

Wide Temperature Range Fan

These fans can be used in a wide temperature range from -40 to +85°C.

Model Numbering System Not every combination of the following codes or characters is available. Contact us for an available combination.

9GT	04	12	P	3	J	001
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec

Type name	9GT				
Frame size (mm)	04 40×40	06 60×60	08 80×80	09 92×92	12 120×120
Voltage (V)	12 12	24 24			
Frame thickness (mm)	1 38	3 28	4 25		
Speed code	J				

How to Read Specifications (DC fan)

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]
9GA0412G7001	12	7 to 13.8	0.17	2.04	13100	0.36 12.7	192 0.77	42	-20 to +70	40000/60°C (70000/40°C)

- Rated voltage This is the necessary voltage to drive the fan. E.g.) 12 VDC, 24 VDC, 48 VDC
- Operating voltage range The voltage range over which fan operation is guaranteed.
- Rated current The current when the fan is operating at rated voltage (at free air).
- Rated input The power value when the fan is operating at rated voltage (at free air).
- Rated speed The speed when the fan is operating at rated voltage (at free air).
- Max. airflow The maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device).
Airflow is the volume of air generated by the fan per unit of time.
- Max. static pressure The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device).
Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
- SPL SPL stands for Sound Pressure Level. The noise level during the fan's rated operation.
Please refer to the technical material section for the measurement method.
- Operating temperature The temperature range over which fan operation is guaranteed (Non- condensing).
- Expected life Service life hours that 90% of bearings will survive without failing when continuously operated at the rated voltage and 60°C temperature. Expected life at 40°C is for reference only.
For more information, please refer to the technical material section.

40×40×28 mm

San Ace 40T 9GT type US



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)
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 529.
- 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 -40 to +85°C (Non-condensing)
- Lead wire ⊕Red ⊖Black Sensor Yellow Control Brown
- Mass 55 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]
9GT0412P3J001	12	10.2 to 13.8	100	0.31	3.72	11700	0.52 18.4	206 0.827	48	-40 to +85	40000/85°C
			30	0.08	0.96	4100	0.18 6.36	25.2 0.1	21		
9GT0424P3J001	24	20.4 to 27.6	100	0.15	3.6	11700	0.52 18.4	206 0.827	48		
			30	0.05	1.2	4100	0.18 6.36	25.2 0.1	21		

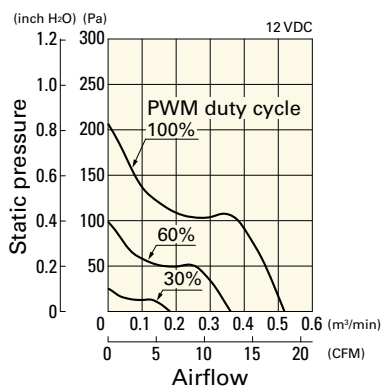
* PWM frequency: 25 kHz. Fan does not rotate when PWM duty cycle is 0%.

Other sensor specifications are available as options. Refer to the index (p. 554).

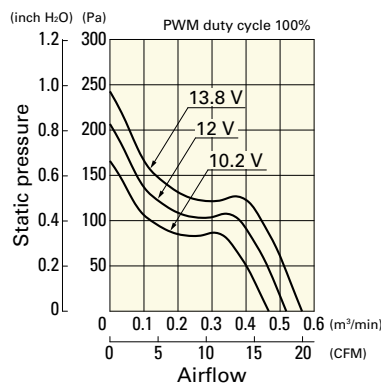
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0412P3J001 With pulse sensor with PWM control function

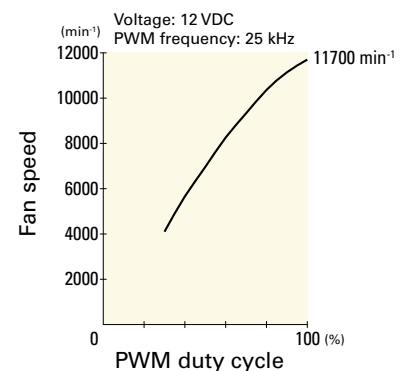
PWM duty cycle



Operating voltage range



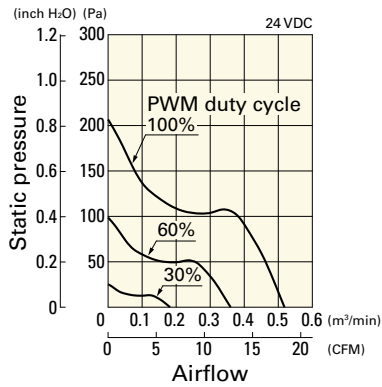
PWM duty - Speed characteristics example



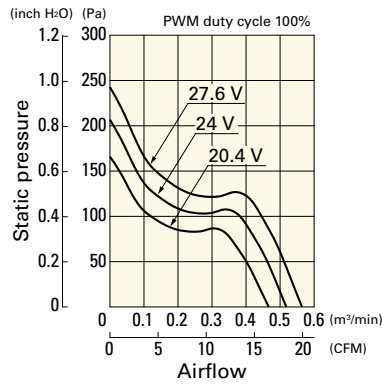
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0424P3J001 With pulse sensor with PWM control function

