

# AC Fan

# San Ace 120AD

9AD type

## Features

### Low Power Consumption

Power consumption is reduced by approximately 72% compared with our conventional AC fan.\*

### Long Life

The San Ace 120AD has an expected life of 60,000 hours (approximately 6 years), approximately 2.4 times that of our conventional AC fan.\*

### Wide Range

A rated voltage range of 100 to 240 VAC allows for usage in both 100 VAC and 200 VAC systems. Rotation speed remains constant even at different input voltages.

\* Our conventional AC fan is 120 x 120 x 38 mm "San Ace 120", Model No. 109S072UL at a frequency of 60 Hz.



(Ribless model depicted)

## 120×120×38mm

## Specifications

The model no. below has **ribs and no sensors**. For models without ribs, append "1" to the model no.

| Model No.  | Rated Voltage [V] | Operating Voltage Range [V] | Frequency <sup>(Note)</sup> [Hz] | Rated Current [A] | Rated Input [W] | Rated Speed [min <sup>-1</sup> ] | Max. Air Flow [m <sup>3</sup> /min] [CFM] | Max. Static Pressure [Pa] [inchH <sub>2</sub> O] | SPL [dB(A)] | Operating Temperature [°C] | Expected Life [h] |
|------------|-------------------|-----------------------------|----------------------------------|-------------------|-----------------|----------------------------------|---|--|-------------|----------------------------|-------------------|
| 9AD1201H12 | 100 to 240        | 90 to 264                   | 50/60                            | 0.08              | 4.4             | 3,250                            | 3.0 106                                   | 84 0.34  | 42          | -20 to +75                 | 60,000            |

Note: 50/60 Hz compatible.

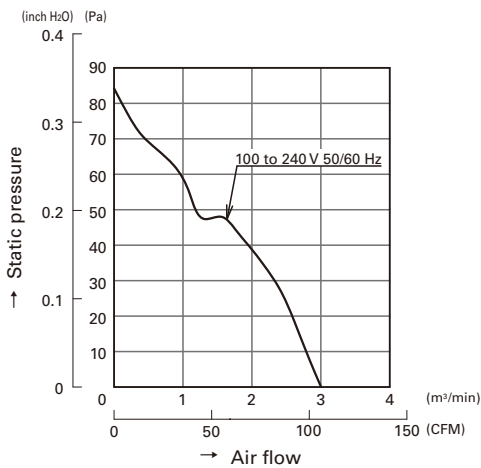
Available options: **Low Speed Sensor**

Please contact us for details on the following specifications: **Pulse Sensor** **Lock Sensor**

## Common Specifications

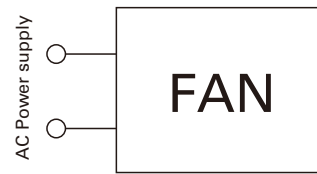
- Material ..... Frame: Plastics (Flammability: UL94V-0), Impeller: Plastics (Flammability: UL94V-1)
- Expected Life ..... Refer to specifications  
(L10: Survival rate: 90% at 60 °C, rated voltage, and continuously run in a free air state)
- Motor Protection System ..... Burnout protection at locked rotor condition
- Dielectric Strength ..... 50/60 Hz, 1,500 VAC, 1 minute  
(between power terminal and frame or between lead conductor and frame)
- Sound Pressure Level (SPL) ..... Expressed as the value at 1 m from air inlet side
- Operating Temperature ..... Refer to specifications (Non-condensing)
- Storage Temperature ..... -30 °C to +75 °C (Non-condensing)
- Mass ..... Approx. 290 g

