

# 40x40x28 mm

San Ace 40T 9GT type 



DC

Wide Temperature Range Fan 40 mm sq.

## 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 85°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. 599.
- 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  Yellow  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 [m³/min] [CFM]	Max. static pressure [Pa] [inch H₂O]	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 (162000/40°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	-40 to +85	40000/85°C (162000/40°C)
			30	0.05	1.2	4100	0.18 6.36	25.2 0.1	21		

\* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

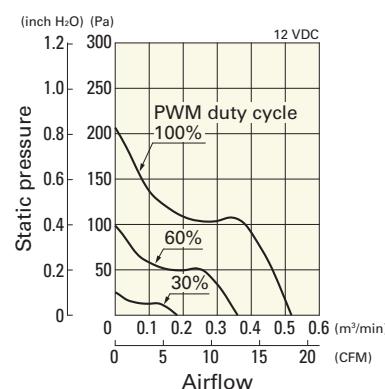
Note 1: Sensor and control options are available for selection. Refer to the table on p. 632.

Note 2: The  mark indicates Short LeadTime Service applicable models. See p. 654 for details.

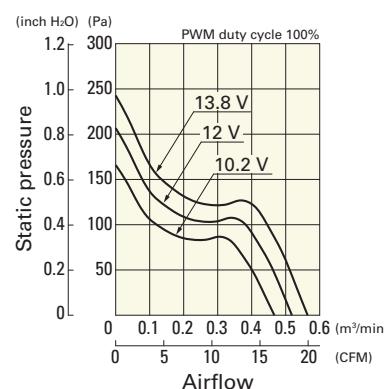
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0412P3J001 With pulse sensor with PWM control function

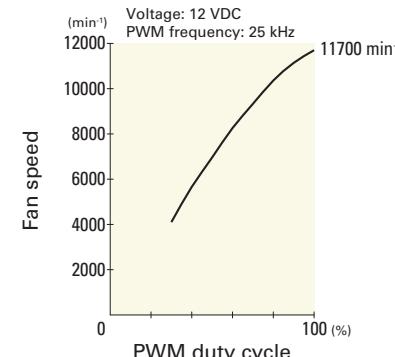
### PWM duty cycle



### Operating voltage range



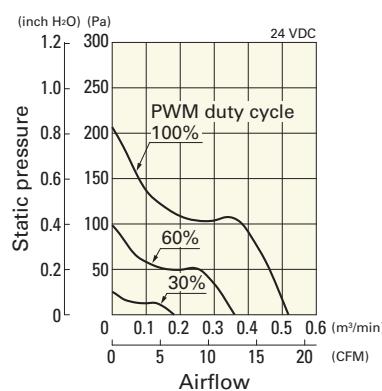
### PWM duty - Speed characteristics example



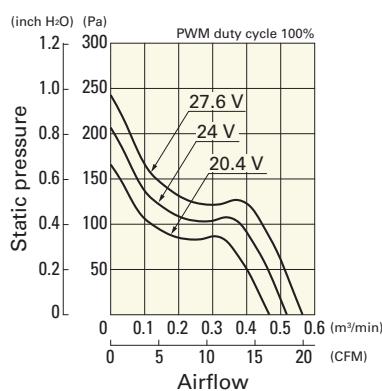
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GT0424P3J001** With pulse sensor with PWM control function

