

**92**mm sq.

## San Ace 92



Only standard fans (without sensors) have acquired CSA certification.

### General Specifications

- Material..... Frame: Aluminum, 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)
- Dielectric Strength ..... 50/60Hz 1,500VAC 1minute (between input terminal and frame)
- Dielectric Strength (With Sensor) ... Between AC input and DC input(Sensor output)  
: 50/60Hz 1,000VAC 1minute  
Between AC input and G  
: 50/60Hz 1,500VAC 1minute,  
Between G and DC input(Sensor output)  
: 50/60Hz 1,000VAC 1minute
- Sensor-Purpose Lead Wire... ⊕ brown ⊖ black (Sensor) yellow
- Storage Temperature ..... -30°C to +70°C (Non-condensing)
- Operating Voltage Range... Voltage of each model ±10%

**92×92×25mm** [Mass : 290g / 310g (with Sensor)]

### Specifications Standard

| Model No. | Rated Voltage<br>[V] | Frequency<br>[Hz] | Input<br>[W] | Current<br>[A] | Locked Rotor Current<br>[A] | Rated Speed<br>[min <sup>-1</sup> ] | Max. Airflow<br>[m³/min] [CFM] | Max. Static Pressure<br>[Pa] [inchH <sub>2</sub> O] | SPL<br>[dB(A)] | Operating Temperature<br>[°C] | Expected Life<br>[h] |
|-----------|----------------------|-------------------|--------------|----------------|-----------------------------|-------------------------------------|--------------------------------|-----------------------------------------------------|----------------|-------------------------------|----------------------|
| 109S091   | 100                  | 50/60             | 8/7          | 0.1 /0.09      | 0.13/0.12                   | 2,700/3,100                         | 0.95/1.1 33.6/38.9             | 39.2/49.0 0.157/0.197                               | 35/38          | -30 to +60                    | 25,000/60°C          |
| 109S093   | 115                  |                   |              | 0.09/0.08      | 0.11/0.1                    |                                     |                                |                                                     |                |                               |                      |
| 109S092   | 200                  |                   |              | 11/10          | 0.07/0.06                   |                                     |                                |                                                     |                |                               |                      |
| 109S094   | 230                  |                   | 10/9         | 0.06/0.05      | 0.07/0.07                   | 2,400/2,800                         | 0.84/0.98 29.7/34.6            | 31.4/40.2 0.126/0.161                               | 32/35          |                               |                      |
| 109S095   | 100                  |                   | 8/7          | 0.1 /0.09      | 0.11/0.1                    |                                     |                                |                                                     |                |                               |                      |
| 109S096   | 100                  |                   | 7/6          | 0.09/0.08      | 0.09/0.08                   |                                     |                                |                                                     |                |                               |                      |
| 109S193   | 115                  |                   |              | 0.08/0.07      | 0.08/0.07                   |                                     |                                |                                                     |                |                               |                      |
| 109S192   | 200                  |                   | 8/7          | 0.06/0.05      | 0.06/0.05                   |                                     |                                |                                                     |                |                               |                      |
| 109S194   | 230                  |                   |              | 0.05/0.04      | 0.05/0.04                   |                                     |                                |                                                     |                |                               |                      |

