

DC Fan



80x80x25 mm

San Ace 80 9GA type Low Power Consumption Fan

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. 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 110 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]
9GA0812P4J001	12	10.8 to 13.2	100	0.6	7.2	7400	2.07 73.0	177.6 0.7	48	-20 to +70	40000/60°C (70000/40°C)
			25	0.08	0.96	2500	0.69 24.3	20.2 0.08	21		
9GA0812P4G001			100	0.48	5.76	6800	1.91 67.4	150 0.6	45		
			25	0.06	0.72	1500	0.42 14.8	7.2 0.02	17		
9GA0812P4H001			100	0.22	2.64	5200	1.46 51.5	87.7 0.35	37		
			25	0.06	0.72	1600	0.44 15.5	8.3 0.03	17		
9GA0824P4J001	24	21.6 to 26.4	100	0.28	6.72	7400	2.07 73.0	177.6 0.7	48		
			25	0.06	1.44	2800	0.78 27.5	25.4 0.1	23		
9GA0824P4G001			100	0.21	5.04	6800	1.91 67.4	150 0.6	45		
			25	0.04	0.96	2100	0.58 20.4	14.3 0.05	19		
9GA0824P4H001			100	0.1	2.4	5200	1.46 51.5	87.7 0.35	37		
			25	0.02	0.48	1500	0.42 14.8	7.2 0.02	17		

* 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.

Available for all models. Without sensor Pulse sensor

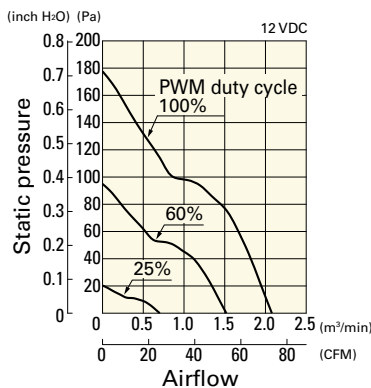
Differs according to the model. Refer to the table on pp. 603 to 604. Lock sensor

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

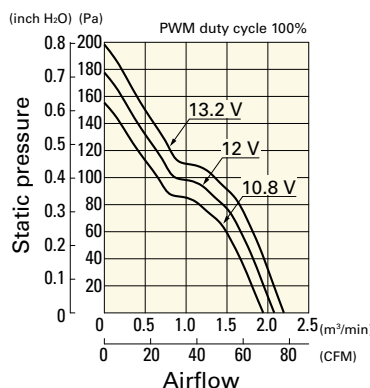
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GA0812P4J001 With pulse sensor with PWM control function

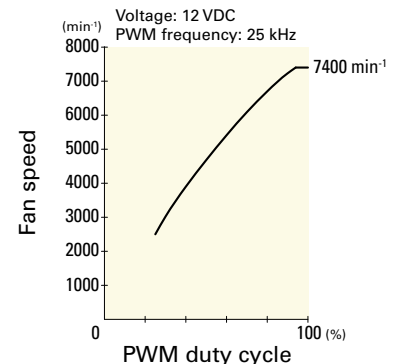
PWM duty cycle



Operating voltage range



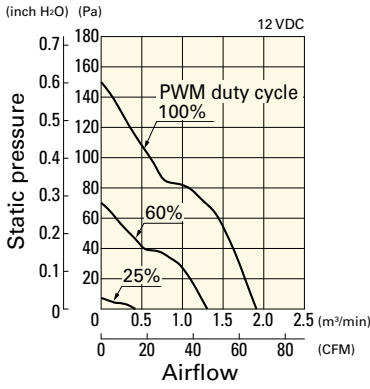
PWM duty - Speed characteristics example



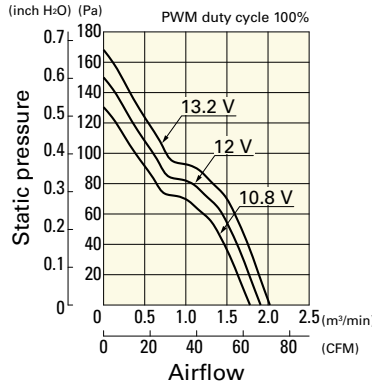
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GA0812P4G001 With pulse sensor with PWM control function

