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120×120×25 mm

San Ace 120 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)
- 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 -30 to +70°C (Non-condensing)
- Lead wire ⊕Red ⊖Black (Sensor) Yellow (Control) Brown
(For models without PWM control function, there is no speed control wiring.)
- Mass 280 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] |
|---------------|-------------------|-----------------------------|---------------------|-------------------|-----------------|----------------------------------|--|--|--------------|----------------------------|----------------------------|
| 9GA1212P4G001 | 12 | 10.2 to 13.8 | 100 | 0.93 | 11.16 | 6400 | 3.8 134 | 365 1.47 | 57 | -20 to +70 | 40000/60°C (70000/40°C) |
| | | | 25 | 0.16 | 1.92 | 2550 | 1.5 53 | 60 0.24 | 34 | | |
| 9GA1212P4S001 | | | 100 | 0.61 | 7.32 | 5400 | 3.2 113 | 260 1.04 | 54 | | |
| | | | 25 | 0.16 | 1.92 | 2550 | 1.5 53 | 60 0.24 | 34 | | |
| 9GA1224P4G001 | 24 | 20.4 to 27.6 | 100 | 0.47 | 11.28 | 6400 | 3.8 134 | 365 1.47 | 57 | | |
| | | | 25 | 0.1 | 2.4 | 2550 | 1.5 53 | 60 0.24 | 34 | | |
| 9GA1224P4S001 | | | 100 | 0.31 | 7.44 | 5400 | 3.2 113 | 260 1.04 | 54 | | |
| | | | 25 | 0.1 | 2.4 | 2550 | 1.5 53 | 60 0.24 | 34 | | |
| 9GA1248P4G001 | 48 | 40.8 to 53 | 100 | 0.24 | 11.52 | 6400 | 3.8 134 | 365 1.47 | 57 | | |
| | | | 25 | 0.08 | 3.84 | 2550 | 1.5 53 | 60 0.24 | 34 | | |
| 9GA1248P4S001 | | | 100 | 0.16 | 7.68 | 5400 | 3.2 113 | 260 1.04 | 54 | | |
| | | | 25 | 0.08 | 3.84 | 2550 | 1.5 53 | 60 0.24 | 34 | | |

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

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

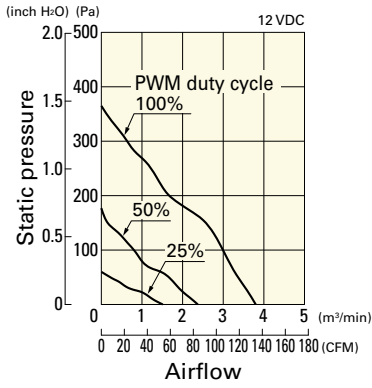
| Model no. | Rated voltage [V] | Operating voltage range [V] | Rated current [A] | Rated input [W] | Rated speed [min ⁻¹] | Max. airflow [m ³ /min] [CFM] | Max. static pressure [Pa] [inchH ₂ O] | SPL [dB (A)] | Operating temperature [°C] | Expected life [h] |
|--------------|-------------------|-----------------------------|-------------------|-----------------|----------------------------------|--|--|--------------|----------------------------|----------------------------|
| 9GA1212G4001 | 12 | 7 to 13.8 | 0.93 | 11.16 | 6400 | 3.8 134 | 365 1.47 | 57 | -20 to +70 | 40000/60°C (70000/40°C) |
| 9GA1212S4001 | | | 0.61 | 7.32 | 5400 | 3.2 113 | 260 1.04 | 54 | | |
| 9GA1224G4001 | 24 | 14 to 27.6 | 0.47 | 11.28 | 6400 | 3.8 134 | 365 1.47 | 57 | | |
| 9GA1224S4001 | | | 0.31 | 7.44 | 5400 | 3.2 113 | 260 1.04 | 54 | | |
| 9GA1248G4001 | 48 | 36 to 53 | 0.24 | 11.52 | 6400 | 3.8 134 | 365 1.47 | 57 | | |
| 9GA1248S4001 | | | 0.16 | 7.68 | 5400 | 3.2 113 | 260 1.04 | 54 | | |

Other sensor specifications are available as options. Refer to the index (p. 553).