### with Sensor

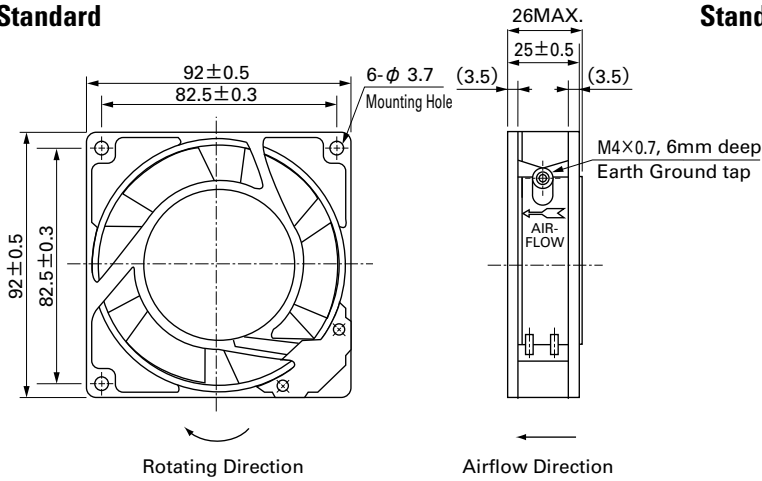
| Model No. | Rated Voltage<br>[V] | Frequency<br>[Hz] | Input<br>[W] | Current<br>[A] | Locked Rotor Current<br>[A] | Rated Speed<br>[min <sup>-1</sup> ] | Max. Airflow<br>[m³/min] [CFM] |           | Max. Static Pressure<br>[Pa] [inchH <sub>2</sub> O] |             | SPL<br>[dB(A)] | Operating Temperature<br>[°C] | Expected Life<br>[h] |
|-----------|----------------------|-------------------|--------------|----------------|-----------------------------|-------------------------------------|--------------------------------|-----------|-----------------------------------------------------|-------------|----------------|-------------------------------|----------------------|
| 109S491   | 100                  | 50/60             | 8/7          | 0.1 /0.09      | 0.13/0.12                   | 2,700/3,100                         | 0.95/1.1                       | 33.6/38.9 | 39.2/49.0                                           | 0.157/0.197 | 35/38          | -10 to +60                    | 25,000/60℃           |
| 109S493   | 115                  |                   |              | 0.09/0.08      | 0.11/0.1                    |                                     |                                |           |                                                     |             |                |                               |                      |
| 109S492   | 200                  |                   |              | 0.07/0.06      | 0.08/0.08                   |                                     |                                |           |                                                     |             |                |                               |                      |
| 109S494   | 230                  |                   | 10/9         | 0.06/0.05      | 0.07/0.07                   |                                     |                                |           |                                                     |             |                |                               |                      |
| 109S495   | 100                  |                   | 8/7          | 0.1 /0.09      | 0.11/0.1                    | 2,400/2,800                         | 0.84/0.98                      | 29.7/34.6 | 31.4/40.2                                           | 0.126/0.161 | 32/35          |                               |                      |
| 109S496   |                      | 7/6               | 0.09/0.08    | 0.09/0.08      | 1,500/1,700                 | 0.55/0.65                           | 19.4/23                        | 12.5/16.3 | 0.050/0.065                                         | 24/27       |                |                               |                      |

Two types of power supplies, 5V (ITEM-20) and 12V (ITEM-30), are available in fans with sensor attached.

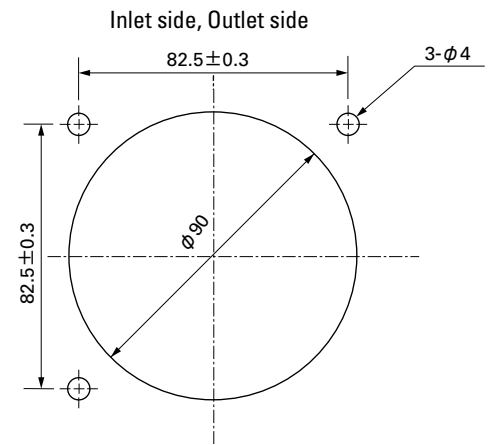
- **Set Models** Fan, finger guard, plug cord, screws, etc. can be purchased in one package.  
For details, please refer to pp. 453 to 456.