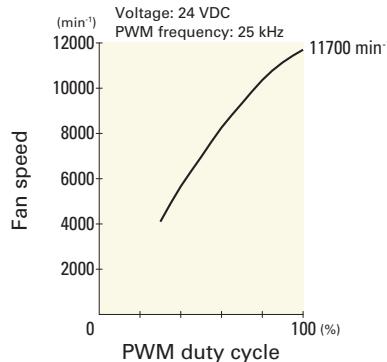
### PWM duty cycle



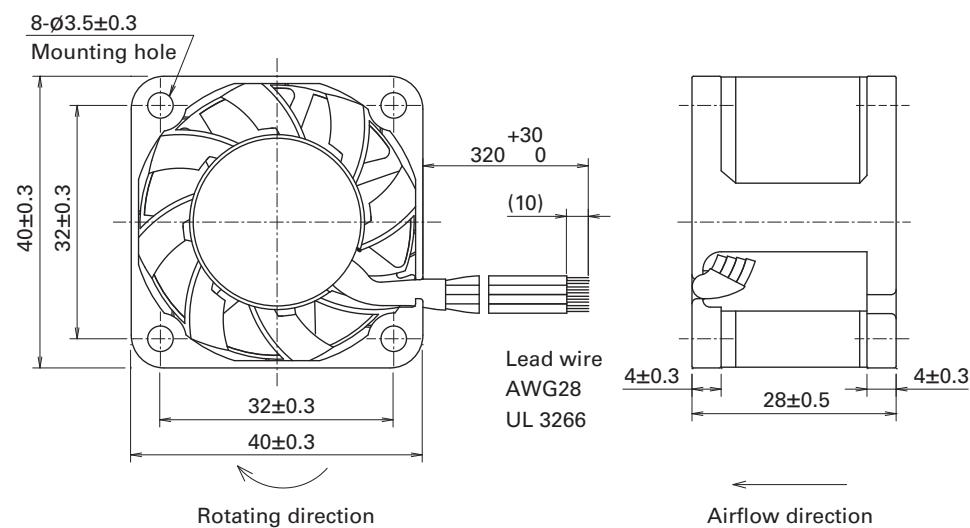
### Operating voltage range



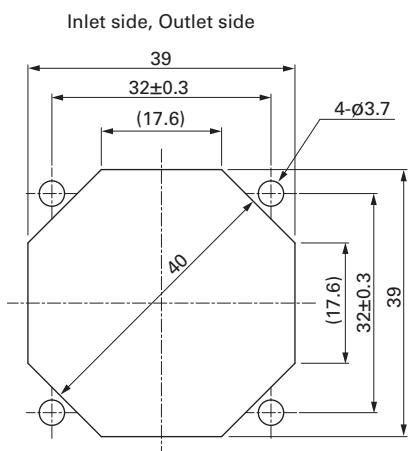
### PWM duty - Speed characteristics example



## Dimensions (unit: mm)



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



## Options

Finger guards

page: p. 584

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

# 60x60x25 mm

**San Ace 60T 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 85°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. 599.
- 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  Yellow  Brown
- Mass ..... 100 g

DC

## 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 [m³/min] [CFM]	Max. static pressure [Pa] [inch H₂O]	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 (162000/40°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 input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

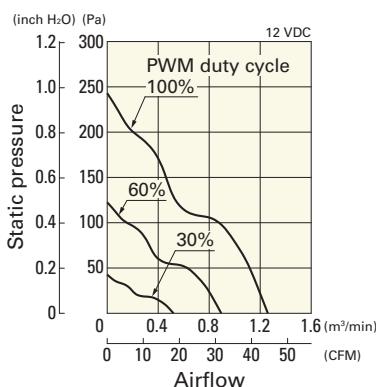
Note 1: Sensor and control options are available for selection. Refer to the table on p. 632.

Note 2: The  mark indicates Short LeadTime Service applicable models. See p. 654 for details.

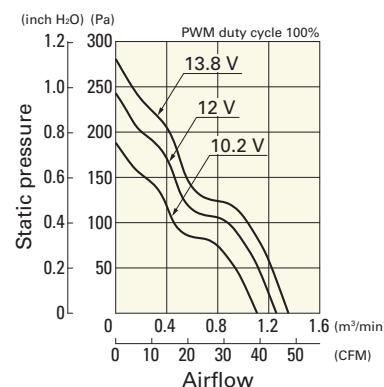
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GT0612P4G001** With pulse sensor with PWM control function

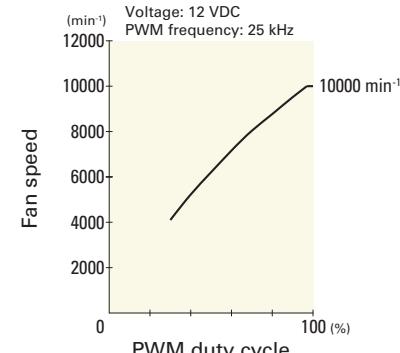
PWM duty cycle



Operating voltage range



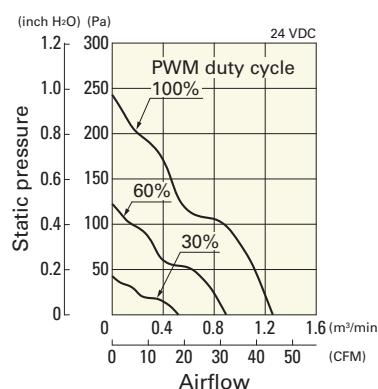
PWM duty - Speed characteristics example



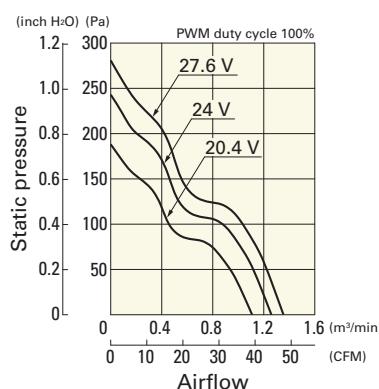
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GT0624P4G001** With pulse sensor with PWM control function

