

DC Fan

120×120×38 mm



San Ace 120 9HV 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
- Mass 460 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]
9HV1224P1A001	24	21.6 to 26.4	100	2.4	57.6	9600	7.0 247	950 3.82	71	-20 to +70	40000/60°C (70000/40°C)
			0	0.37	8.88	3800	2.7 95	161 0.65	46		
9HV1248P1G001	48	36 to 60	100	2.0	96	11500	8.3 293	1300 5.22	75		
			0	0.23	11	3800	2.7 95	161 0.65	46		
9HV1248P1H001	48	36 to 60	100	1.4	67	10000	7.2 254	1050 4.22	72		
			0	0.23	11	3800	2.7 95	161 0.65	46		

* 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.

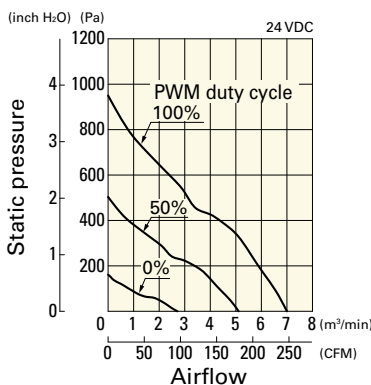
Differs according to the model. Refer to the table on p. 607. Without sensor Pulse sensor Lock sensor

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

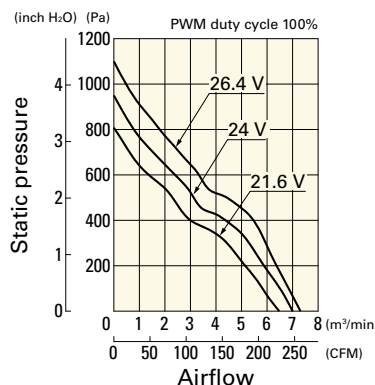
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9HV1224P1A001 With pulse sensor with PWM control function

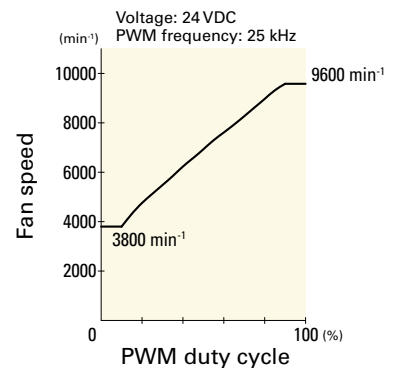
PWM duty cycle



Operating voltage range



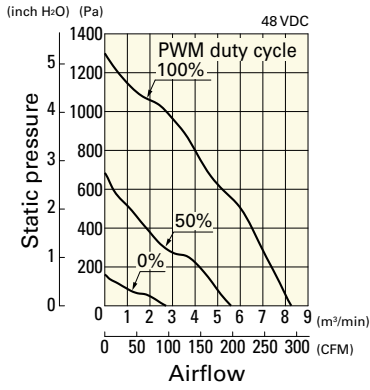
PWM duty - Speed characteristics example



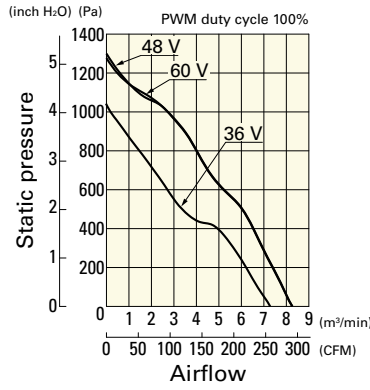
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9HV1248P1G001 With pulse sensor with PWM control function

