



80x80x80 mm

San Ace 80 9CRB 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 Inlet ⊕Red ⊖Black (Sensor) Yellow (Control) Brown
Outlet ⊕Orange ⊖Gray (Sensor) Purple (Control) White
- Mass 430 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] |
|----------------|-------------------|-----------------------------|--------------------|-------------------|-----------------|----------------------------------|--------|--|--------|--|----------------------|--------------|----------------------------|----------------------------|
| | | | | | | Inlet | Outlet | Inlet | Outlet | Pa | inchH ₂ O | | | |
| 9CRB0812P8G001 | 12 | 10.8 to 13.2 | 100 | 9.2 | 110.4 | 14600 | 12200 | 5.5 | 194 | 1150 | 4.6 | 80 | -20 to +70 | 40000/60°C (70000/40°C) |
| | | | 20 | 0.17 | 2.04 | 2000 | 1670 | 0.7 | 24.7 | 21.6 | 0.09 | 24 | | |

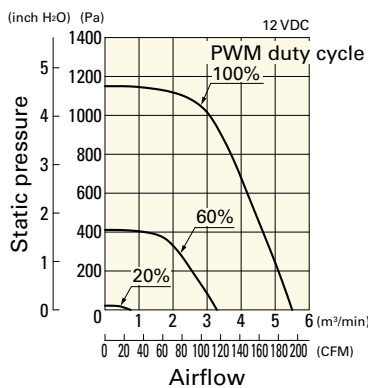
* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

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

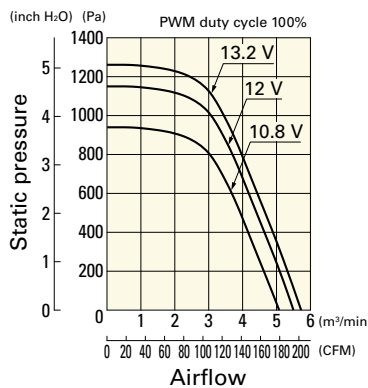
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9CRB0812P8G001 With pulse sensor with PWM control function

