



# 120x120x38 mm

San Ace 120L 9LG 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.
- 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 ..... 420 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 <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]	
9LG1212P1G001	12	8.0 to 13.8	100	3.2	38.4	6550	7.0 247.1	370 1.48	62	-20 to +70	180000/60°C (215000/40°C)	
			20	0.24	2.88	2000	2.13 75.2	34.4 0.13	36			
			9LG1212P1S001	100	2.2	26.4	5600	6.0 211.8	270 1.08			58
				20	0.24	2.88	2000	2.13 75.2	34.4 0.13			36
			9LG1212P1H001	100	1.4	16.8	4700	5.0 176.5	190 0.76			54
				20	0.24	2.88	2000	2.13 75.2	34.4 0.13			36
9LG1224P1G001	24	15 to 30	100	1.6	38.4	6550	7.0 247.1	370 1.48	62			
			20	0.12	2.88	2000	2.13 75.2	34.4 0.13	36			
			9LG1224P1S001	100	1.1	26.4	5600	6.0 211.8	270 1.08			58
				20	0.12	2.88	2000	2.13 75.2	34.4 0.13			36
			9LG1224P1H001	100	0.7	16.8	4700	5.0 176.5	190 0.76			54
				20	0.12	2.88	2000	2.13 75.2	34.4 0.13			36
9LG1248P1G001	48	36 to 60	100	0.8	38.4	6550	7.0 247.1	370 1.48	62			
			20	0.08	3.84	2000	2.13 75.2	34.4 0.13	36			
			9LG1248P1S001	100	0.55	26.4	5600	6.0 211.8	270 1.08			58
				20	0.08	3.84	2000	2.13 75.2	34.4 0.13			36
			9LG1248P1H001	100	0.35	16.8	4700	5.0 176.5	190 0.76			54
				20	0.08	3.84	2000	2.13 75.2	34.4 0.13			36

\* 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. 608 to 609. 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 <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]
9LG1212F1001	12	8 to 13.8	0.39	4.68	2800	3 106	67.6 0.27	39	-20 to +70	180000/60°C (215000/40°C)
9LG1212M1001			0.22	2.64	2100	2.2 77.7	37.9 0.15	33		
9LG1224A1001	24	15 to 30	0.37	8.88	3700	3.9 137.8	117.8 0.47	48		
9LG1224F1001			0.19	4.56	2800	3 106	67.6 0.27	39		
9LG1224M1001			0.11	2.64	2100	2.2 77.7	37.9 0.15	33		
9LG1248F1001	48	36 to 60	0.11	5.28	2800	3 106	67.6 0.27	39		
9LG1248M1001			0.07	3.36	2100	2.2 77.7	37.9 0.15	33		

The following sensor and control options are available for selection.

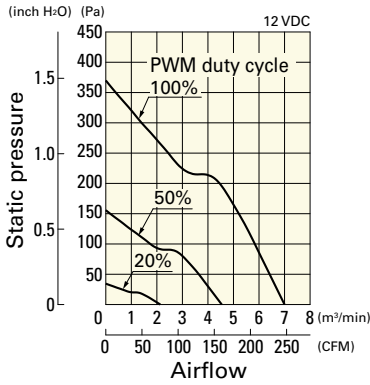
Available for all models. Without sensor Lock sensor

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

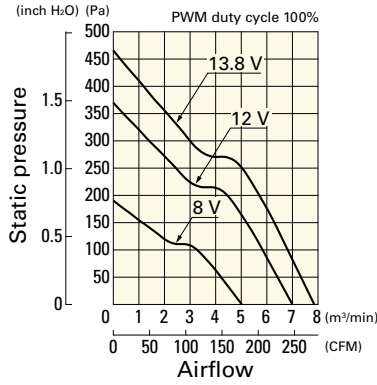
# Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9LG1212P1G001** With pulse sensor with PWM control function