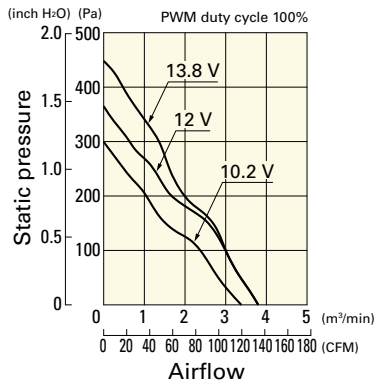
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9GA1212P4G001 With pulse sensor with PWM control function

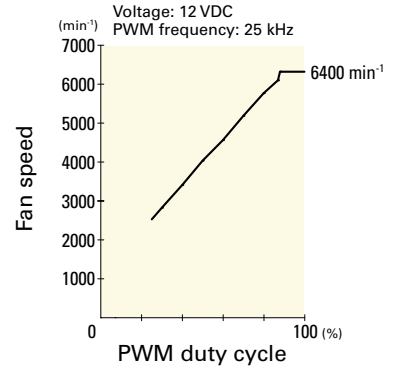
PWM duty cycle



Operating voltage range

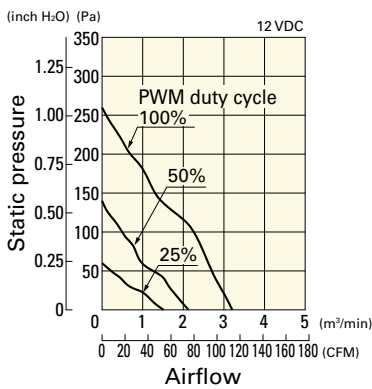


PWM duty - Speed characteristics example

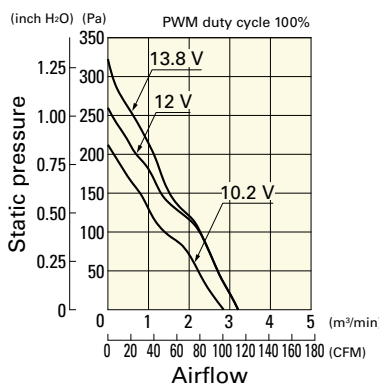


9GA1212P4S001 With pulse sensor with PWM control function

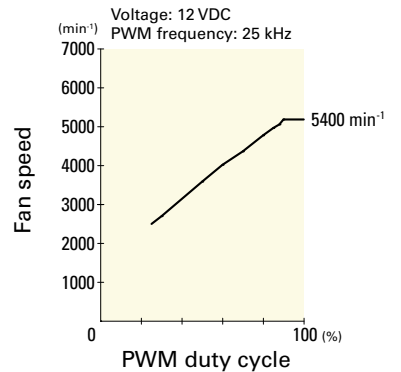
PWM duty cycle



Operating voltage range

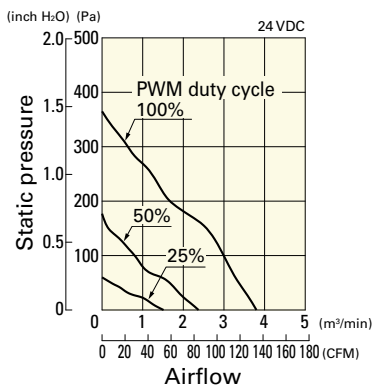


PWM duty - Speed characteristics example

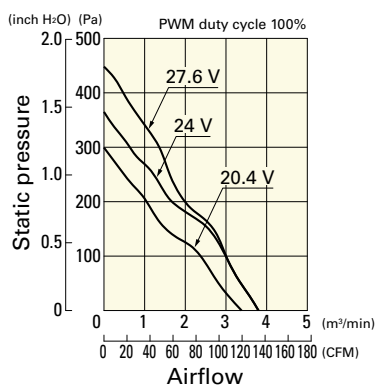


