



# 120×120×38 mm

San Ace 120AD 9AD type

## General Specifications

- Material ..... Frame: Plastic (Flammability: UL 94V-0), 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 structure ..... Brushless DC motor
- Motor protection function ..... Locked rotor burnout protection, Reverse polarity protection  
For details, please refer to p. 547.
- Dielectric strength ..... 50/60 Hz, 1500 VAC, for 1 minute (between input terminal and frame, and between sensor output and frame)
- Insulation resistance..... 10 MΩ or more with a 500 VDC megger
- Sound pressure level (SPL) ..... At 1 m away from the air inlet
- Storage temperature ..... -30 to +75°C (Non-condensing)
- Mass ..... 290 g

Do not solder wires directly to AC input terminals.

## Specifications

The models listed below **have ribs and no sensors**. 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 <sup>-1</sup> ]	Max. airflow [m <sup>3</sup> /min] [CFM]	Max. static pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
<b>9AD1201H12</b>	100 to 240	90 to 264	50/60	0.08	4.4	3250	3.0 106	84 0.34	42	-20 to +75	60000/60°C

The models listed below **have ribs and low-speed sensors**. 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 <sup>-1</sup> ]	Max. airflow [m <sup>3</sup> /min] [CFM]	Max. static pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
<b>9AD1201H1H</b>	100 to 240	90 to 264	50/60	0.08	4.4	3250	3.0 106	84 0.34	42	-20 to +75	60000/60°C

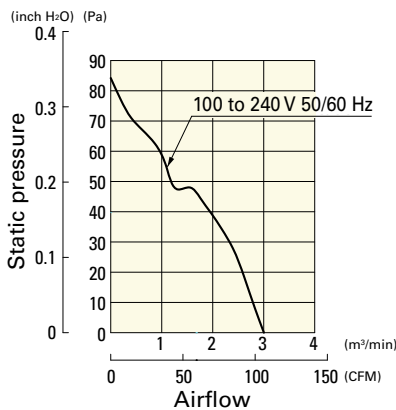
## Set Models

Fan, finger guard, plug cord, screws, etc. can be purchased in one package. For details, please refer to p. 594.

Order no.	Set items					
	Fan	Voltage	Low-speed sensor	Plug cord	Finger guards	Mounting screws
<b>ST1-9AD1201H12</b>	9AD1201H12	100 to	○	489-1635-L10	109-019E	M4×55 mm (4 screws)
<b>ST1-9AD1201H1H</b>	9AD1201H1H	240 V		489-1635-L10	109-019E	