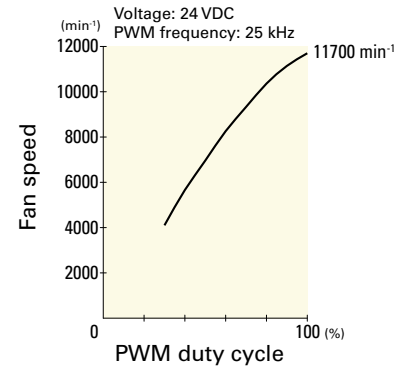
PWM duty cycle



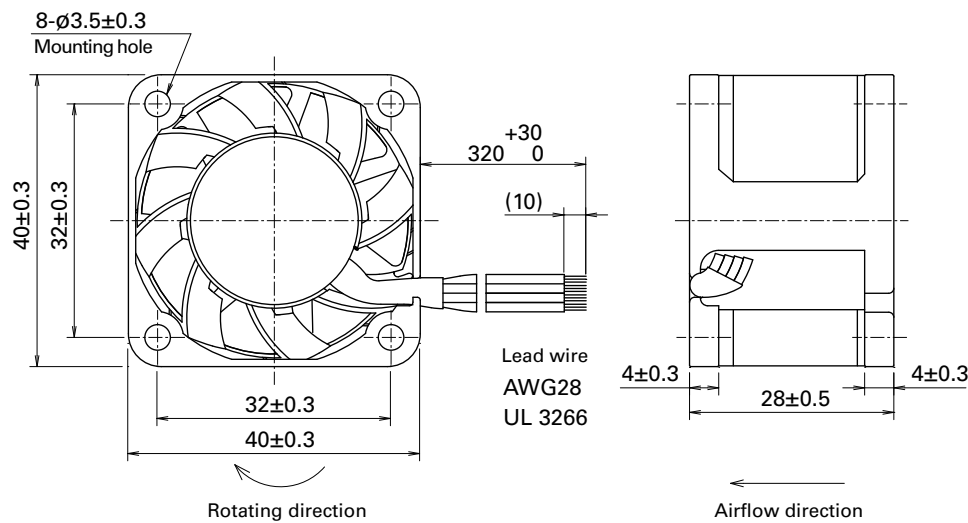
Operating voltage range



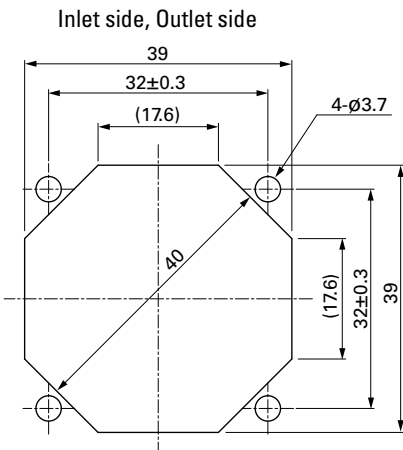
PWM duty - Speed characteristics example



Dimensions (unit: mm)



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



Options

Finger guards

page: p. 513

Model no.: 109-059, 109-059H

DC

Wide Temperature Range Fan 40 mm sq.

60×60×25 mm

San Ace 60T 9GT type c US



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)
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 529.
- 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 -40 to +85°C (Non-condensing)
- Lead wire ⊕Red ⊖Black Sensor Yellow Control Brown
- Mass 100 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]
9GT0612P4G001	12	10.2 to 13.8	100	0.56	6.72	10000	1.26 44.5	243 0.97	52	-40 to +85	40000/85°C
			30	0.11	1.32	4100	0.52 18.3	42.8 0.17	25		
9GT0624P4G001	24	20.4 to 27.6	100	0.28	6.72	10000	1.26 44.5	243 0.97	52		
			30	0.06	1.44	4100	0.52 18.3	42.8 0.17	25		

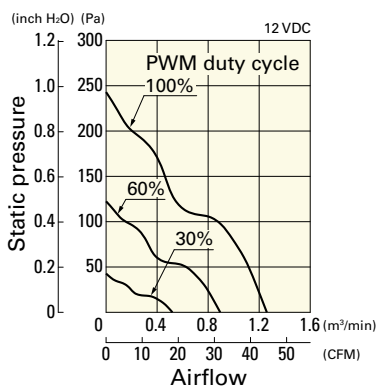
* PWM frequency: 25 kHz. Fan does not rotate when PWM duty cycle is 0%.

Other sensor specifications are available as options. Refer to the index (p. 554).

