

**120**mm sq.

## San Ace 120

25mm thick, 25mm thick (with Sensor)  
38mm thick, 38mm thick (with Sensor)

Certifications vary by model no. Please refer to p. 435.

### 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%

**120×120×38mm** [Mass : 550g / 580g (with Sensor)]

### Specifications Standard

 ※ represents low-speed.

Model No.	Voltage [V]	Frequency [Hz]	Input [W]	Current [A]	Locked Rotor Current [A]	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]
109S075UL	100	50/60	18/16	0.24/0.21	0.32/0.28	2,700/3,100	2.5 /2.9 88.3/102.5	57.9/68.7 0.233/0.276	42/45	-30 to +60	25,000
109S074UL	115			0.21/0.18	0.27/0.24						
109S078UL	200			0.12/0.1	0.16/0.14						
109S072UL	230			0.11/0.09	0.14/0.13						
109S005	100		14/12	0.18/0.16	0.25/0.22	2,700/3,100	2.35/2.7 83 / 95.4	55.9/65.7 0.224/0.264	40/43		
109S005UL	100			0.16/0.14	0.21/0.18						
109S024	120			0.09/0.08	0.13/0.11						
109S024UL	115			0.08/0.07	0.11/0.09						
109S008	200		14/12	0.18/0.16	0.23/0.21	2,450/2,700	2.15/2.35 76 / 83	44.1/49.0 0.177/0.197	38/40		
109S008UL	200			0.16/0.14	0.16/0.15						
109S025	230			0.13/0.11	0.16/0.15						
109S025UL	230			0.13/0.11	0.16/0.15						
109S029UL	100		7/7	0.18/0.16	0.23/0.21	1,800/2,000	1.55/1.75 54.8/ 60.8	23.5/26.4 0.094/0.106	30/32		
109S013	100			0.16/0.14	0.16/0.15						
109S013UL	100			0.16/0.14	0.16/0.15						
109S006 ※	115			0.1 /0.09	0.1 /0.09						
109S006UL※	115	7/6	0.13/0.11	0.13/0.11	1,800/1,900	1.56/1.64 55 / 57.9	20 /20.6 0.080/0.083	30/31			
109S010 ※	200		0.13/0.11	0.13/0.11							
109S010	200		0.05/0.04	0.05/0.04							
109S010UL※	240		0.05/0.04	0.05/0.04							
109S010UL※	240	11/11	0.13/0.11	0.13/0.11	1,650/1,700	1.45/1.5 51.2/ 53	17.6/17.6 0.071/0.071	28/28			
109S010	200		0.05/0.04	0.05/0.04							
109S010UL※	240		0.06/0.05	0.06/0.05							
109S010UL※	240		0.06/0.05	0.06/0.05							

### with Sensor

 ※ represents low-speed.

Model No.	Voltage [V]	Frequency [Hz]	Input [W]	Current [A]	Locked Rotor Current [A]	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]
109S405UL	100	50/60	14/12	0.18/0.16	0.25/0.22	2,700/3,100	2.35/2.7 83/95.4	55.9/65.7 0.224/0.264	40/43	-10 to +60	25,000
109S424UL	115			0.16/0.14	0.21/0.18						
109S408UL	200			0.09/0.08	0.13/0.11						
109S425UL	230			0.08/0.07	0.11/0.09						
109S429UL	100		7/6	0.18/0.16	0.23/0.21	2,450/2,700	2.15/2.35 76/83	44.1/49.0 0.177/0.197	38/40		
109S406UL※	100			0.09/0.08	0.1 /0.09						
109S475UL	100			0.09/0.08	0.1 /0.09						
109S475UL	100			0.09/0.08	0.1 /0.09						
109S474UL	115		18/16	0.24/0.21	0.32/0.28	2,700/3,100	2.5 /2.9 88.3/102.4	57.9/68.7 0.233/0.276	42/45		
109S474UL	115			0.21/0.18	0.27/0.24						
109S478UL	200			0.12/0.1	0.16/0.14						
109S472UL	230			0.11/0.09	0.14/0.13						

Two types of power supplies, 5V and 12V, are available in fans with sensor attached.