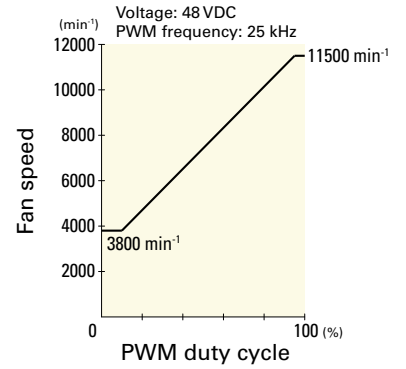
PWM duty cycle



Operating voltage range

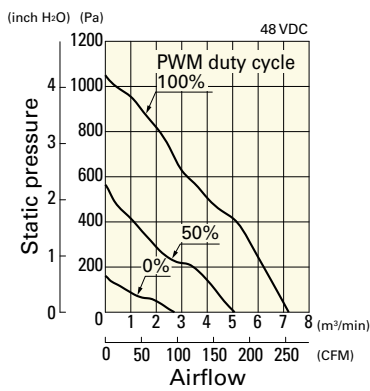


PWM duty - Speed characteristics example

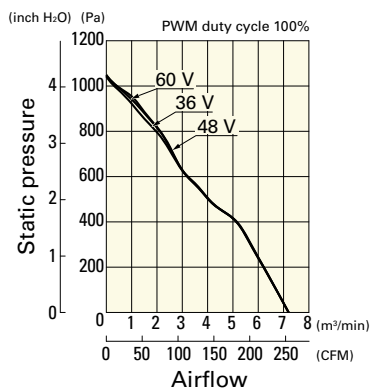


9HV1248P1H001 With pulse sensor with PWM control function

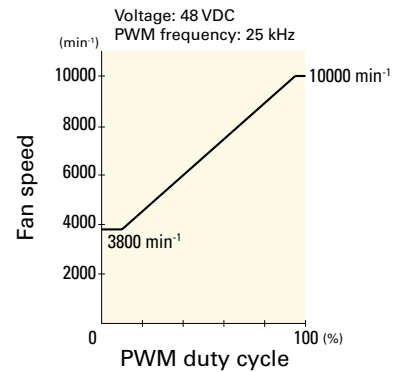
PWM duty cycle



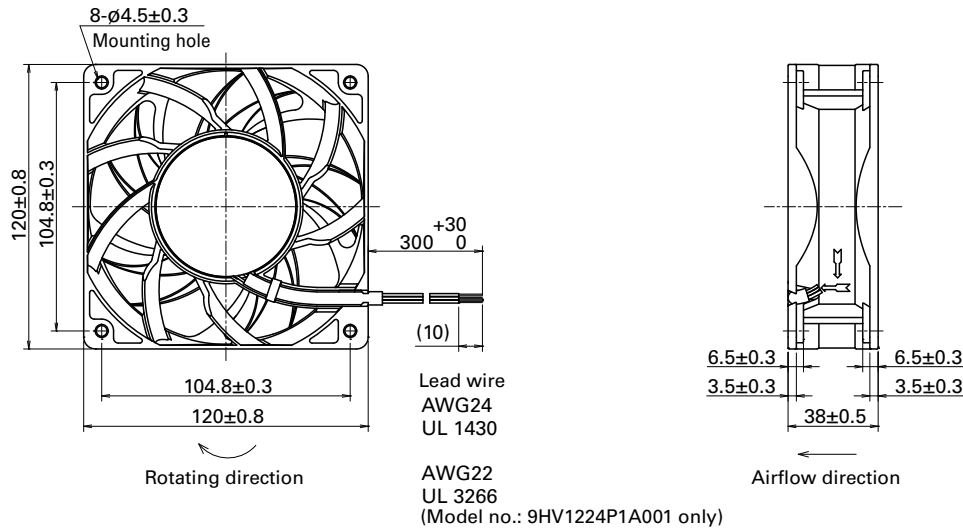
Operating voltage range



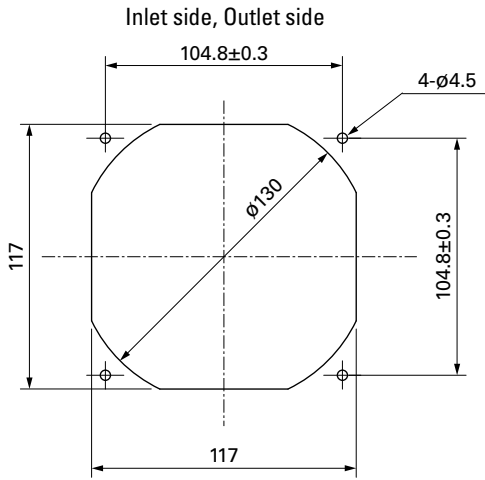
PWM duty - Speed characteristics example



Dimensions (unit: mm)



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



Options

Finger guards

page: p. 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 120 9GV type US

General Specifications

- Material Frame: Plastic (Flammability: UL 94V-0), 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
- Mass 360 g

Specifications

The models listed below **have ribs and pulse sensors with PWM control function.** For models without ribs, append "1" to the end of model numbers.

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]
9GV1212P1J01	12	10.2 to 13.8	100	3.0	36.0	6400	6.35 224.0	360.0 1.45	64	-20 to +70	40000/60°C (70000/40°C)
			0	0.19	2.28	1500	1.49 52.6	19.8 0.08	33		
9GV1212P1G01	12	10.2 to 13.8	100	2.1	25.2	5500	5.45 192.6	265 1.06	60		
			0	0.19	2.28	1500	1.49 52.6	19.8 0.08	33		
9GV1224P1J01	24	20.4 to 27.6	100	1.5	36.0	6400	6.35 224.0	360 1.45	64		
9GV1224P1H01			100	0.8	19.2	5200	5.16 182.3	237 0.95	58		
9GV1248P1J01	48	40.8 to 55.2	100	0.75	36.0	6400	6.35 224.0	360.0 1.45	64		
			0	0.06	2.88	1500	1.49 52.6	26.1 0.106	33		

* 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.

