

120mm sq.**San Ace 120**

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%

120×120×25mm [Mass : 370g / 390g (with Sensor)]**Specifications Standard**

Model No.	Rated Voltage [V]	Frequency [Hz]	Input [W]	Current [A]	Locked Rotor Current [A]	Rated Speed [min ⁻¹]	Max. Airflow [m³/min] [CFM]	Max. Static Pressure [Pa] [inchH₂O]	SPL [dB(A)]	Operating Temperature [°C]	Expected Life [h]
109S085	100	50/60	13.5/12	0.16/0.14	0.19/0.17	2,500/2,900	1.95/2.3 68.9/81.3	48 /51.9 0.193/0.216	38/41	−30 to +60	25,000/60°C
109S084	115			0.14/0.12	0.16/0.15						
109S088	200			0.08/0.07	0.1 /0.09						
109S087	230			0.07/0.06	0.08/0.07						
109S081	100			9.5/8.5	0.11						
109S083	115		0.1		0.1 /0.09						
109S082	200		0.07		0.07/0.06						
109S089	230		0.06		0.06/0.05						
109S086	100		12/10	0.14/0.12	0.15/0.13	1,400/1,600	1.1 /1.25 38.9/44.2	14.7/18.6 0.059/0.075	24/27		

with Sensor

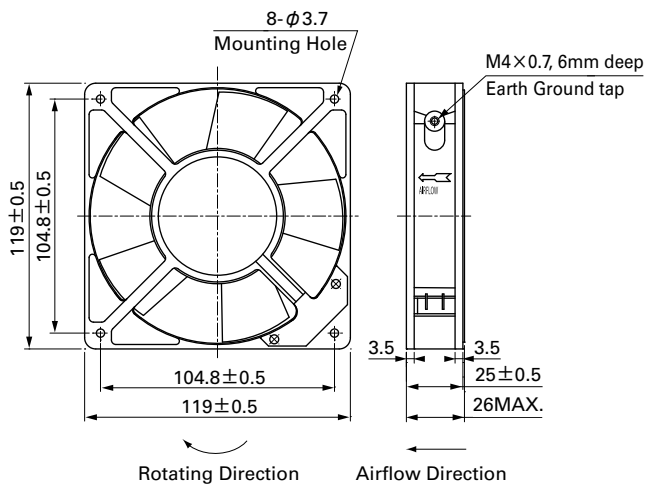
Model No.	Rated Voltage [V]	Frequency [Hz]	Input [W]	Current [A]	Locked Rotor Current [A]	Rated Speed [min ⁻¹]	Max. Airflow [m ³ /min] [CFM]	Max. Static Pressure [Pa] [inchH ₂ O]	SPL [dB(A)]	Operating Temperature [°C]	Expected Life [h]
109S485	100	50/60	13.5/12	0.16/0.14	0.19/0.17	2,500/2,900	1.95/2.3 68.9/81.3	48 /51.9 0.193/0.216	38/41	-10 to +60	25,000/60°C
109S484	115			0.14/0.12	0.16/0.15						
109S488	200			0.08/0.07	0.1 /0.09						
109S487	230			0.07/0.06	0.08/0.07						
109S486	100		12/10	0.14/0.12	0.15/0.13	1,400/1,600	1.1 /1.25 38.9/44.2	14.7/18.6 0.059/0.075	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.

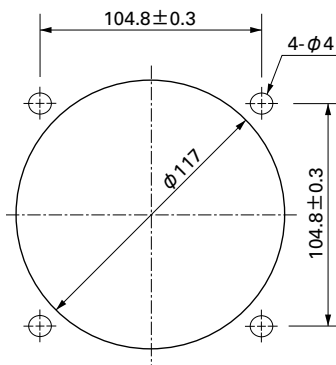
■ Dimensions (unit: mm)

