

**120**mm sq.

# San Ace 120

25mm thick, 38mm thick  
 External thermistor model /  
 Built-in thermistor model



Note: Optional external thermistors are sold separately.

## General Specifications

- Material ..... Frame: Plastics (Flammability: UL94V-0),  
 Impeller: Plastics (Flammability: UL94V-1)
- Life Expectancy ..... Varies for each model (L10: Survival rate: 90% at 60°C ,  
 rated voltage, and continuously run in a free air state)
- Lead Wire ..... ⊕red ⊖black (Control) brown (Only for external thermistor type)
- Fail-safe ..... The motor becomes high speed when the thermistor is unable  
 to detect the temperature in case of open or short circuit etc.
- Storage Temperature... -30°C to +70°C (Non-condensing)

**120×120×25mm** (Mass : 210g)

## Specifications External thermistor model

The numbers in ( ) represent ribless models.

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	Rated Current [A]	Rated Input [W]	Rated Speed [min <sup>-1</sup> ]	Air Flow [m <sup>3</sup> /min] [CFM]	Static Pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB(A)]	Operating Temperature [°C]	Life Expectancy [h]
109P1212T4H12(121)	12	10.2 to 13.8	0.55	6.6	2,800	2.5 88.3	53.9 0.216	40	-10 to +60	40,000
			0.22	2.64	1,400	1.25 44.1	13.7 0.055	25		

Note: The top row gives characteristics shown when the thermistor temperature is 35°C, while the bottom row gives characteristics shown when the thermistor temperature is 28°C (Thermistor: 169-002).

## Built-in thermistor model

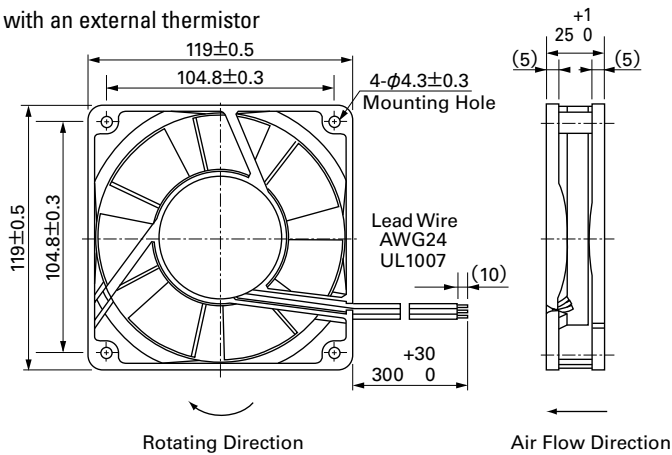
The numbers in ( ) represent ribless models.

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	Rated Current [A]	Rated Input [W]	Rated Speed [min <sup>-1</sup> ]	Air Flow [m <sup>3</sup> /min] [CFM]	Static Pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB(A)]	Operating Temperature [°C]	Life Expectancy [h]
109P1212T4H122(123)	12	10.2 to 13.8	0.55	6.6	2,800	2.5 88.3	53.9 0.216	40	-10 to +60	40,000
			0.22	2.64	1,400	1.25 44.1	13.7 0.055	25		

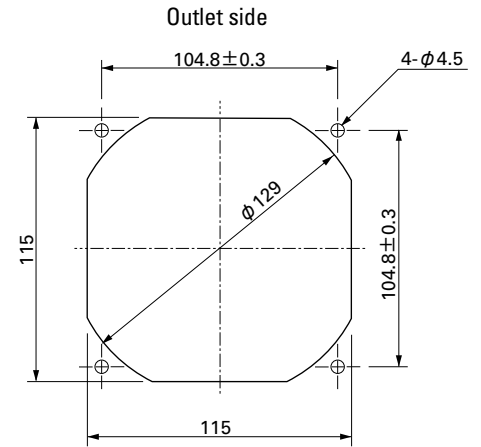
Note: The top row gives characteristics shown when the emperature is 40°C, while the bottom row gives characteristics shown when the temperature is 30°C.