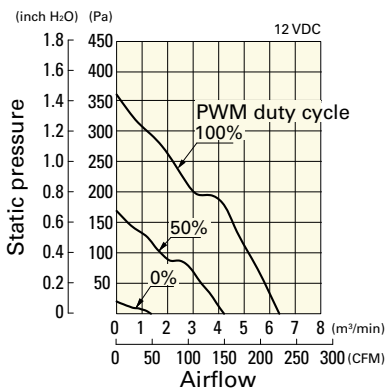
Differs according to the model. Refer to the table on pp. 606 to 607. Without sensor Pulse sensor Lock sensor

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

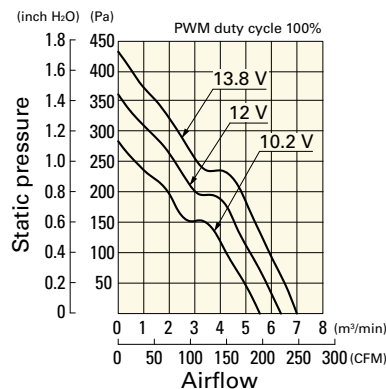
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GV1212P1J01 With pulse sensor with PWM control function

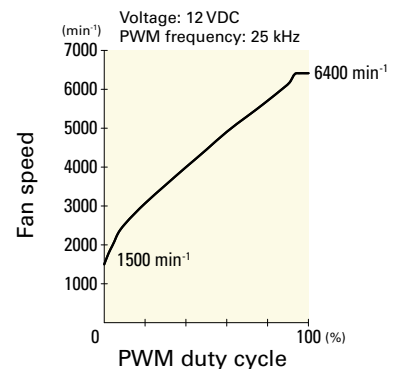
PWM duty cycle



Operating voltage range



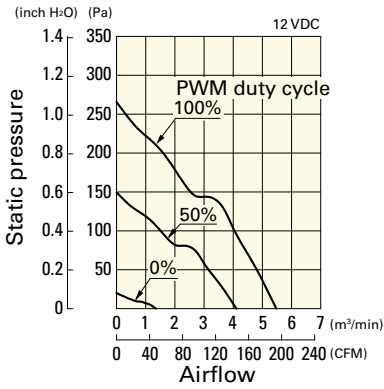
PWM duty - Speed characteristics example



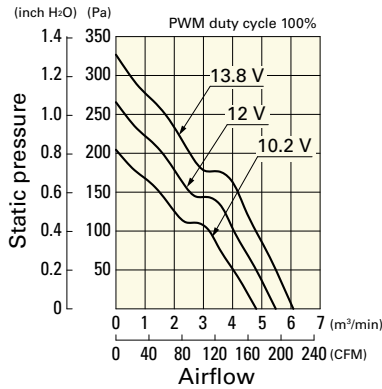
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GV1212P1G01 With pulse sensor with PWM control function