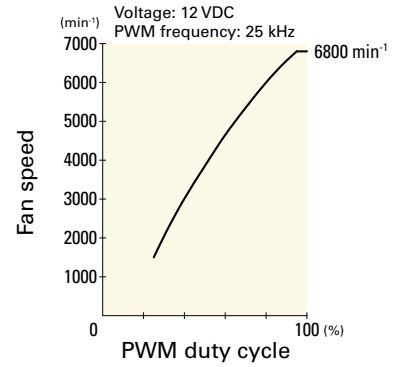
PWM duty cycle



Operating voltage range

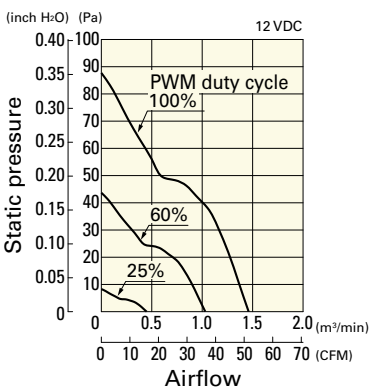


PWM duty - Speed characteristics example

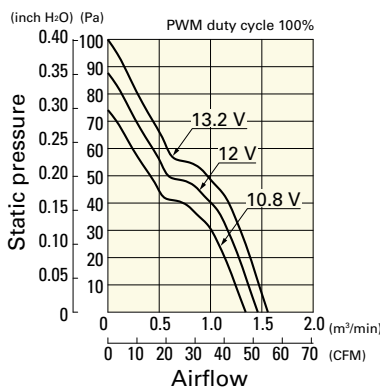


9GA0812P4H001 With pulse sensor with PWM control function

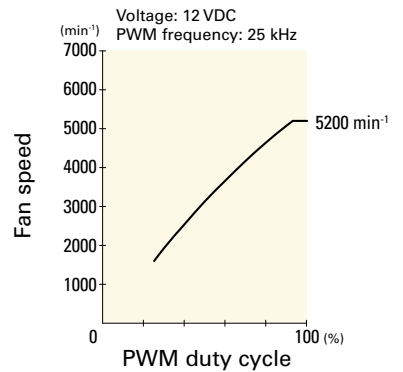
PWM duty cycle



Operating voltage range

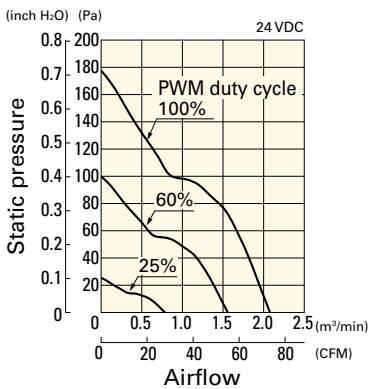


PWM duty - Speed characteristics example

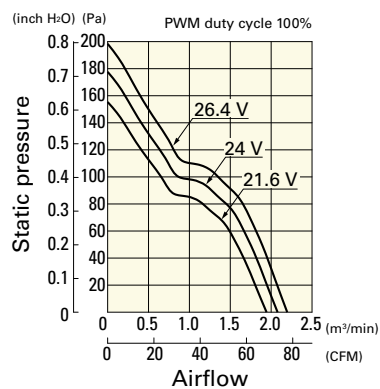


9GA0824P4J001 With pulse sensor with PWM control function

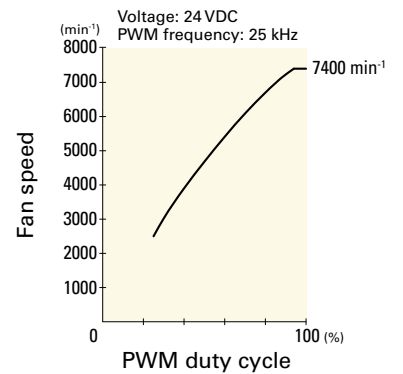
PWM duty cycle



Operating voltage range

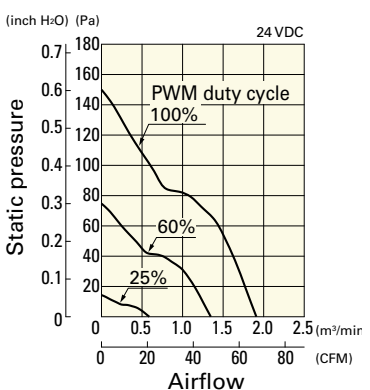


PWM duty - Speed characteristics example

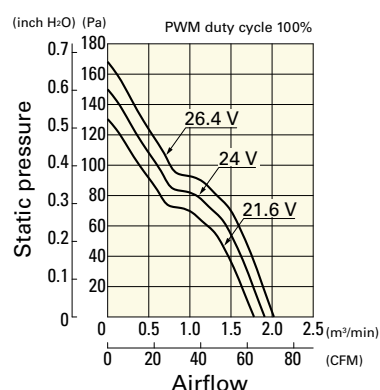


9GA0824P4G001 With pulse sensor with PWM control function

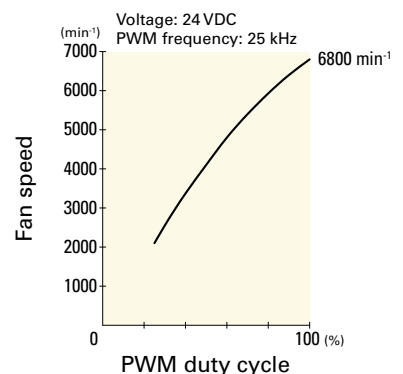
PWM duty cycle



Operating voltage range



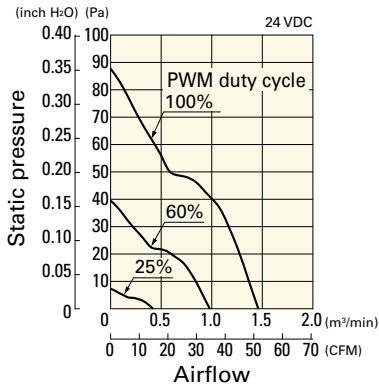
PWM duty - Speed characteristics example



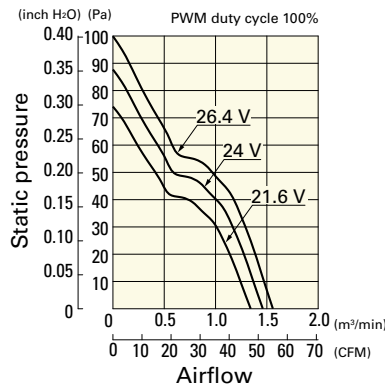
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GA0824P4H001 With pulse sensor with PWM control function

