



# 80×80×25 mm

San Ace 80L 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. 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 ..... 130 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]		
» 9LG0812P4J001	12	10.8 to 13.2	100	0.6	7.2	7400	2.07 73.0	177 0.71	49	-20 to +70	180000/60°C (215000/40°C)		
			20	0.06	0.72	1800	0.5 17.6	10.4 0.04	16				
» 9LG0812P4G001			100	0.3	3.6	5500	1.54 54.3	98 0.39	43				
			25	0.05	0.6	1400	0.39 13.7	6.3 0.02	14				
» 9LG0812P4H001			100	0.12	1.44	3700	1.03 36.3	44 0.17	31				
			25	0.04	0.48	1100	0.3 10.5	3.9 0.01	13				
» 9LG0824P4J001			24	21.6 to 26.4	100	0.28	6.72	7400	2.07 73.0			177 0.71	49
					20	0.05	1.2	2400	0.67 23.6			18.6 0.07	22
» 9LG0824P4G001					100	0.14	3.36	5500	1.54 54.3			98 0.39	43
					20	0.02	0.48	1200	0.33 11.6			4.6 0.01	13
» 9LG0824P4H001	100	0.05			1.2	3700	1.03 36.3	44 0.17	31				
	30	0.02			0.48	1100	0.3 10.5	3.9 0.01	13				

\* 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 <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]		
» 9LG0812S4001	12	6 to 13.2	0.17	2.04	4200	1.17 41.3	56 0.22	35	-20 to +70	180000/60°C (215000/40°C)		
» 9LG0812F4001			0.1	1.2	3300	0.92 32.5	35 0.14	29				
» 9LG0812M4001			0.08	0.96	2900	0.8 28.3	27 0.11	25				
» 9LG0812L4001			8 to 13.2	0.06	0.72	2300	0.64 22.6	17 0.068			22	
» 9LG0824S4001				12 to 26.4	0.07	1.68	4200	1.17 41.3			56 0.22	35
» 9LG0824F4001					0.045	1.08	3300	0.92 32.5			35 0.14	29
» 9LG0824M4001		0.04			0.96	2900	0.8 28.3	27 0.11			25	
» 9LG0824L4001		14 to 26.4	0.03		0.72	2300	0.64 22.6	17 0.068			22	

Note 1: Sensor and control options are available for selection. Refer to the table on p. 648.

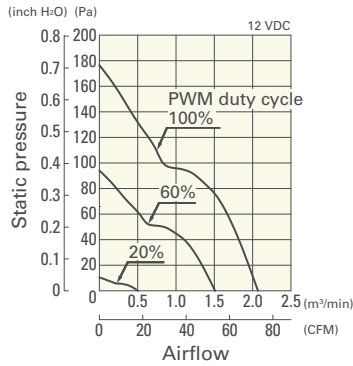
Note 2: The » mark indicates Short Lead Time Service applicable models. See p. 668 for details.

DC  
Long Life Fan 80 mm sq.

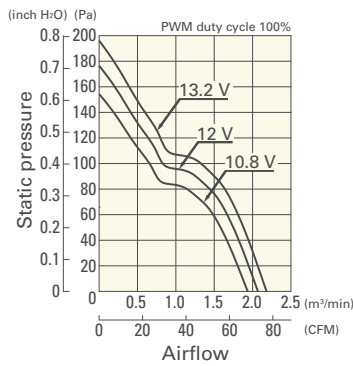
# Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9LG0812P4J001** With pulse sensor with PWM control