## Air Flow - Static Pressure Characteristics

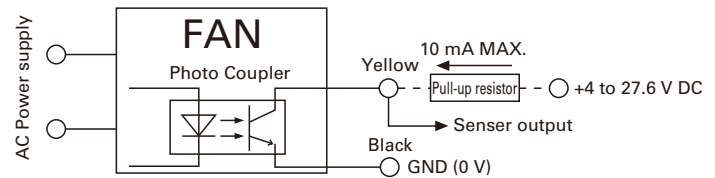


## Wiring Diagram

Standard



with Sensor

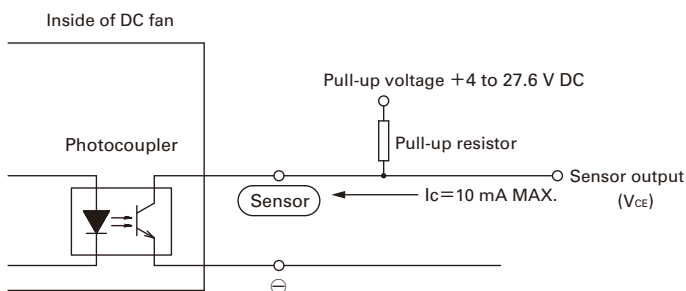


## Specifications for Low-speed Sensors

Typical standard model: 9AD1201H1H

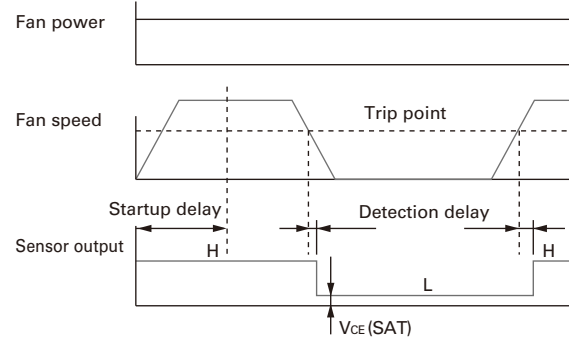
Output circuit: Open collector

$V_{CE} = +27.6 \text{ V DC MAX.}$   
 $I_C = 10 \text{ mA MAX. [} V_{CE(SAT)} = 1.0 \text{ V MAX.]}$

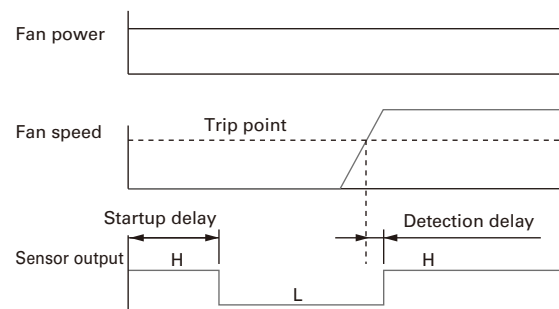


Sensor scheme

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.

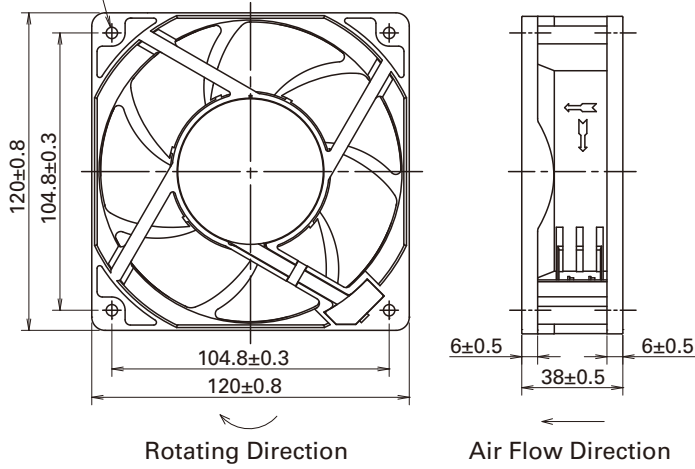


Startup delay:  $18 \pm 3 \text{ sec.}$   
 Detection delay:  $3 \text{ sec. MAX.}$   
 Trip point:  $1700 \text{ min}^{-1}$

■ Dimensions (unit : mm) (With ribs)