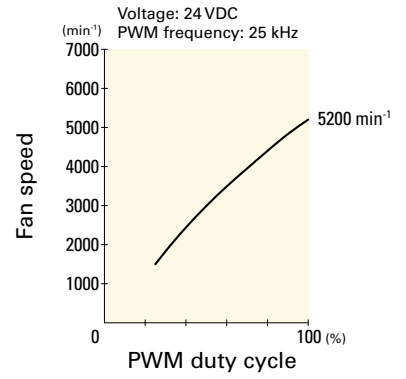
PWM duty cycle



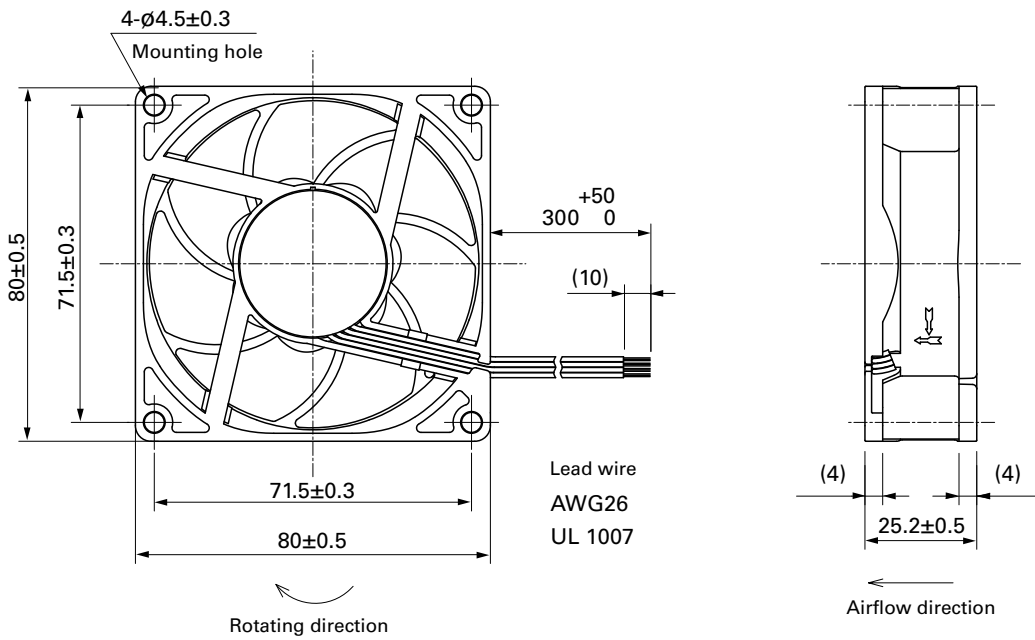
Operating voltage range



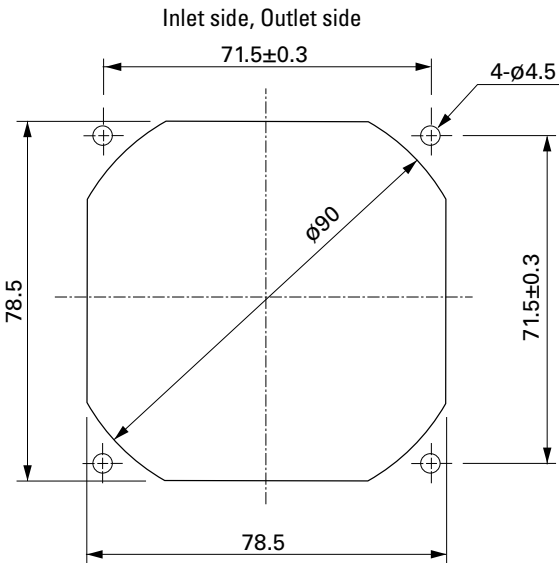
PWM duty - Speed characteristics example



Dimensions (unit: mm) (With ribs)



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



Options

Finger guards

page: p. 558

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

Resin finger guards

page: p. 565

Model no.: 109-1002G

Resin filter kits

page: p. 566

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

DC Fan



80×80×25 mm

San Ace 80 9GV 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 Sensor Yellow Control Brown
- Mass 125 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]
9GV0848P4K03	48	43 to 53	100	0.22	10.56	5600	2.12 74.8	173.0 0.69	52	-20 to +70	40000/60°C (70000/40°C)
			0	0.04	1.92	1500	0.57 20.1	12.4 0.05	19		

* 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.

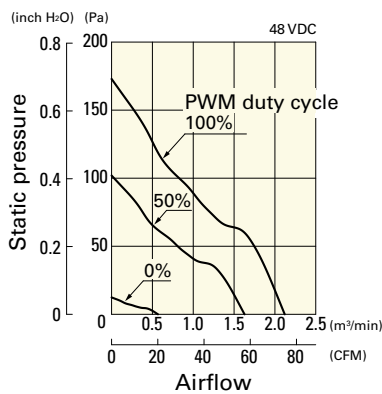
Differs according to the model. Refer to the table on p. 606. Pulse sensor

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

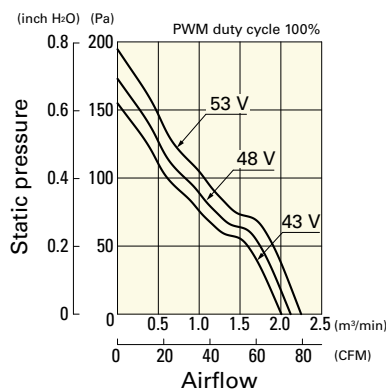
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GV0848P4K03 With pulse sensor with PWM control function

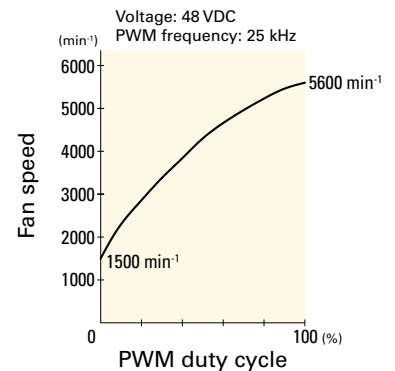
PWM duty cycle



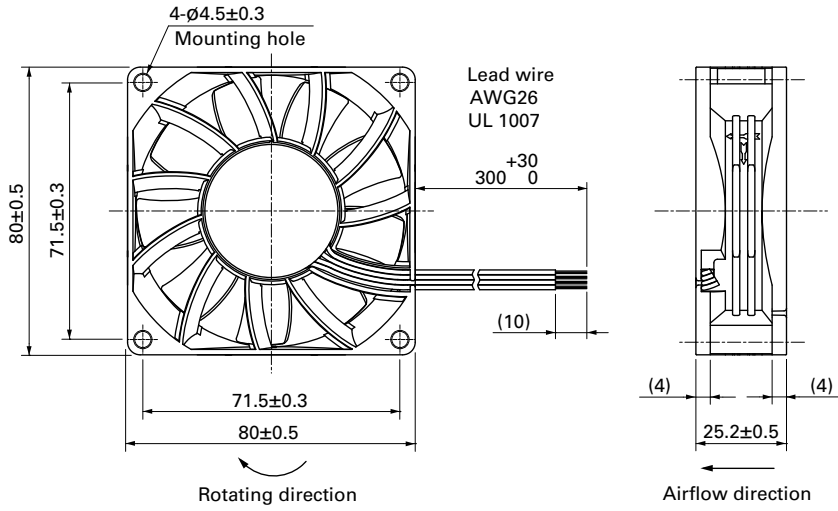
Operating voltage range



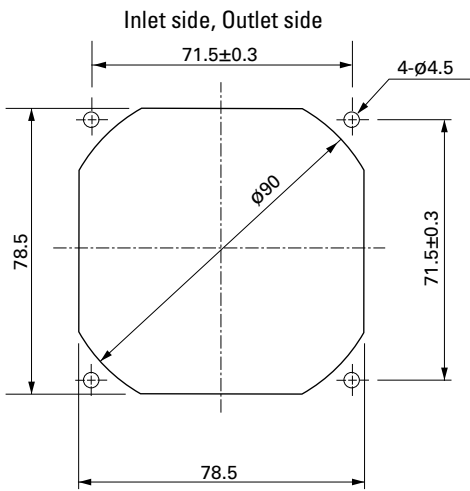
PWM duty - Speed characteristics example



Dimensions (unit: mm) (With ribs)



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



Options

Finger guards

page: p. 558

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

Resin finger guards

page: p. 565

Model no.: 109-1002G

Resin filter kits

page: p. 566

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

DC Fan

80x80x25 mm

San Ace 80 9R type    Model 109R0812E401 is not certified.