Standard



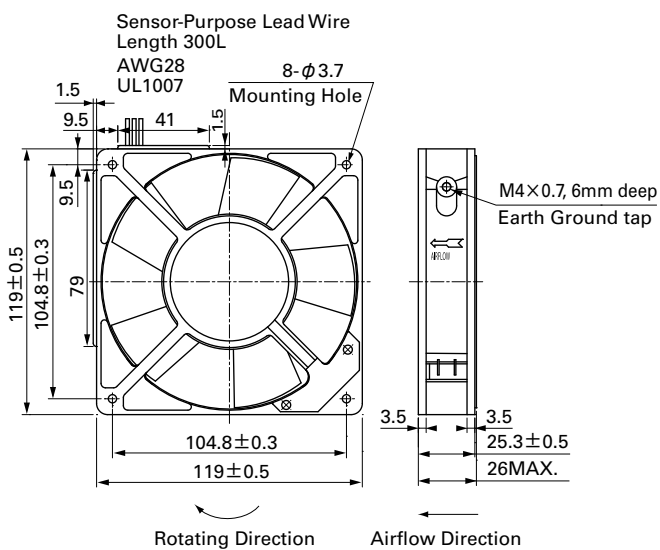
■ Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)

Inlet side, Outlet side



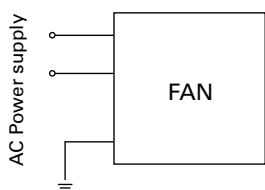
with Sensor

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



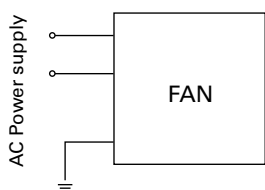
■ Wiring Diagram

Standard

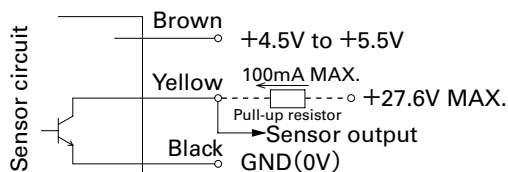


with Sensor

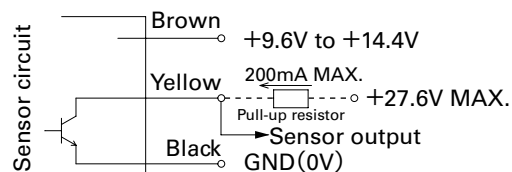
(For fan power supply)



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.

120mm sq.

San Ace 120

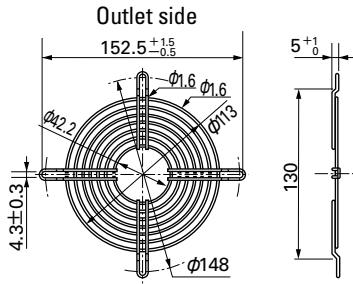
120×120×25mm

 (Mass : 370g / 390g (with Sensor))

Options (unit: mm)

Finger Guards

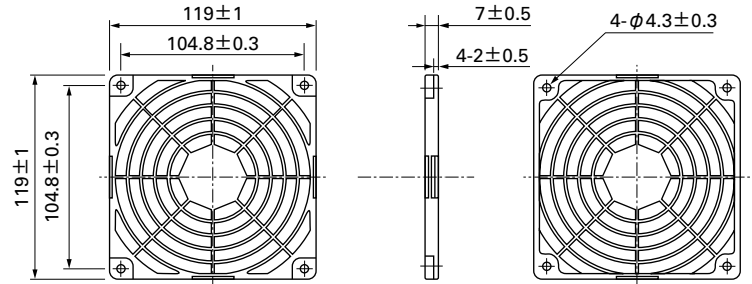
Model : 109-019C Surface treatment : Nickel-chrome plating (silver)
 : 109-019H : Cation electropainting (black)