### Set Models

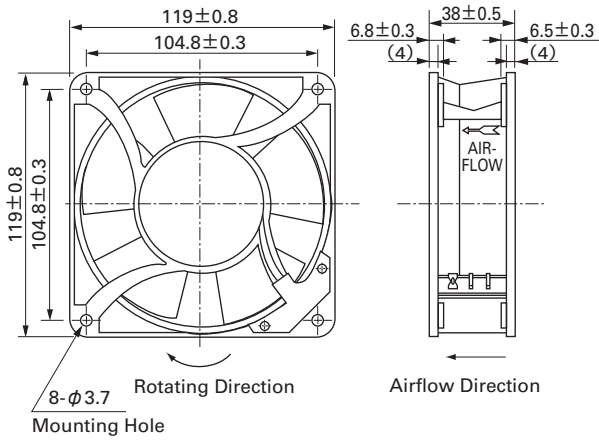
- The set models listed below can be ordered as a single order.

Set configuration items: Fan (without sensor), plug cord, finger guard, screws (with flat washer and spring washer), hex nuts, operation manual

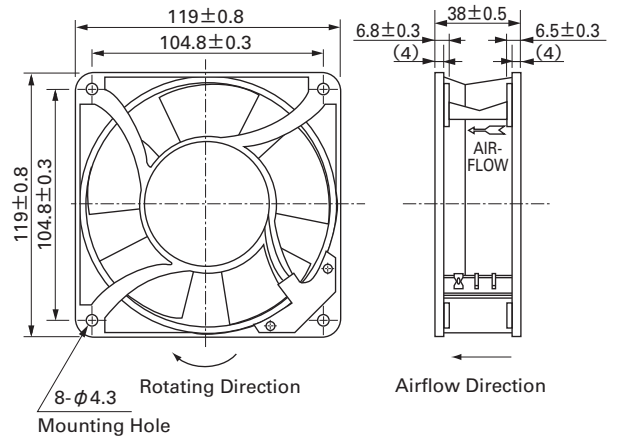
Model Number to Order	Fan Model	Sensor Specifications	Plug Cord Model	Finger Guard Model	Mounting Screws
9U-109S075UL-9	109S075UL-9 (performs the same as the 109S075UL, but only the mounting hole sizes are different)	Without sensor	489-037-L10 (Products compliant with Electrical Appliance and Material Safety Law)	109-019E	M4 screws (55 mm) x 4, Nuts x 4
9U-109S078UL-9	109S078UL-9(performs the same as the 109S078UL, but only the mounting hole sizes are different)				