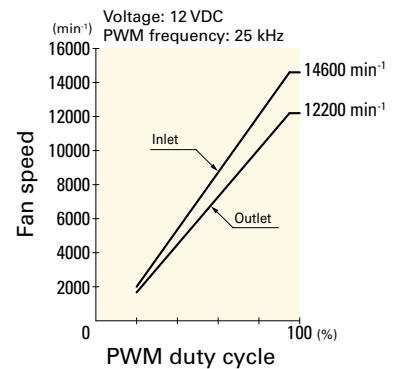
PWM duty cycle



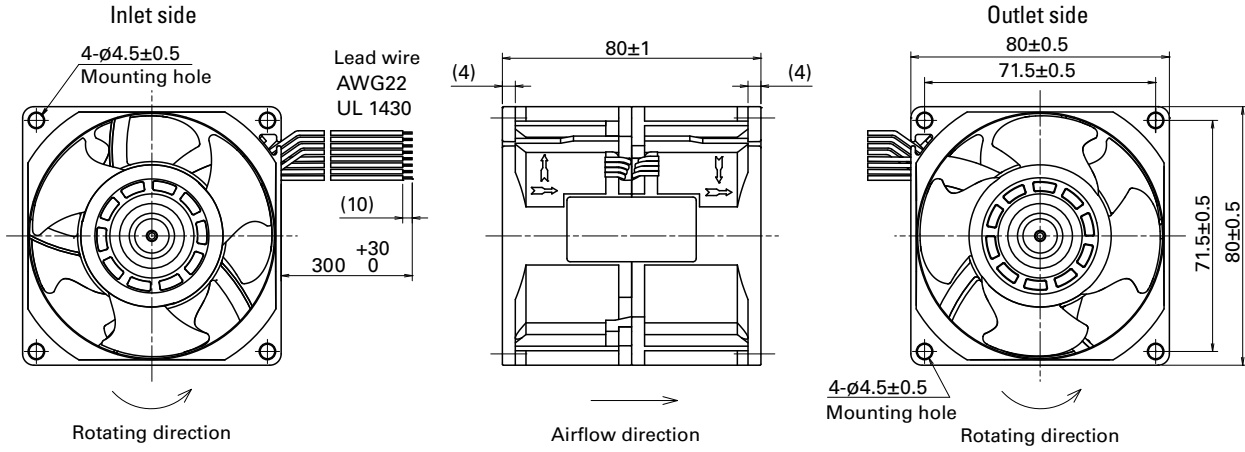
Operating voltage range



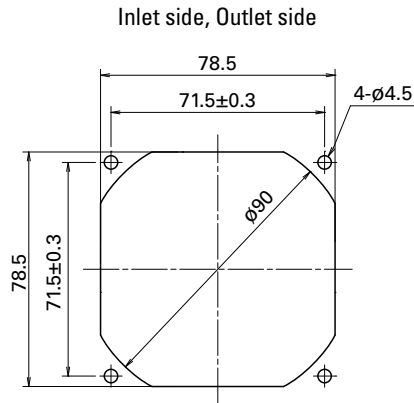
PWM duty - Speed characteristics example



Dimensions (unit: mm)



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



Options

Finger guards page: p. 558
Model no.: 109-049E, 109-049H

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)

80x80x80 mm



San Ace 80 9CRE 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 Inlet ⊕Red ⊖Black (Sensor) Yellow (Control) Brown
Outlet ⊕Orange ⊖Gray (Sensor) Purple (Control) White
- Mass 490 g

Specifications

The models listed below **have pulse sensors with PWM control function.**

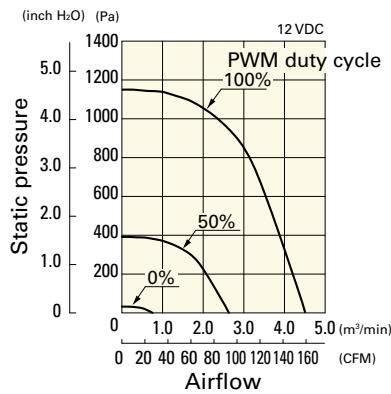
| Model no. | Rated voltage [V] | Operating voltage range [V] | PWM duty cycle [%] | Rated current [A] | Rated input [W] | Rated speed [min ⁻¹] | | Max. airflow [m ³ /min] [CFM] | | Max. static pressure [Pa] [inchH ₂ O] | | SPL [dB (A)] | Operating temperature [°C] | Expected life [h] |
|----------------|-------------------|-----------------------------|--------------------|-------------------|-----------------|----------------------------------|--------|--|-------|--|------|--------------|----------------------------|----------------------------|
| | | | | | | Inlet | Outlet | | | | | | | |
| 9CRE0812P8G001 | 12 | 10.8 to 13.2 | 100 | 5.3 | 63.6 | 12000 | 11300 | 4.5 | 158.9 | 1150 | 4.62 | 76 | -20 to +70 | 40000/60°C (70000/40°C) |
| | | | 0 | 0.2 | 2.4 | 2000 | 1900 | 0.74 | 26.1 | 31.9 | 0.13 | 30 | | |

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

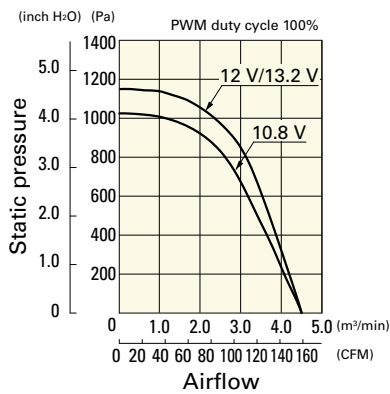
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9CRE0812P8G001 With pulse sensor with PWM control function