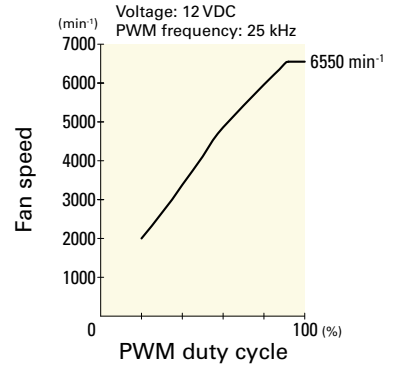
PWM duty cycle



Operating voltage range

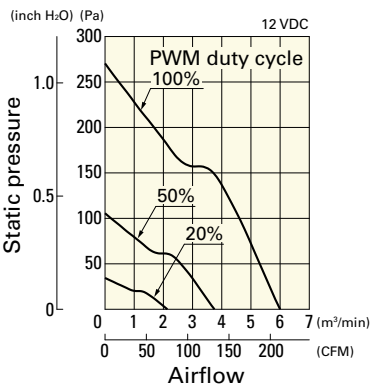


PWM duty - Speed characteristics example

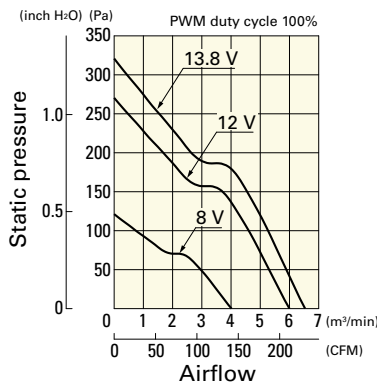


**9LG1212P1S001** With pulse sensor with PWM control function

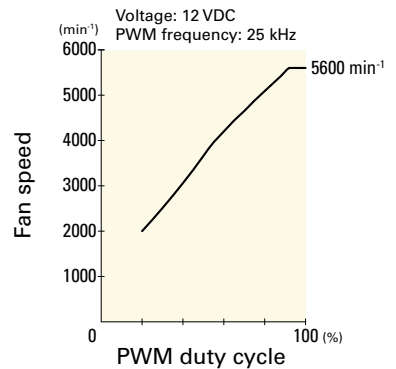
PWM duty cycle



Operating voltage range

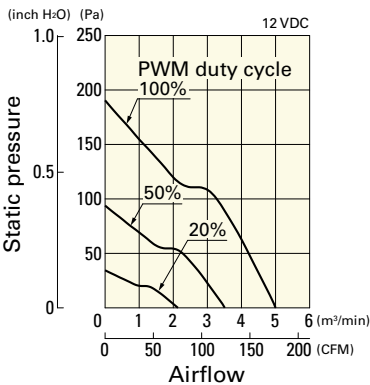


PWM duty - Speed characteristics example

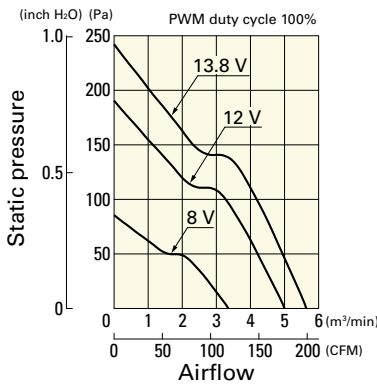


**9LG1212P1H001** With pulse sensor with PWM control function

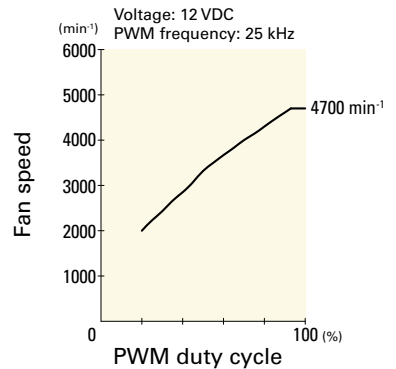
PWM duty cycle



Operating voltage range

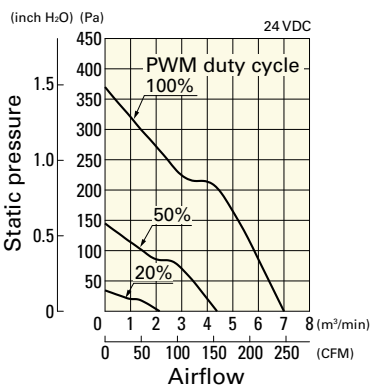


PWM duty - Speed characteristics example

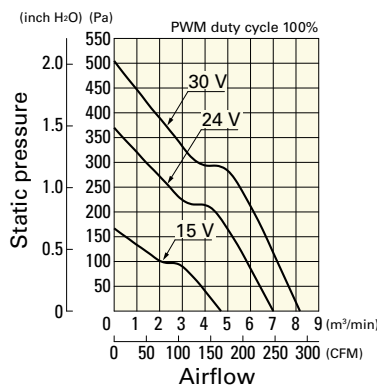


**9LG1224P1G001** With pulse sensor with PWM control function

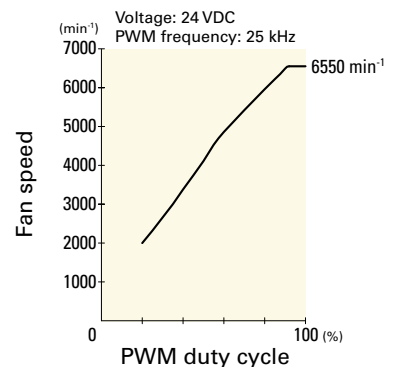
PWM duty cycle



Operating voltage range



PWM duty - Speed characteristics example

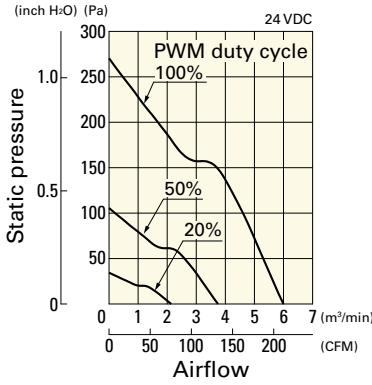


DC  
Long Life Fan 120 mm sq.

