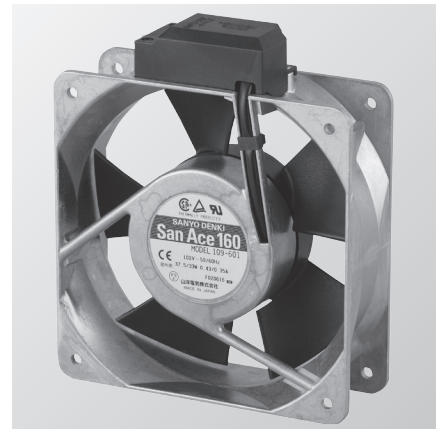


**160**mm sq.

# San Ace160

51mm thick, 51mm thick (with Sensor)



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%

**160×160×51mm** (Mass : 1,100g / 1,100g (with Sensor))

## Specifications Standard

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 Range [°C]	Expected Life [h]
109-601	100	50/60	37.5/33	0.43/0.35	0.72/0.70	2,850/3,350	7.2/8.5 254.4/300.4	156.8/166.6 0.630/0.669	56/60	-30 to +60	25,000
109-604	115			0.39/0.31	0.62/0.61						
109-602	200			0.23/0.18	0.36/0.35						
109-603	230			0.21/0.16	0.32/0.31						

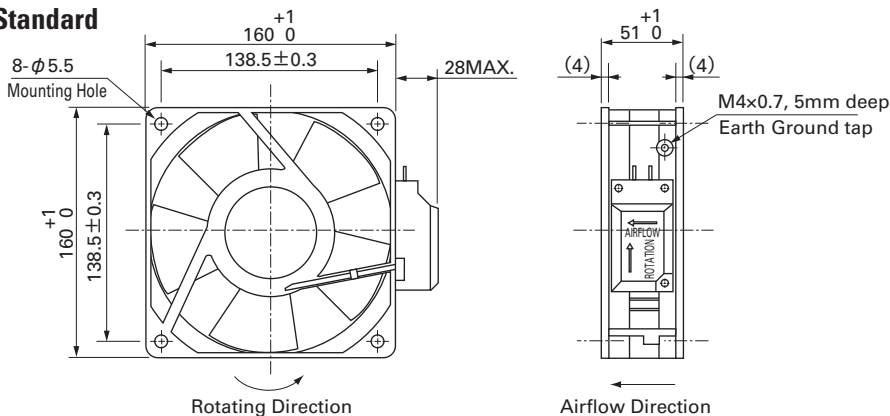
### with Sensor

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 Range [°C]	Expected Life [h]
109-641	100	50/60	37.5/33	0.43/0.35	0.72/0.70	2,850/3,350	7.2/8.5 254.4/300.4	156.8/166.6 0.630/0.669	56/60	-10 to +60	25,000
109-644	115			0.39/0.31	0.62/0.61						
109-642	200			0.23/0.18	0.36/0.35						
109-643	230			0.21/0.16	0.32/0.31						

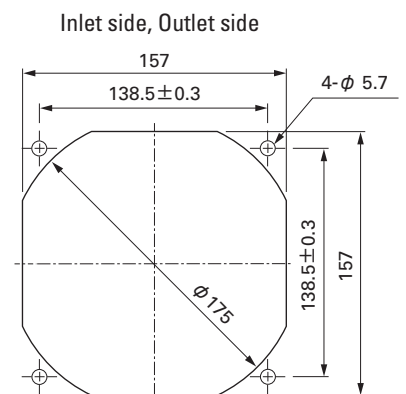
Two types of power supplies, 5V and 12V, are available in fans with sensor attached.

## Dimensions (unit : mm)

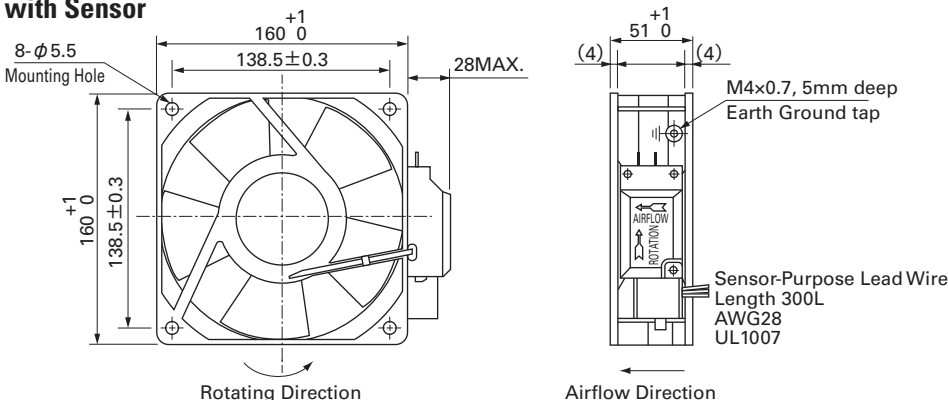
### Standard



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

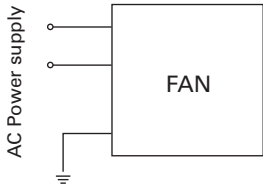


### with Sensor

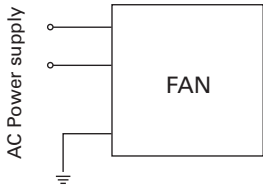


## Wiring Diagram

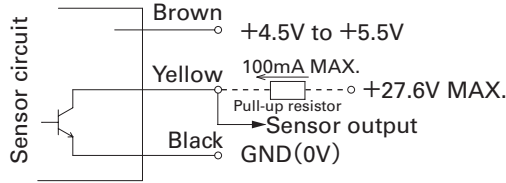
### Standard



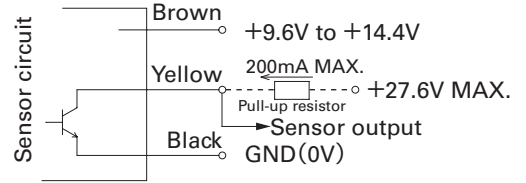
### with Sensor (For fan power supply)