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 110 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]	
» 109R0805F401	5	4.5 to 5.5	0.25	1.25	2600	0.92 32.5	28.4 0.114	26	-20 to +70	60000/60°C (90000/40°C)	
» 109R0805M401			0.17	0.85	2350	0.83 29.3	22.5 0.09	23			
» 109R0812G401	12	10.8 to 13.2	0.37	4.44	4500	1.5 53.0	80.4 0.323	40	-20 to +60	40000/60°C (70000/40°C)	
» 109R0812E401			0.24	2.88	3700	1.31 46.3	57.8 0.232	35			
» 109R0812S401		6 to 13.8	0.18	2.16	3400	1.2 42.4	48.0 0.193	34	-20 to +70	60000/60°C (90000/40°C)	
» 109R0812H401			0.13	1.56	2900	1.03 36.4	35.3 0.142	29			
» 109R0812F401			0.11	1.32	2600	0.92 32.5	28.4 0.114	26			
» 109R0812M401			0.09	1.08	2350	0.83 29.3	22.5 0.09	23			
» 109R0812L401			7 to 13.8	0.06	0.72	1850	0.65 23.0	14.7 0.059			20
» 109R0824G401				0.2	4.8	4500	1.5 53.0	80.4 0.323			40
» 109R0824S401		24	12 to 27.6	0.1	2.4	3400	1.2 42.4	48.0 0.193	34	-20 to +70	60000/60°C (90000/40°C)
» 109R0824H401				0.07	1.68	2900	1.03 36.4	35.3 0.142	29		
» 109R0824F401	0.06			1.44	2600	0.92 32.5	28.4 0.114	26			
» 109R0824M401	0.05			1.2	2350	0.83 29.3	22.5 0.09	23			
» 109R0824L401	14 to 27.6			0.04	0.96	1850	0.65 23.0	14.7 0.059	20		
» 109R0848K401	48	40.8 to 55.2	0.1	4.8	4600	1.56 55.1	88.4 0.355	41	-20 to +60	40000/60°C (70000/40°C)	
» 109R0848S401			0.06	2.88	3400	1.2 42.4	48.0 0.193	34	-20 to +70	60000/60°C (90000/40°C)	

The following sensor and control options are available for selection.

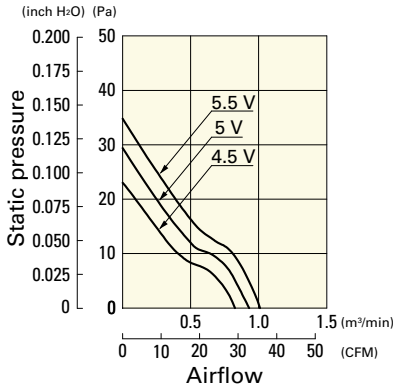
Differs according to the model. Refer to the table on p. 597. Without sensor Lock sensor