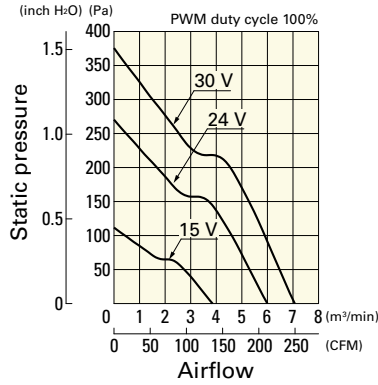
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9LG1224P1S001** With pulse sensor with PWM control function

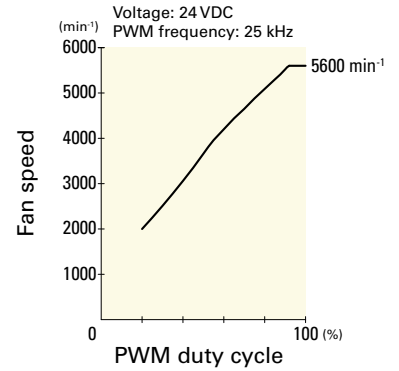
PWM duty cycle



Operating voltage range

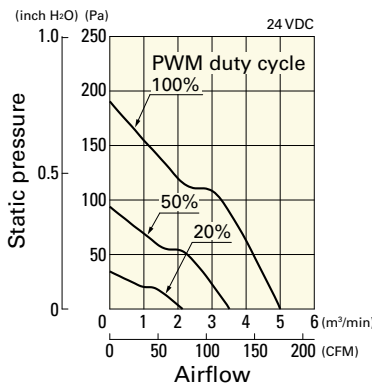


PWM duty - Speed characteristics example

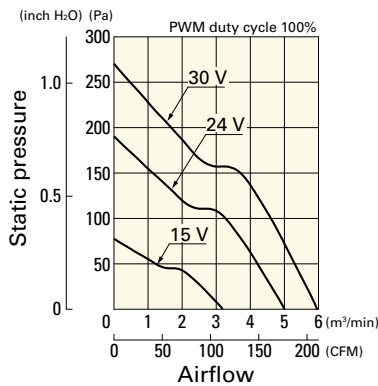


**9LG1224P1H001** With pulse sensor with PWM control function

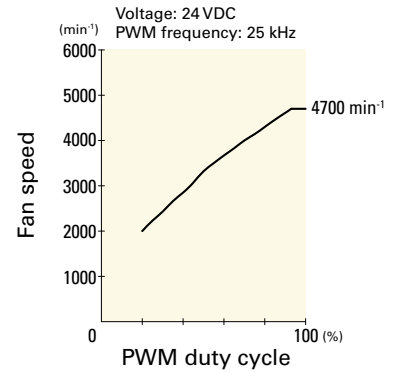
PWM duty cycle



Operating voltage range

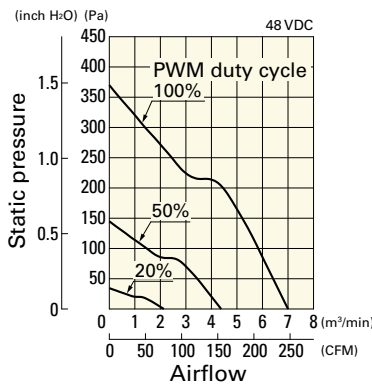


PWM duty - Speed characteristics example

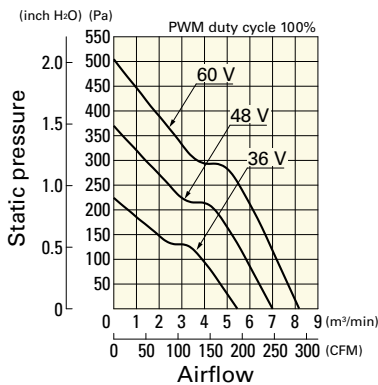


**9LG1248P1G001** With pulse sensor with PWM control function

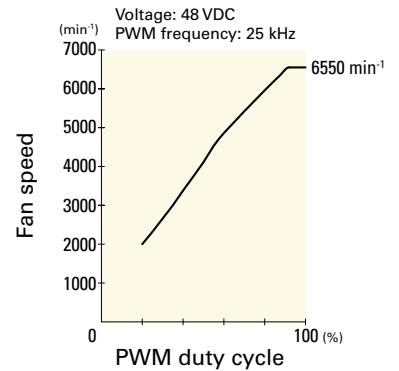