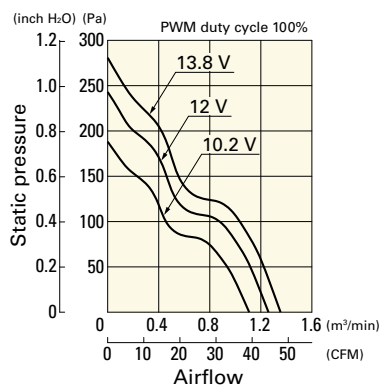
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0612P4G001 With pulse sensor with PWM control function

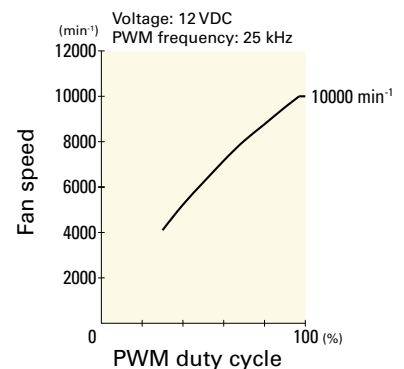
PWM duty cycle



Operating voltage range



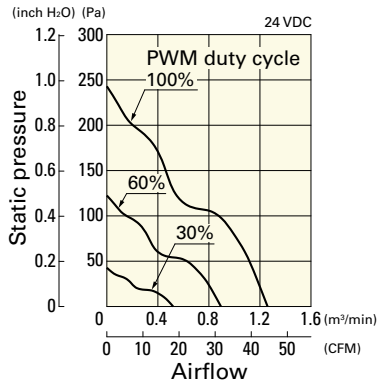
PWM duty - Speed characteristics example



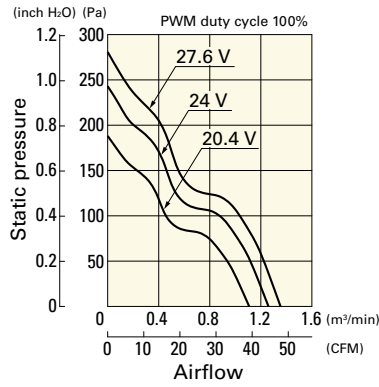
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0624P4G001 With pulse sensor with PWM control function

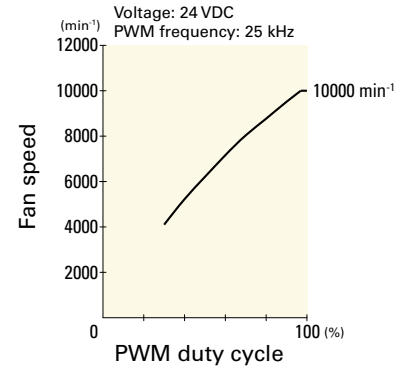
PWM duty cycle



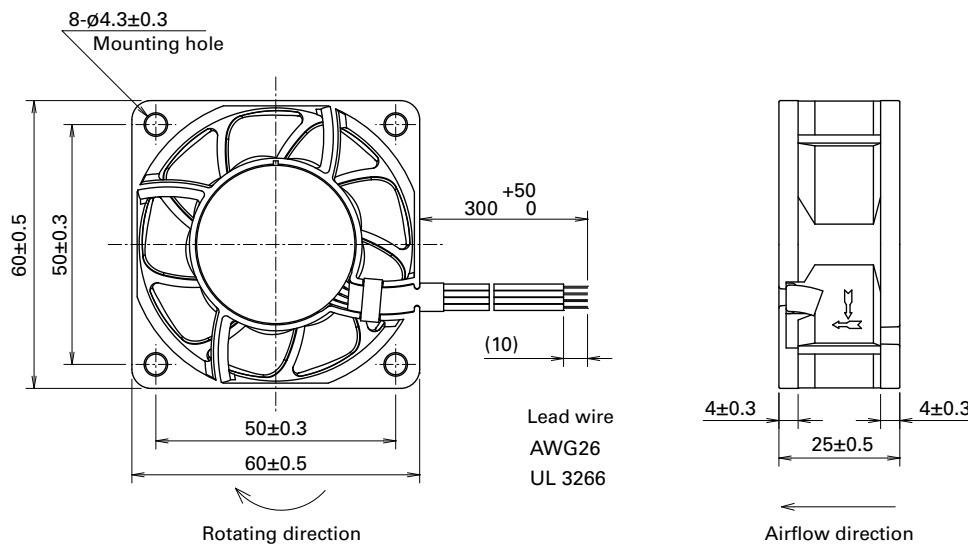
Operating voltage range



PWM duty - Speed characteristics example



Dimensions (unit: mm)

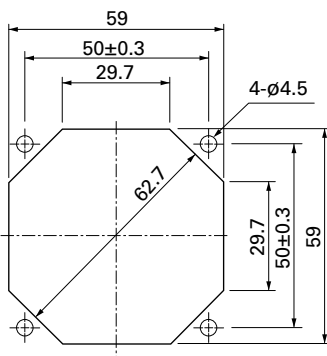


DC

Wide Temperature Range Fan 60 mm sq.