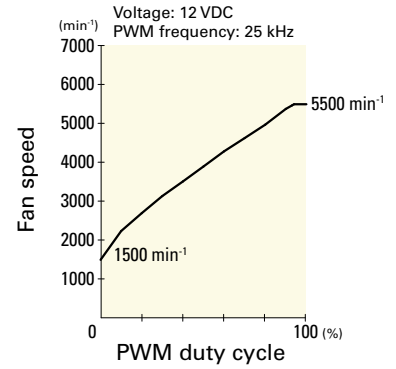
PWM duty cycle



Operating voltage range

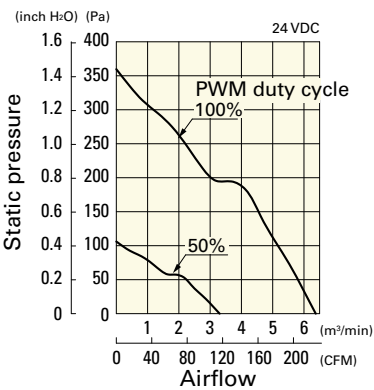


PWM duty - Speed characteristics example

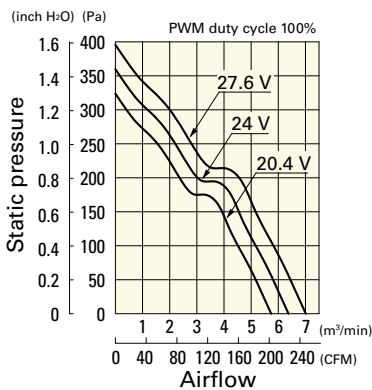


9GV1224P1J01 With pulse sensor with PWM control function

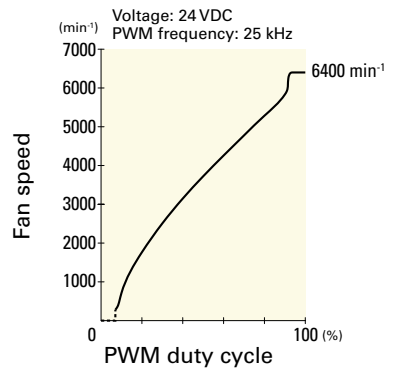
PWM duty cycle



Operating voltage range

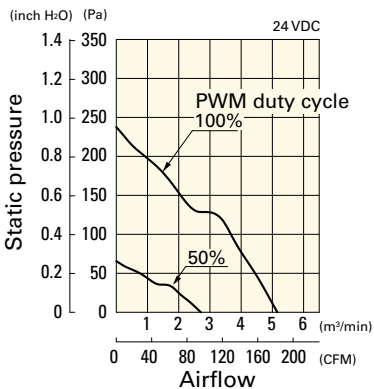


PWM duty - Speed characteristics example

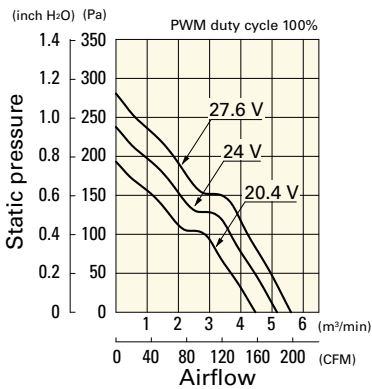


9GV1224P1H01 With pulse sensor with PWM control function

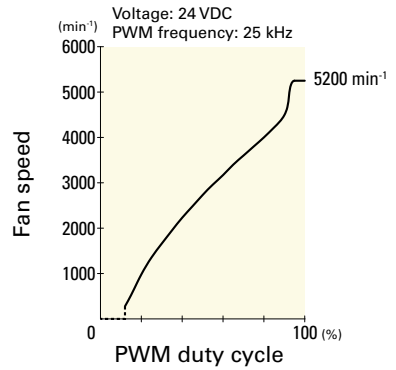
PWM duty cycle



Operating voltage range

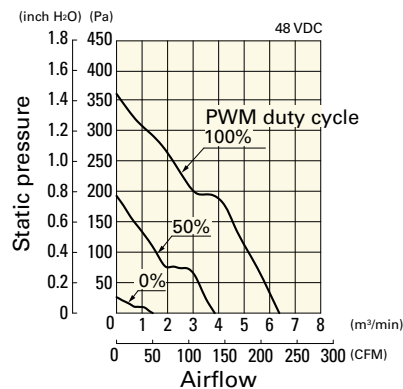


PWM duty - Speed characteristics example

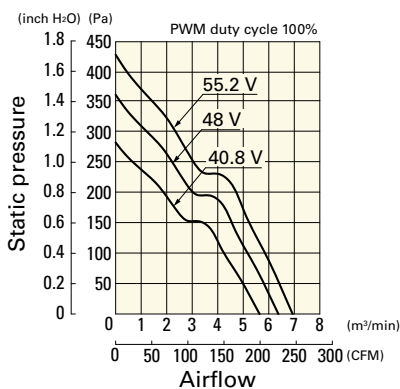


9GV1248P1J01 With pulse sensor with PWM control function

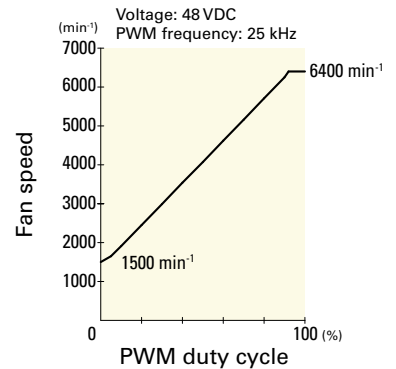
PWM duty cycle



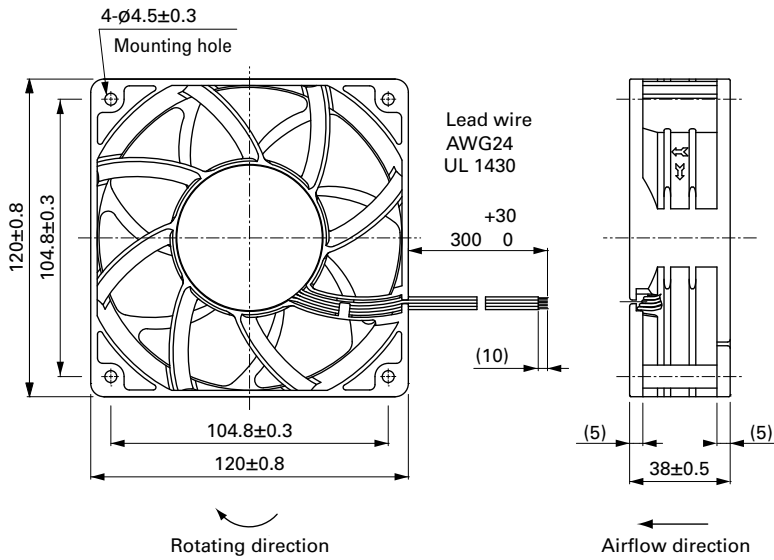
Operating voltage range



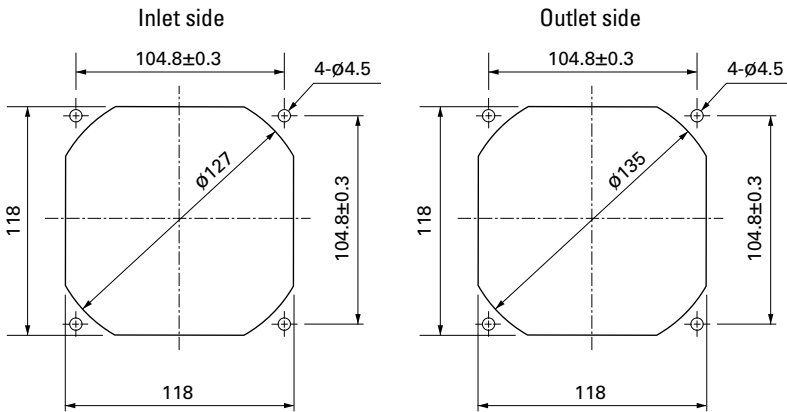
PWM duty - Speed characteristics example



Dimensions (unit: mm) (With ribs)



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 120 9SG type Model 9SG1224H101 is not certified.