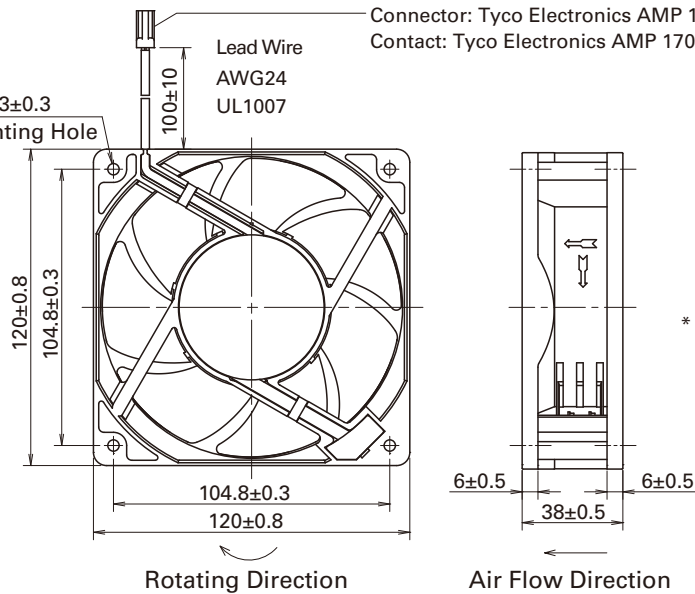
Standard

4- $\phi$ 4.3±0.3  
Mounting Hole



with Sensor

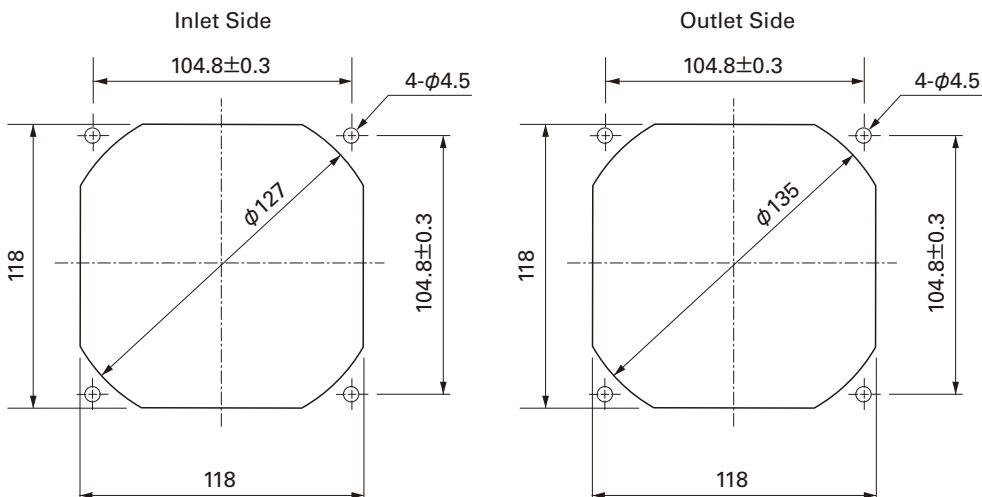
4- $\phi$ 4.3±0.3  
Mounting Hole



Connector: Tyco Electronics AMP 171822-2 (Pin1 Sensor output: Yellow Pin2 —: Black)  
Contact: Tyco Electronics AMP 170262-1

\* Recommended connectors and contacts are listed below.  
Connector: Tyco Electronics AMP 172211-2  
Contact: Tyco Electronics AMP 170376-1

