

**120** mm sq.**San Ace 120**

Certifications vary by model no.  
Please refer to pp. 514 to 515.

**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**

Model No.	Rated 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	25,000/60°C				
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			7/7	0.1 / 0.09 0.1 / 0.09							1,650/1,700	1.45/1.5 51.2/ 53	17.6/17.6 0.071/0.071	28/28
109S025UL	230			10/10	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
109S029UL	100		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						
109S013	100			0.16/0.14	0.16/0.15										
109S013UL	100			7/7	0.1 / 0.09 0.1 / 0.09							1,650/1,700	1.45/1.5 51.2/ 53	17.6/17.6 0.071/0.071	28/28
109S006	115			10/10	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
109S006UL	115	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							
109S010	200		7/7	0.05/0.04 0.05/0.04					1,650/1,700	1.45/1.5 51.2/ 53	17.6/17.6 0.071/0.071	28/28			
109S010UL	200		11/11	0.06/0.05 0.06/0.05					1,800/1,950	1.58/1.68 55.8/ 59.3	20.6/21.6 0.083/0.087	30/32			
109S010UL	240		11/11	0.06/0.05 0.06/0.05					1,800/1,950	1.58/1.68 55.8/ 59.3	20.6/21.6 0.083/0.087	30/32			

**with Sensor**

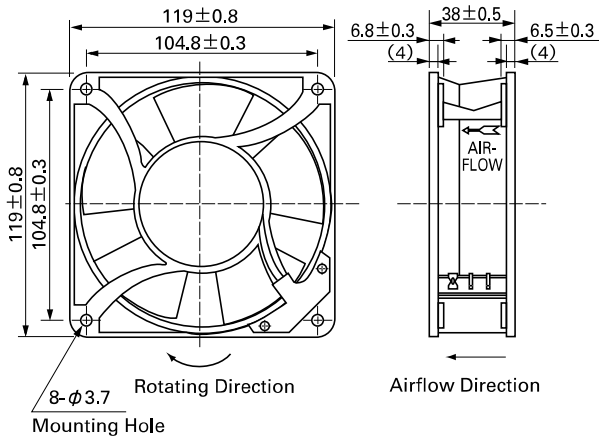
Model No.	Rated Voltage [V]	Frequency [Hz]	Input [W]	Current [A]	Locked Rotor Current [A]	Rated Speed [min <sup>-1</sup> ]	Max. Airflow [m <sup>3</sup> /min] [CFM]	Max. Static Pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB(A)]	Operating Temperature [°C]	Expected Life [h]					
109S405UL	100	50/60	14/12	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	25,000/60°C					
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							1,650/1,700	1.45/1.5 51/53	17.7/17.7 0.071/0.071	28/28	
109S475UL	100			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 (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.