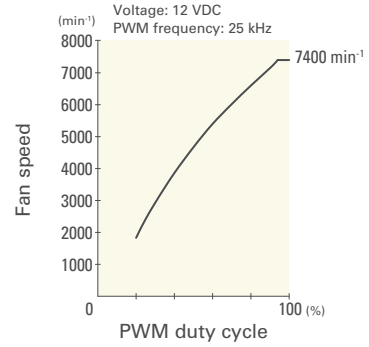
PWM duty cycle



Operating voltage range

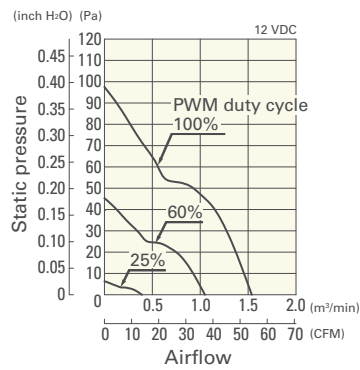


PWM duty - Speed characteristics example

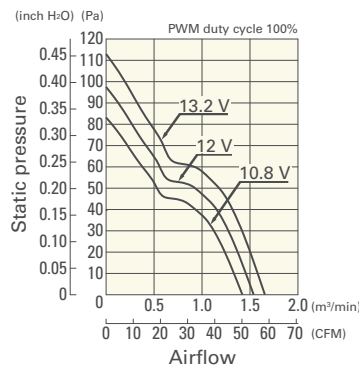


**9LG0812P4G001** With pulse sensor with PWM control

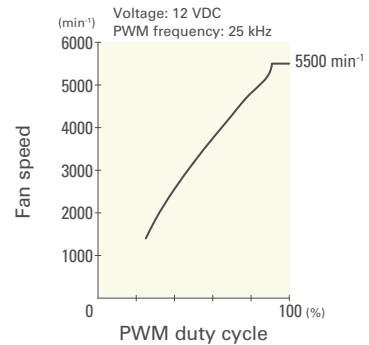
PWM duty cycle



Operating voltage range

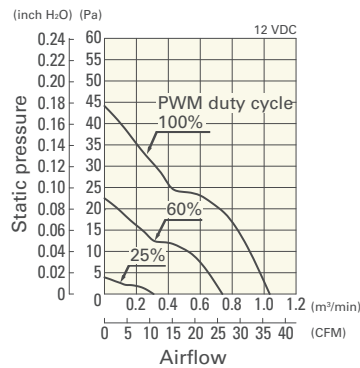


PWM duty - Speed characteristics example

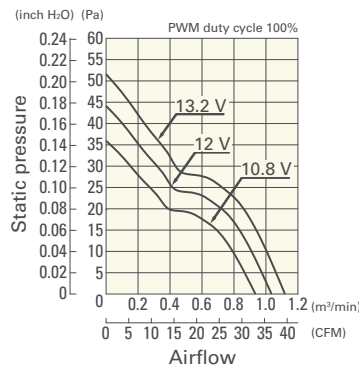


**9LG0812P4H001** With pulse sensor with PWM control

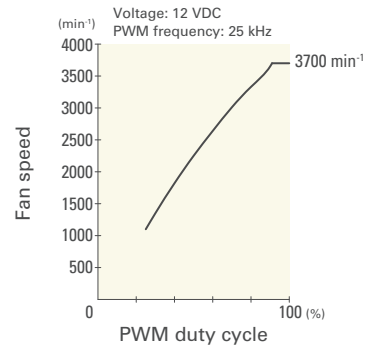
PWM duty cycle



Operating voltage range

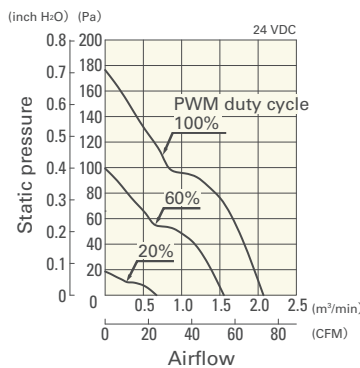


PWM duty - Speed characteristics example

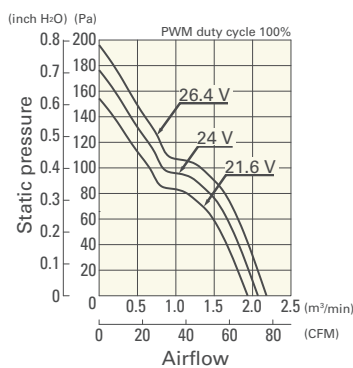


**9LG0824P4J001** With pulse sensor with PWM control

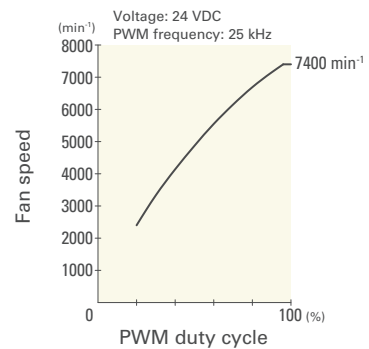
PWM duty cycle



Operating voltage range



PWM duty - Speed characteristics example



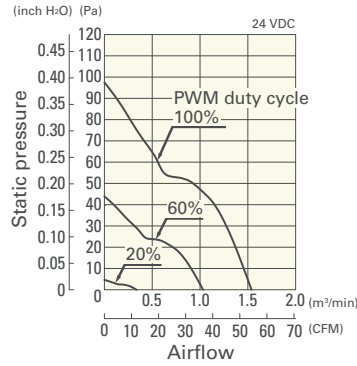
DC

Long Life Fan 80 mm sq.