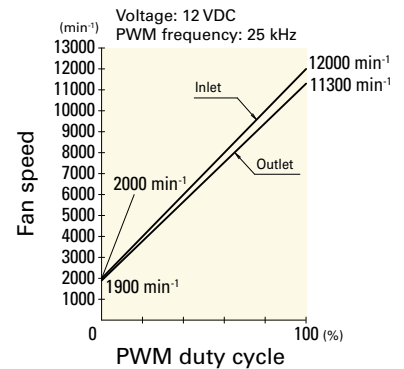
PWM duty cycle



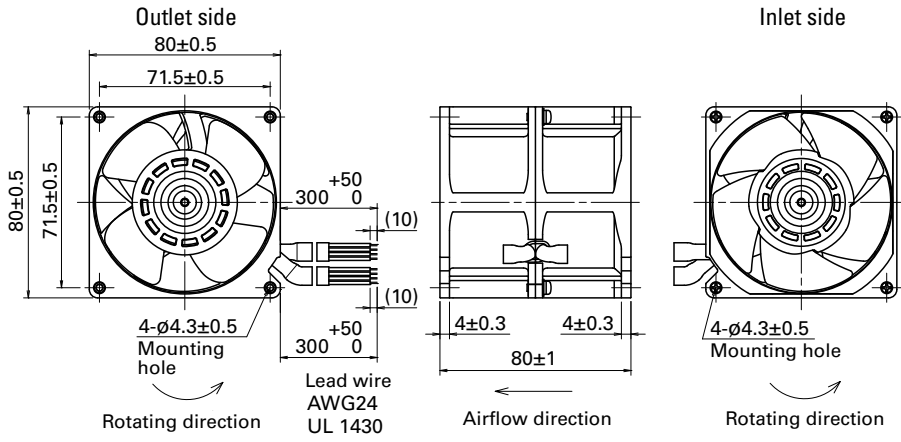
Operating voltage range



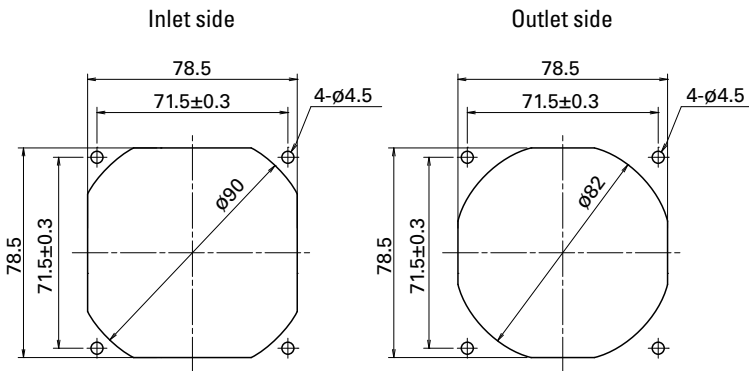
PWM duty - Speed characteristics example



Dimensions (unit: mm)



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



Options

Finger guards

page: p. 558

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

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)



80x80x80 mm

San Ace 80 9CRA 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 Inlet ⊕Red ⊖Black (Sensor) Yellow (Control) Brown
Outlet ⊕Orange ⊖Gray (Sensor) Purple (Control) White
- Mass 450 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] |
|----------------|-------------------|-----------------------------|--------------------|-------------------|-----------------|----------------------------------|--------|--|--------|--|--------|--------------|----------------------------|----------------------------|
| | | | | | | Inlet | Outlet | Inlet | Outlet | Inlet | Outlet | | | |
| 9CRA0812P8G001 | 12 | 10.8 to 13.2 | 100 | 5.3 | 63.6 | 12000 | 11300 | 4.5 | 158.9 | 1150 | 4.62 | 76 | -20 to +70 | 40000/60°C (70000/40°C) |
| | | | 0 | 0.2 | 2.4 | 2000 | 1900 | 0.74 | 26.1 | 31.9 | 0.13 | | | |
| 9CRA0824P8G001 | 24 | 21.6 to 26.4 | 100 | 2.65 | 63.6 | 12000 | 11300 | 4.5 | 158.9 | 1150 | 4.62 | 76 | | |
| | | | 0 | 0.09 | 2.16 | 2000 | 1900 | 0.74 | 26.1 | 31.9 | 0.13 | 30 | | |
| 9CRA0848P8G001 | 48 | 40.8 to 55.2 | 100 | 1.32 | 63.4 | 12000 | 11300 | 4.5 | 158.9 | 1150 | 4.62 | 76 | | |
| | | | 0 | 0.29 | 13.9 | 5000 | 4700 | 1.88 | 66.2 | 200 | 0.8 | 52 | | |

* 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.