PWM duty cycle



Operating voltage range

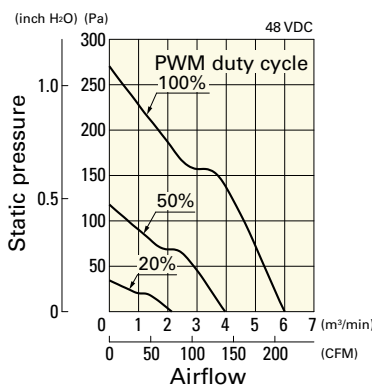


PWM duty - Speed characteristics example

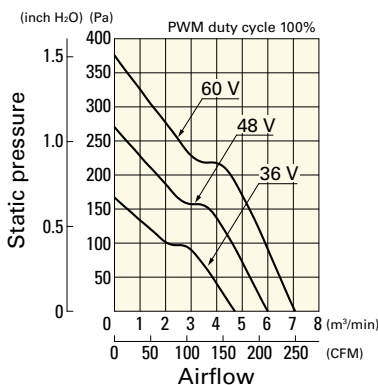


**9LG1248P1S001** With pulse sensor with PWM control function

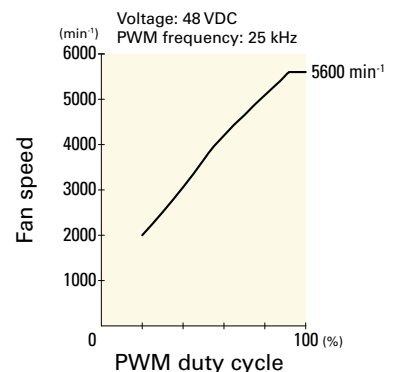
PWM duty cycle



Operating voltage range



PWM duty - Speed characteristics example

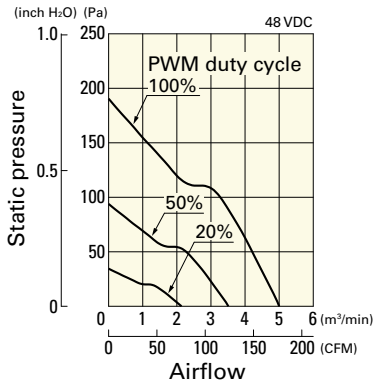


DC Long Life Fan 120 mm sq.

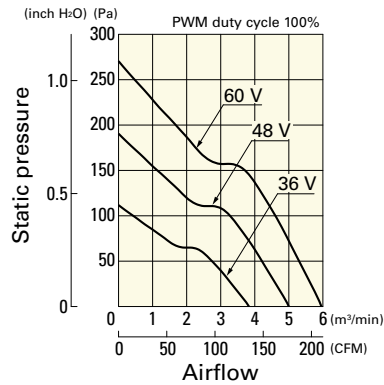
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9LG1248P1H001** With pulse sensor with PWM control function

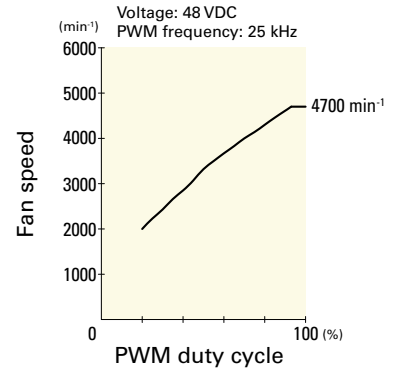
PWM duty cycle



Operating voltage range



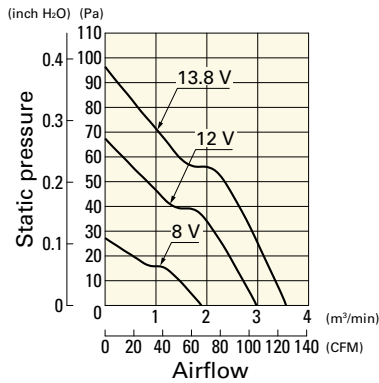
PWM duty - Speed characteristics example