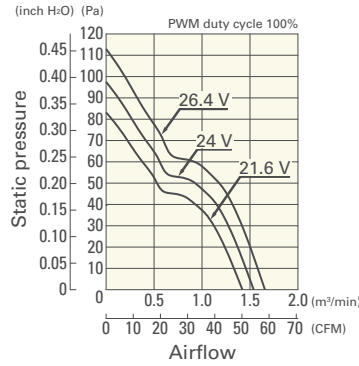
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9LG0824P4G001** With pulse sensor with PWM control

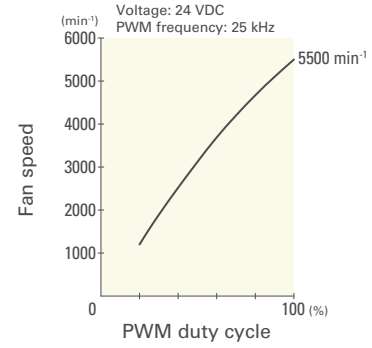
PWM duty cycle



Operating voltage range

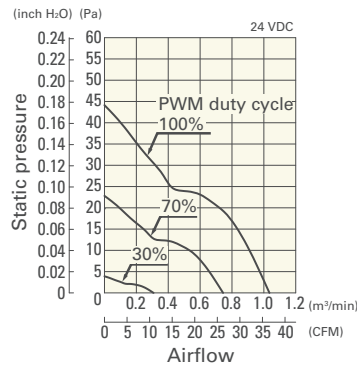


PWM duty - Speed characteristics example

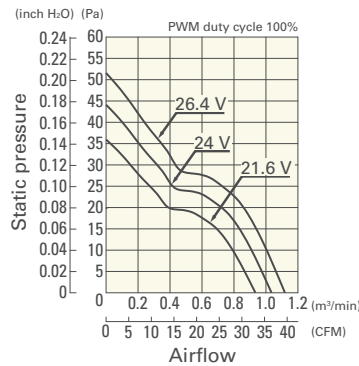


**9LG0824P4H001** With pulse sensor with PWM control

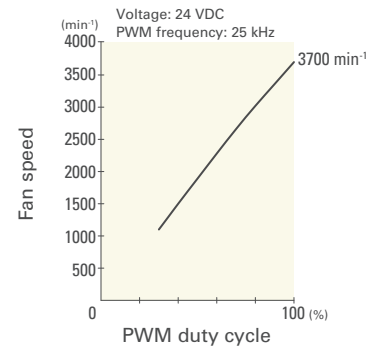
PWM duty cycle



Operating voltage range



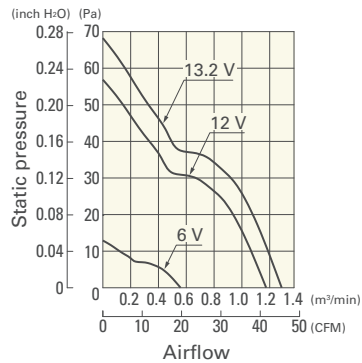
PWM duty - Speed characteristics example



## Airflow - Static Pressure Characteristics

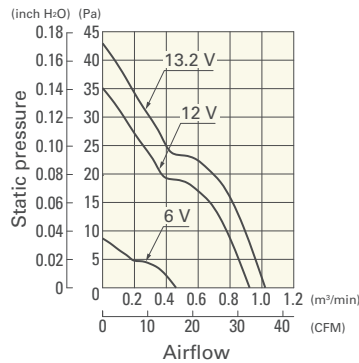
**9LG0812S4001** With pulse sensor

Operating voltage range



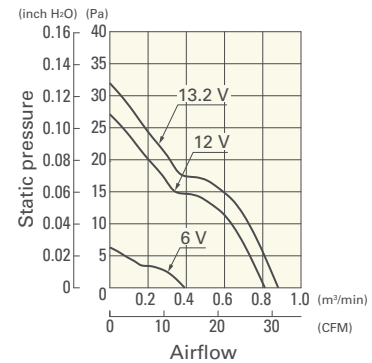
**9LG0812F4001** With pulse sensor

Operating voltage range



**9LG0812M4001** With pulse sensor

Operating voltage range



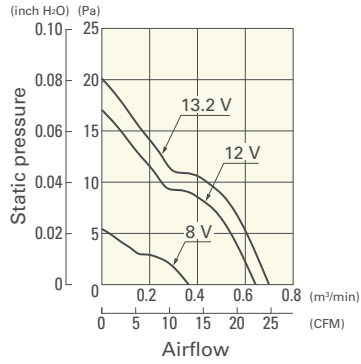
DC

Long Life Fan 80 mm sq.