## ■ Dimensions (unit: mm)

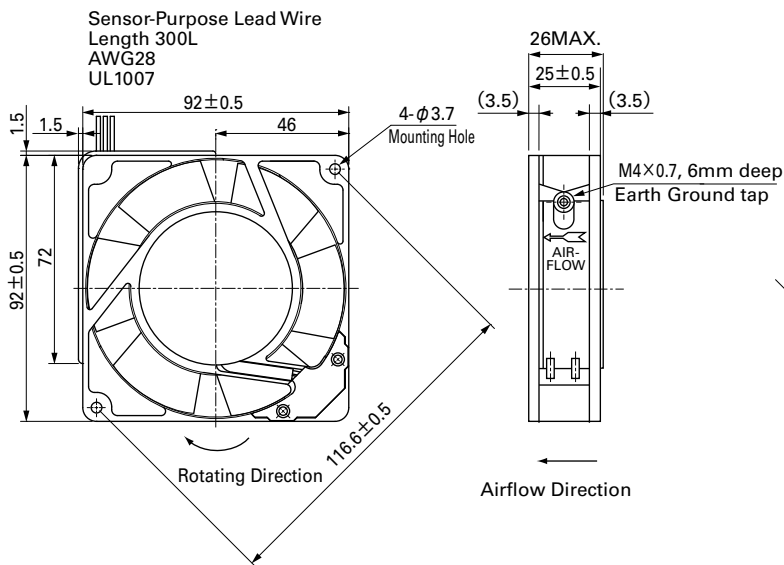
### Standard



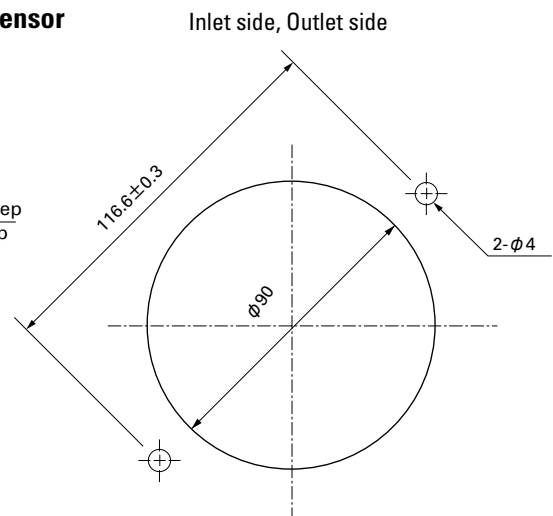
### Standard



### with Sensor



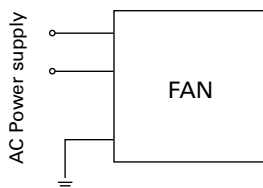
### with Sensor



AC  
AC Fan 92mm

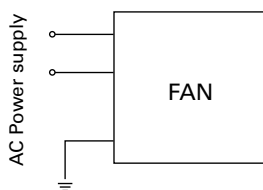
## ■ Wiring Diagram

### Standard

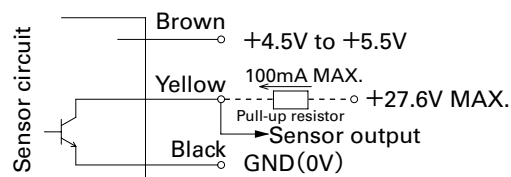


### with Sensor

(For fan power supply)

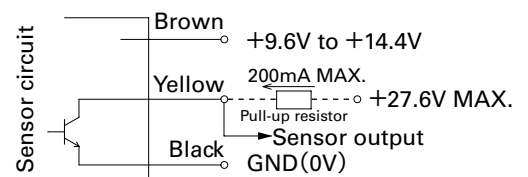


### 5V (ITEM-20)



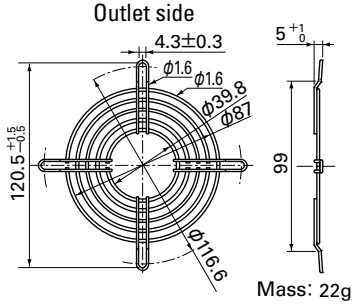
GND (Black) should be shared in case that power supply for sensor circuit (Brown) and that for sensor pull-up (Yellow) are separated.