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 400 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 ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
» 9SG1212G101	24	20.4 to 27.6	4.0	48.0	6000	7.35 260	340 1.37	64	-20 to +70	40000/60°C (70000/40°C)
» 9SG1224G101			2.0	48.0	6000	7.35 260	340 1.37	64		
» 9SG1224H101			0.46	11.0	3400	4.02 142	126 0.51	48		
» 9SG1248G101	1.0	48.0	6000	7.35 260	340 1.37	64				

The following sensor and control options are available for selection.

Available for all models. Without sensor

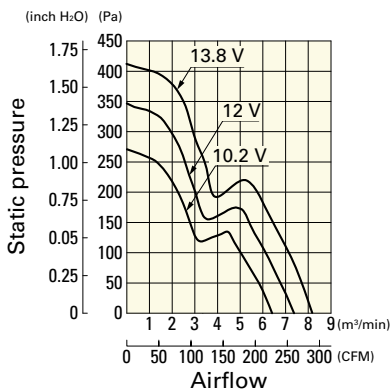
Differs according to the model. Refer to the table on p. 610. Lock sensor PWM control

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

Airflow - Static Pressure Characteristics

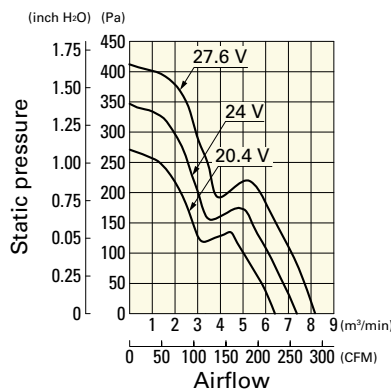
9SG1212G101 With pulse sensor

Operating voltage range



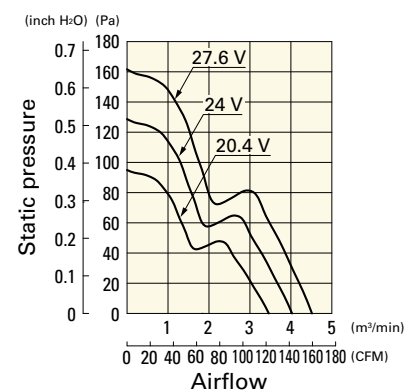
9SG1224G101 With pulse sensor

Operating voltage range



9SG1224H101 With pulse sensor

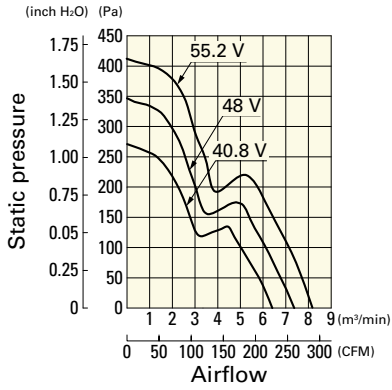
Operating voltage range



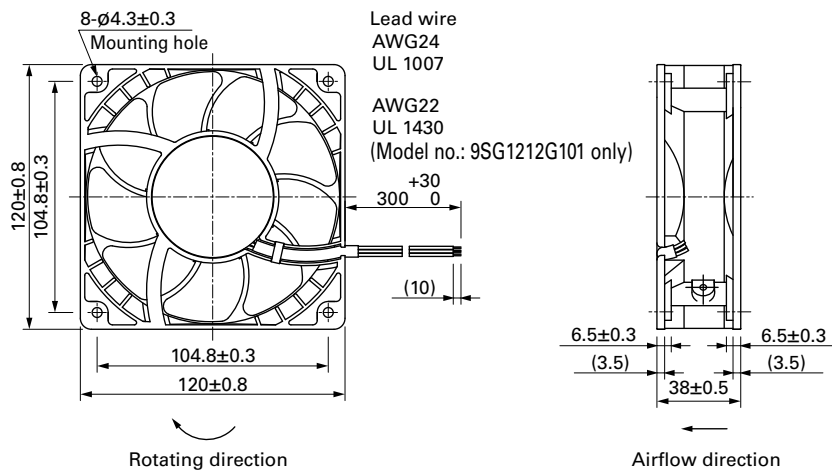
Airflow - Static Pressure Characteristics