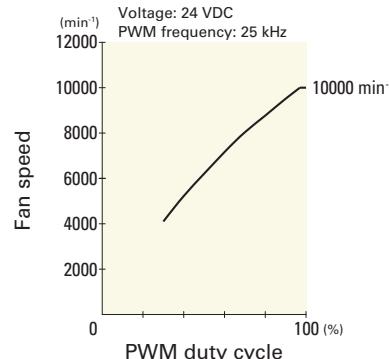
### PWM duty cycle



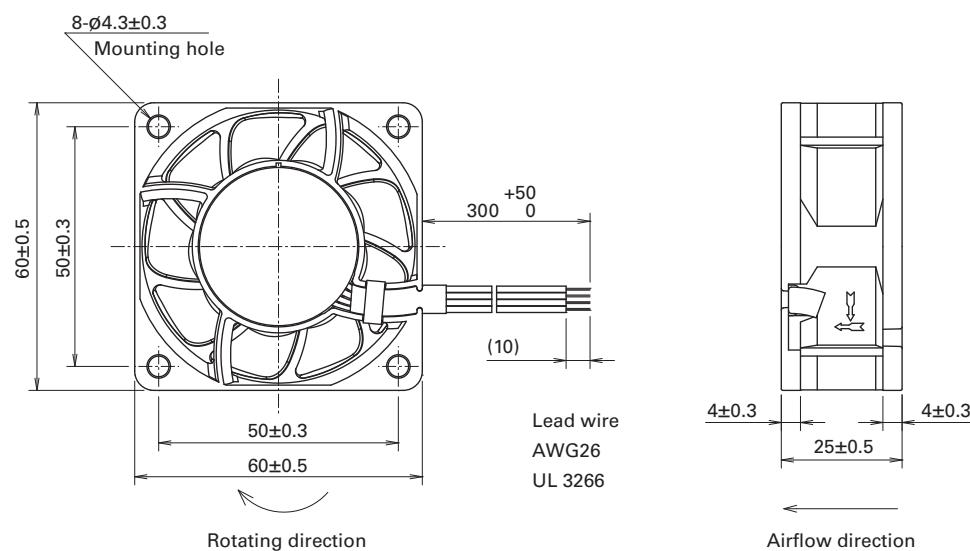
### Operating voltage range



### PWM duty - Speed characteristics example



## Dimensions (unit: mm)

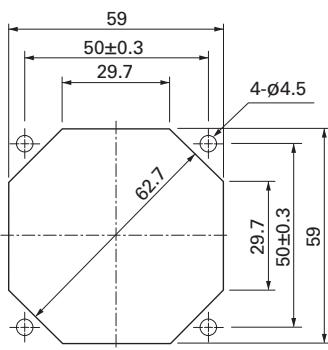


DC

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. 584

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

# 80x80x25 mm

San Ace 80T 9GT type 



DC

Wide Temperature Range Fan 80 mm sq.

## 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 85°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. 599.
- 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  Yellow  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 [m³/min] [CFM]	Max. static pressure [Pa] [inch H₂O]	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
			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 input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

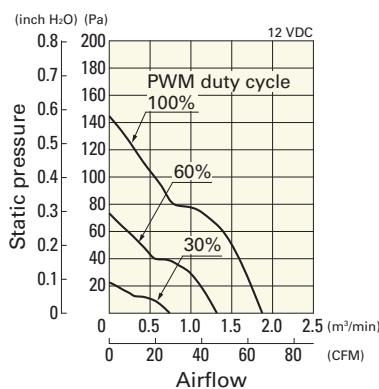
Note 1: Sensor and control options are available for selection. Refer to the table on p. 632.

Note 2: The  mark indicates Short LeadTime Service applicable models. See p. 654 for details.

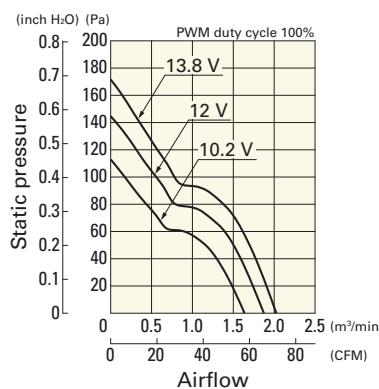
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0812P4S001 With pulse sensor with PWM control function

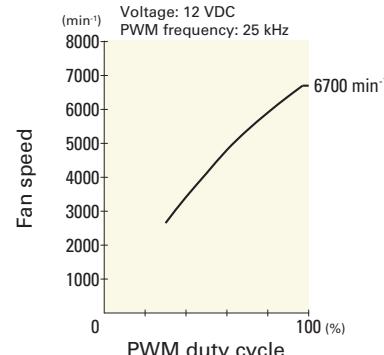
PWM duty cycle



Operating voltage range



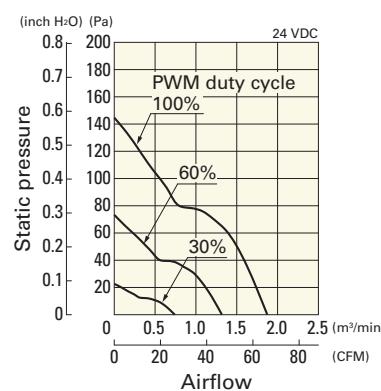
PWM duty - Speed characteristics example