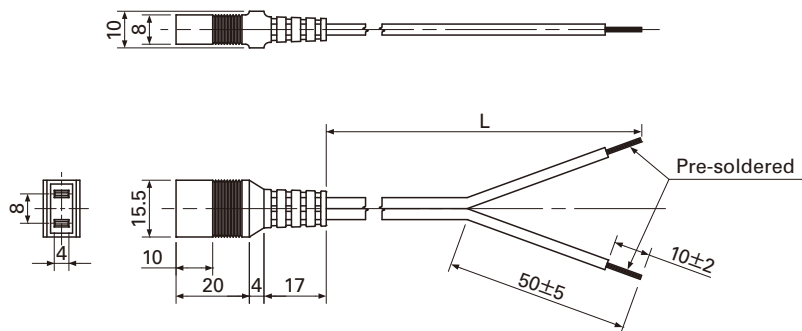
■ Reference Dimension of Mounting Holes and Vent Opening (unit : mm)



## Option

### Plug cord

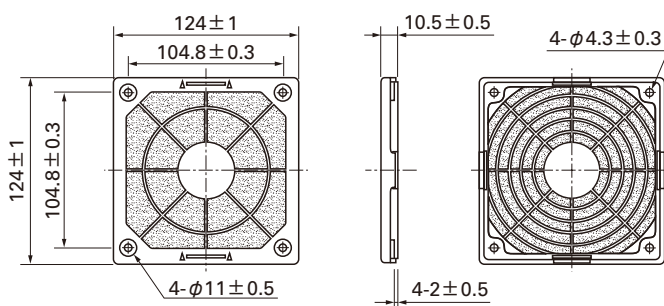
Model: 489-1635-L10, 489-1635-L21



| Model | Power cord length (mm) |
|-------|------------------------|
| -L10  | 1,000                  |
| -L21  | 2,100                  |

### Resin filter kits

Model: 109-1000F13 (13PPI), 109-1000F20 (20PPI), 109-1000F30 (30PPI), 109-1000F40 (40PPI)



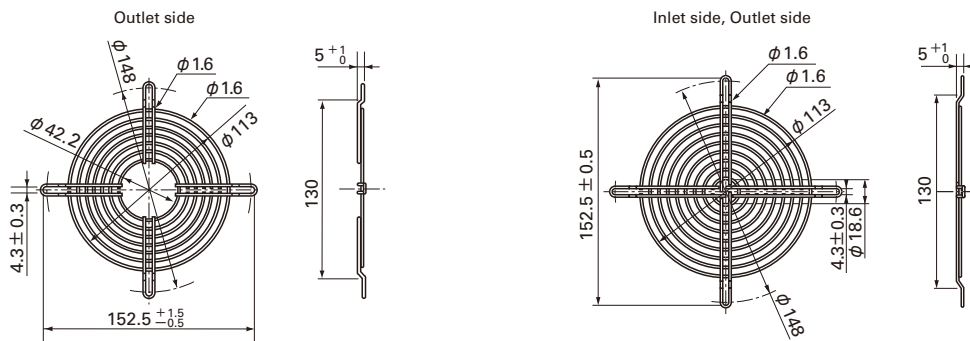
### Finger guards

Model: 109-019C Surface treatment: Nickel-chrome plating (silver)  
: 109-019H : Cation electropainting (black)

Color

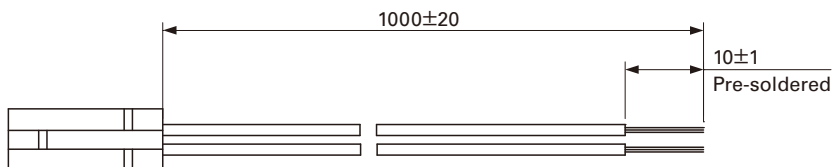
Model: 109-019E Surface treatment: Nickel-chrome plating (silver)  
: 109-019K : Cation electropainting (black)

Color



### Wiring harness for sensor

Model: 489-1636



## Notice

- The products shown in this catalog are subject to Japanese Export Control Law. Diversion contrary to the law of exporting country is prohibited.
- To protect against electrolytic corrosion that may occur in locations with strong electromagnetic noise, we provide fans that are unaffected by electrolytic corrosion.

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