Thermal Speed Controlled Fan

ımm sq.

San Ace 92

25mm thick External thermistor model / **Built-in thermistor model**

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)

· Fail-safe · · · · The motor becomes high speed when the thermistor is unable

to detect the temperature in case of open or short circuit etc.

(Models equipped with a pulse sensor are excluded.)

· Storage Temperature ··· −30°C to +70°C (Non-condensing)



Note: Optional external thermistors are sold separately.

92×92×25mm (Mass: 150g)

Specifications External thermistor model

The numbers in () represent ribless models.

Model No.	Rated Voltage	Operating Voltage Range	Rated Current	Rated Input	Rated Speed	Air F	Flow	Static	Pressure	SPL	Operating Temperature	Life Expectancy
Wodel No.	[V]	[V]	[A]	[W]	[min ⁻¹]	[m³/min]	[CFM]	[Pa]	[inchH ₂ 0]	[dB(A)]	[°C]	[h]
109P0912T4H12(121)	12	10.2 to 13.8	0.2	2.4	2,850	1.45	51.2	45.1	0.181	33	-10 to +60	40,000
10370312141112(121)	12	10.2 (0 13.6	0.1	1.2	1,400	0.71	25.0	11.3	0.045	18	-10 10 +60	40,000

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

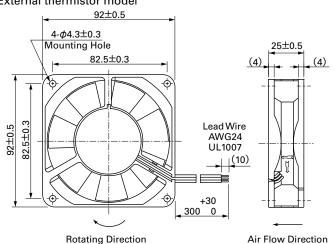
The numbers in () represent ribless models.

Model No.	Rated Voltage	Operating Voltage Range	Rated Current	Rated Input	Rated Speed	Air F	low	Static	Pressure	SPL	Operating Temperature	Life Expectancy
	[V]	[V]	[A]	[W]	[min ⁻¹]	[m³/min]	[CFM]	[Pa]	[inchH2O]	[dB(A)]	[°C]	[h]
109P0912T4H122(123)	12	10.2 to 13.8	0.2	2.4	3,000	1.52	53.7	50.0	0.201	35	-10 to +60	40,000
			0.1	1.2	1,400	0.71	25.0	11.3	0.045	18		

Note: The top row gives characteristics shown when the emperature is $40^\circ\mathrm{C}$, while the bottom row gives characteristics shown when the temperature is $30^\circ\mathrm{C}$.

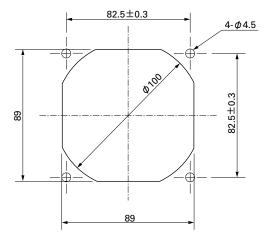
Dimensions (Unit:mm) (With ribs)

External thermistor model

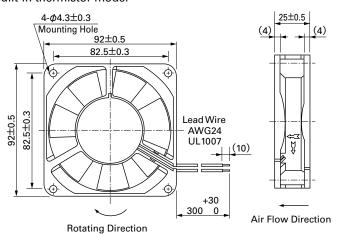


Reference dimensions of mounting holes and vent opening (Unit:mm)

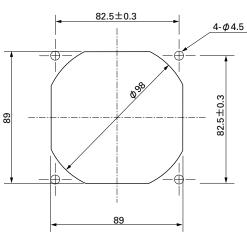
Outlet side



Built-in thermistor model



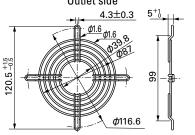
Inlet side



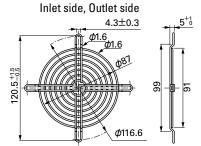
Options (Unit:mm)

Finger guards

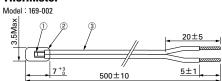
Color treatment: Nickel-chrome plating (silver) Outlet side



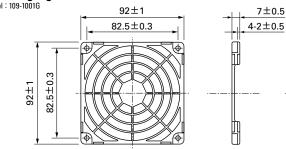
Model: 109-099E : 109-099H Surface treatment : Nickel-chrome plating (silver) : Cation electropainting (black)



Thermistor

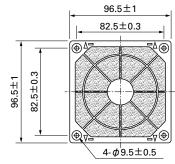


Resin finger guards

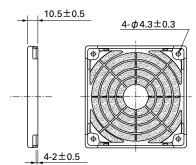


Resin filter kits

Model: 109-1001F13 (13PPI), 109-1001F20 (20PPI), 109-1001F30 (30PPI), 109-1001F40 (40PPI)



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



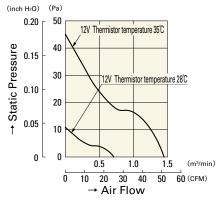
 $4-\phi 4.3\pm 0.3$

Item		Spec					
	D						
2-1	Resistance	R25 6.8K $\Omega \pm 3\%$					
2-2	B constant	B25/50 3950K±2%					
2-3	Maximum rated power	188mW (25℃ under still air)					
2-4	Insulation resistance	$100M\Omega$ 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.

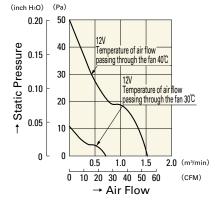
Air Flow and Static Pressure Characteristics

External thermistor model



109P0912T4H12(121)

Built-in thermistor model

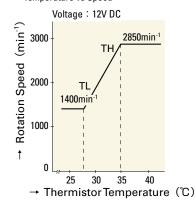


109P0912T4H122(123)

Temperature-Rotation Speed Characteristics

External thermistor model

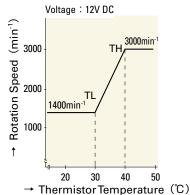
■ Characteristics of Thermistor-detected Temperature vs Speed



109P0912T4H12(121)

Built-in thermistor model

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



109P0912T4H122(123)