



# 92×92×38 mm

San Ace 92AD 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)
  - 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 ..... 250 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] |
|------------|-------------------|-----------------------------|----------------|-------------------|-----------------|----------------------------------|--|--|--------------|----------------------------|-------------------|
| 9AD0901H12 | 100 to 240        | 90 to 264                   | 50/60          | 0.08              | 4.5             | 3850                             | 1.5 53.0                                 | 90 0.36  | 40           | -20 to +75                 | 60000/60°C        |
| 9AD0901M12 |                   |                             |                | 0.06              | 3.0             | 3100                             | 1.18 41.7                                | 56 0.22  | 33           |                            |                   |

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] |
|------------|-------------------|-----------------------------|----------------|-------------------|-----------------|----------------------------------|--|--|--------------|----------------------------|-------------------|
| 9AD0901H1H | 100 to 240        | 90 to 264                   | 50/60          | 0.08              | 4.5             | 3850                             | 1.5 53.0                                 | 90 0.36  | 40           | -20 to +75                 | 60000/60°C        |
| 9AD0901M1H |                   |                             |                | 0.06              | 3.0             | 3100                             | 1.18 41.7                                | 56 0.22  | 33           |                            |                   |

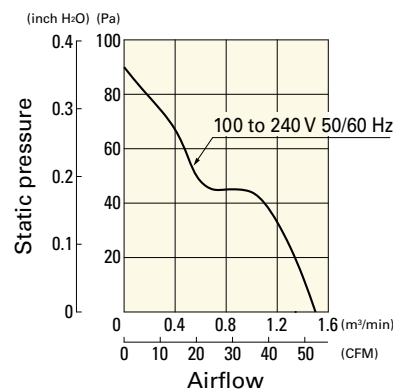
## Set Models

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

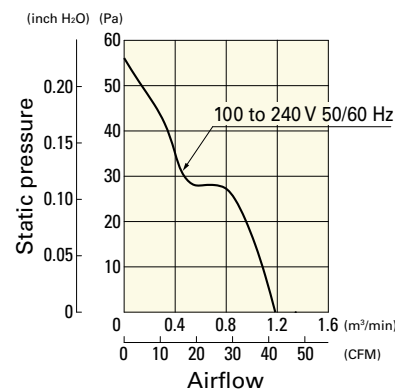
| Order no.      | Set items  |              |                  |              |               |                     |
|----------------|------------|--------------|------------------|--------------|---------------|---------------------|
|                | Fan        | Voltage      | Low-speed sensor | Plug cord    | Finger guards | Mounting screws     |
| ST1-9AD0901H12 | 9AD0901H12 | 100 to 240 V |                  | 489-1635-L10 | 109-099E      | M4×55 mm (4 screws) |
| ST1-9AD0901M12 | 9AD0901M12 |              |                  | 489-1635-L10 | 109-099E      |                     |
| ST1-9AD0901H1H | 9AD0901H1H |              | ○                | 489-1635-L10 | 109-099E      |                     |
| ST1-9AD0901M1H | 9AD0901M1H |              | ○                | 489-1635-L10 | 109-099E      |                     |