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

Airflow - Static Pressure Characteristics

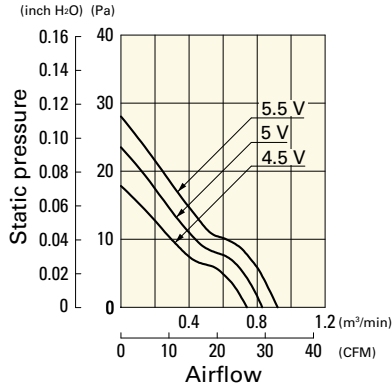
109R0805F401 With pulse sensor

Operating voltage range



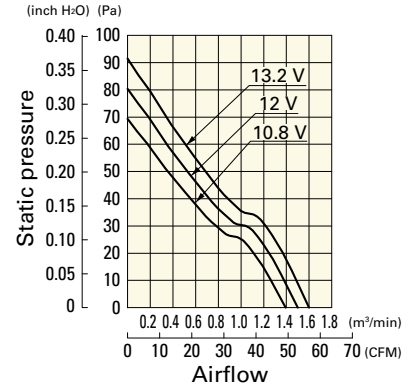
109R0805M401 With pulse sensor

Operating voltage range



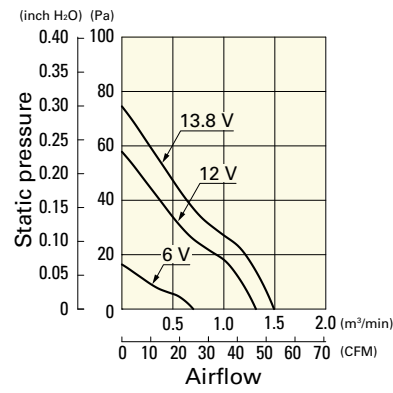
109R0812G401 With pulse sensor

Operating voltage range



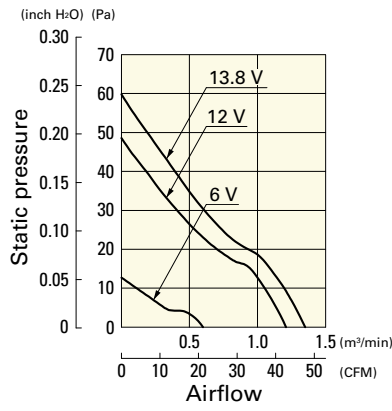
109R0812E401 With pulse sensor

Operating voltage range



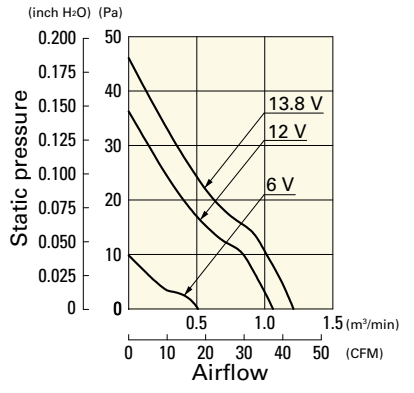
109R0812S401 With pulse sensor

Operating voltage range



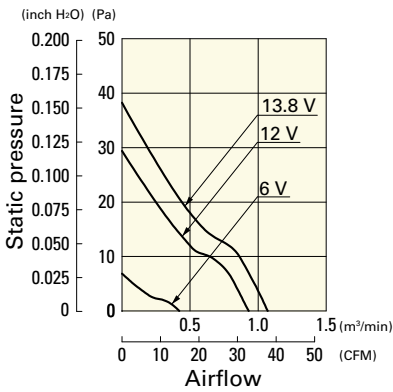
109R0812H401 With pulse sensor

Operating voltage range



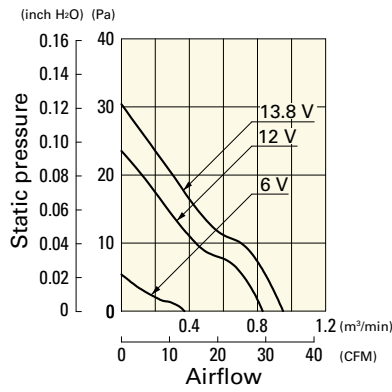
109R0812F401 With pulse sensor

Operating voltage range



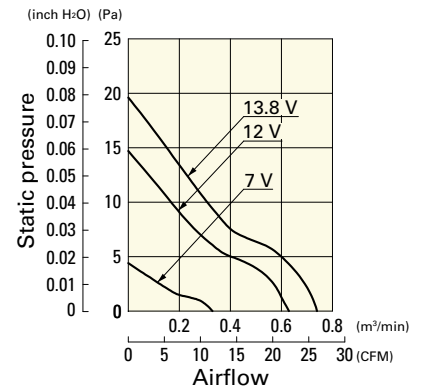
109R0812M401 With pulse sensor

Operating voltage range



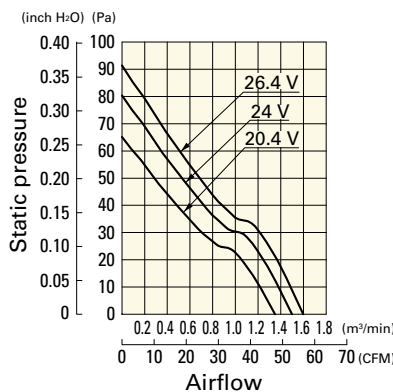
109R0812L401 With pulse sensor

Operating voltage range



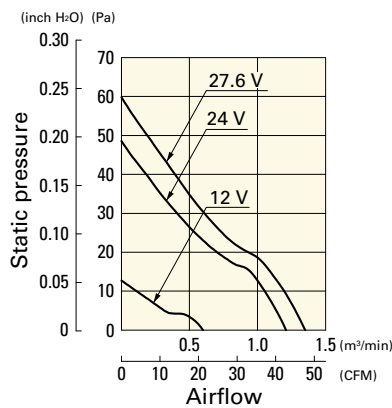
109R0824G401 With pulse sensor

Operating voltage range



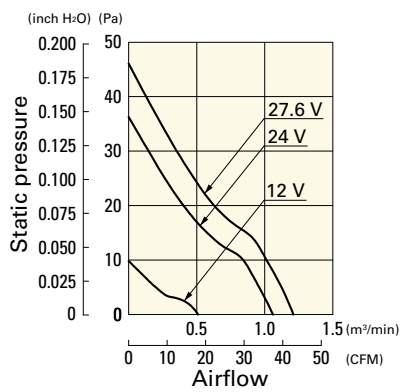
109R0824S401 With pulse sensor

Operating voltage range



109R0824H401 With pulse sensor

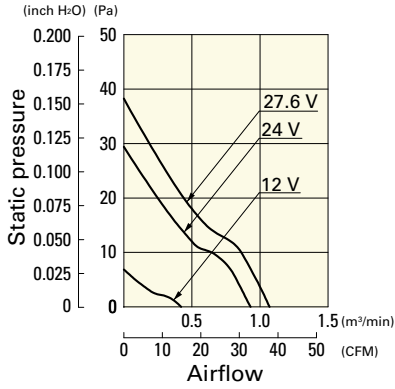
Operating voltage range



Airflow - Static Pressure Characteristic

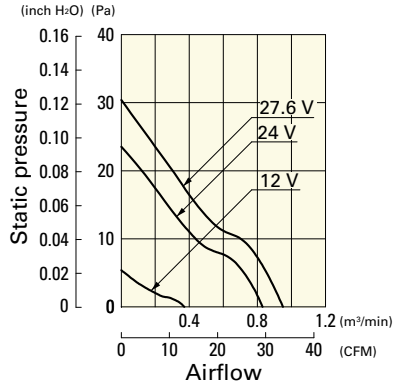
109R0824F401 With pulse sensor

Operating voltage range



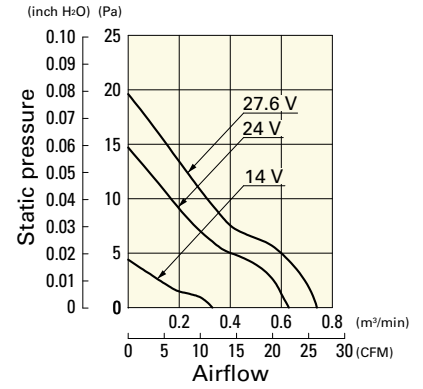
109R0824M401 With pulse sensor

Operating voltage range