## Airflow - Static Pressure Characteristics

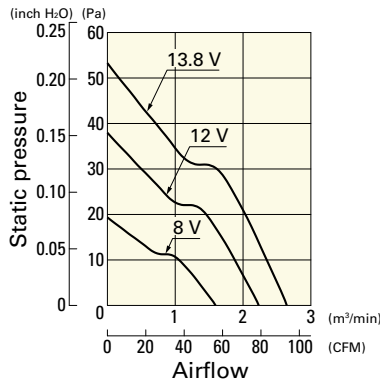
**9LG1212F1001** With pulse sensor

Operating voltage range



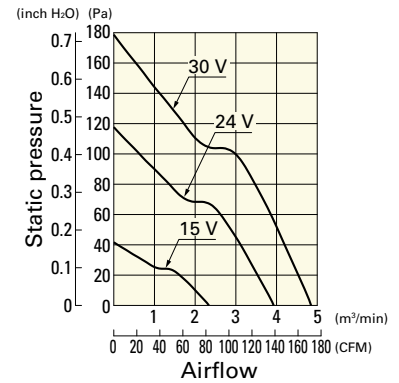
**9LG1212M1001** With pulse sensor

Operating voltage range



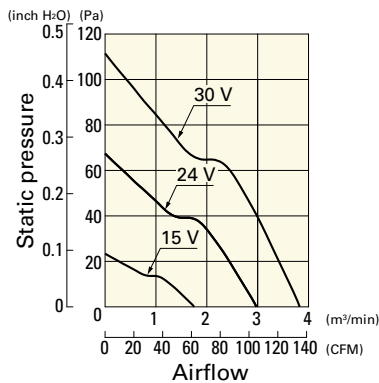
**9LG1224A1001** With pulse sensor

Operating voltage range



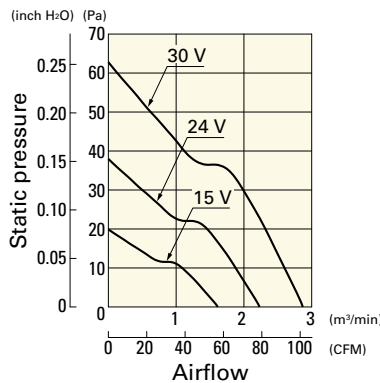
**9LG1224F1001** With pulse sensor

Operating voltage range



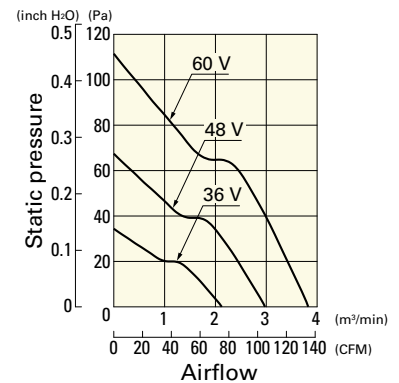
**9LG1224M1001** With pulse sensor

Operating voltage range



**9LG1248F1001** With pulse sensor

Operating voltage range



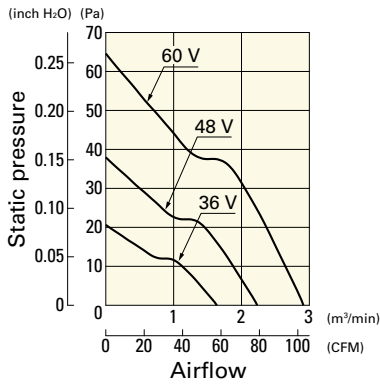
DC

Long Life Fan 120 mm sq.

## Airflow - Static Pressure Characteristics

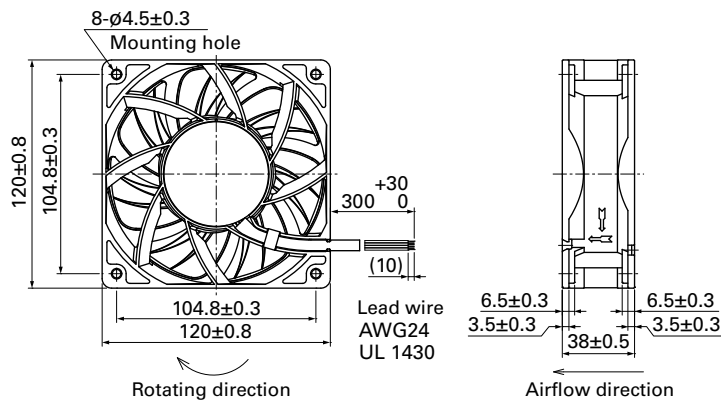
**9LG1248M1001** With pulse sensor

Operating voltage range

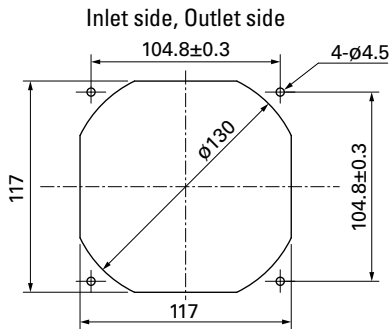


DC Long Life Fan 120 mm sq.