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

Inlet side, Outlet side



Options

Finger guards

page: p. 513

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

80×80×25 mm

San Ace 80T 9GT type c US



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)
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 529.
- 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 -40 to +85°C (Non-condensing)
- Lead wire ⊕Red ⊖Black Sensor Yellow Control Brown
- Mass 130 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]
9GT0812P4S001	12	10.2 to 13.8	100	0.46	5.52	6700	1.86 65.7	143 0.57	46	-40 to +85	40000/85°C
			30	0.09	1.08	2650	0.73 25.7	22.3 0.08	26		
9GT0824P4S001	24	20.4 to 27.6	100	0.22	5.28	6700	1.86 65.7	143 0.57	46		
			30	0.05	1.2	2650	0.73 25.7	22.3 0.08	26		

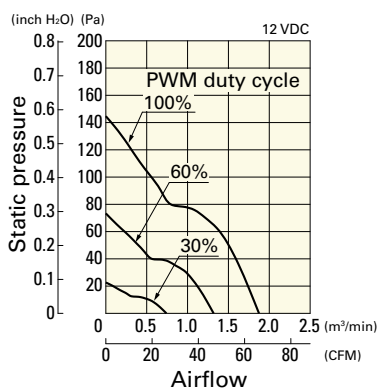
* PWM frequency: 25 kHz. Fan does not rotate when PWM duty cycle is 0%.

Other sensor specifications are available as options. Refer to the index (p. 554).

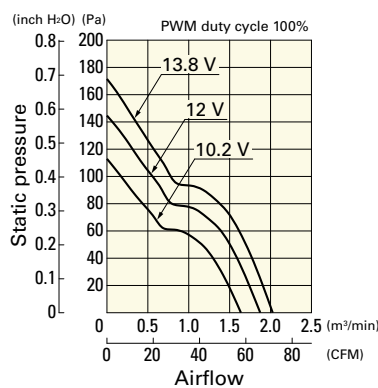
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0812P4S001 With pulse sensor with PWM control function

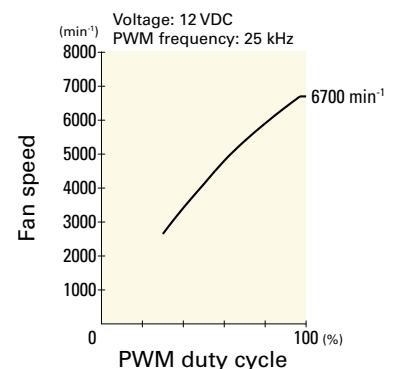
PWM duty cycle



Operating voltage range

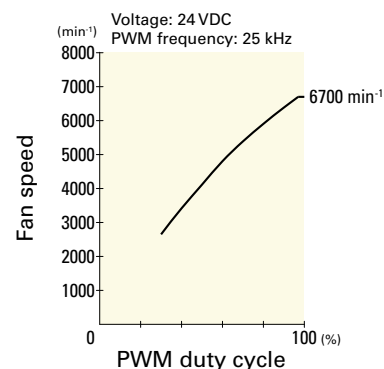


PWM duty - Speed characteristics example



9GT0824P4S001 With pulse sensor with PWM control function

PWM duty - Speed characteristics example



←
Airflow direction

Technical drawing of a square flange with chamfered corners. The drawing shows a square with a side length of 78.5 mm. The corners are chamfered with a radius of R90. The distance from the center to the start of the chamfer is 71.5 ± 0.3 mm. There are four holes, each with a diameter of 4-ø4.5 mm, located at the corners. The drawing is labeled "Inlet side, Outlet side" at the top.

page: p. 513

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

Wide Temperature Range Fan 80 mm sq.

92×92×25 mm

San Ace 92T 9GT type c US



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)
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 529.
- 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 -40 to +85°C (Non-condensing)
- Lead wire ⊕Red ⊖Black Sensor Yellow Control Brown
- Mass 150 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]
9GT0912P4J001	12	10.2 to 13.8	100	0.42	5.04	5000	2.2 77.7	105 0.42	44	-40 to +85	40000/85°C
			30	0.07	0.84	1850	0.81 28.7	14.3 0.05	18		
9GT0924P4J001	24	20.4 to 27.6	100	0.21	5.04	5000	2.2 77.7	105 0.42	44		
			30	0.05	1.2	1850	0.81 28.7	14.3 0.05	18		

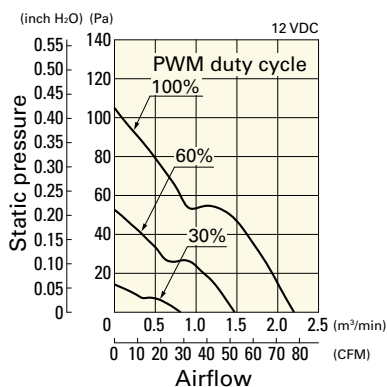
* PWM frequency: 25 kHz. Fan does not rotate when PWM duty cycle is 0%.