**Dimensions (unit : mm)**

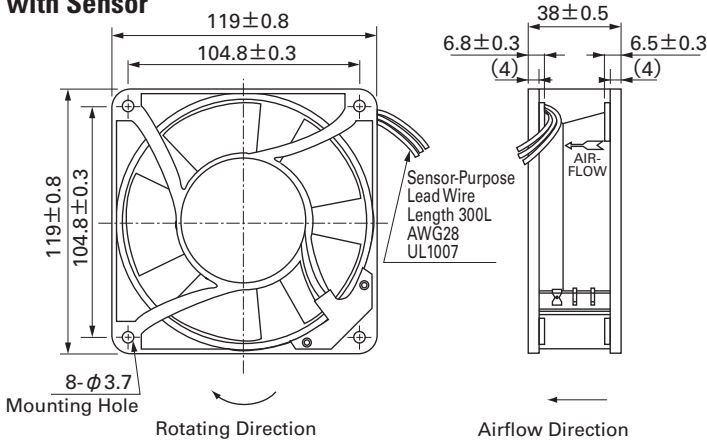
**Standard**



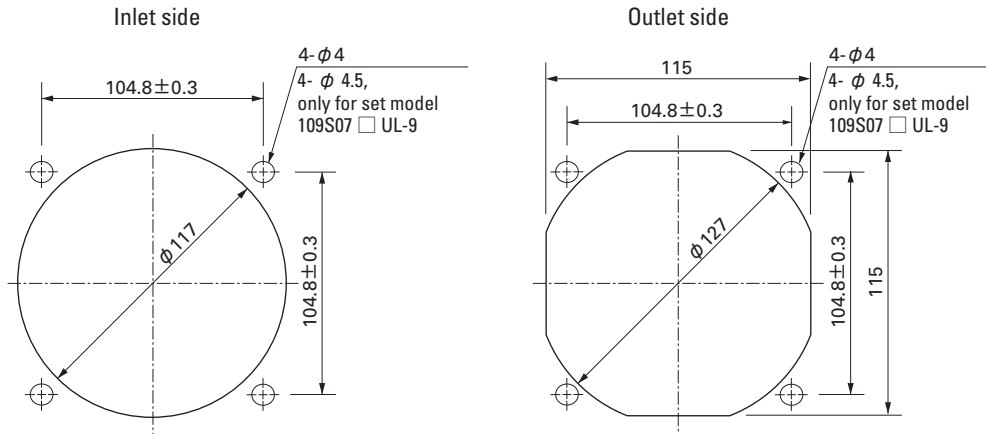
**Set Model 109S07 □ UL-9**



**with Sensor**

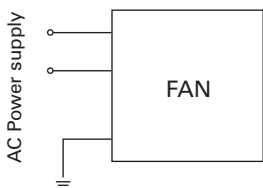


**Reference Dimension of Mounting Holes and Vent Opening (unit : mm)**



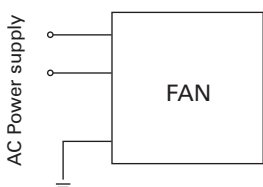
**Wiring Diagram**

**Standard**

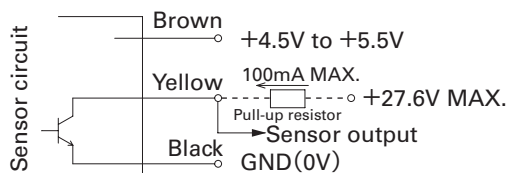


**with Sensor**

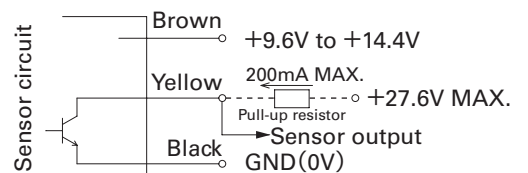
(For fan power supply)



**5V (ITEM-20)**



**12V (ITEM-30)**



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

**120** mm sq.

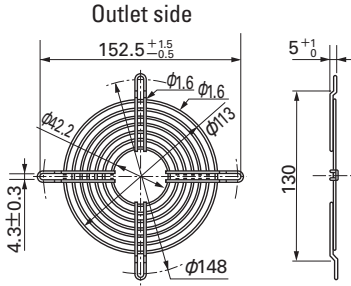
# San Ace 120

**120×120×38mm** [Mass : 550g / 580g (with Sensor)]

## Options (unit : mm)

### Finger Guards

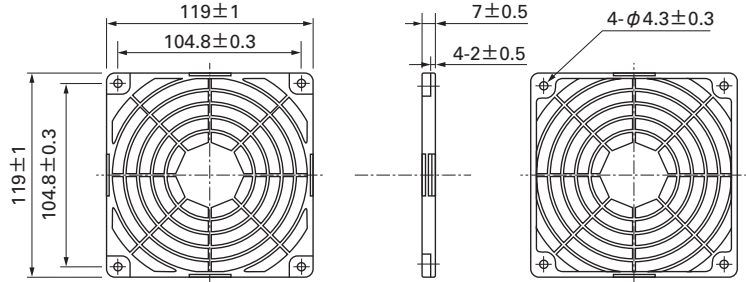
Model : 109-019C Surface treatment : Nickel-chrome plating (silver) Color  
: 109-019H : Cation electropainting (black)



Mass : 32g

### Resin Finger Guards

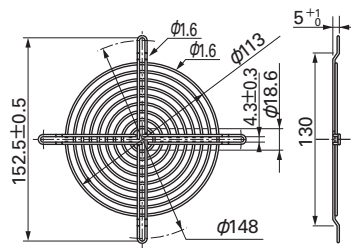
Model : 109-1000G



Mass : 23g

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

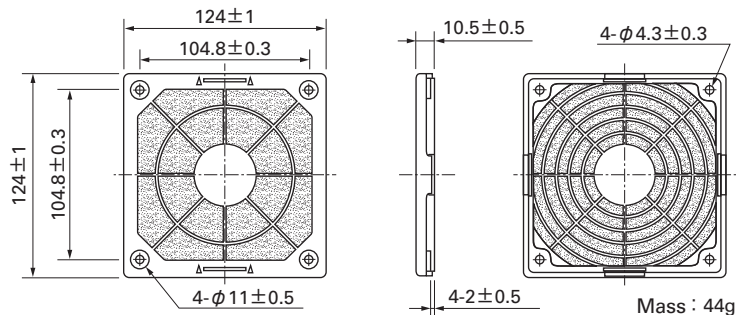
### Inlet side, Outlet side



Mass : 42g

### Resin Filter Kits

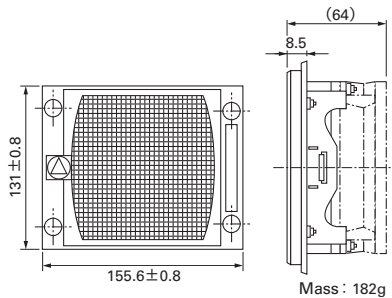
Model : 109-1000F13 (13PPI), 109-1000F20 (20PPI), 109-1000F30 (30PPI), 109-1000F40 (40PPI)