## Dimensions (unit: mm)



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



## Options

Finger guards

page: p. 559

Model no.: 109-019E, 109-019K, 109-019C, 109-019H

Resin finger guards

page: p. 565

Model no.: 109-1000G

Resin filter kits

page: p. 566

Model no.: 109-1000F13 (13PPI), 109-1000F20 (20PPI),  
109-1000F30 (30PPI), 109-1000F40 (40PPI)



# 120×120×38 mm

San Ace 120L 9GL 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.
- 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 or Blue  Sensor Yellow
- Mass ..... 370 g

## Specifications

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 <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]
9GL1212G101	12	10.2 to 13.8	0.98	11.8	3600	3.88 137	135 0.542	49	-20 to +70	80000/60°C (115000/40°C)
9GL1212E101			0.61	7.32	3100	3.34 118	100 0.402	46		
9GL1212H101		7 to 13.8	0.38	4.56	2600	2.8 99	70.4 0.283	39		100000/60°C (135000/40°C)
9GL1212F101			0.28	3.36	2280	2.45 87	54.2 0.218	36		
9GL1212M101			0.21	2.52	1950	2.1 74	39.6 0.159	32		
9GL1224G101			0.5	12.0	3600	3.88 137	135 0.542	49		
9GL1224E101	24	20.4 to 27.6	0.34	8.16	3100	3.34 118	100 0.402	46		
9GL1224H101			0.22	5.28	2600	2.8 99	70.4 0.283	39		
9GL1224F101		14 to 27.6	0.16	3.84	2280	2.45 87	54.2 0.218	36		
9GL1224M101	0.11		2.64	1950	2.1 74	39.6 0.159	32			
9GL1248G101	48	40.8 to 55.2	0.25	12.0	3600	3.88 137	135 0.542	49		80000/60°C (115000/40°C)
9GL1248E101			0.17	8.16	3100	3.34 118	100 0.402	46		
9GL1248H101			0.11	5.28	2600	2.8 99	70.4 0.283	39	100000/60°C (135000/40°C)	
9GL1248F101			0.09	4.32	2280	2.45 87	54.2 0.218	36		
9GL1248M101			0.07	3.36	1950	2.1 74	39.6 0.159	32		

The following sensor and control options are available for selection.

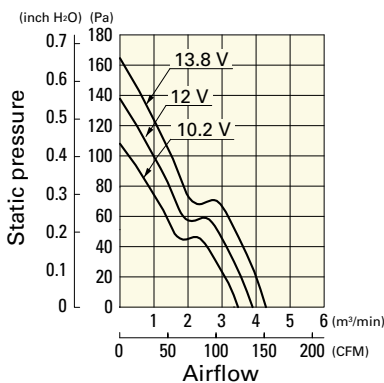
Available for all models.  Without sensor  Lock sensor