9GA1224P4G001 With pulse sensor with PWM control function

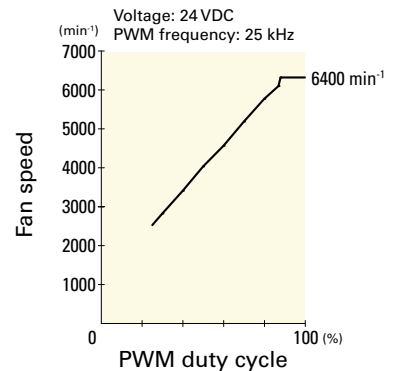
PWM duty cycle



Operating voltage range

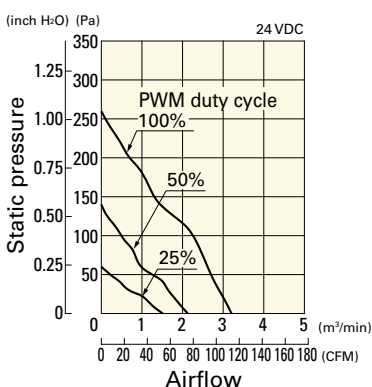


PWM duty - Speed characteristics example

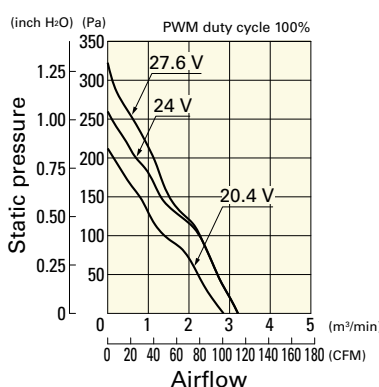


9GA1224P4S001 With pulse sensor with PWM control function

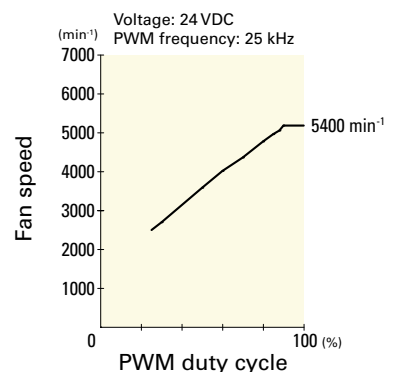
PWM duty cycle



Operating voltage range



PWM duty - Speed characteristics example



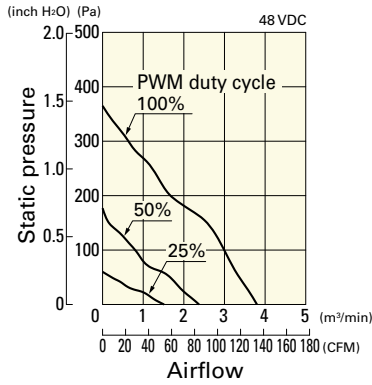
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

DC

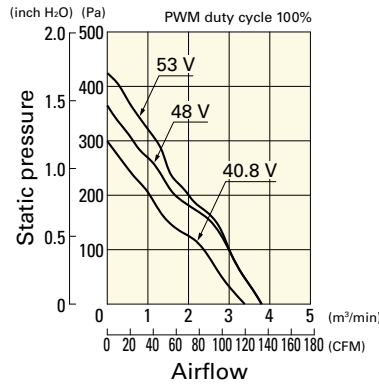
DC Fan 120 mm sq.