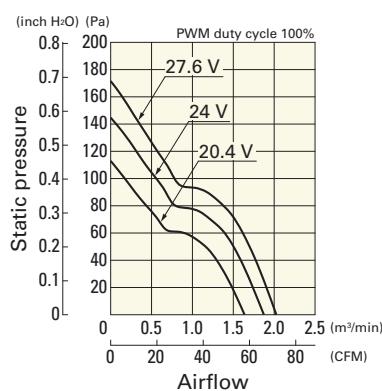
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GT0824P4S001** With pulse sensor with PWM control function

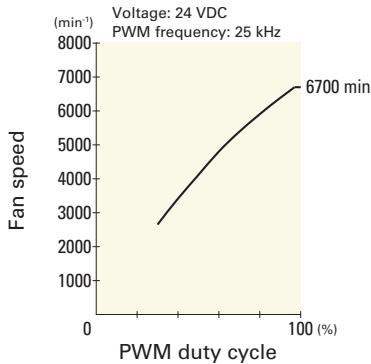
### PWM duty cycle



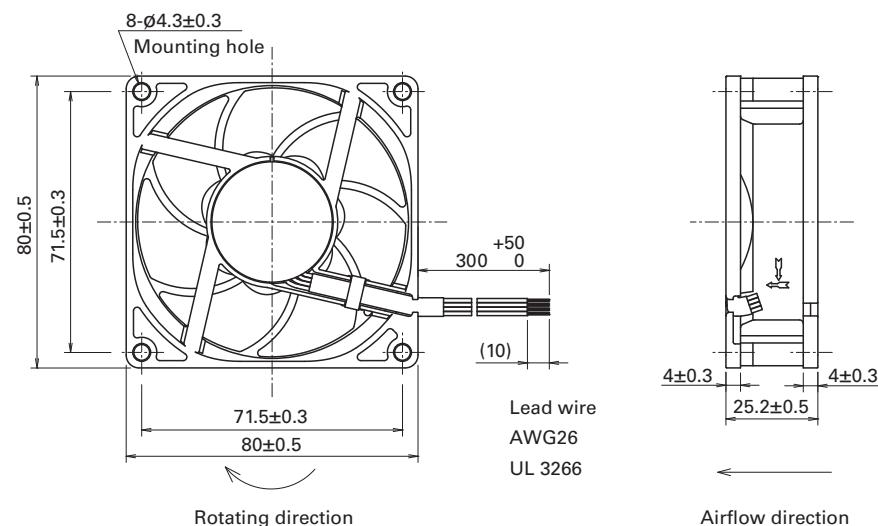
### Operating voltage range



### PWM duty - Speed characteristics example



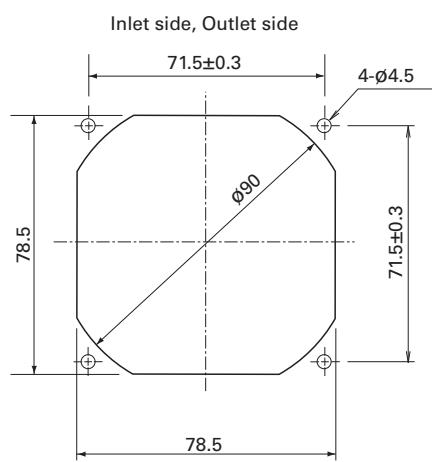
## Dimensions (unit: mm)



DC

Wide Temperature Range Fan 80 mm sq.

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



## Options

Finger guards

page: p. 584

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

## Wide Temperature Range Fan

# 92x92x25 mm

### San Ace 92T 9GT type △ cULus



DC

Wide Temperature Range Fan 92 mm sq.

#### 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 85°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. 599.
- 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 .....  $\oplus$ Red  $\ominus$ 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 [m³/min] [CFM]	Max. static pressure [Pa] [inch H₂O]	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
			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 input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

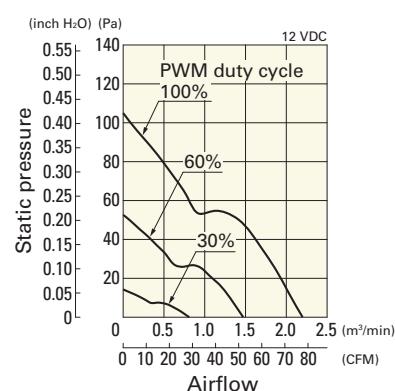
Note 1: Sensor and control options are available for selection. Refer to the table on p. 632.