### 12V (ITEM-30)

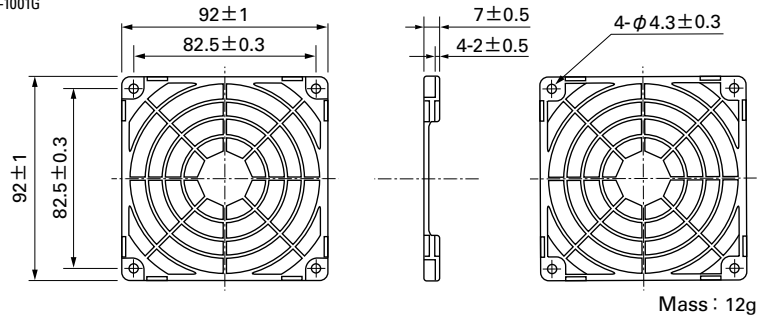
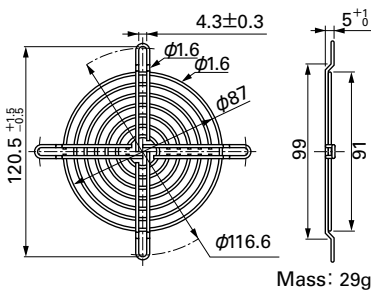
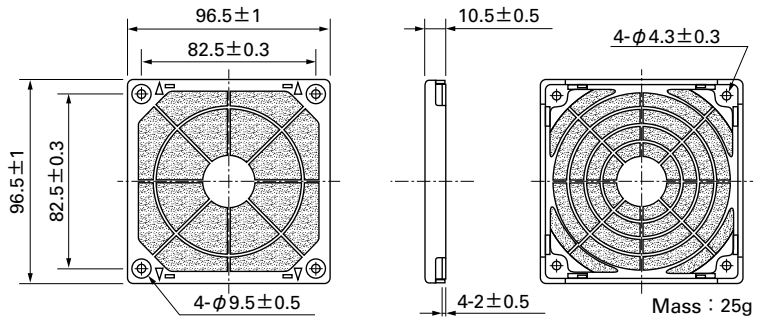
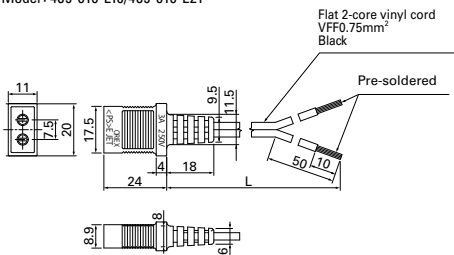
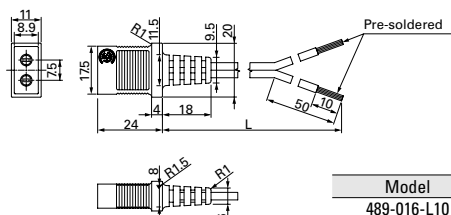


**92**mm sq.**San Ace 92****92×92×25mm** [Mass : 290g / 310g (with Sensor)]**Options (unit: mm)****Finger Guards**

Model : 109-099C Surface treatment : Nickel-chrome plating (silver) Color

**Resin Finger Guards**

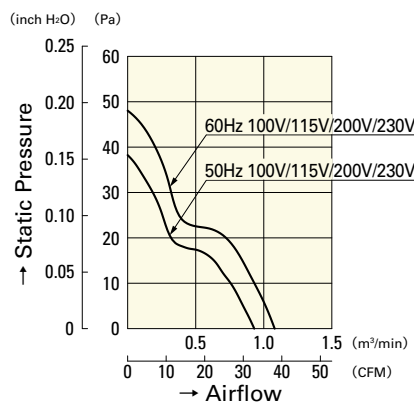
Model : 109-1001G

Model : 109-099E Surface treatment : Nickel-chrome plating (silver) Color  
: 109-099H : Cation electropainting (black)**Inlet side, Outlet side****Resin Filter Kits**Model : 109-1001F13 (13PPI), 109-1001F20 (20PPI)  
: 109-1001F30 (30PPI), 109-1001F40 (40PPI)**Plug Cord**(Products compliant with Electrical Appliance and Material Safety Law)  
Model : 489-016-L10/489-016-L21(UL/CSA CERTIFIED)  
UL FILE No.E50197 CSA FILE No.LR67048  
Model : 489-047-L10/489-047-L21