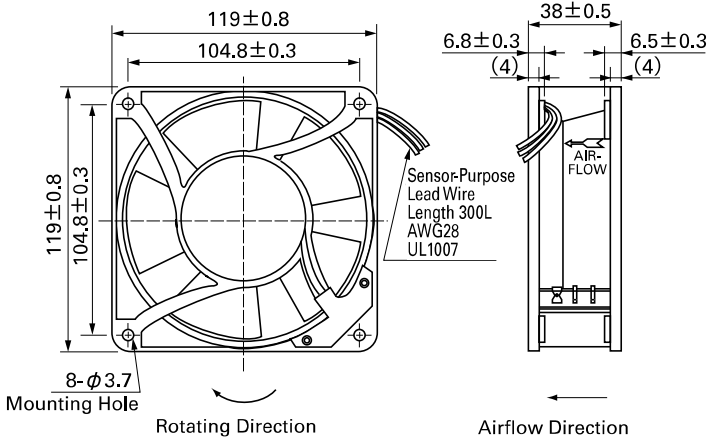
**Dimensions (unit: mm)**

**Standard**

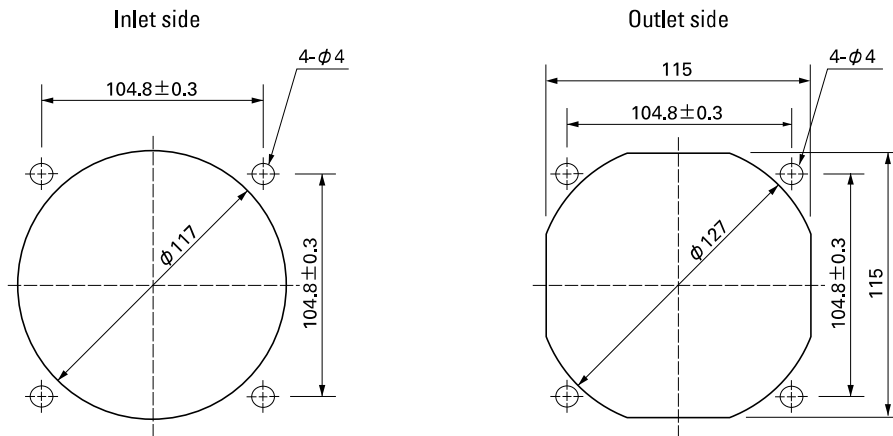


**with Sensor**

When mounting the model with a sensor, please screw-mount through both flanges as it has a sensor box.

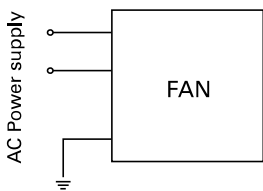


**Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)**



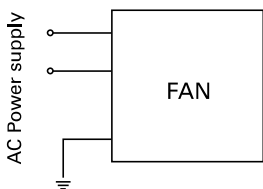
**Wiring Diagram**

**Standard**

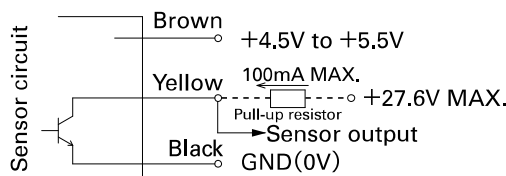


**with Sensor**

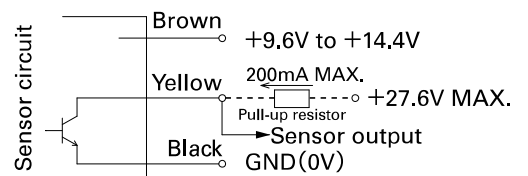
(For fan power supply)



**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.

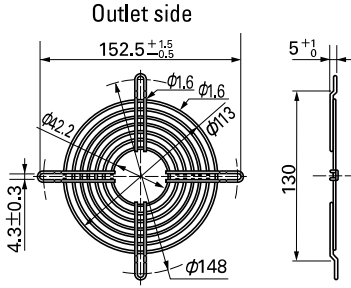
# San Ace 120

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

## Options (unit: mm)

### Finger Guards

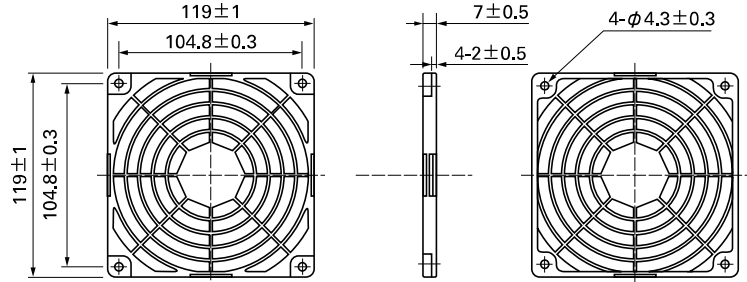
Model : 109-019C Surface treatment : Nickel-chrome plating (silver)  
 : 109-019H : Cation electropainting (black)