Other sensor specifications are available as options. Refer to the index (p. 554).

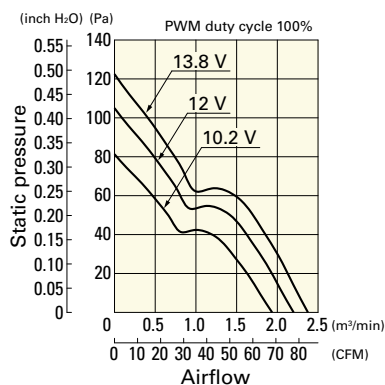
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0912P4J001 With pulse sensor with PWM control function

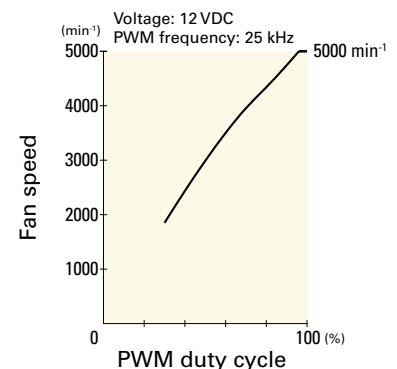
PWM duty cycle



Operating voltage range



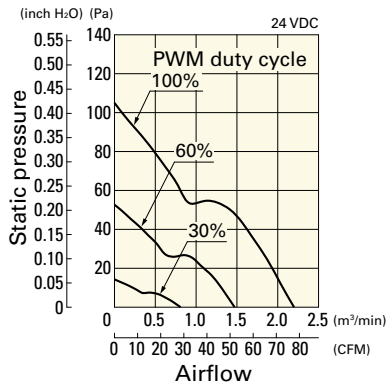
PWM duty - Speed characteristics example



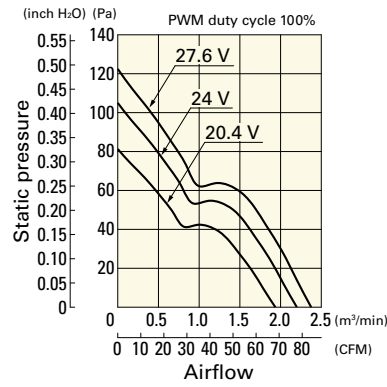
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0924P4J001 With pulse sensor with PWM control function

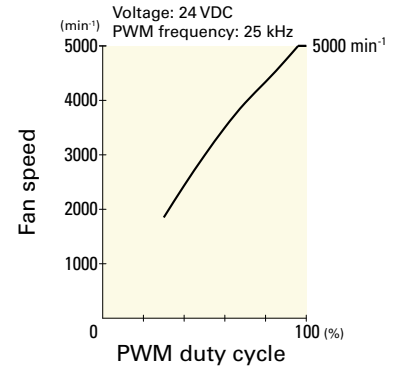
PWM duty cycle



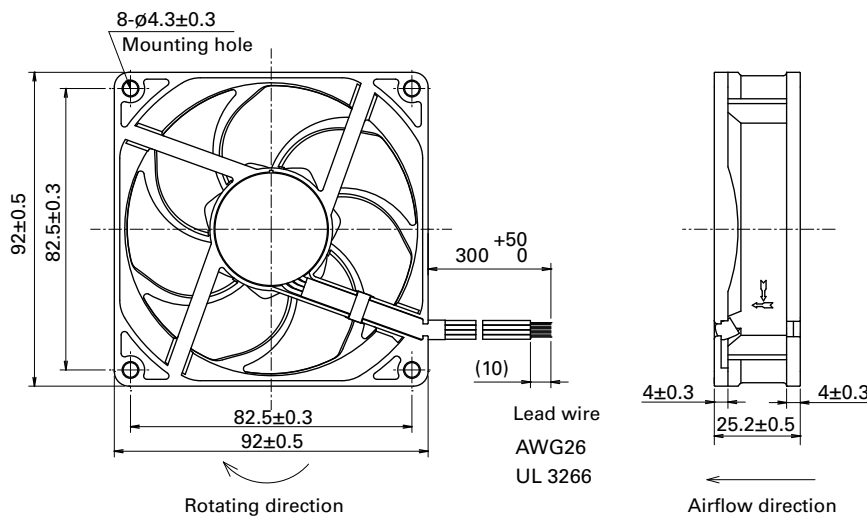
Operating voltage range



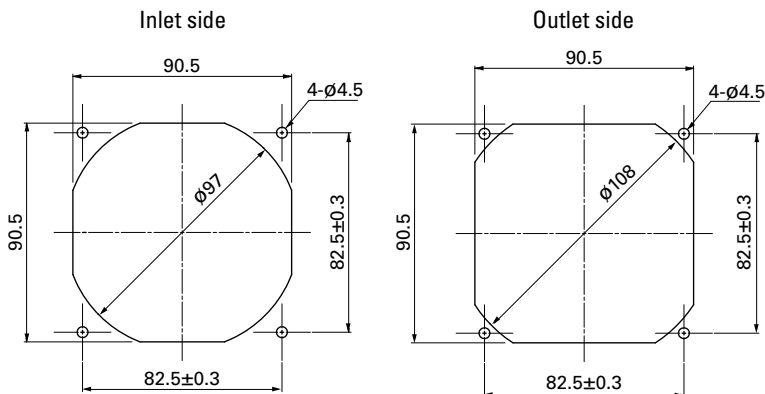
PWM duty - Speed characteristics example



Dimensions (unit: mm)



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



Options

Finger guards

page: p. 513

Model no.: 109-099C, 109-099E, 109-099H

DC

Wide Temperature Range Fan 92 mm sq.