9SG1248G101 With pulse sensor

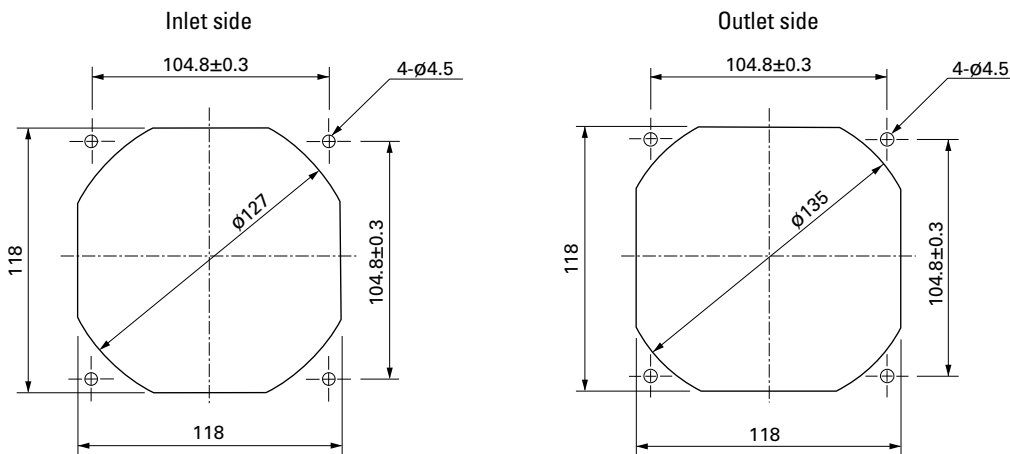
Operating voltage range



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)

DC Fan

120x120x38 mm



San Ace 120 9G type   

General Specifications

- Material Frame: Plastic (Flammability: UL 94V-0), 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 330 g

Specifications

The models listed below **have ribs and pulse sensors**. For models without ribs, append "1" to the end of model numbers.

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]
» 9G1212G101	12	10.2 to 13.8	0.98	11.76	3600	3.88 137	135 0.542	49	-20 to +70	40000/60°C (70000/40°C)
» 9G1212E101			0.61	7.32	3100	3.34 118	100 0.402	46		
» 9G1212H101		7 to 13.8	0.38	4.56	2600	2.8 99	70.4 0.283	39		
» 9G1212F101			0.28	3.36	2280	2.45 87	54.2 0.218	36		
» 9G1212M101			0.21	2.52	1950	2.1 74	39.6 0.159	32		
» 9G1224G101			24	20.4 to 27.6	0.5	12	3600	3.88 137		
» 9G1224E101	0.34	8.16			3100	3.34 118	100 0.402	46		
» 9G1224H101	14 to 27.6	0.22		5.28	2600	2.8 99	70.4 0.283	39		
» 9G1224F101		0.16		3.84	2280	2.45 87	54.2 0.218	36		
» 9G1224M101		0.11		2.64	1950	2.1 74	39.6 0.159	32		
» 9G1248G101		48		40.8 to 55.2	0.25	12	3600	3.88 137		
» 9G1248E101	0.17		8.16		3100	3.34 118	100 0.402	46		
» 9G1248H101	0.11		5.28		2600	2.8 99	70.4 0.283	39		
» 9G1248F101	0.09		4.32		2280	2.45 87	54.2 0.218	36		
» 9G1248M101	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

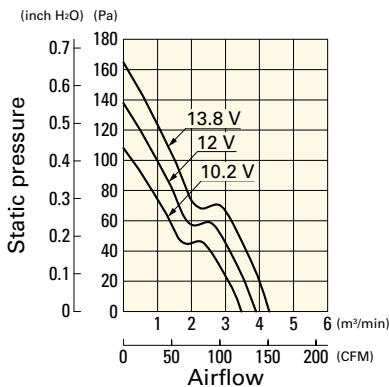
Differs according to the model. Refer to the table on pp. 601 to 602. Lock sensor PWM control