## Airflow - Static Pressure Characteristics

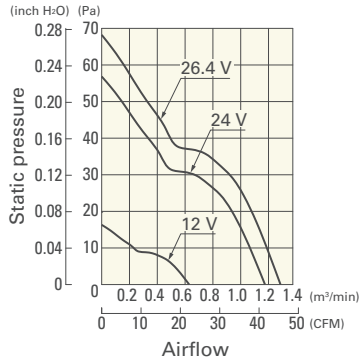
**9LG0812L4001** With pulse sensor

Operating voltage range



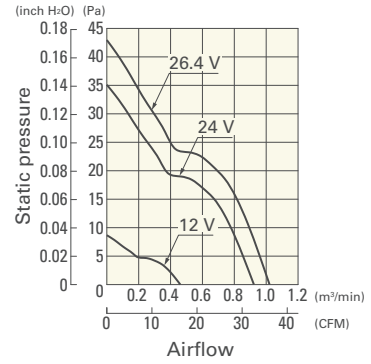
**9LG0824S4001** With pulse sensor

Operating voltage range



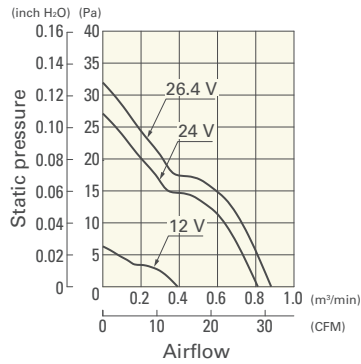
**9LG0824F4001** With pulse sensor

Operating voltage range



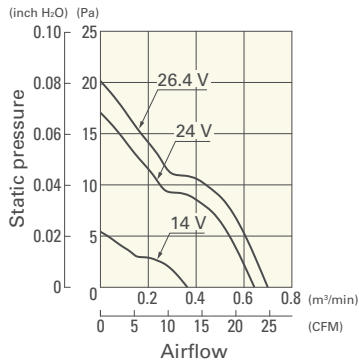
**9LG0824M4001** With pulse sensor

Operating voltage range



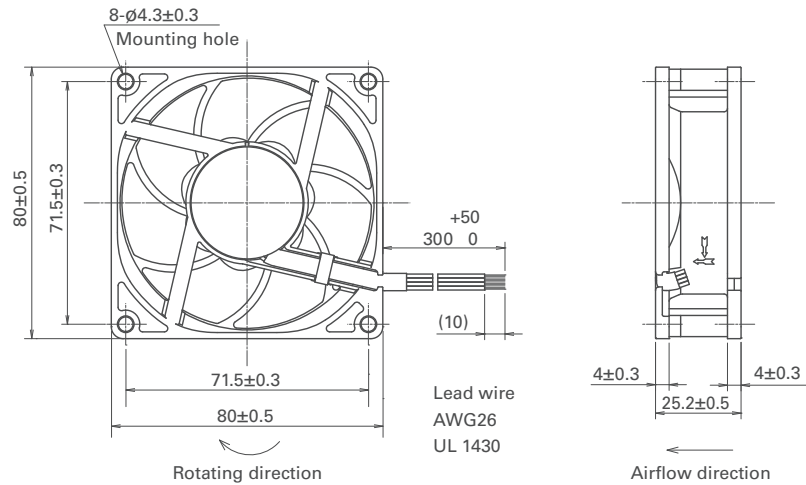
**9LG0824L4001** With pulse sensor

Operating voltage range

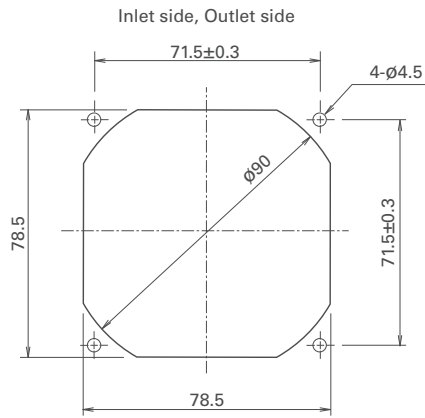


DC  
Long Life Fan 80 mm sq.

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



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



## Options

### Finger guards

page: p. 598

Model no.: 109-049E, 109-049H

### Resin finger guards

page: p. 605

Model no.: 109-1002G

### Resin filter kits

page: p. 606

Model no.: 109-1002F13 (13PPI), 109-1002F20 (20PPI),  
109-1002F30 (30PPI), 109-1002F40 (40PPI)

DC

Long Life Fan 80 mm sq.