9GA1248P4G001 With pulse sensor with PWM control function

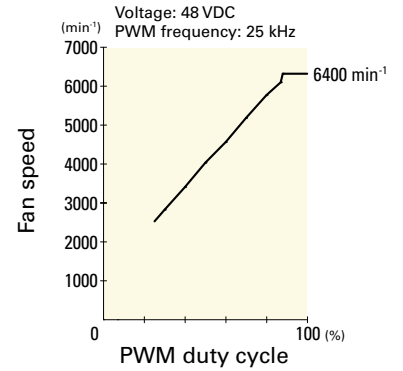
PWM duty cycle



Operating voltage range

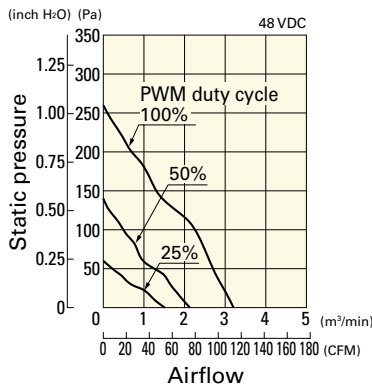


PWM duty - Speed characteristics example

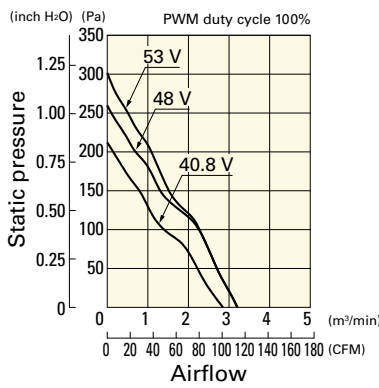


9GA1248P4S001 With pulse sensor with PWM control function

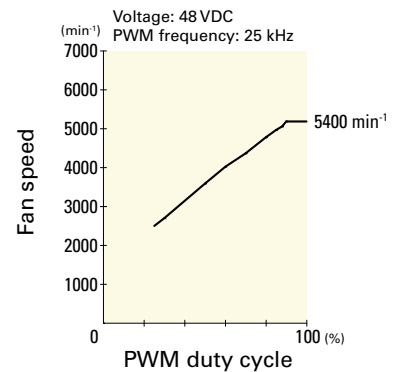
PWM duty cycle



Operating voltage range

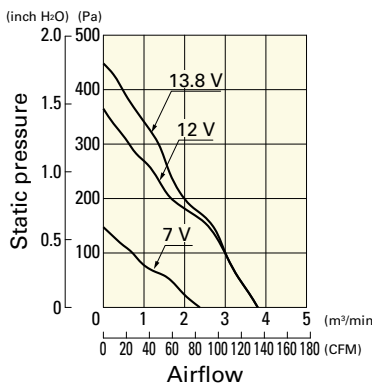


PWM duty - Speed characteristics example



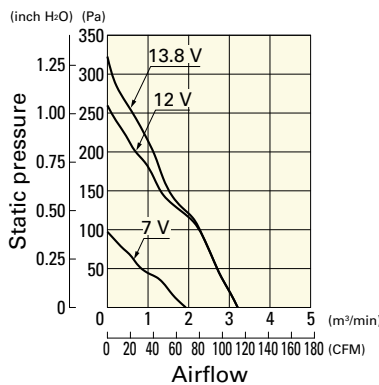
9GA1212G4001 With pulse sensor

Operating voltage range



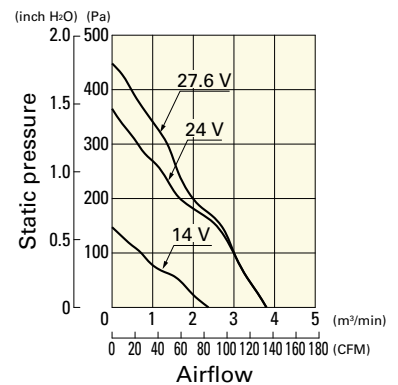
9GA1212S4001 With pulse sensor

Operating voltage range



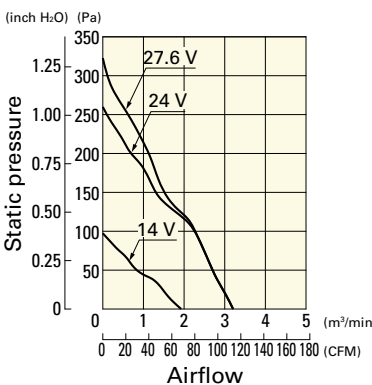
