



120×120×25 mm

San Ace 120AD 9AD 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
For details, please refer to p. 616.
- Dielectric strength 50/60 Hz, 2500 VAC, for 1 second (between lead wire conductors and frame)
50/60 Hz, 1500 VAC, for 1 minute (between input lead wire (L, N) conductors and other lead wire conductors)
- Insulation resistance 10 MΩ min. at 500 VDC
(between lead wire conductors and frame, between input lead wire (L, N) conductors and other lead wire conductors)
- Sound pressure level (SPL) A-weighted sound pressure level (SPL) at 1 m away from the air inlet.
- Storage temperature -30 to +70°C (Non-condensing)
- Lead wire AC power input L: Orange N: Gray
Sensor Yellow Control Brown GND Black (For models without sensors, there is no sensor or control wiring.)
- Mass 180 g

Take safety measures not to touch this product (including lead wires) while the power is on.

Please ensure appropriate insulation within the final product because of functional insulation between input leads wire (L, N) and other lead wire conductors. To display CE mark/UKCA mark on system, refer to p. 621.

Specifications

The models listed below **have ribs and no sensor**. For models without ribs, append "1" to the end of model numbers.

Model no.	Rated voltage [V]	Operating voltage range [V]	Frequency [Hz]	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]
9AD1201H4002	100 to 240	90 to 264	50/60	0.06	3.4	3000	2.35 83	62 0.249	40	-20 to +70	60000/60°C (90000/40°C)
9AD1201M4002				0.04	1.6	2250	1.76 62	35 0.140	34		
9AD1201L4002				0.03	1.1	1800	1.41 49	22 0.088	26		

* Rated current ratings are the values at 100 V.

The models listed below **have ribs and a low-speed sensor**. For models without ribs, append "1" to the end of model numbers.

Model no.	Rated voltage [V]	Operating voltage range [V]	Frequency [Hz]	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]
9AD1201H4H001	100 to 240	90 to 264	50/60	0.06	3.4	3000	2.35 83	62 0.249	40	-20 to +70	60000/60°C (90000/40°C)
9AD1201M4H001				0.04	1.6	2250	1.76 62	35 0.140	34		
9AD1201L4H001				0.03	1.1	1800	1.41 49	22 0.088	26		

* Rated current ratings are the values at 100 V.

The models listed below **have ribs and a pulse sensor with PWM control**. For models without ribs, append "1" to the end of model numbers.

Model no.	Rated voltage [V]	Operating voltage range [V]	Frequency [Hz]	PWM duty cycle ⁽¹⁾ [%]	Rated current ⁽²⁾ [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]
9AD1201P4H001	100 to 240	90 to 264	50/60	100	0.06	3.4	3000	2.35 83	62 0.249	40	-20 to +70	60000/60°C (90000/40°C)
				30	0.02	0.7	900	0.7 24.7	6.6 0.03	14		

(1) PWM frequency is 25 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 0% duty cycle.

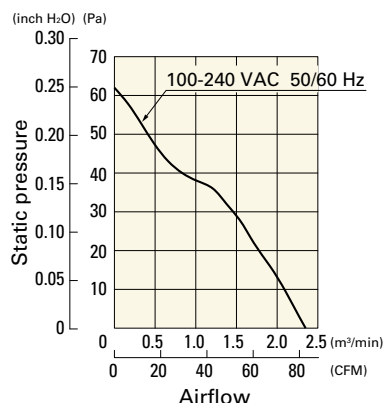
(2) Rated current ratings are the values at 100 V.