Mass : 32g

Resin Finger Guards

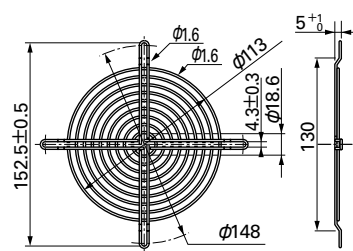
Model : 109-1000G



Mass : 23g

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

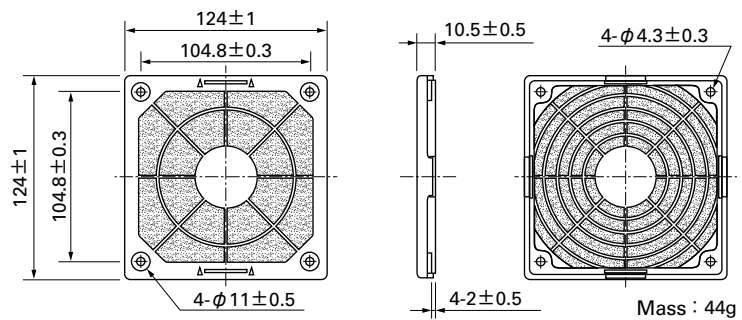
Inlet side, Outlet side



Mass : 42g

Resin Filter Kits

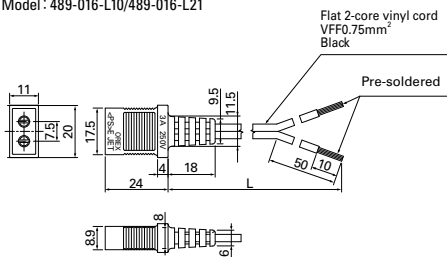
Model : 109-1000F13 (13PPI), 109-1000F20 (20PPI)
 : 109-1000F30 (30PPI), 109-1000F40 (40PPI)



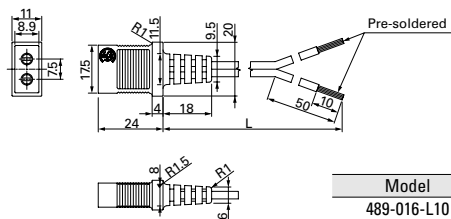
Mass : 44g

Plug Cord

(Products compliant with Electrical Appliance and Material Safety Law)
 Model : 489-016-L10/489-016-L21



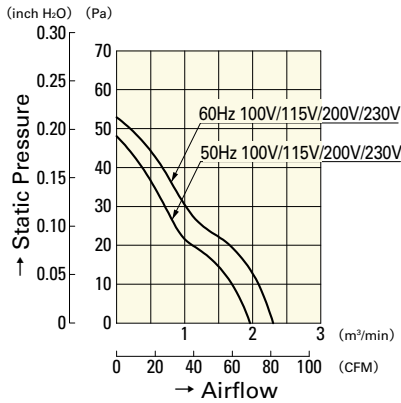
(UL/CSA CERTIFIED)
 UL FILE No.E50197 CSA FILE No.LR67048
 Model : 489-047-L10/489-047-L21



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

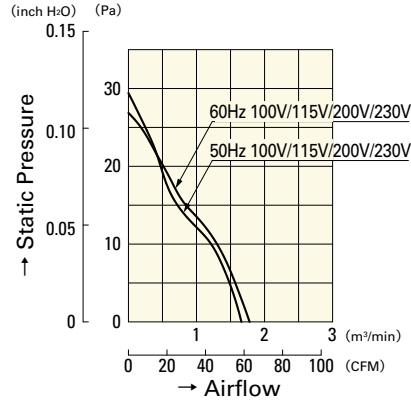


109S085

109S084

109S088

109S087

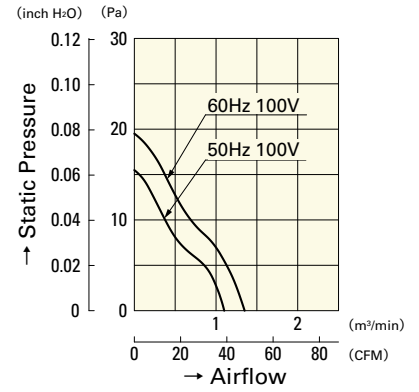


109S081

109S083

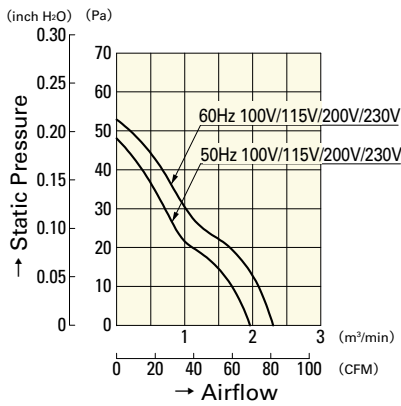
109S082

109S089



109S086

with Sensor

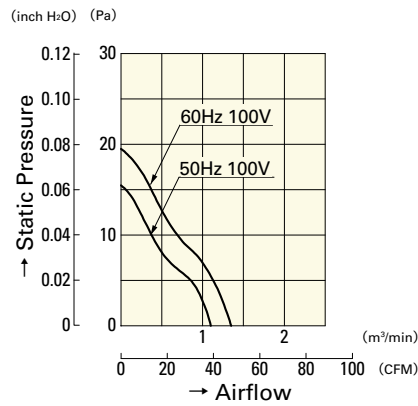


109S485

109S484

109S488

109S487



109S486