| Model       | Power cord length (L) [mm] | Mass [g] |
|-------------|----------------------------|----------|
| 489-016-L10 | 1,000                      | 34       |
| 489-016-L21 | 2,100                      | 64       |
| 489-047-L10 | 1,000                      | 38       |
| 489-047-L21 | 2,100                      | 71       |

## Airflow - Static Pressure Characteristics

### Standard

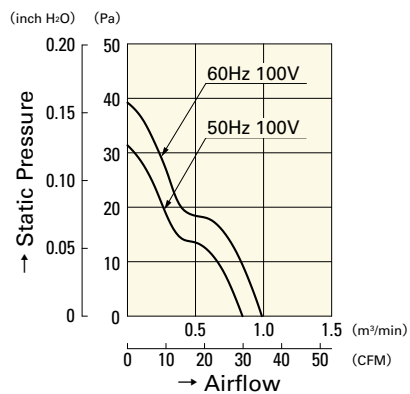


**109S091**

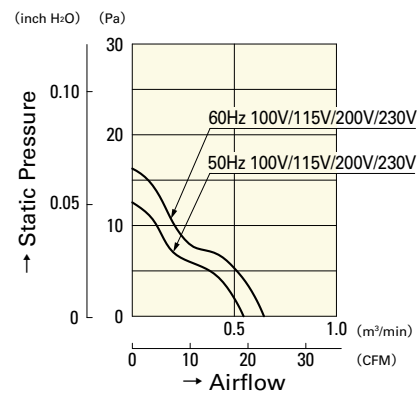
**109S093**

**109S092**

**109S094**



**109S095**



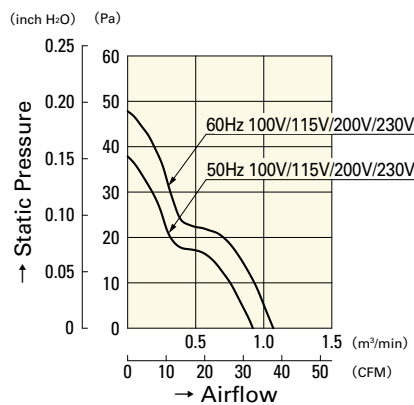
**109S096**

**109S193**

**109S192**

**109S194**

### with Sensor

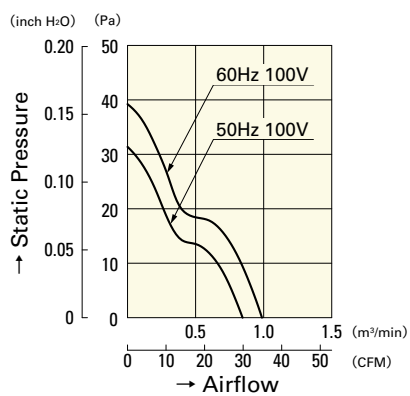


**109S491**

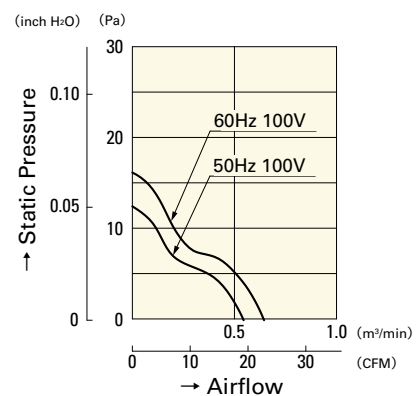
**109S493**

**109S492**

**109S494**



**109S495**



**109S496**

**AC**

**AC Fan 92mm**