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

## Airflow - Static Pressure Characteristics

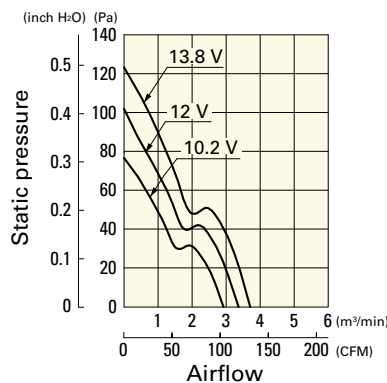
9GL1212G101 With pulse sensor

Operating voltage range



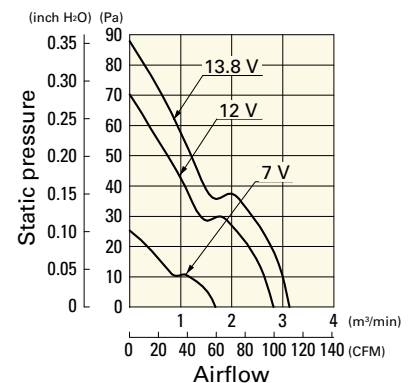
9GL1212E101 With pulse sensor

Operating voltage range



9GL1212H101 With pulse sensor

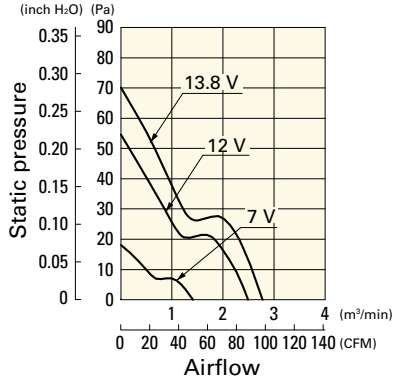
Operating voltage range



## Airflow - Static Pressure Characteristics

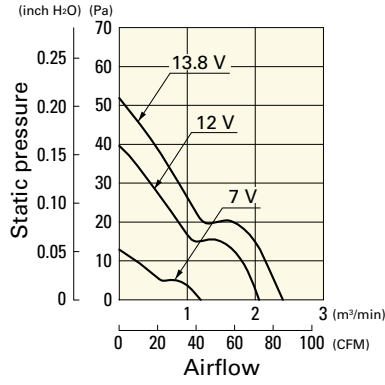
**9GL1212F101** With pulse sensor

Operating voltage range



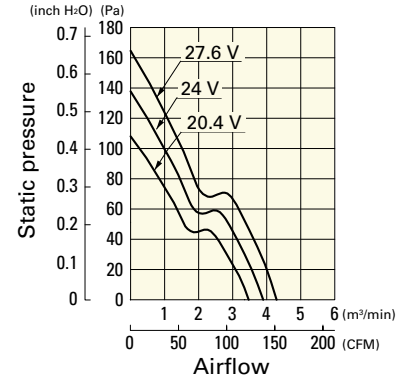
**9GL1212M101** With pulse sensor

Operating voltage range



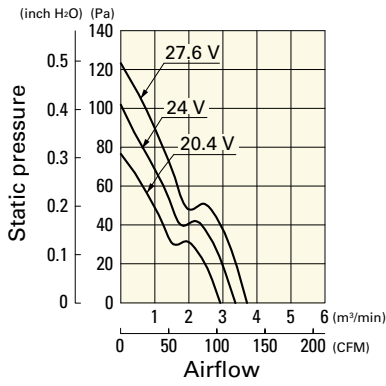
**9GL1224G101** With pulse sensor

Operating voltage range



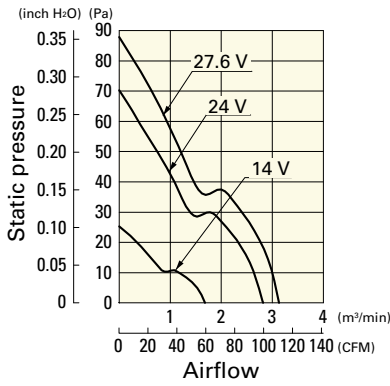
**9GL1224E101** With pulse sensor

Operating voltage range



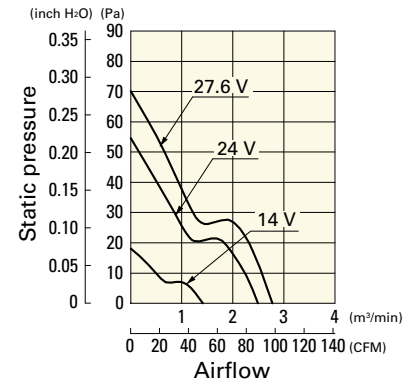
**9GL1224H101** With pulse sensor

Operating voltage range



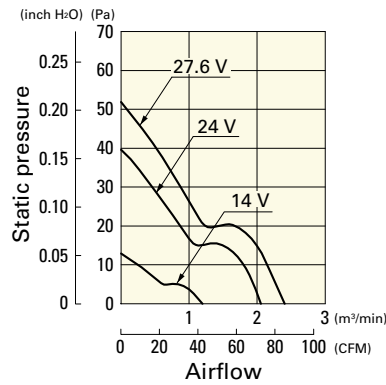
**9GL1224F101** With pulse sensor

Operating voltage range