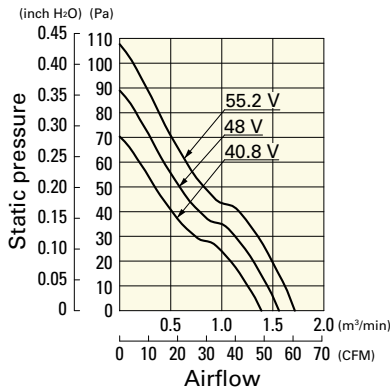
109R0824L401 With pulse sensor

Operating voltage range



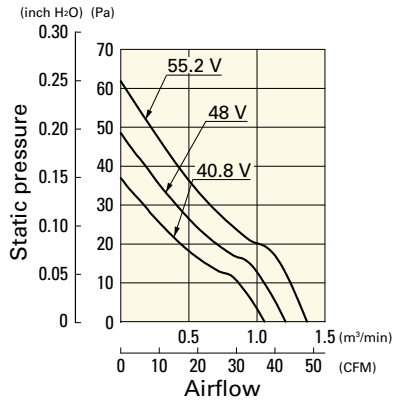
109R0848K401 With pulse sensor

Operating voltage range

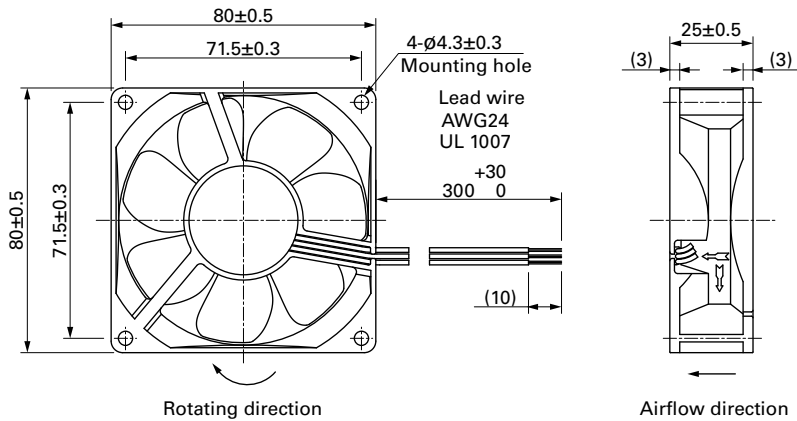


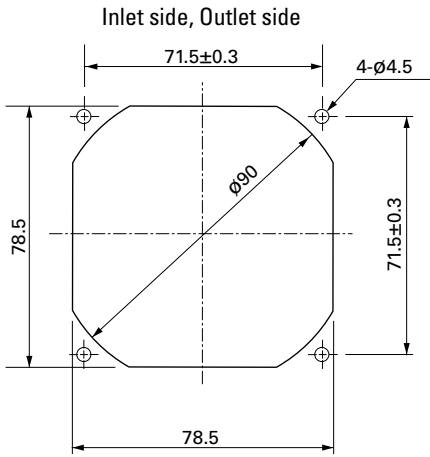
109R0848S401 With pulse sensor

Operating voltage range



Dimensions (unit: mm) (With ribs)



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

page: p. 558

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

Resin finger guards

page: p. 565

Model no.: 109-1002G

Resin filter kits

page: p. 566

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

DC Fan

80×80×25 mm



San Ace 80 9S type Silent Fan Model 9S0812H401 is not TÜV certified.

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
- Mass 75 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]
▶▶ 9S0812H401	12	5.0 to 13.2	0.23	2.76	3400	1.12 39.5	52.15 0.2	31	-10 to +70	40000/60°C (70000/40°C)
▶▶ 9S0812F401		5.0 to 13.8	0.11	1.32	2800	0.93 32.8	35.5 0.143	24		
▶▶ 9S0812M401		6.0 to 13.8	0.08	0.96	2500	0.83 29.3	27.5 0.11	22		
▶▶ 9S0812L401			0.05	0.6	2000	0.66 23.3	18.1 0.073	16		
▶▶ 9S0824M401	24	10 to 26.4	0.06	1.44	2500	0.83 29.3	27.5 0.11	22		
▶▶ 9S0824L401			0.04	0.96	2000	0.66 23.3	18.1 0.073	16		

The following sensor and control options are available for selection.

Available for all models. **Lock sensor**

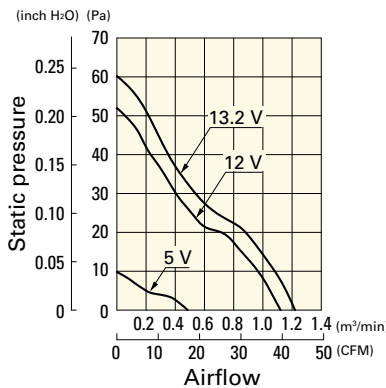
Differs according to the model. Refer to the table on p. 609. **Without sensor** **PWM control**