Note 2: The mark indicates Short LeadTime Service applicable models. See p. 654 for details.

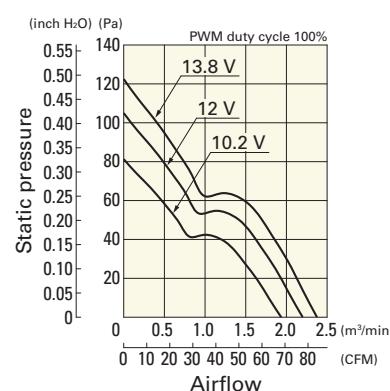
#### Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0912P4J001 With pulse sensor with PWM control function

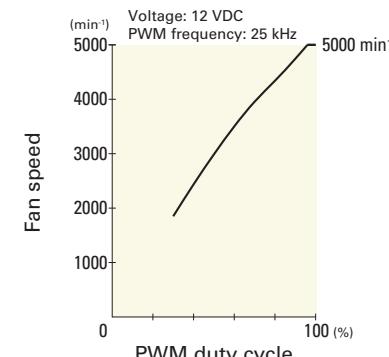
PWM duty cycle



Operating voltage range



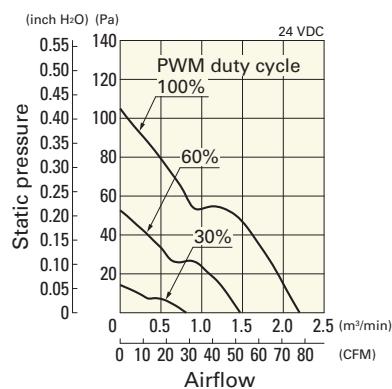
PWM duty - Speed characteristics example



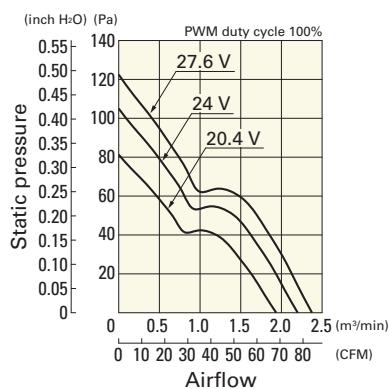
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GT0924P4J001** With pulse sensor with PWM control function

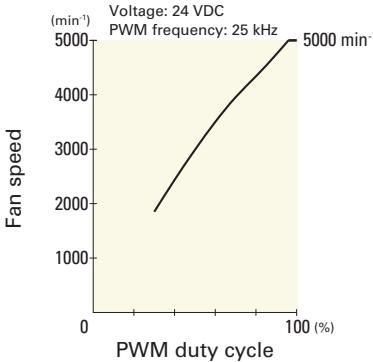
### PWM duty cycle



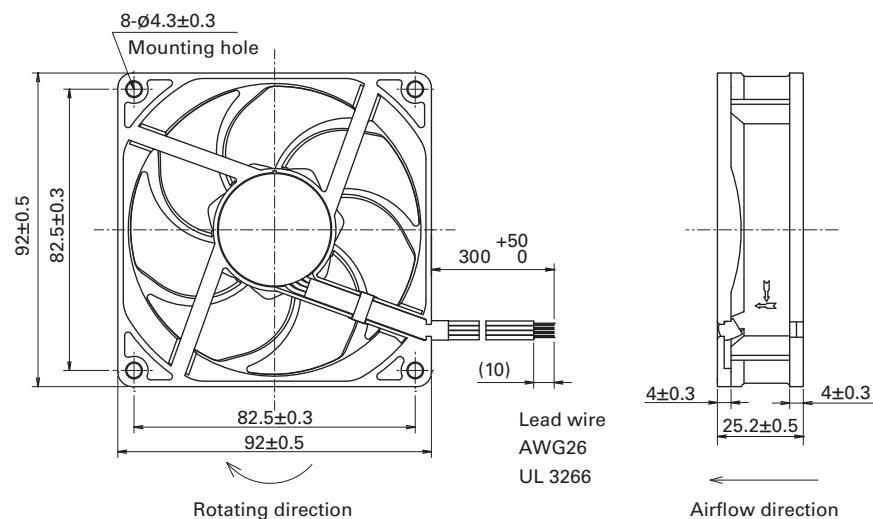
### Operating voltage range



### PWM duty - Speed characteristics example



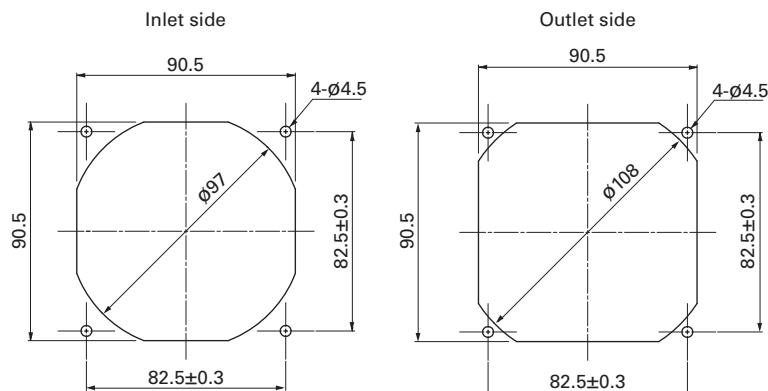
## Dimensions (unit: mm)