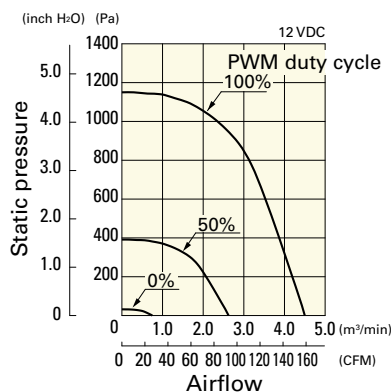
Differs according to the model. Refer to the table on p. 599. **Pulse sensor**

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

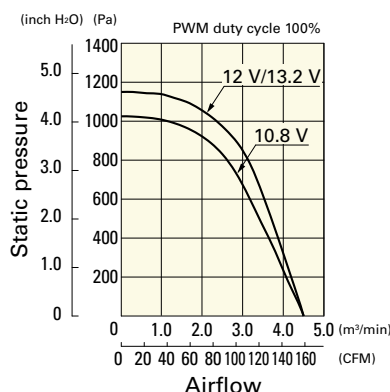
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9CRA0812P8G001 With pulse sensor with PWM control function

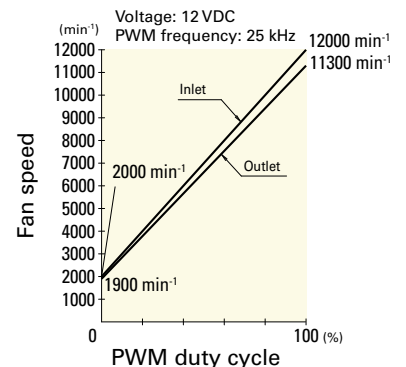
PWM duty cycle



Operating voltage range



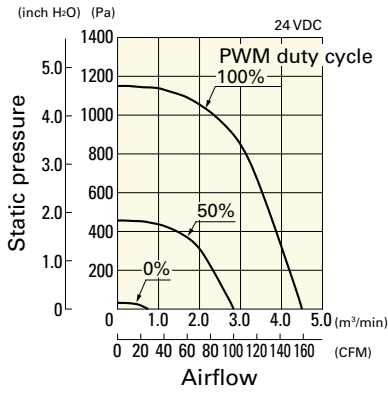
PWM duty - Speed characteristics example



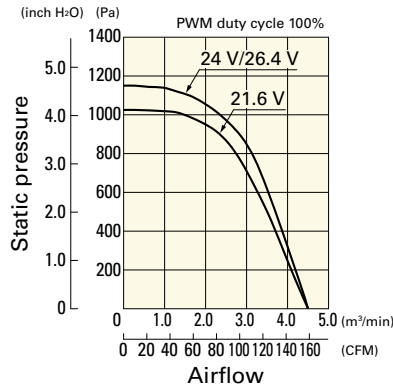
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9CRA0824P8G001 With pulse sensor with PWM control function