### 5V (ITEM-20)



### 12V (ITEM-30)



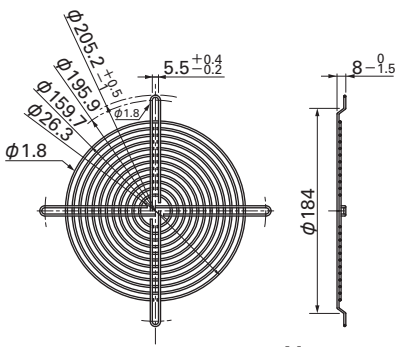
GND (Black) should be shared in case that power supply for sensor circuit (Brown) and that for sensor pull-up (Yellow) are separated.

## Options (unit : mm)

### Finger Guards

Model : 109-619E Surface treatment : Nickel-chrome plating (silver) Color

Inlet side, Outlet side



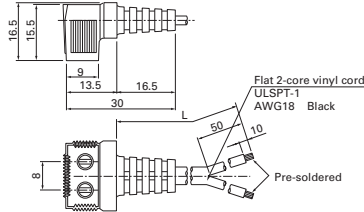
Mass : 85g

### Plug Cord

(UL/CSA CERTIFIED)  
UL FILE No.E50197 CSA FILE No.LR67048  
Model : 489-084-L10/489-084-L21

Flat 2-core vinyl cord  
ULSPT-1  
AWG18 Black

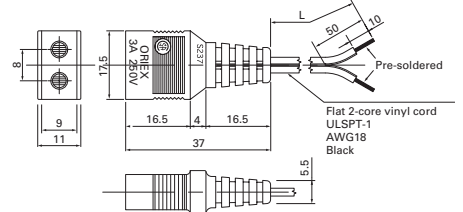
L-shaped



Model	Power cord length (L) [mm]	Mass [g]
489-084-L10	1,000	37
489-084-L21	2,100	70
489-086-L10	1,000	37
489-086-L21	2,100	70

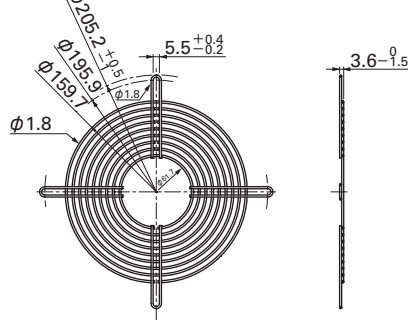
(UL/CSA CERTIFIED)  
UL FILE No.E50197 CSA FILE No.LR67048  
Model : 489-086-L10/489-086-L21

straight



Model : 109-620 Surface treatment : Nickel-chrome plating (silver) Color

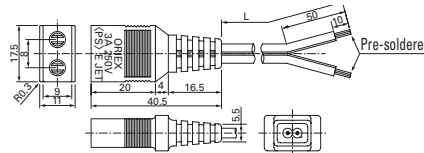
Outlet side



Mass : 74g

(Products compliant with Electrical Appliance and Material Safety Law)  
Model : 489-1618-L10/489-1618-L21/489-1618-L28

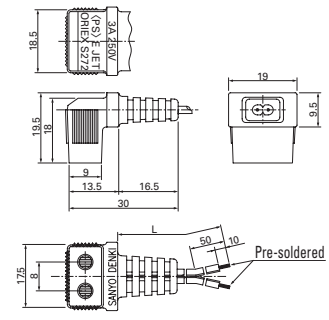
straight



Model	Power cord length (L) [mm]	Mass [g]
489-1618-L10	1,000	34
489-1618-L21	2,100	63
489-1618-L28	2,800	83
489-1619-L10	1,000	34
489-1619-L21	2,100	64

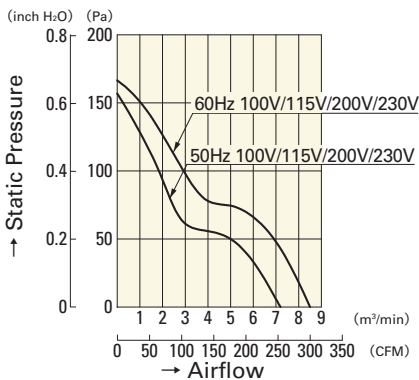
(Products compliant with Electrical Appliance and Material Safety Law)  
Model : 489-1619-L10/489-1619-L21

L-shaped

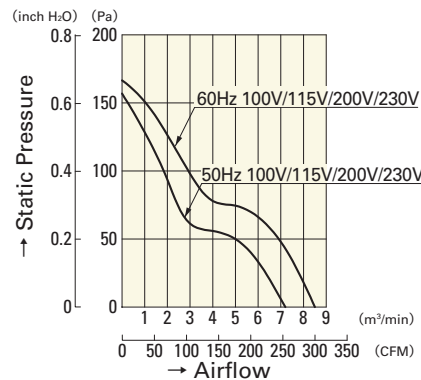


## Airflow - Static Pressure Characteristics

### Standard



### with Sensor



109-601 109-604

109-602 109-603

109-641 109-644

109-642 109-643