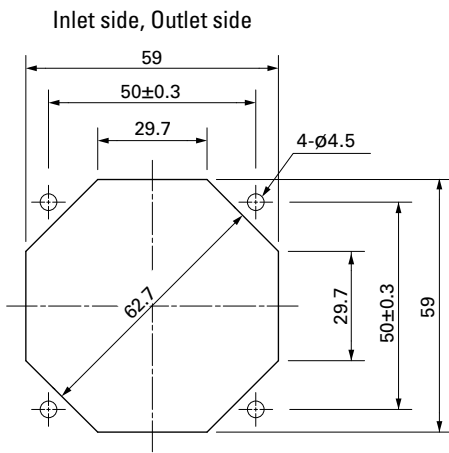
PWM duty - Speed characteristics example



Dimensions (unit: mm)



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



Options

Finger guards

page: p. 558

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

Resin finger guards

page: p. 565

Model no.: 109-1003G

Resin filter kits

page: p. 566

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



60x60x76 mm

San Ace 60L 9CRL type

General Specifications

- Material Frame: Aluminum, 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. 573.
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- 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 Inlet ⊕Red ⊖Black (Sensor) Yellow (Control) Brown
Outlet ⊕Orange ⊖Gray (Sensor) Purple (Control) White
- Mass 300 g

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]
						Inlet	Outlet	Inlet	Outlet	Inlet	Outlet			
9CRL0612P0G001	12	10.8 to 13.2	100	2.3	27.6	16500	13000	2.0	70.6	1000	4.0	66	-20 to +70	130000/60°C (165000/40°C)
			0	0.22	2.7	3600	2800	0.43	15.1	47.6	0.19	32		

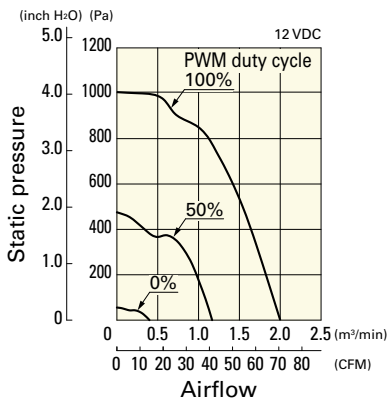
* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

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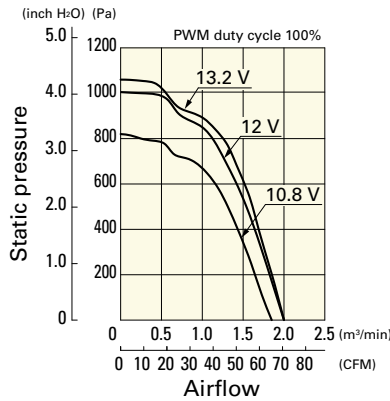
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9CRL0612P0G001 With pulse sensor with PWM control function

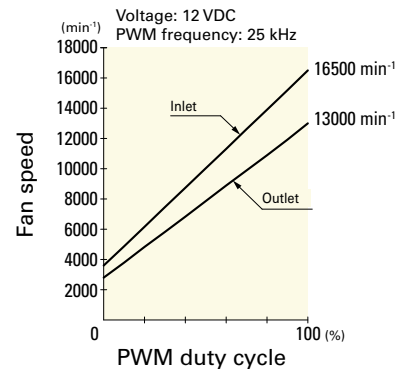
PWM duty cycle



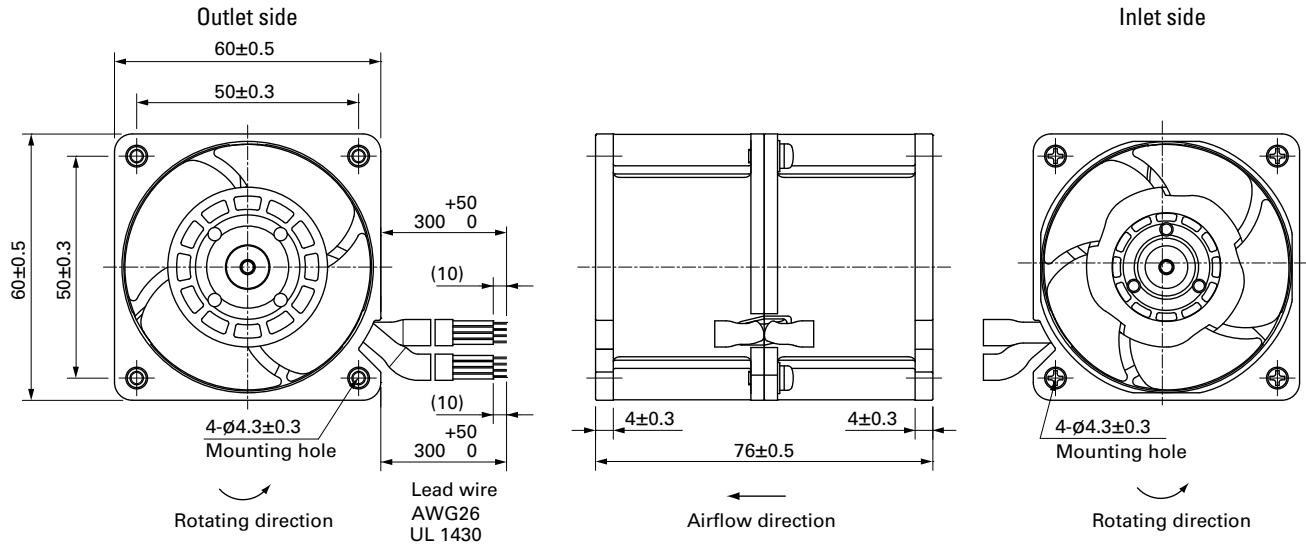
Operating voltage range



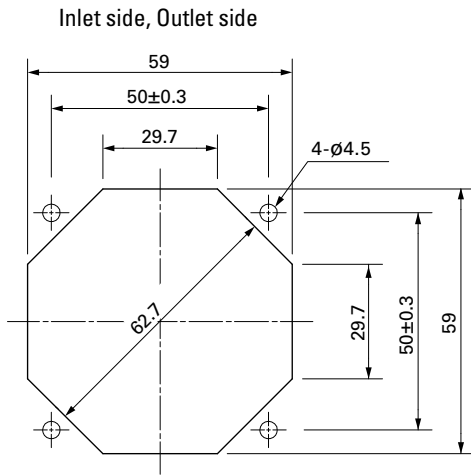
PWM duty - Speed characteristics example



Dimensions (unit: mm)



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



Options

Finger guards

page: p. 558

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

Resin finger guards

page: p. 565

Model no.: 109-1003G

Resin filter kits

page: p. 566

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