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

Airflow - Static Pressure Characteristics

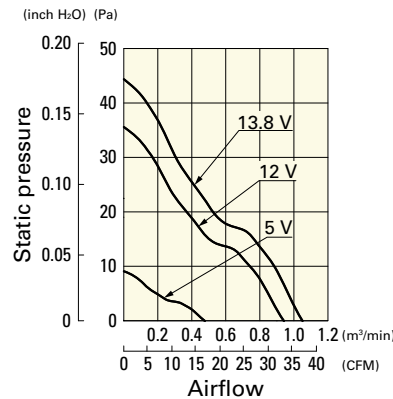
9S0812H401 With pulse sensor

Operating voltage range



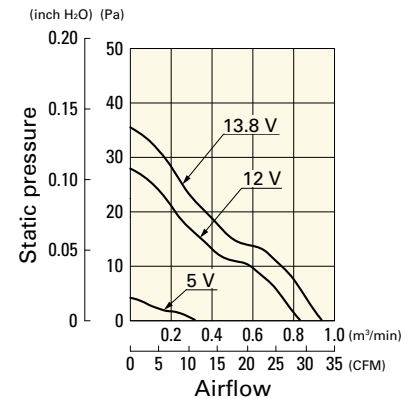
9S0812F401 With pulse sensor

Operating voltage range



9S0812M401 With pulse sensor

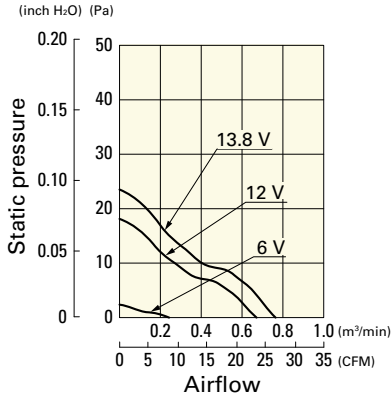
Operating voltage range



Airflow - Static Pressure Characteristics

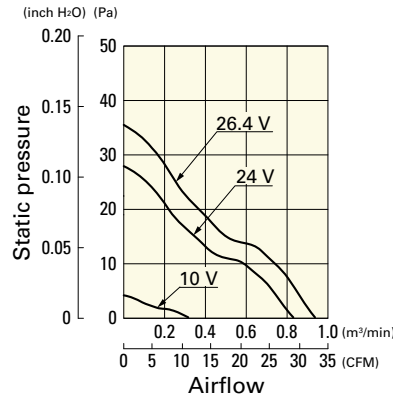
9S0812L401 With pulse sensor

Operating voltage range



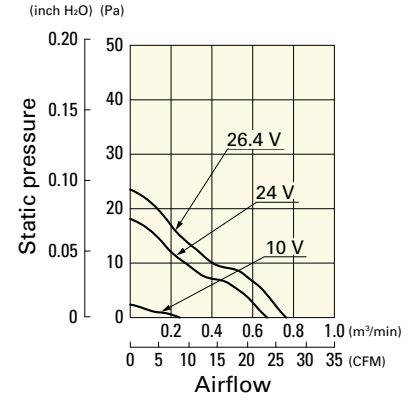
9S0824M401 With pulse sensor

Operating voltage range

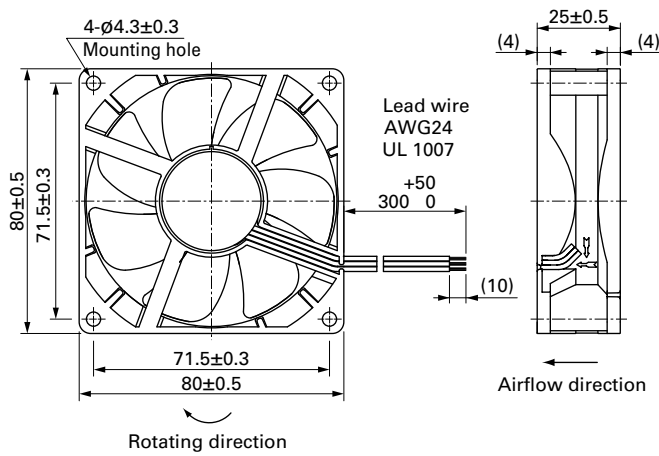


9S0824L401 With pulse sensor

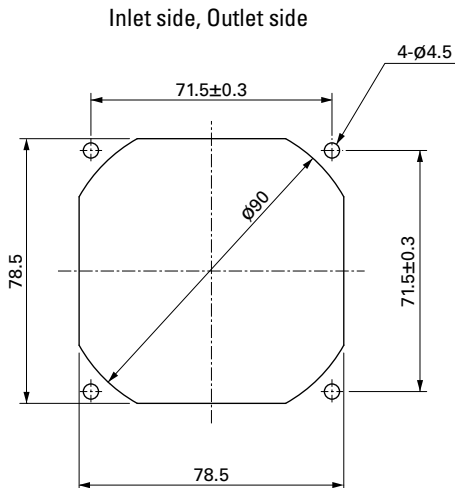
Operating voltage range



Dimensions (unit: mm) (With ribs)



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



Options

Finger guards

page: p. 558

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

Resin finger guards

page: p. 565

Model no.: 109-1002G

Resin filter kits

page: p. 566

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

DC Fan

80×80×25 mm

San Cooler 80 9A 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. 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 90 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]		
9A0812G401	12	6 to 13.2	0.38	4.56	4500	1.5 53.0	80.3 0.323	40	-20 to +60	30000/60°C (53000/40°C)		
9A0812S401			0.18	2.16	3400	1.2 42.4	48 0.193	34				
9A0812H401		6 to 13.8	0.13	1.56	2900	1.03 36.4	35.3 0.142	29			-20 to +70	40000/60°C (70000/40°C)
9A0812F401			0.11	1.32	2600	0.92 32.5	28.4 0.114	26				
9A0812M401			0.09	1.08	2350	0.83 29.3	22.5 0.09	23				
9A0812L401			0.06	0.72	1850	0.65 23.0	14.7 0.059	20				
9A0824G401	24	12 to 26.4	0.21	5.04	4500	1.5 53.0	80.3 0.323	40	-20 to +60	30000/60°C (53000/40°C)		
9A0824S401			0.1	2.4	3400	1.2 42.4	48 0.193	34				
9A0824H401		12 to 27.6	0.07	1.68	2900	1.03 36.4	35.3 0.142	29			-20 to +70	40000/60°C (70000/40°C)
9A0824F401			0.06	1.44	2600	0.92 32.5	28.4 0.114	26				
9A0824M401			0.05	1.2	2350	0.83 29.3	22.5 0.09	23				
9A0824L401			0.04	0.96	1850	0.65 23.0	14.7 0.059	20				

The following sensor and control options are available for selection.

Available for all models. Without sensor Lock sensor

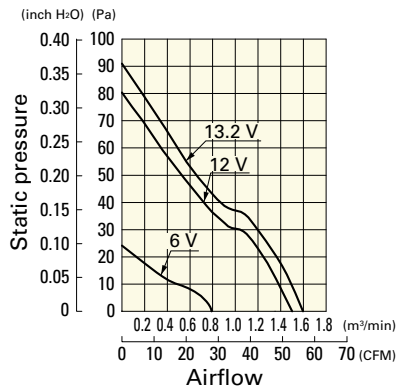
Differs according to the model. Refer to the table on p. 598. PWM control