92×92×38 mm

San Ace 92T 9GT type c US



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)
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 529.
- 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 -40 to +85°C (Non-condensing)
- Lead wire ⊕Red ⊖Black (Sensor) Yellow (Control) Brown
- Mass 270 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]
9GT0912P1M001	12	10.2 to 13.8	100	1.5	18.0	8100	3.3 116.6	315 1.26	58	-40 to +85	40000/85°C
			30	0.3	3.6	3750	1.5 53.0	72.0 0.29	37		
9GT0924P1M001	24	20.4 to 27.6	100	0.75	18.0	8100	3.3 116.6	315 1.26	58		
			30	0.15	3.6	3750	1.5 53.0	72.0 0.29	37		

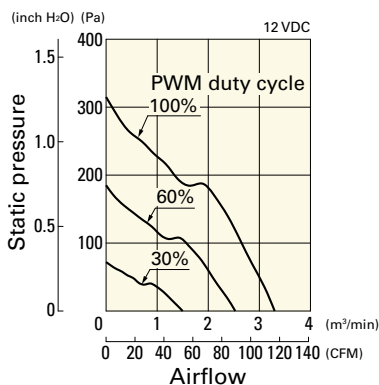
* PWM frequency: 25 kHz. Fan does not rotate when PWM duty cycle is 0%.

Other sensor specifications are available as options. Refer to the index (p. 554).

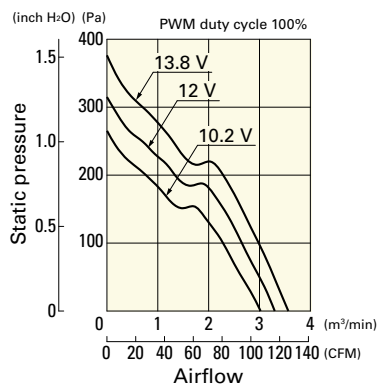
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0912P1M001 With pulse sensor with PWM control function

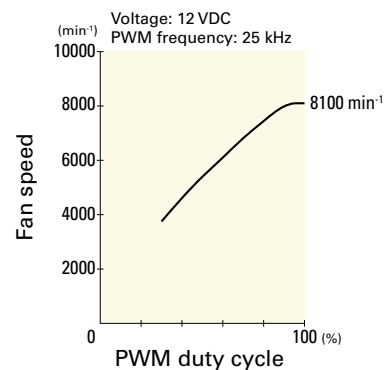
PWM duty cycle



Operating voltage range



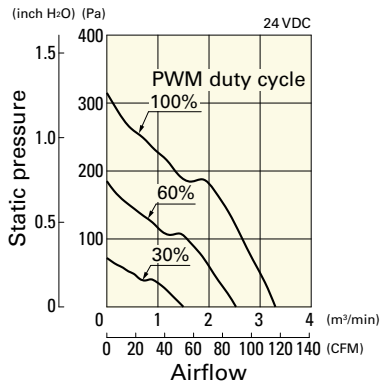
PWM duty - Speed characteristics example



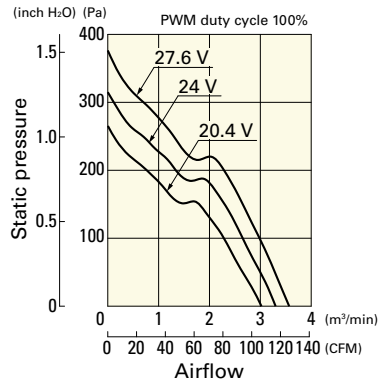
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0924P1M001 With pulse sensor with PWM control function