Mass : 44g

### Filter Kits

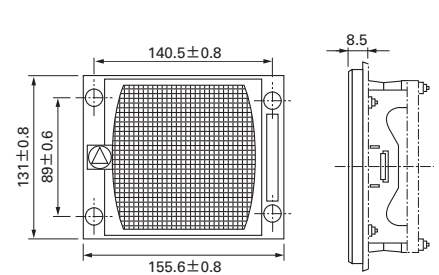
Model : 109-018 Applicable models : AC Fan 120×120×38mm



Mass : 182g

### Screen Kits

Model : 109-020 Applicable models : AC Fan 120×120×38mm



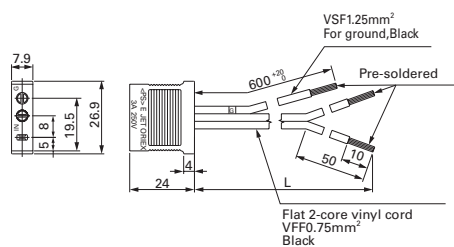
Mass : 135g

Neither filterkit nor screenkit can be installed on fans with sensor.

### Plug Cord

Exclusive for fans without UL at the end of the model number.

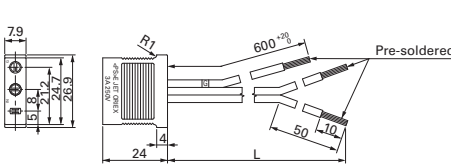
(Products compliant with Electrical Appliance and Material Safety Law)  
Model : 489-006-L10/489-006-L21/489-006-L35



Model	Power cord length (L) [mm]	Mass [g]
489-006-L10	1,000	47
489-006-L21	2,100	76
489-006-L35	3,500	114

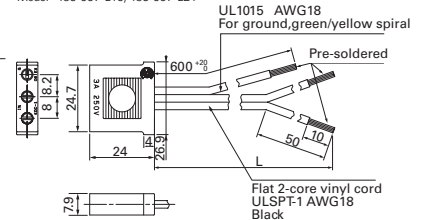
Exclusive for fans with UL at the end of the model number.

(Products compliant with Electrical Appliance and Material Safety Law)  
Model : 489-037-L10/489-037-L21/489-037-L35



(UL/CSA CERTIFIED)

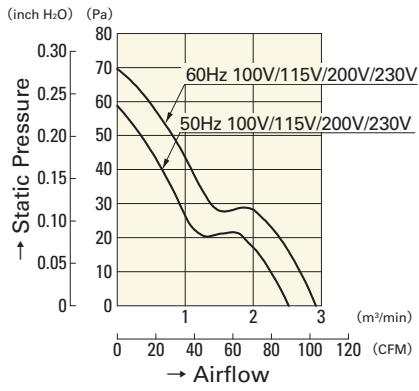
UL FILE No. E50197 CSA FILE No. LR67048  
Model : 489-007-L10/489-007-L21



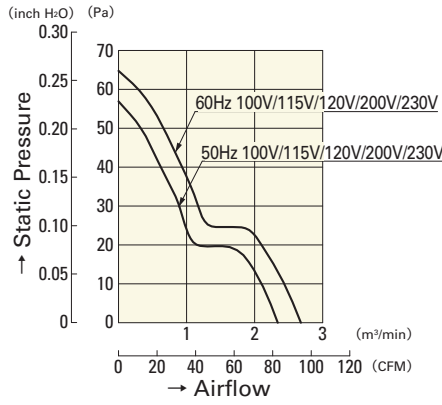
Model	Power cord length (L) [mm]	Mass [g]
489-037-L10	1,000	46
489-037-L21	2,100	76
489-037-L35	3,500	114
489-007-L10	1,000	48
489-007-L21	2,100	80