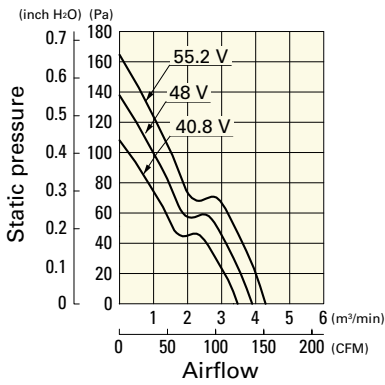
**9GL1224M101** With pulse sensor

Operating voltage range



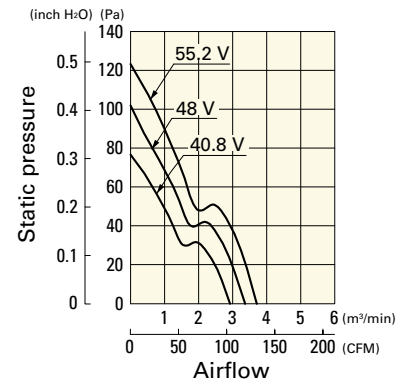
**9GL1248G101** With pulse sensor

Operating voltage range



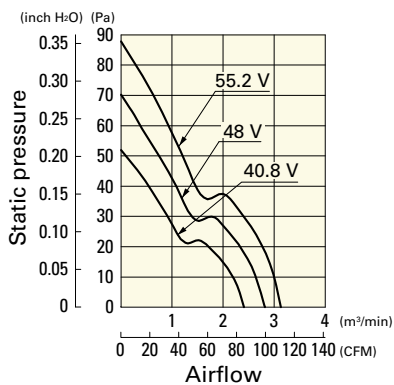
**9GL1248E101** With pulse sensor

Operating voltage range



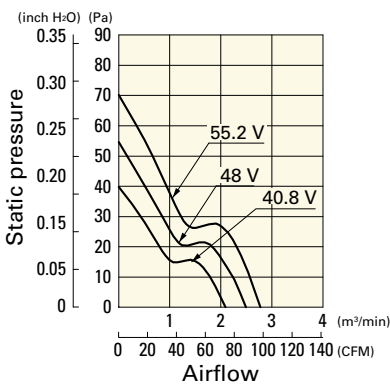
**9GL1248H101** With pulse sensor

Operating voltage range



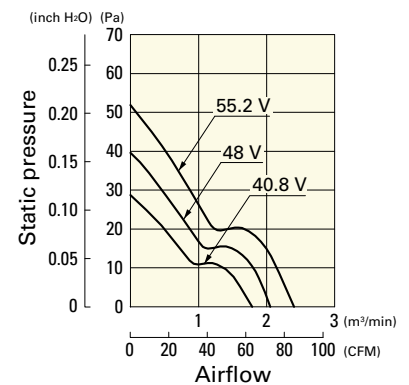
**9GL1248F101** With pulse sensor

Operating voltage range



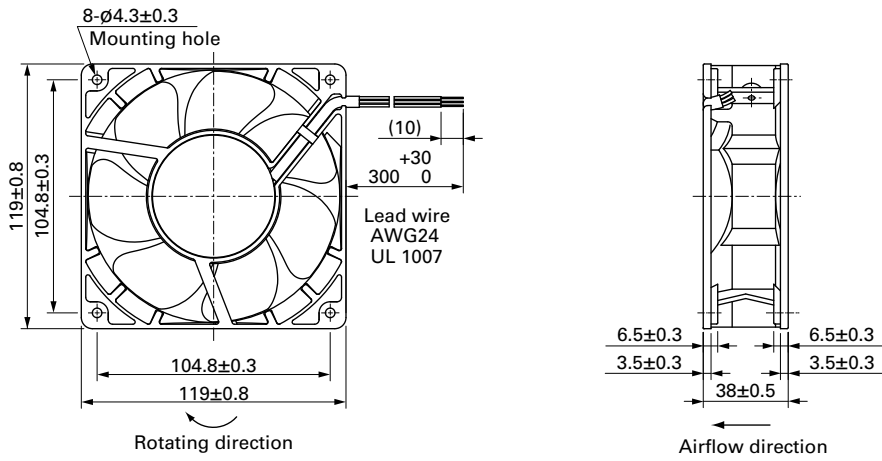
**9GL1248M101** With pulse sensor

Operating voltage range

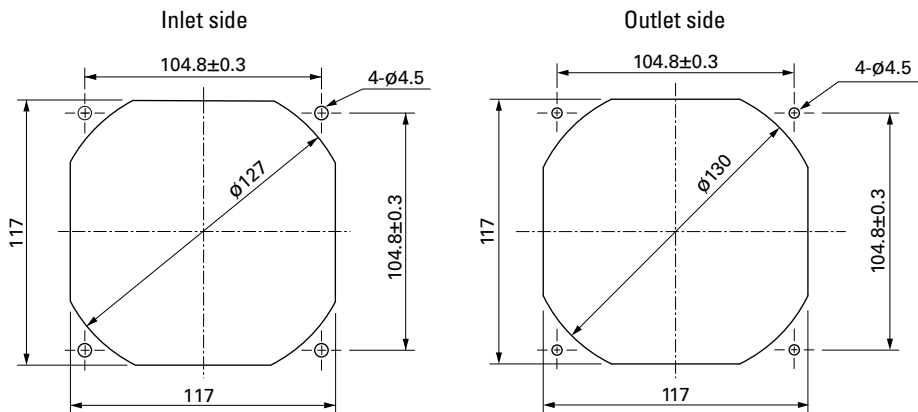


DC Long Life Fan 120 mm sq.

## Dimensions (unit: mm)



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



## Options

### Finger guards

page: p. 559

Model no.: 109-019E, 109-019K, 109-019C, 109-019H

### Resin finger guards

page: p. 565

Model no.: 109-1000G

### Resin filter kits

page: p. 566

Model no.: 109-1000F13 (13PPI), 109-1000F20 (20PPI),  
109-1000F30 (30PPI), 109-1000F40 (40PPI)