DC

Wide Temperature Range Fan 92 mm sq.

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



## Options

Finger guards

page: p. 584

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

## Wide Temperature Range Fan

# 92x92x38 mm

### San Ace 92T 9GT type △ cULus



DC

Wide Temperature Range Fan 92 mm sq.

### 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 85°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. 599.
- 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 [m³/min] [CFM]	Max. static pressure [Pa] [inch H₂O]	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 (162000/40°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	-40 to +85	40000/85°C (162000/40°C)
			30	0.15	3.6	3750	1.5 53.0	72.0 0.29	37		

\* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

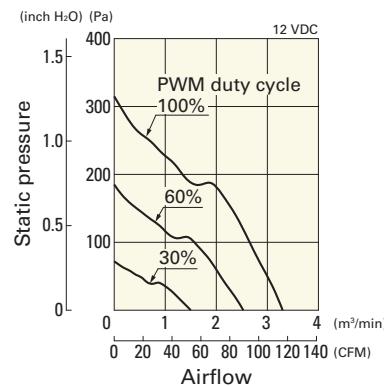
Note 1: Sensor and control options are available for selection. Refer to the table on p. 632.

Note 2: The mark indicates Short LeadTime Service applicable models. See p. 654 for details.

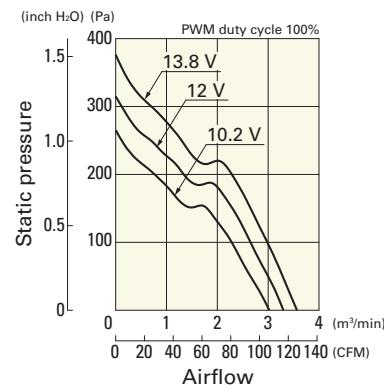
### Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0912P1M001 With pulse sensor with PWM control function

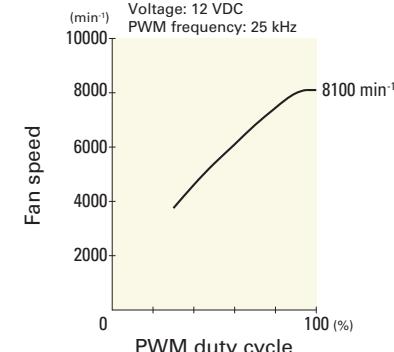
PWM duty cycle



Operating voltage range



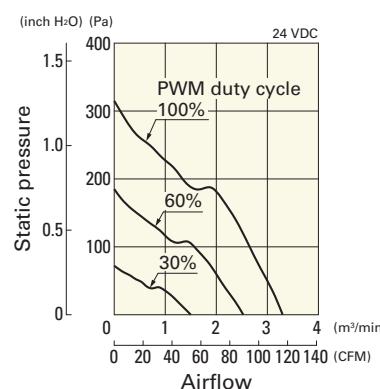
PWM duty - Speed characteristics example



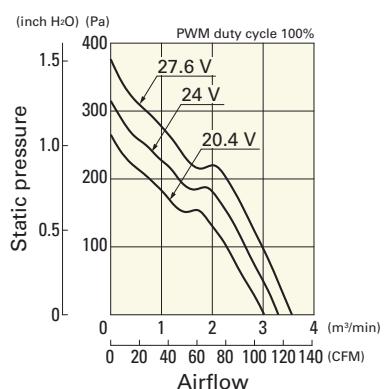
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT0924P1M001 With pulse sensor with PWM control function