## Airflow - Static Pressure Characteristics

9AD0901H12, 9AD0901H1H



9AD0901M12, 9AD0901M1H

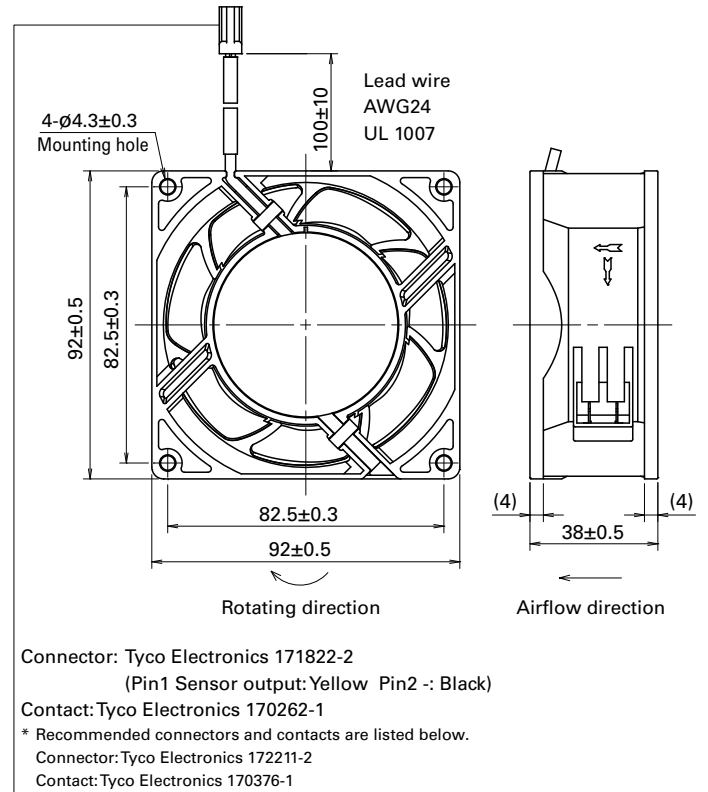


**Dimensions (unit: mm)** (With ribs)

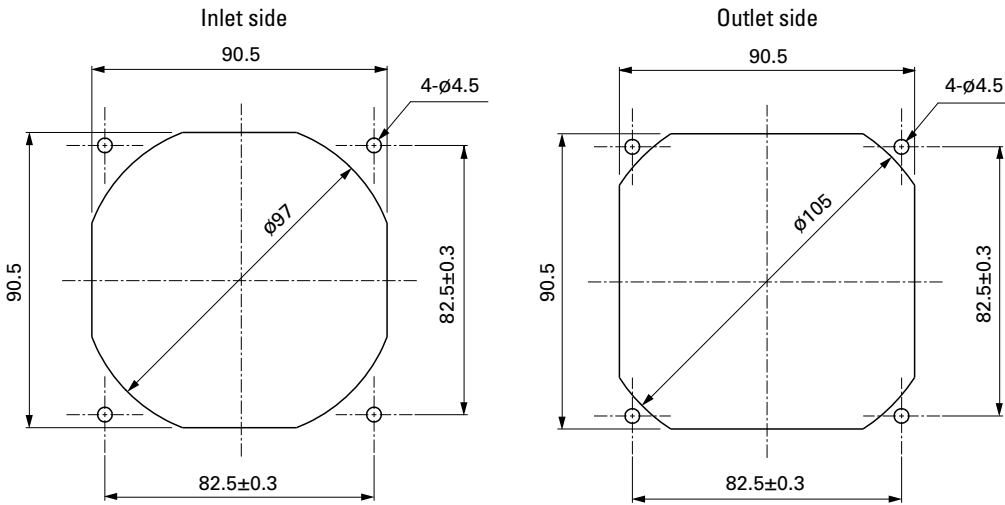
**without Sensor**



**with Low-speed sensor**

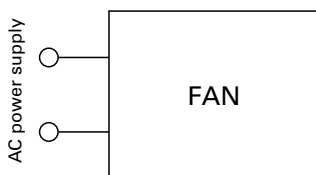


**Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)**

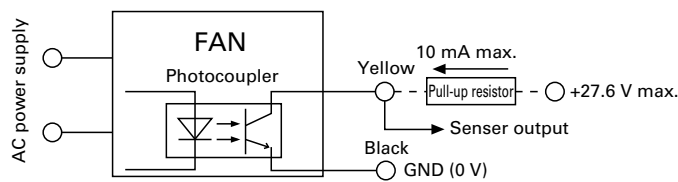


**Wiring Diagram**

**without Sensor**



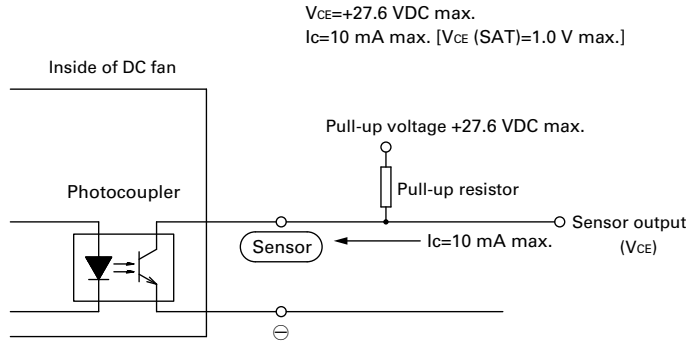
**with Low-speed sensor**



## Specifications for Low-speed Sensors

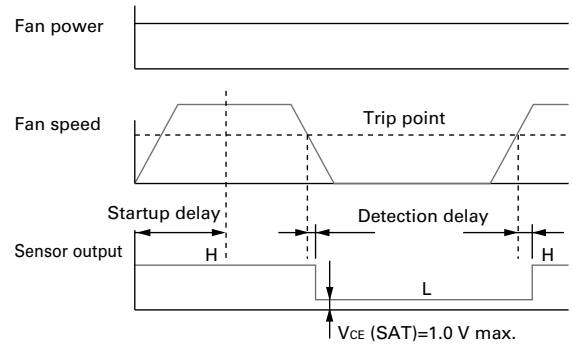
Typical standard model: 9AD0901H1H

Output circuit: Open collector

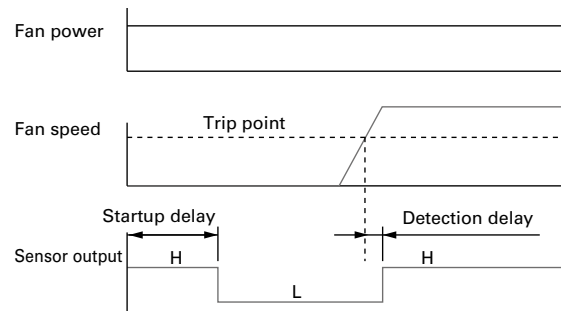


Sensor scheme

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.



**9AD0901H1H**

Startup delay:  $18 \pm 3 \text{ s}$

Detection delay:  $3 \text{ s max.}$

Trip point:  $1700 \text{ min}^{-1}$

**9AD0901M1H**

Startup delay:  $36 \pm 3 \text{ s}$

Detection delay:  $3 \text{ s max.}$

Trip point:  $850 \text{ min}^{-1}$

## Options

Finger guards

page: p. 532

Model no.: 109-099C, 109-099E, 109-099H

Resin filter kits

page: p. 540

Model no.: 109-1001F13 (13PPI), 109-1001F20 (20PPI),  
109-1001F30 (30PPI), 109-1001F40 (40PPI)

Wiring harness for sensor

page: p. 543

Model no.: 489-1636

Resin finger guards

page: p. 539

Model no.: 109-1001G

Plug cord

page: p. 543

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