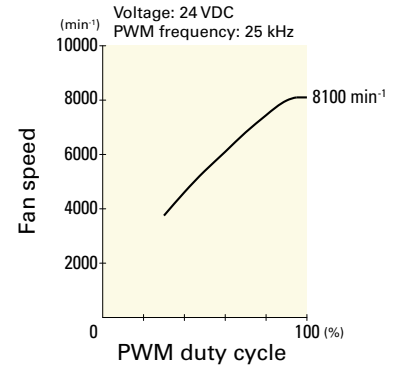
PWM duty cycle



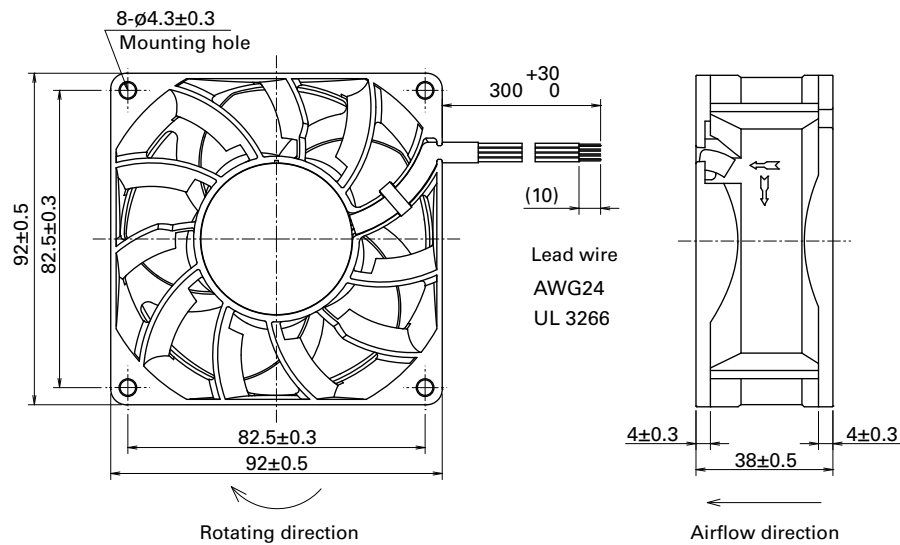
Operating voltage range



PWM duty - Speed characteristics example



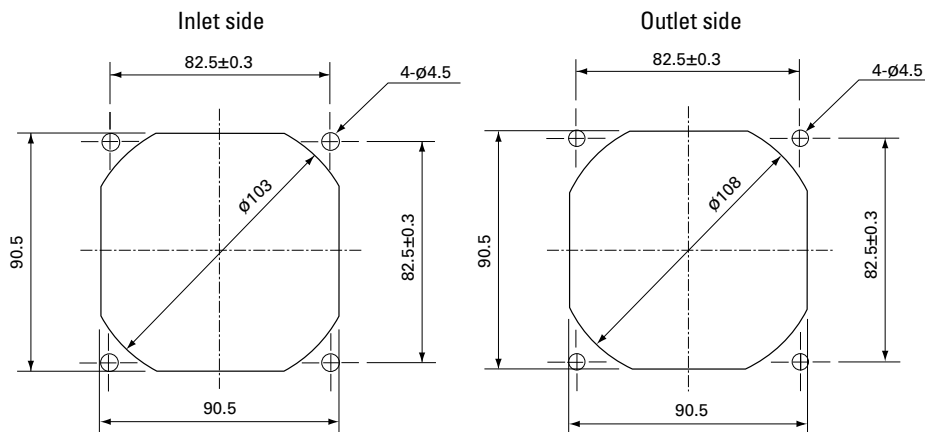
Dimensions (unit: mm)



DC

Wide Temperature Range Fan 92 mm sq.

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



Options

Finger guards

page: p. 513

Model no.: 109-099C, 109-099E, 109-099H



120×120×38 mm

San Ace 120T 9GT 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)
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 529.
- 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 -40 to +85°C (Non-condensing)
- Lead wire ⊕Red ⊖Black Sensor Yellow Control Brown
- 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 ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9GT1212P1S001	12	9.0 to 13.8	100	2.2	26.4	5600	6.0 211.8	270 1.08	58	-40 to +85	40000/85°C
			35	0.48	5.76	2900	3.0 106.0	85.6 0.34	41		
9GT1224P1S001	24	18.0 to 27.6	100	1.1	26.4	5600	6.0 211.8	270 1.08	58		
			35	0.24	5.76	2900	3.0 106.0	85.6 0.34	41		

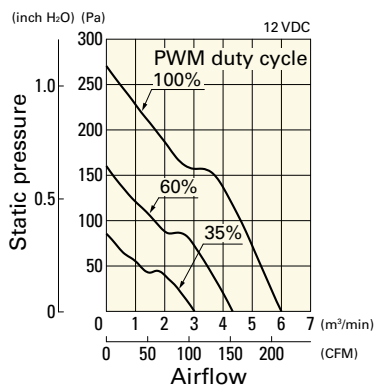
* PWM frequency: 25 kHz. Fan does not rotate when PWM duty cycle is 0%.

Other sensor specifications are available as options. Refer to the index (p. 554).