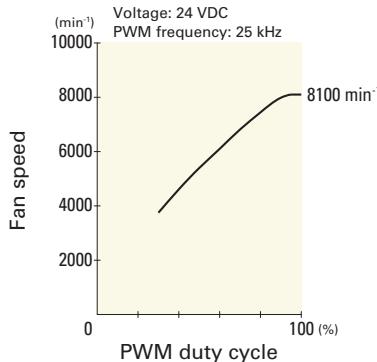
### PWM duty cycle



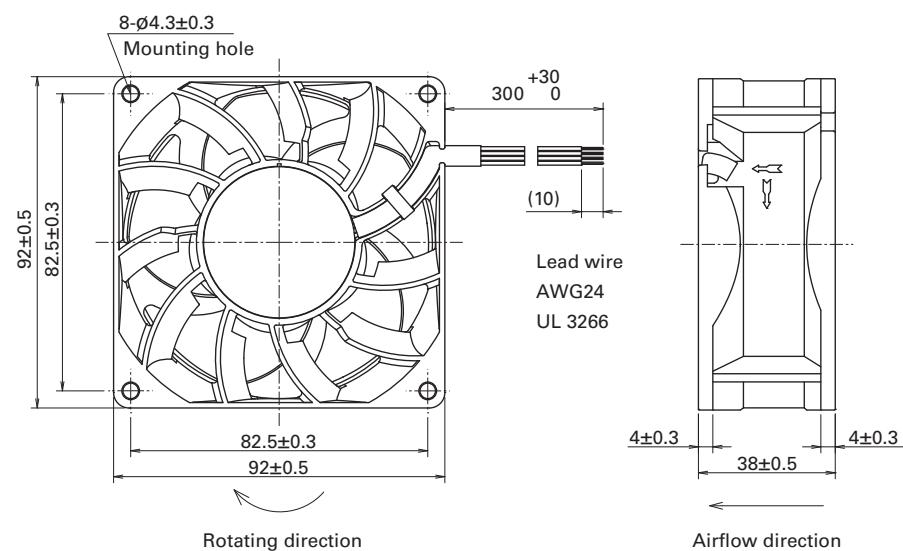
### Operating voltage range



### PWM duty - Speed characteristics example



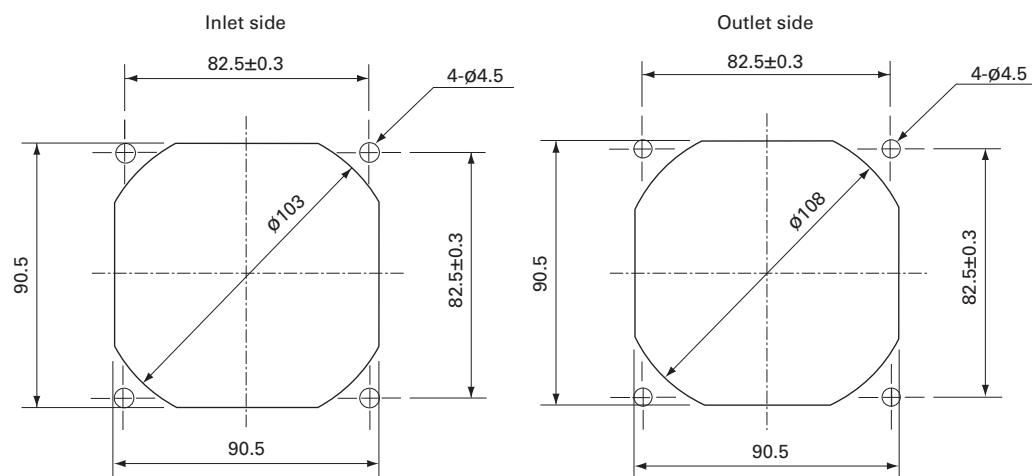
## Dimensions (unit: mm)



DC

Wide Temperature Range Fan 92 mm sq.

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



## Options

Finger guards

page: p. 584

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

# 120x120x38 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 85°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. 599.
- 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  Yellow  Brown
- Mass ..... 420 g

DC

## 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 [m³/min] [CFM]	Max. static pressure [Pa] [inch H₂O]	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 (162000/40°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 input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

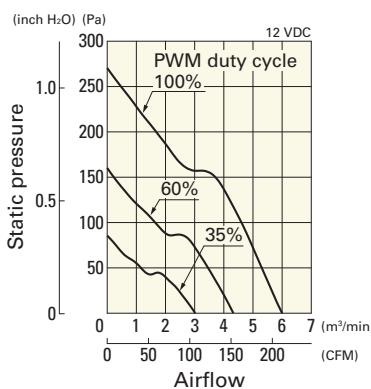
Note 1: Sensor and control options are available for selection. Refer to the table on p. 632.

Note 2: The  mark indicates Short LeadTime Service applicable models. See p. 654 for details.