## Airflow - Static Pressure Characteristics

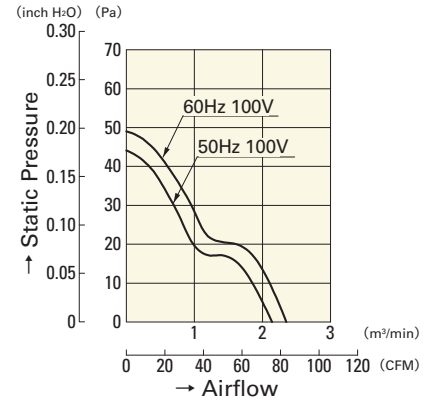
### Standard



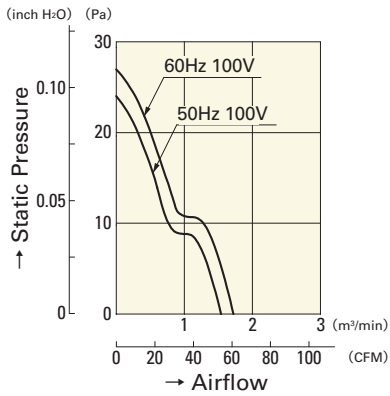
**109S075UL**    **109S074UL**  
**109S078UL**    **109S072UL**



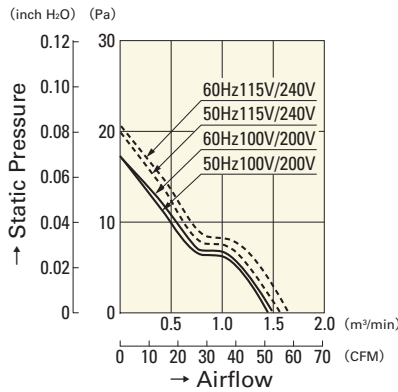
**109S005**    **109S005UL**  
**109S024**    **109S024UL**  
**109S008**    **109S008UL**  
**109S025**    **109S025UL**



**109S029UL**

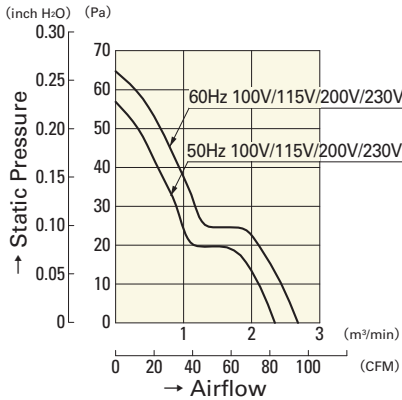


**109S013**  
**109S013UL**

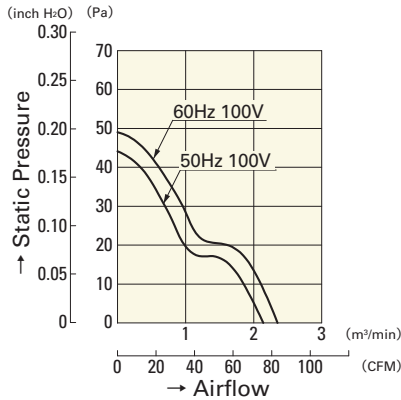


**109S006**    **109S006UL**  
**109S010**    **109S010UL**

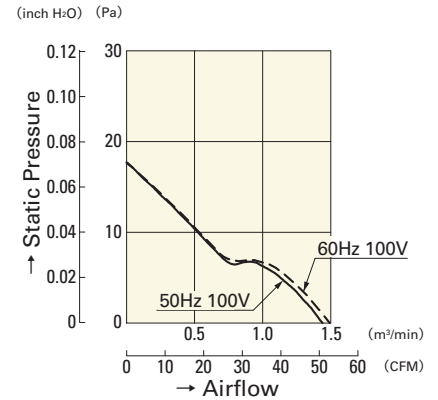
### with Sensor



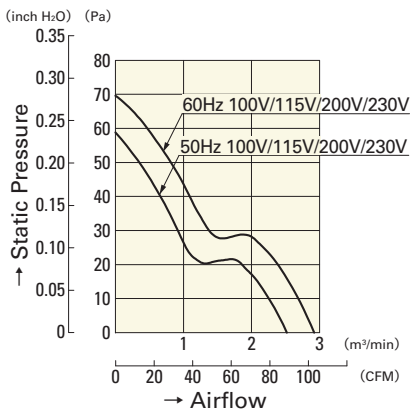
**109S405UL**    **109S424UL**  
**109S408UL**    **109S425UL**



**109S429UL**



**109S406UL**



**109S475UL**    **109S474UL**  
**109S478UL**    **109S472UL**