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

Airflow - Static Pressure Characteristics

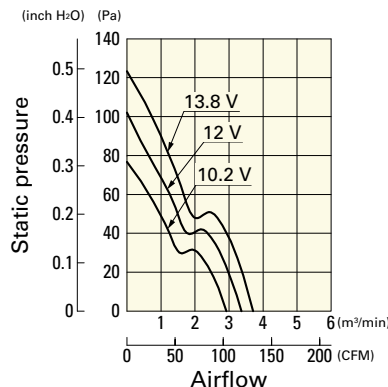
9G1212G101 With pulse sensor

Operating voltage range



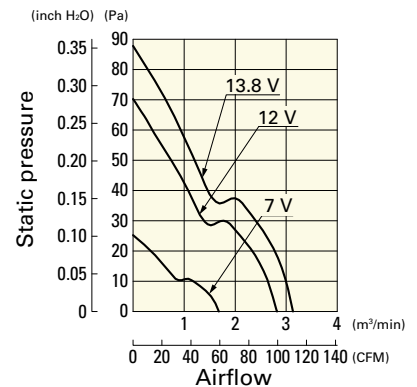
9G1212E101 With pulse sensor

Operating voltage range



9G1212H101 With pulse sensor

Operating voltage range

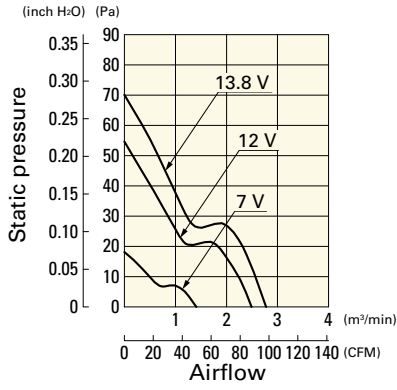


Airflow - Static Pressure Characteristics

DC Fan 120 mm sq. DC

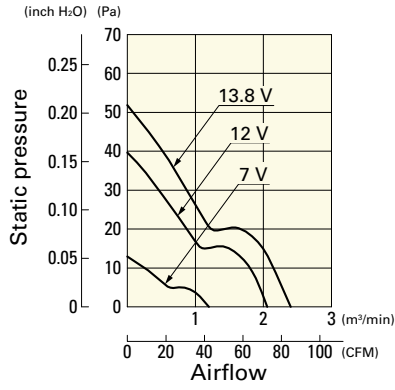
9G1212F101 With pulse sensor

Operating voltage range



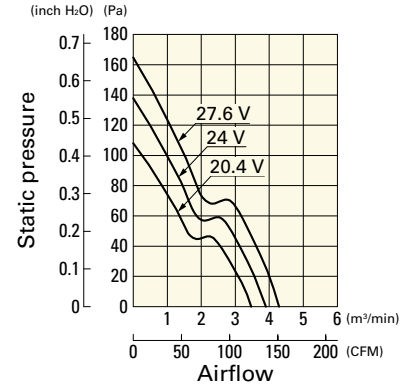
9G1212M101 With pulse sensor

Operating voltage range



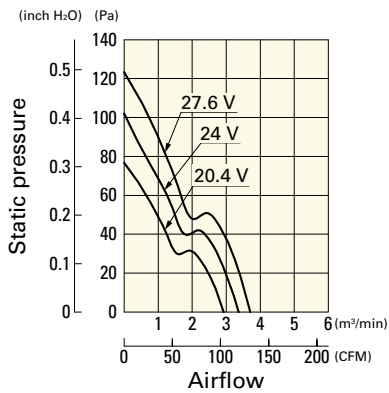
9G1224G101 With pulse sensor

Operating voltage range



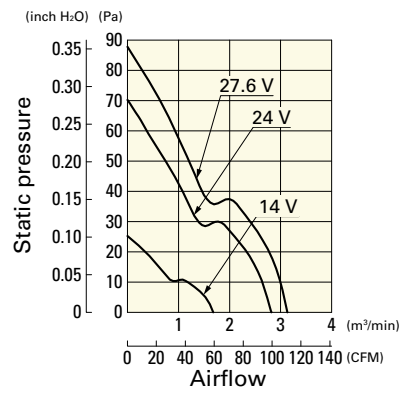
9G1224E101 With pulse sensor

Operating voltage range



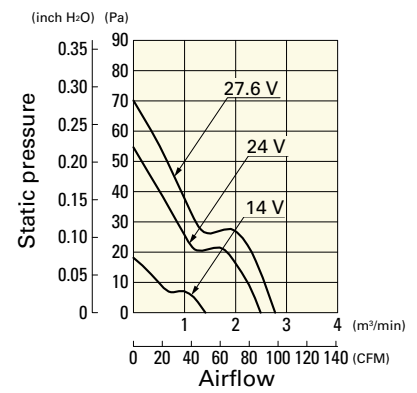