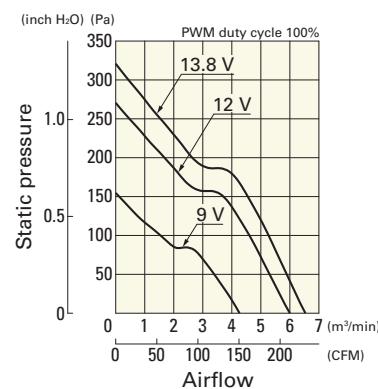
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GT1212P1S001 With pulse sensor with PWM control function

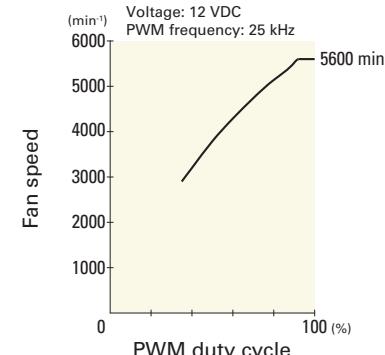
PWM duty cycle



Operating voltage range



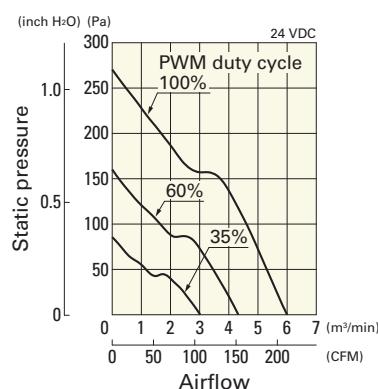
PWM duty - Speed characteristics example



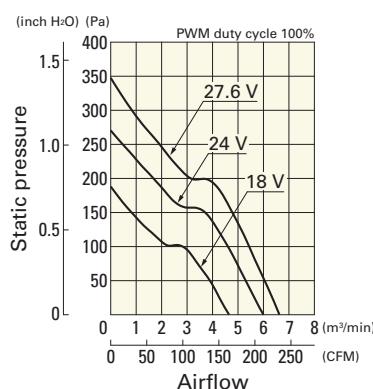
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9GT1224P1S001** With pulse sensor with PWM control function

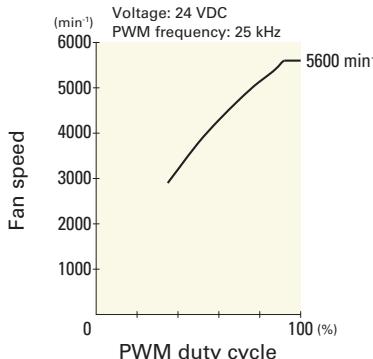
### PWM duty cycle



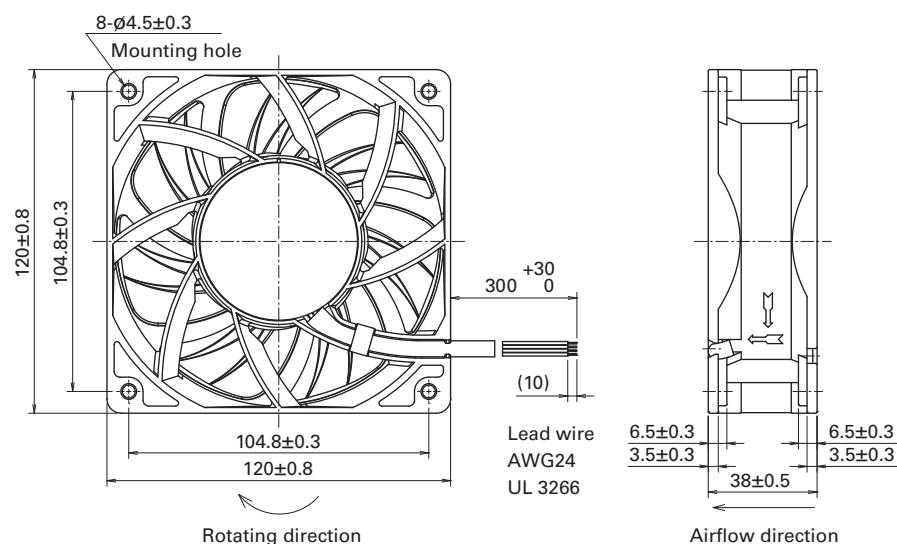
### Operating voltage range



### PWM duty - Speed characteristics example

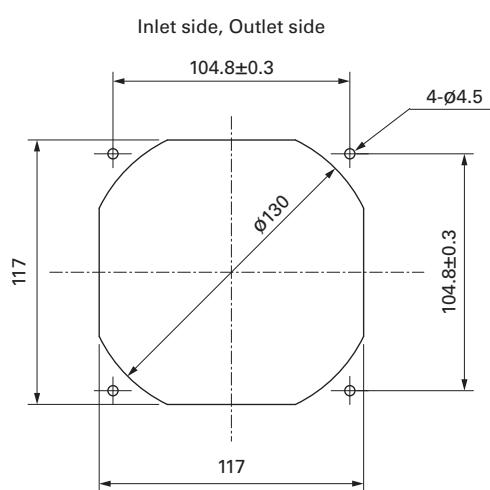


## Dimensions (unit: mm)



DC

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



Wide Temperature Range Fan 120 mm sq.

## Options

Finger guards

page: p. 585

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