## Dimensions (Unit : mm) (With ribs)

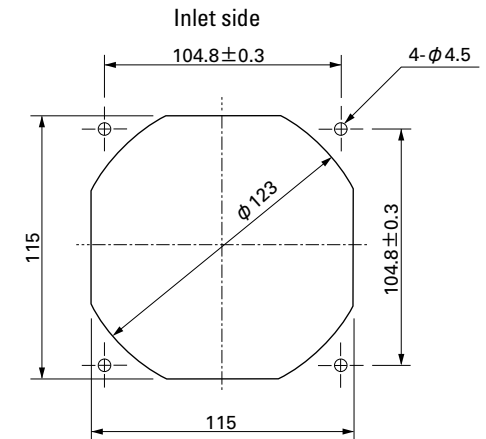
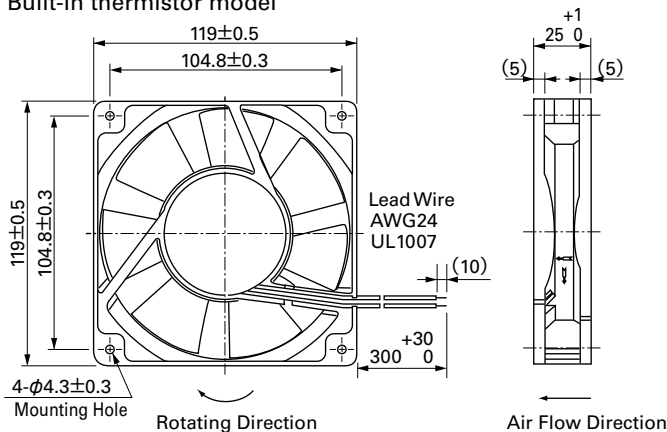
External thermistor model  
 with an external thermistor



## Reference dimensions of mounting holes and vent opening (Unit : mm)



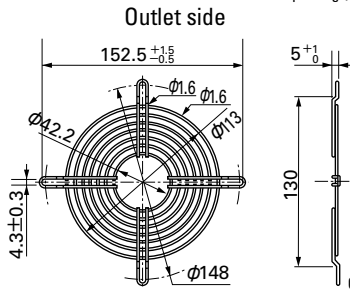
Built-in thermistor model



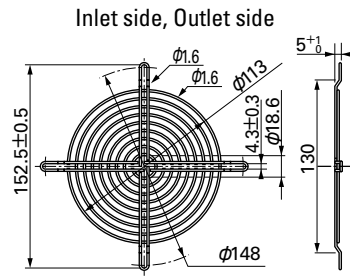
## Options (Unit : mm)

### Finger guards

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

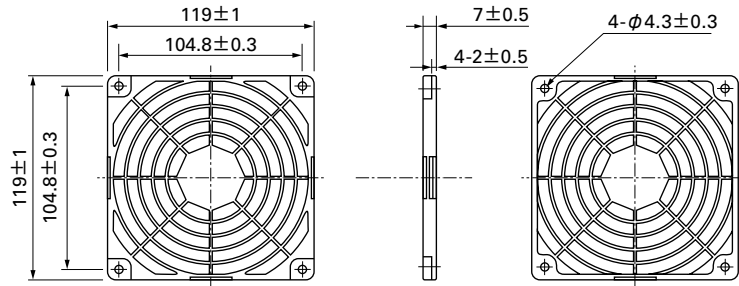


Model : 109-019E Surface treatment : Nickel-chrome plating (silver) Color  
 : 109-019K : Cation electropainting (black)