Airflow - Static Pressure Characteristics

9AD1201H4002

No sensor

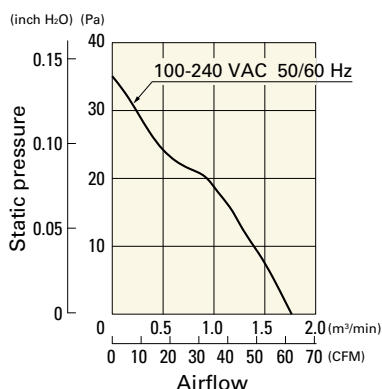
Operating voltage range



9AD1201M4002

No sensor

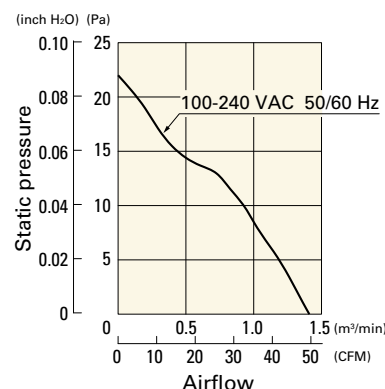
Operating voltage range



9AD1201L4002

No sensor

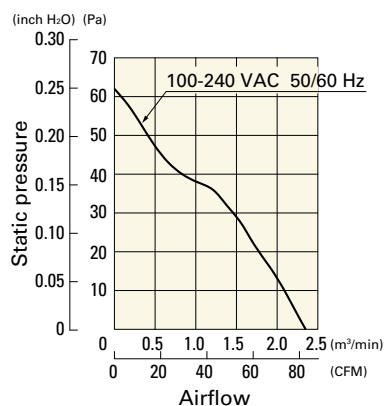
Operating voltage range



9AD1201H4H001

With low-speed sensor

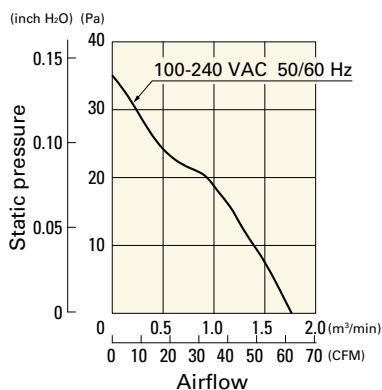
Operating voltage range



9AD1201M4H001

With low-speed sensor

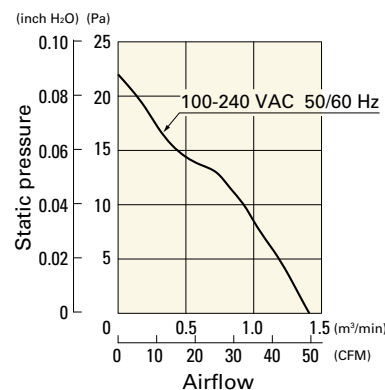
Operating voltage range



9AD1201L4H001

With low-speed sensor

Operating voltage range

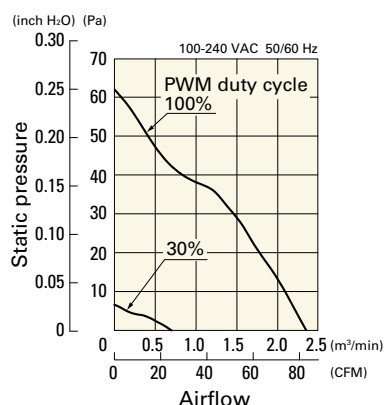


Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

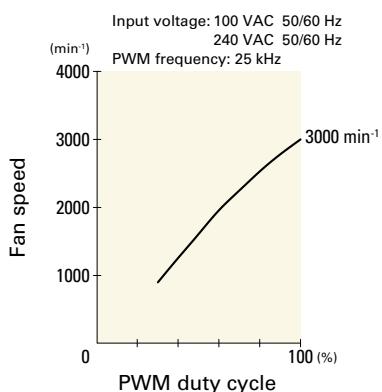
9AD1201P4H001

With pulse sensor with PWM control

PWM duty cycle

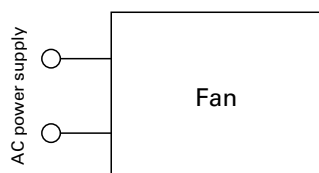


PWM duty - Speed characteristics example

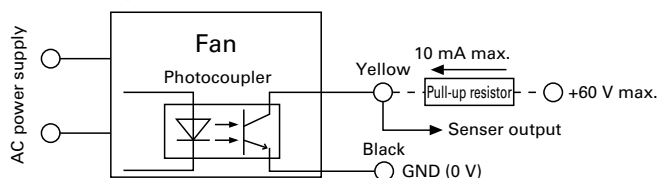


Connection Schematic

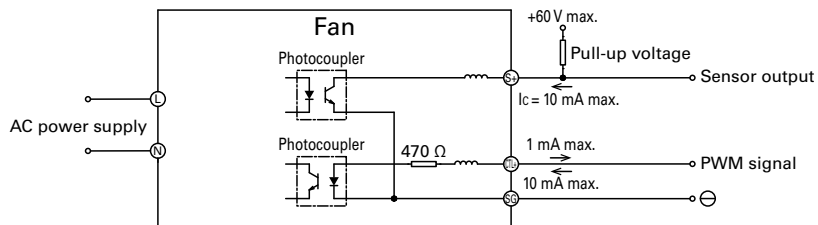
without Sensor



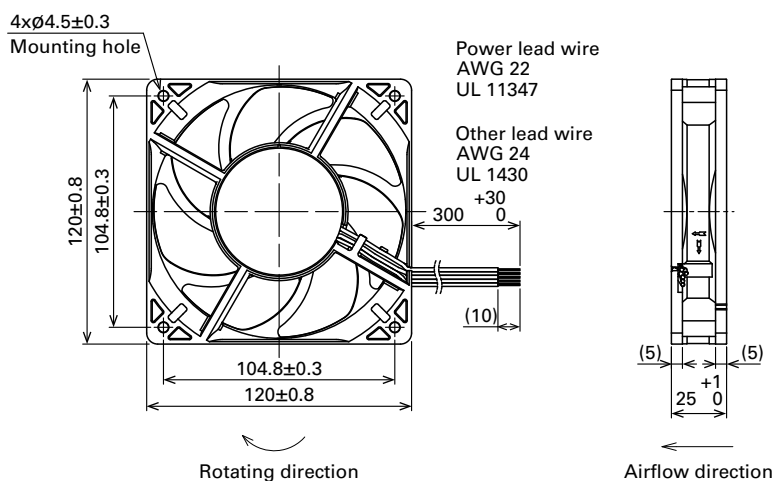
with Low-speed sensor



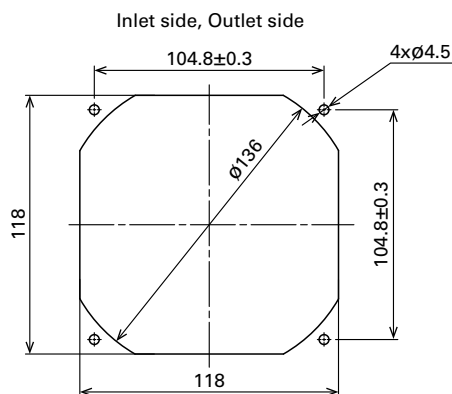
with PWM control and pulse sensor



Dimensions (unit: mm) (Ribbed frame with pulse sensor with PWM control)



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



Options

Finger guards

page: p. 599

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

Resin finger guards

page: p. 605

Model no.: 109-1000G

Resin filter kits

page: p. 606

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