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

Airflow - Static Pressure Characteristics

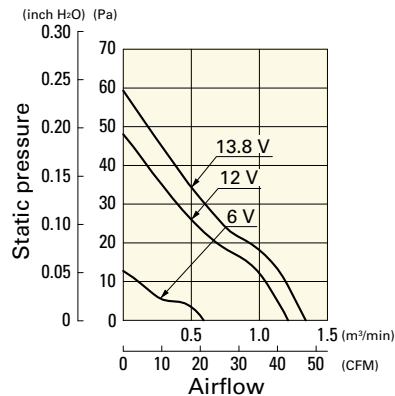
9A0812G401 With pulse sensor

Operating voltage range



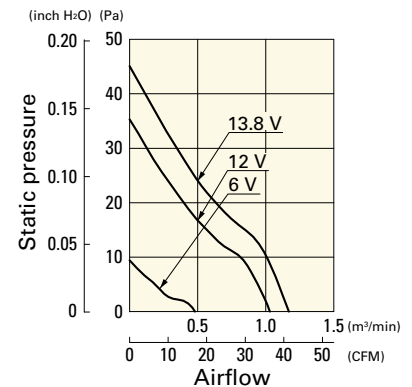
9A0812S401 With pulse sensor

Operating voltage range



9A0812H401 With pulse sensor

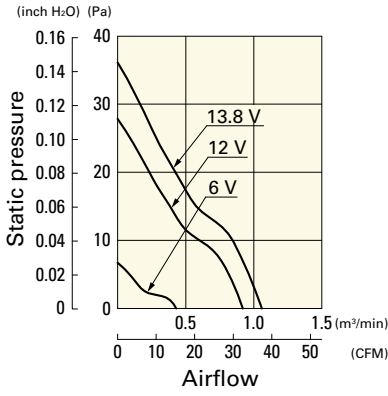
Operating voltage range



Airflow - Static Pressure Characteristics

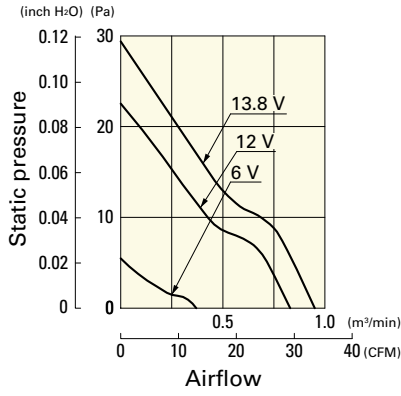
9A0812F401 With pulse sensor

Operating voltage range



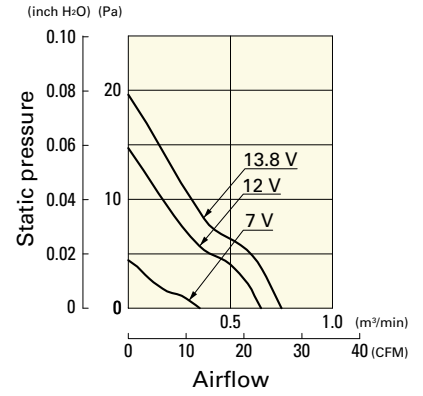
9A0812M401 With pulse sensor

Operating voltage range



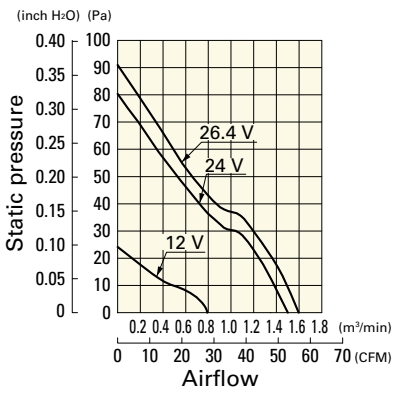
9A0812L401 With pulse sensor

Operating voltage range



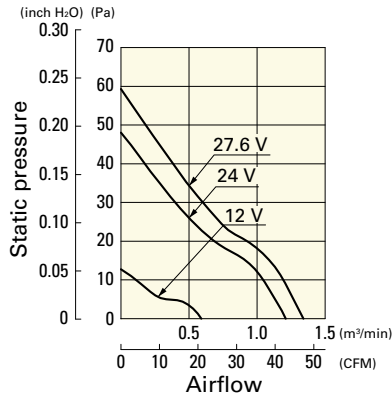
9A0824G401 With pulse sensor

Operating voltage range



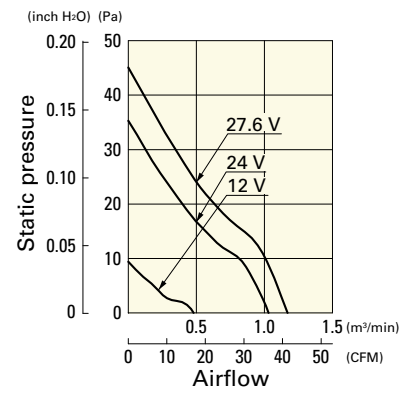
9A0824S401 With pulse sensor

Operating voltage range



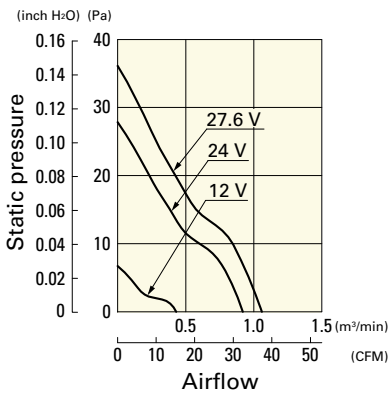
9A0824H401 With pulse sensor

Operating voltage range



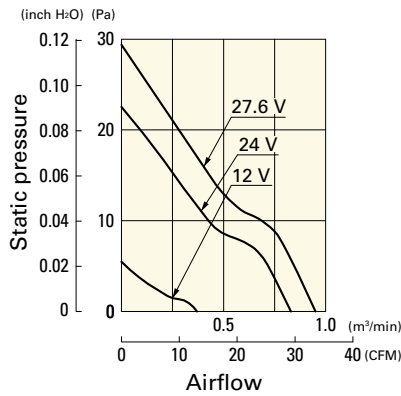
9A0824F401 With pulse sensor

Operating voltage range



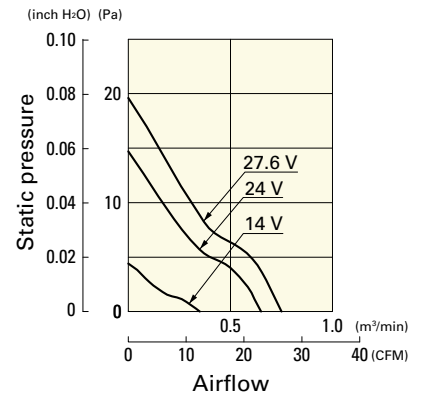
9A0824M401 With pulse sensor

Operating voltage range

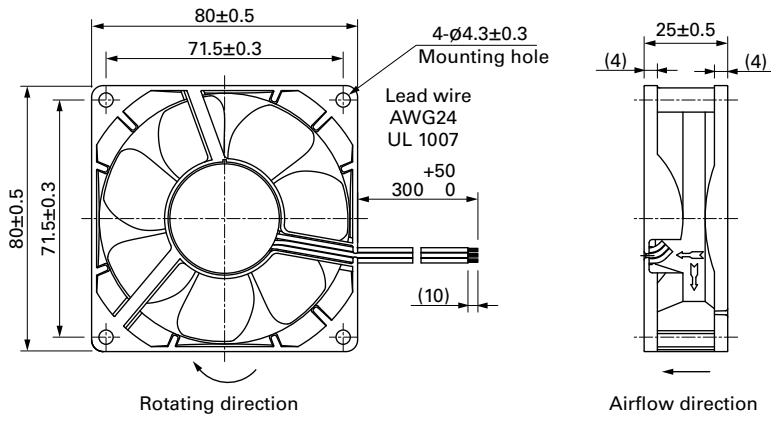


9A0824L401 With pulse sensor

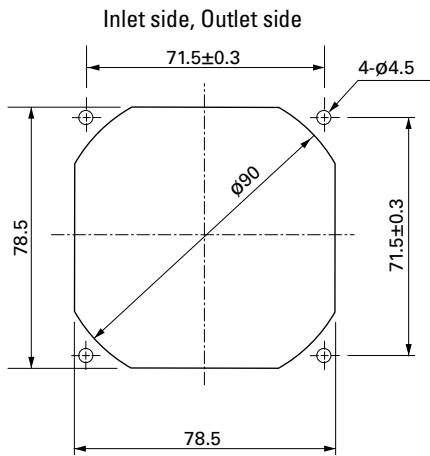
Operating voltage range



Dimensions (unit: mm) (With ribs)



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



Options

Finger guards

page: p. 558

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Resin finger guards

page: p. 565

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Resin filter kits

page: p. 566

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