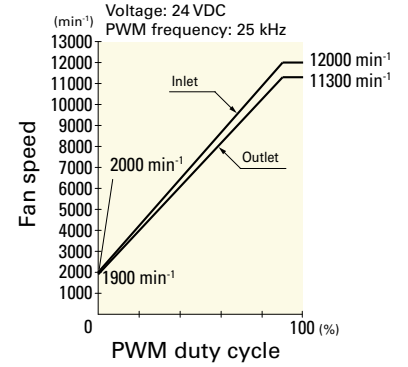
PWM duty cycle



Operating voltage range

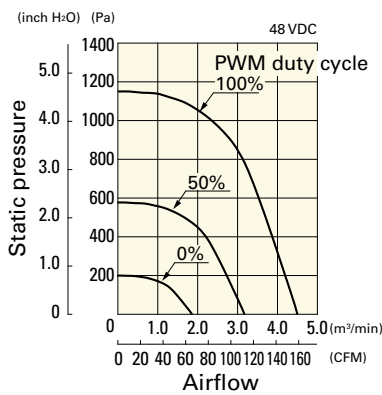


PWM duty - Speed characteristics example

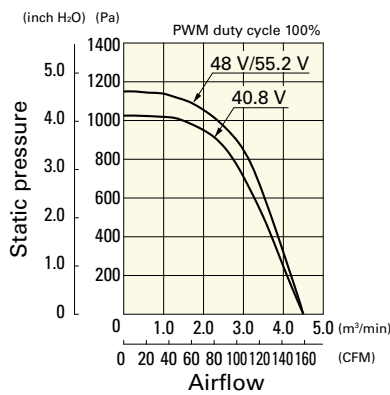


9CRA0848P8G001 With pulse sensor with PWM control function

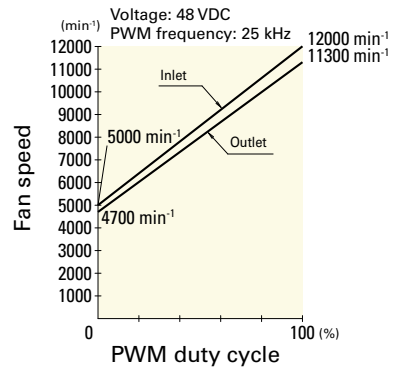
PWM duty cycle



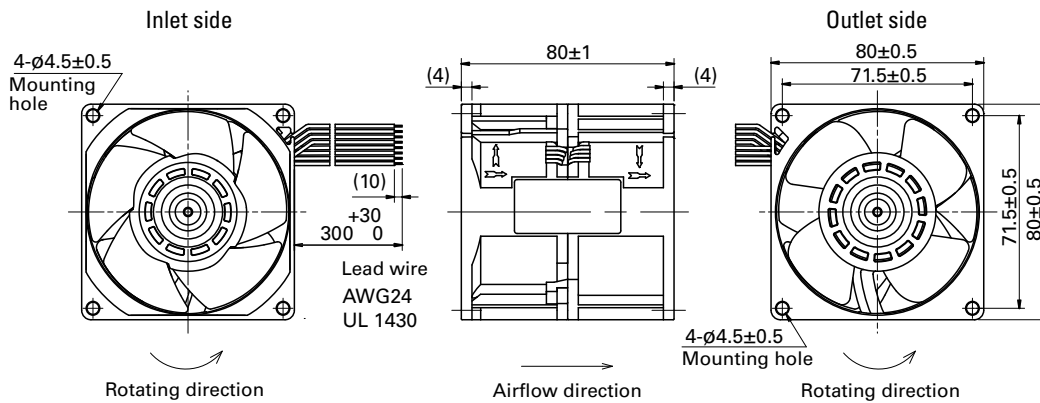
Operating voltage range



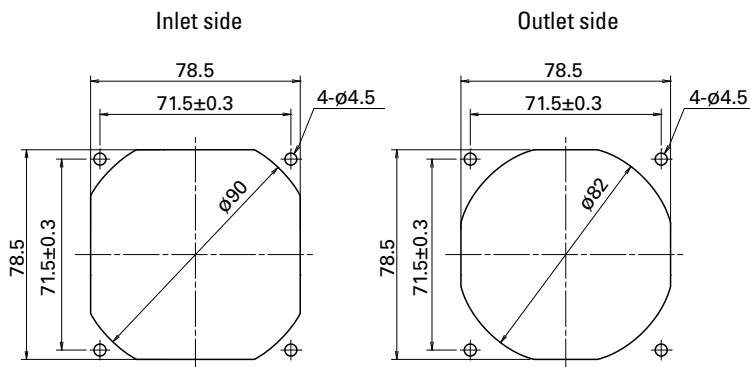
PWM duty - Speed characteristics example



Dimensions (unit: mm)



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



Options

Finger guards

page: p. 558

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

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)