## Airflow - Static Pressure Characteristics

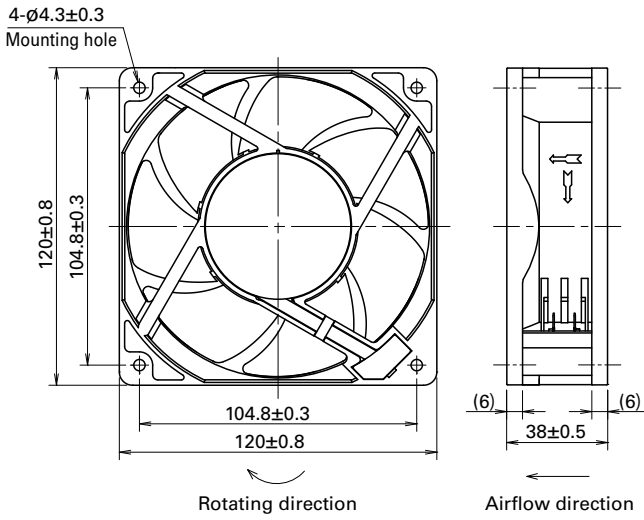
### 9AD1201H12, 9AD1201H1H



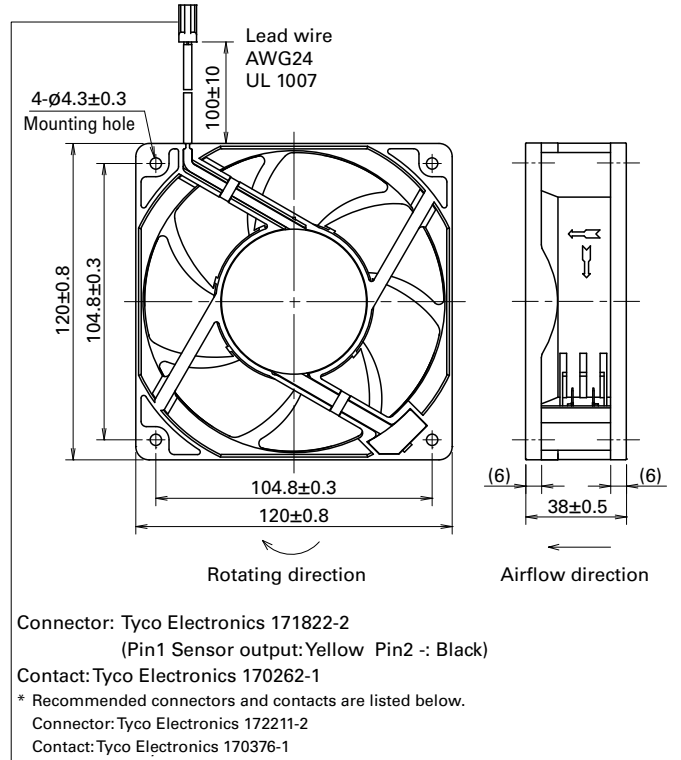
ACDC Fan 120 mm sq. AC

**Dimensions (unit: mm)** (With ribs)

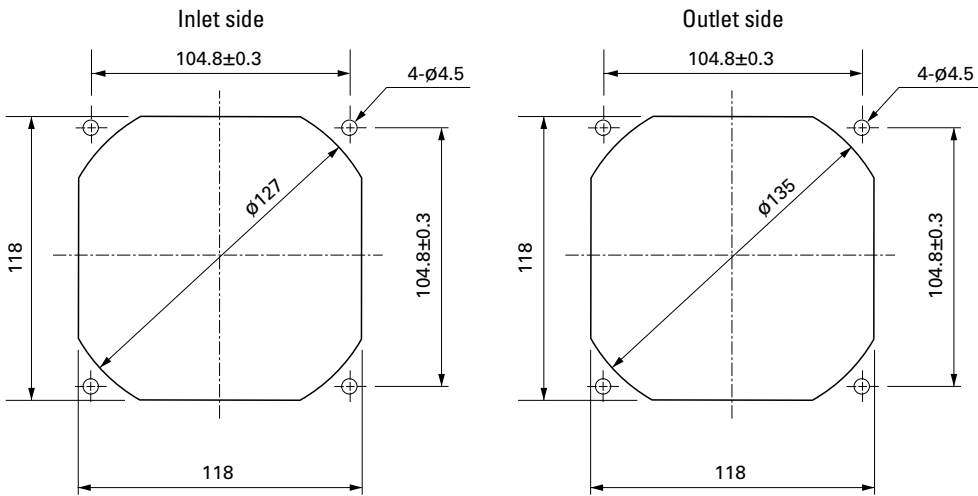
**without Sensor**



**with Low-speed sensor**

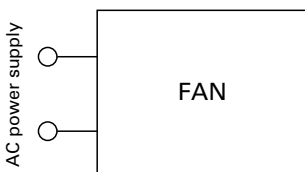


**Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)**

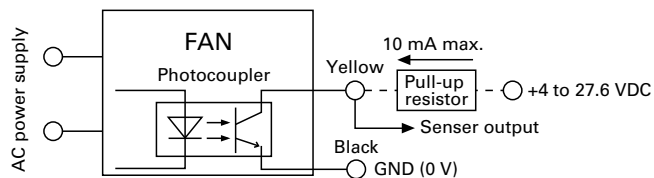


**Wiring Diagram**

**without Sensor**



**with Low-speed sensor**

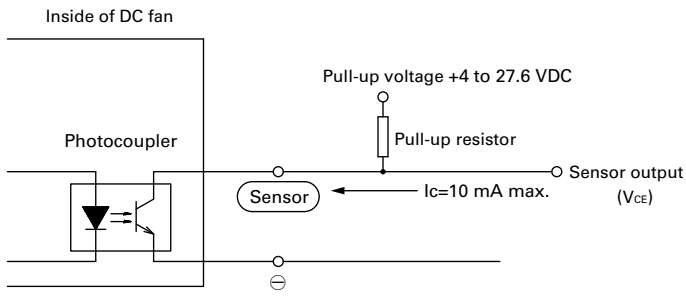


## Specifications for Low-speed Sensors

Model No.: 9AD1201H1H

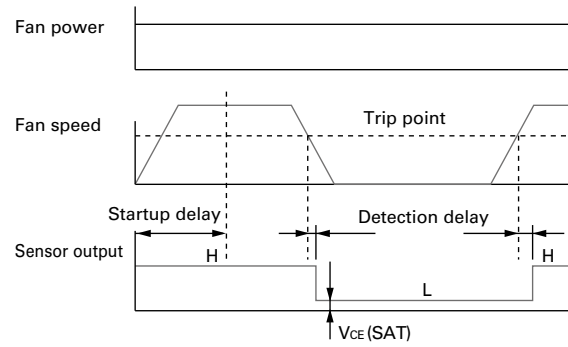
Output circuit: Open collector

$V_{CE} = +27.6$  VDC max.  
 $I_C = 10$  mA max. [ $V_{CE(SAT)} = 1.0$  V max.]

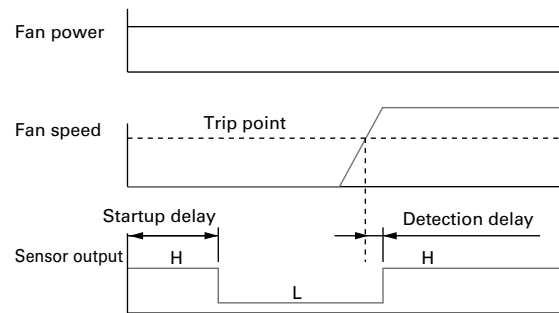


Sensor scheme

Example 1: when steady running



Example 2: when the rotor is locked when the fan motor is turned on and released after the start-up delay time.



Startup delay:  $18 \pm 3$  s  
 Detection delay: 3 s max.  
 Trip point:  $1700 \text{ min}^{-1}$

## Options

Finger guards page: p. 533

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

Resin filter kits page: p. 540

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

Wiring harness for sensor page: p. 543

Model no.: 489-1636

Resin finger guards page: p. 539

Model no.: 109-1000G

Plug cord page: p. 543

Model no.: 489-1635-L10, 489-1635-L21

# Mouser Electronics

Authorized Distributor

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