Mass : 32g

### Resin Finger Guards

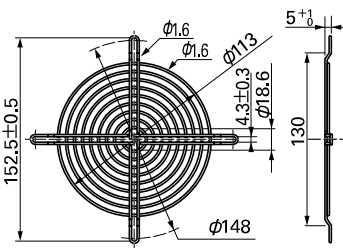
Model : 109-1000G



Mass : 23g

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

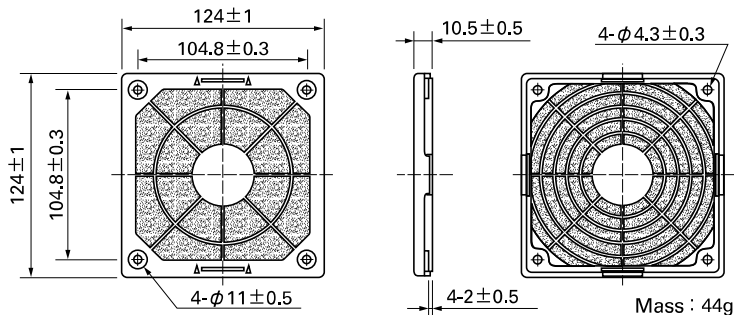
### Inlet side, Outlet side



Mass : 42g

### Resin Filter Kits

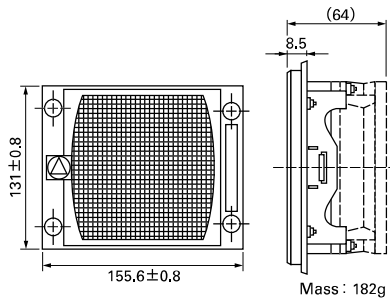
Model : 109-1000F13 (13PPI), 109-1000F20 (20PPI), 109-1000F30 (30PPI), 109-1000F40 (40PPI)



Mass : 44g

### Filter Kits

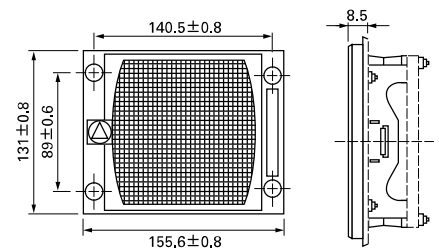
Model : 109-018 Applicable models : AC Fan 120×120×38mm



Mass : 182g

### Screen Kits

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



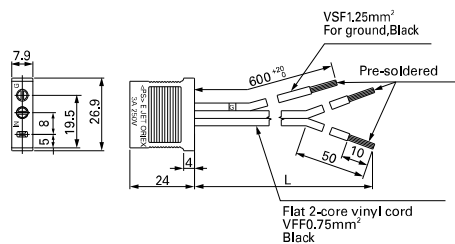
Mass : 135g

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.

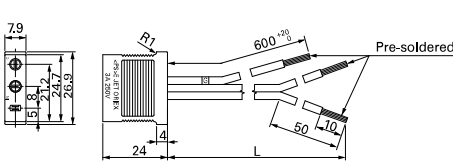
(Products compliant with Electrical Appliance and Material Safety Law)  
 Model : 489-006-L10/489-006-L21/489-006-L35



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

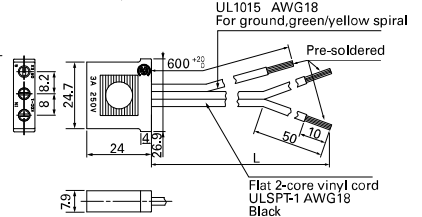
Exclusive for fans with UL at the end of the model number.

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



(UL/CSA CERTIFIED)

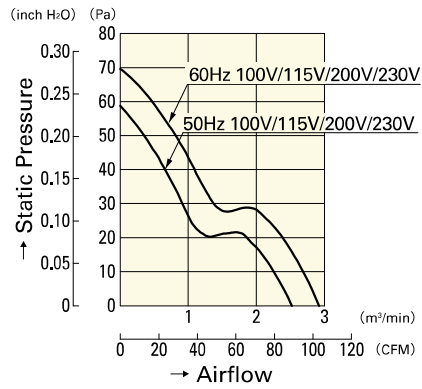
UL FILE No.E50197 CSA FILE No.LR67048  
 Model : 489-007-L10/489-007-L21



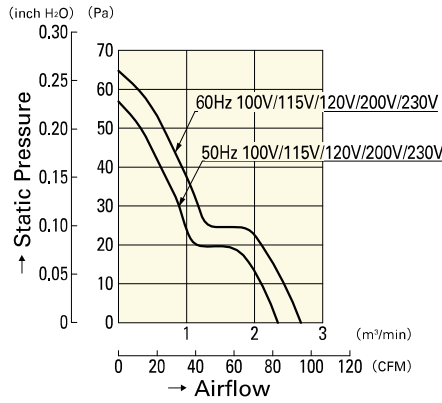
Model	Power cord length (L) [mm]	Mass [g]
489-037-L10	1,000	46
489-037-L21	2,100	76
489-037-L35	3,500	114
489-007-L10	1,000	48
489-007-L21	2,100	80