9G1224H101 With pulse sensor

Operating voltage range



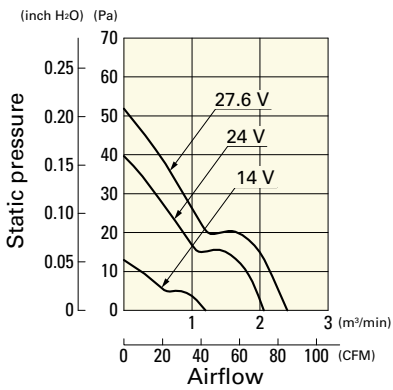
9G1224F101 With pulse sensor

Operating voltage range



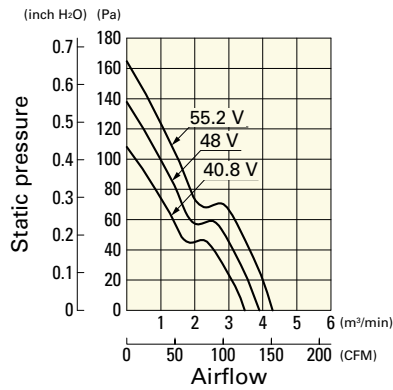
9G1224M101 With pulse sensor

Operating voltage range



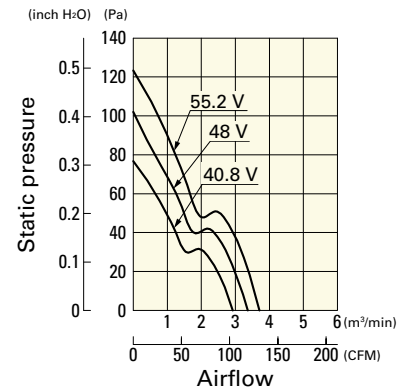
9G1248G101 With pulse sensor

Operating voltage range



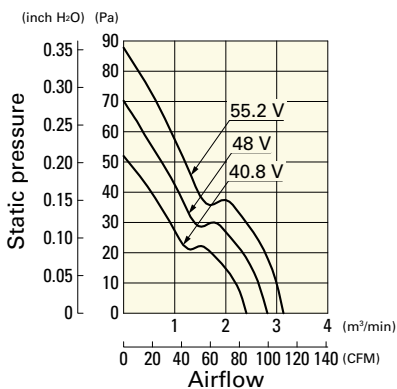
9G1248E101 With pulse sensor

Operating voltage range



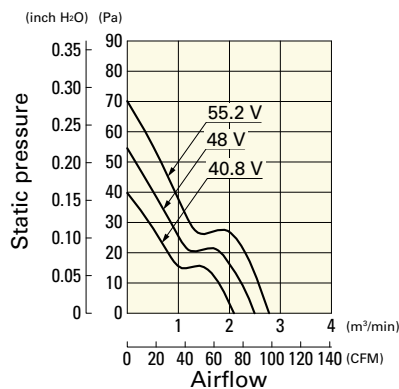
9G1248H101 With pulse sensor

Operating voltage range



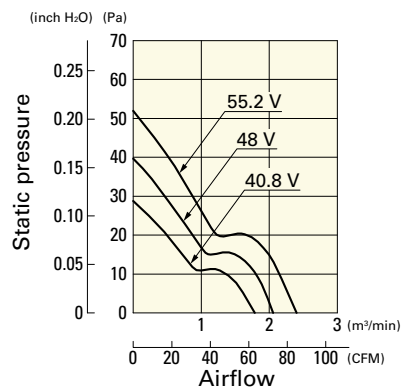
9G1248F101 With pulse sensor

Operating voltage range

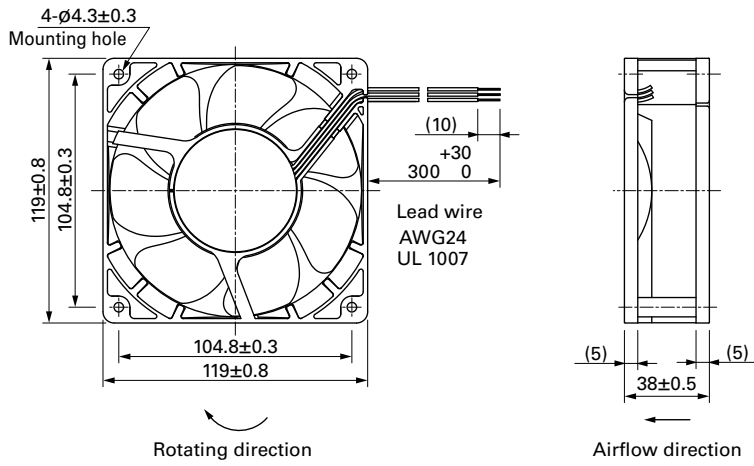


9G1248M101 With pulse sensor

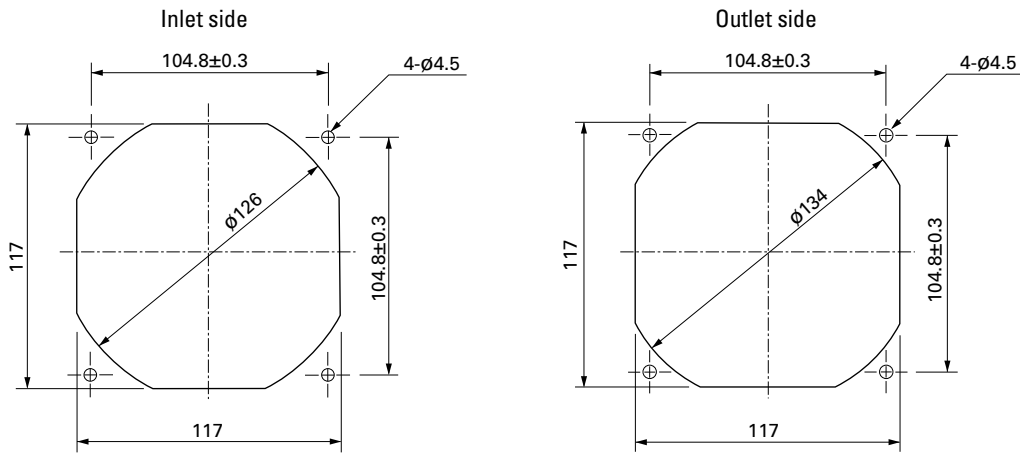
Operating voltage range



Dimensions (unit: mm) (With ribs)



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)