9GA1224G4001 With pulse sensor

Operating voltage range



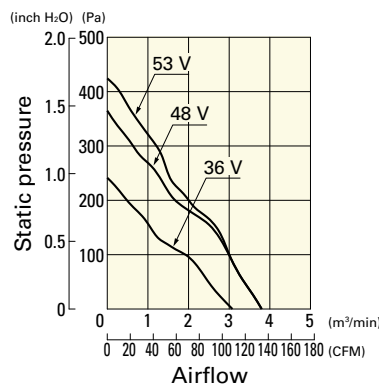
9GA1224S4001 With pulse sensor

Operating voltage range



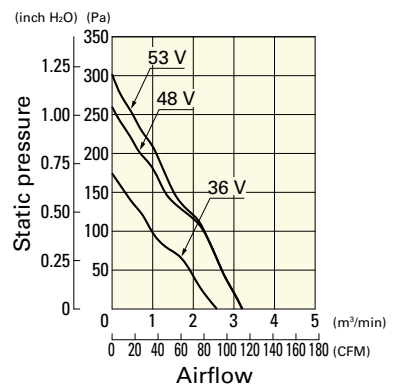
9GA1248G4001 With pulse sensor

Operating voltage range

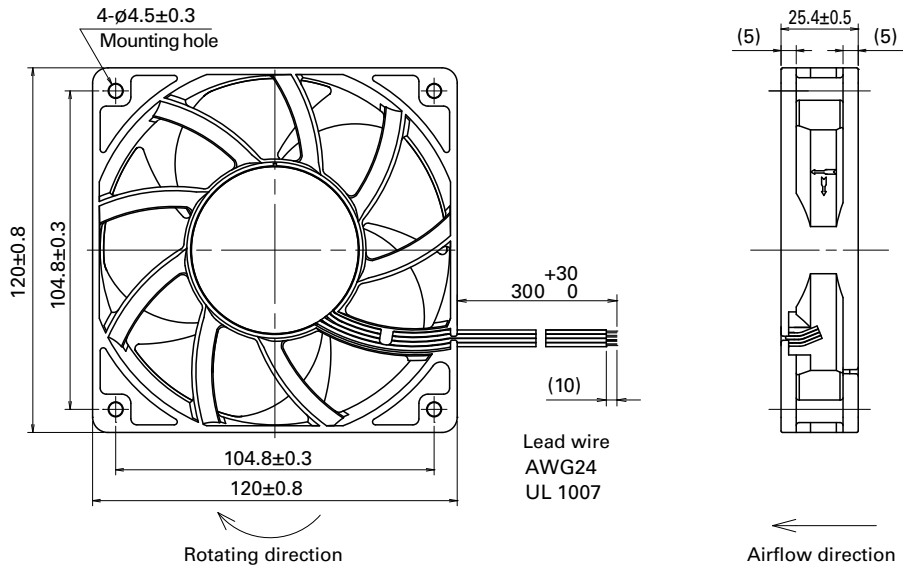


9GA1248S4001 With pulse sensor

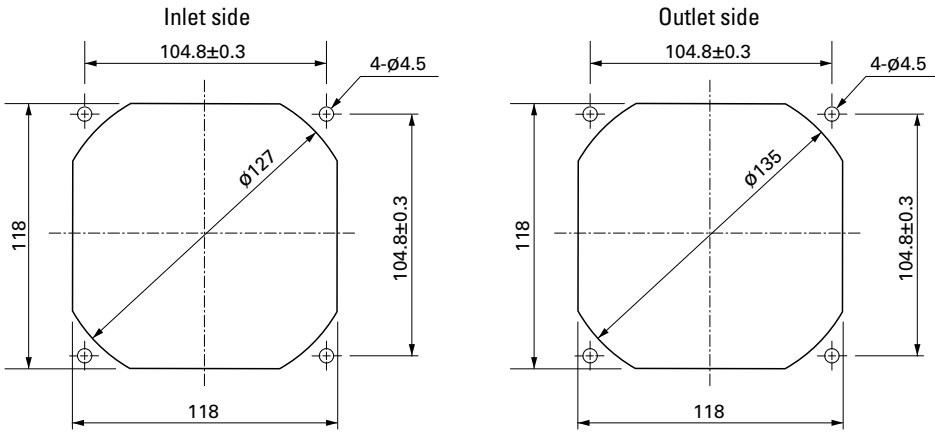
Operating voltage range



Dimensions (unit: mm) (With pulse sensor with PWM control function)



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

Resin finger guards page: p. 520

Model no.: 109-1000G

Resin filter kits page: p. 521

Model no.: 109-1000F13 (13PPI), 109-1000F20 (20PPI),
109-1000F30 (30PPI), 109-1000F40 (40PPI)