## Airflow - Static Pressure Characteristics

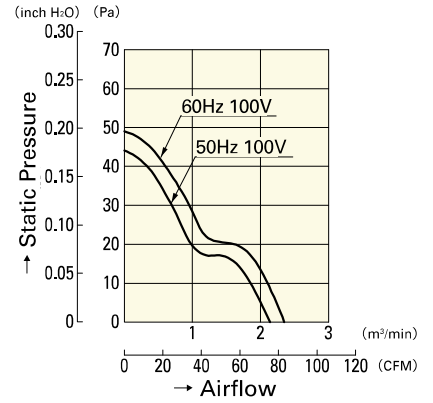
### Standard



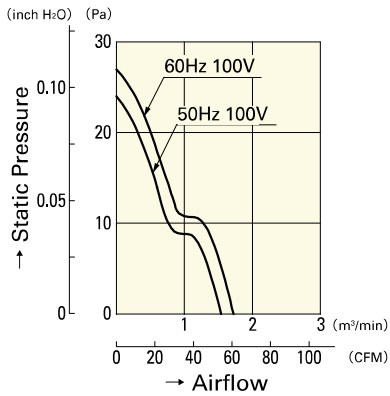
**109S075UL**    **109S074UL**  
**109S078UL**    **109S072UL**



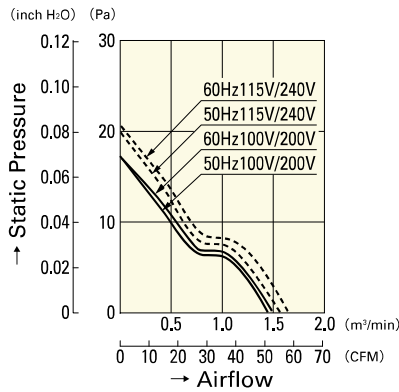
**109S005**    **109S005UL**  
**109S024**    **109S024UL**  
**109S008**    **109S008UL**  
**109S025**    **109S025UL**



**109S029UL**

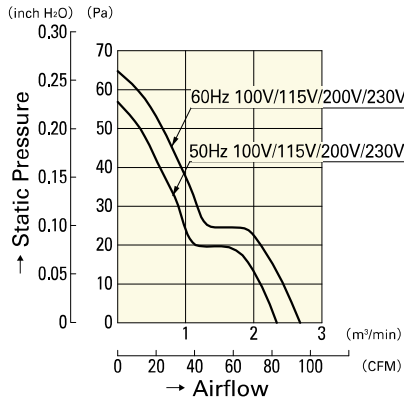


**109S013**  
**109S013UL**

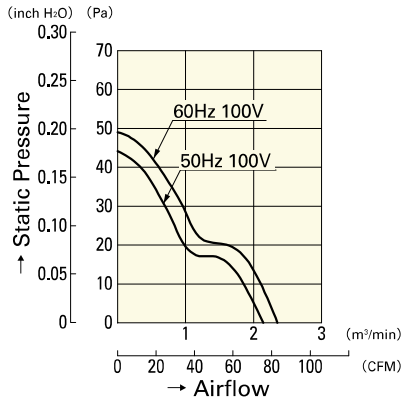


**109S006**    **109S006UL**  
**109S010**    **109S010UL**

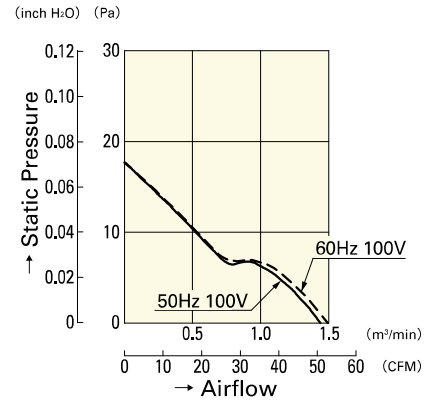
### with Sensor



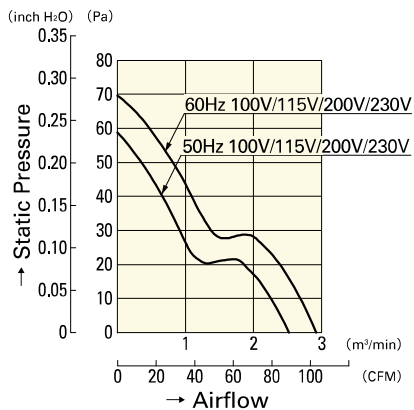
**109S405UL**    **109S424UL**  
**109S408UL**    **109S425UL**



**109S429UL**



**109S406UL**



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

AC

AC Fan 120mm