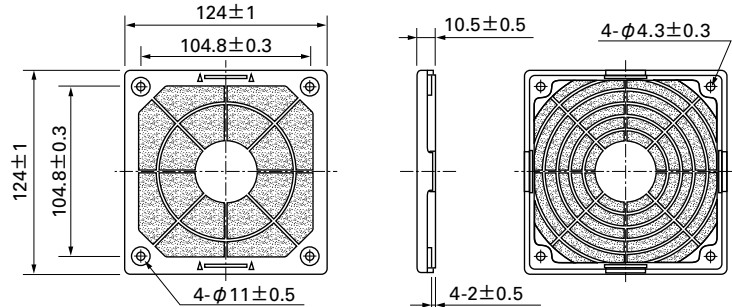
### Resin finger guards

Model : 109-1000G



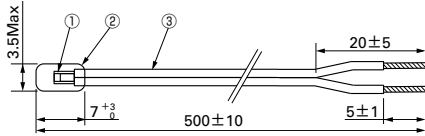
### Resin filter kits

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



### Thermistor

Model : 169-002



Number	Name	Standards, materials, etc.
①	Thermistor	Chip
②	Insulated cord	Epoxy resin
③	Lead	UL2555 CSA TR-64 AWG#28 (blue)

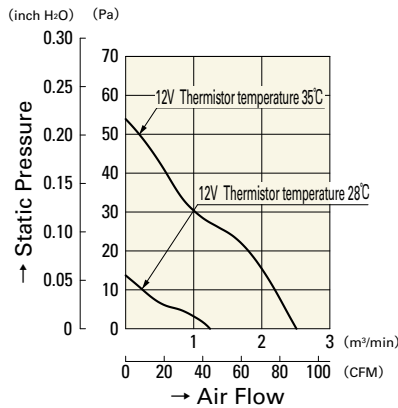
Item	Spec	
2-1	Resistance	R25 6.8KΩ ± 3%
2-2	B constant	B25/50 3950K ± 2%
2-3	Maximum rated power	188mW (25°C under still air)
2-4	Insulation resistance	100MΩ or more (DC500V megger)
2-5	Dielectric strength	No problem (AC1500V 1 minute)
2-6	Operating temperature range	-30°C to +80°C
2-7	Storage temperature range	-40°C to +100°C

Manufactured by OHIZUMI MFG CO.,LTD.  
 Mfr. Part No. 159-682-86 □□□

Thermal Speed Controlled Fan 120mm

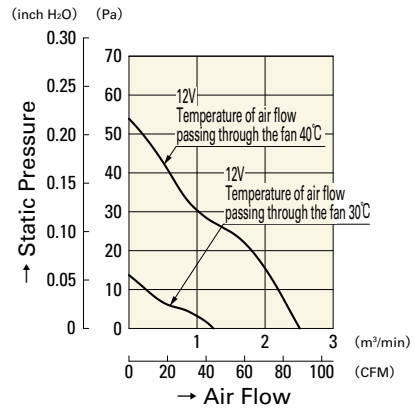
## Air Flow and Static Pressure Characteristics

External thermistor model



109P1212T4H12(121)

Built-in thermistor model

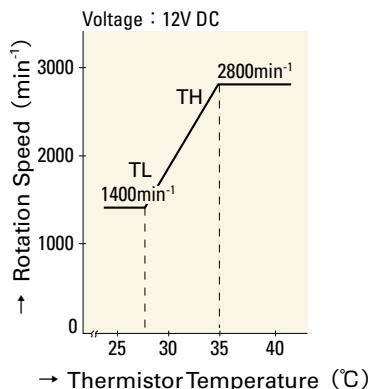


109P1212T4H122(123)

## Temperature-Rotation Speed Characteristics

External thermistor model

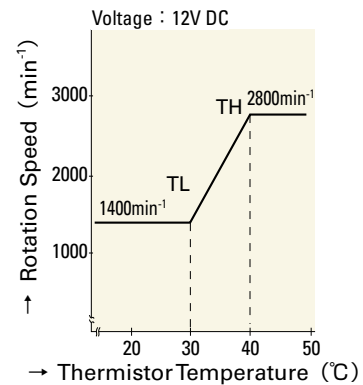
■ Characteristics of Thermistor-detected Temperature vs Speed



109P1212T4H12(121)

Built-in thermistor model

■ Typical characteristics of temperature of air flowing through the fan versus rotation speed



109P1212T4H122(123)

120mm

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