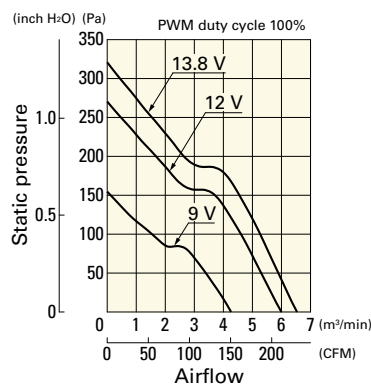
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT1212P1S001 With pulse sensor with PWM control function

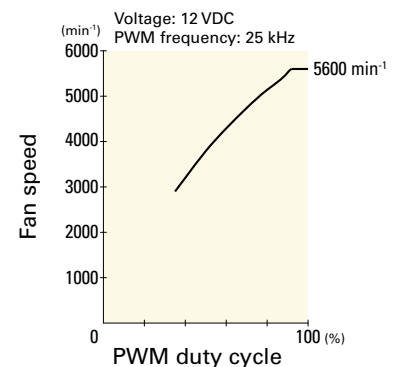
PWM duty cycle



Operating voltage range



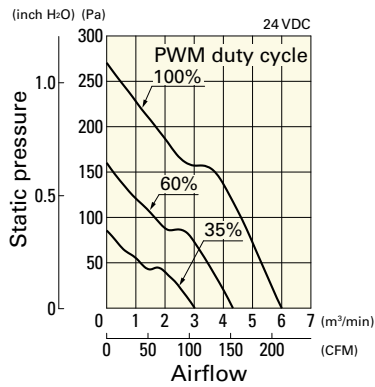
PWM duty - Speed characteristics example



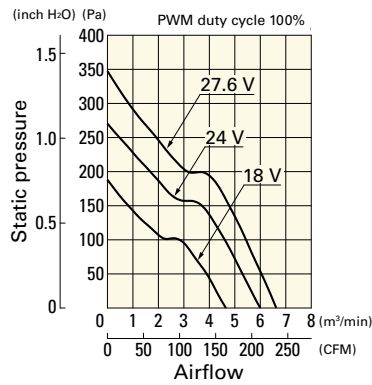
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT1224P1S001 With pulse sensor with PWM control function

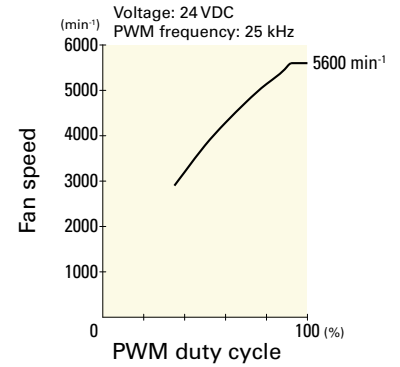
PWM duty cycle



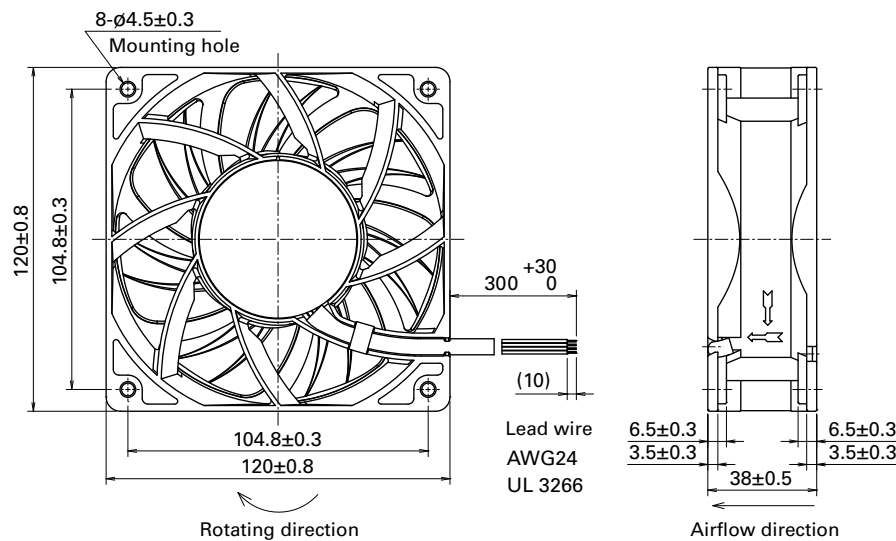
Operating voltage range



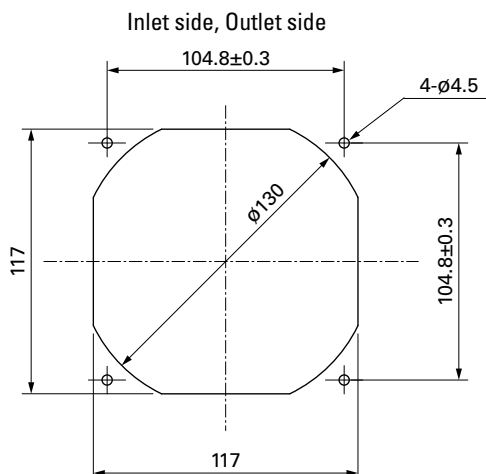
PWM duty - Speed characteristics example



Dimensions (unit: mm)



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



Options

Finger guards

page: p. 514

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