

80 mm sq.

San Ace 80

15mm thick, 20mm thick, 25mm thick, 25mm thick (GV type)
 25mm thick (San Cooler), 32mm thick
 38mm thick (GV type), 38mm thick (G type)



General Specifications **With a pulse sensor** Specifications for pulse sensors ⇔ Refer to Page 307

With PWM speed control function

- 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 (Sensor) yellow (Control) brown
- Storage Temperature -30°C to +70°C (Non-condensing)

80×80×25mm (Mass : 125g) **GV type**

Specifications The numbers in () represent ribless models.

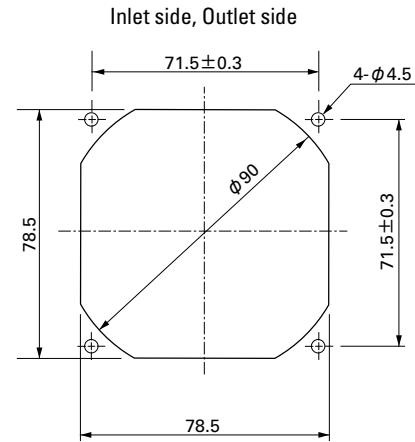
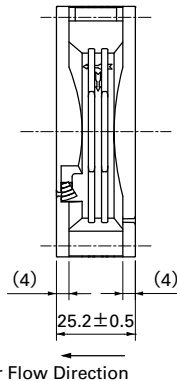
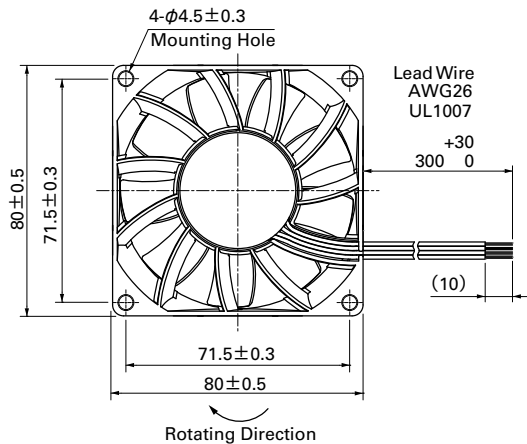
Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM duty cycle* [%]	Rated Current [A]	Rated Input [W]	Rated Speed [min ⁻¹]	Air Flow [m ³ /min] [CFM]		Static Pressure [Pa] [inchH ₂ O]		SPL [dB(A)]	Operating Temperature [°C]	Life Expectancy [h]
9GV0812P4K03(031)	12	10.2 to 13.8	100	0.87	10.4	5,600	2.12	74.8	173.0	0.69	52	-10 to +70	40,000
			0	0.10	1.2	1,400	0.53	18.7	10.8	0.04	18		
9GV0812P4J03(031)			100	0.47	5.6	4,500	1.72	60.7	110.0	0.44	46		
			0	0.07	0.8	1,200	0.46	16.2	7.8	0.03	14		
9GV0848P4K03	48	43 to 53	100	0.22	10.56	5,600	2.12	74.8	173.0	0.69	52	-10 to +70	40,000
			0	0.04	1.92	1,500	0.57	20.1	12.4	0.05	19		

*PWM Frequency : 25kHz

Without Sensor **Pulse Sensor** **PWM Control** Available in all models. **Lock Sensor** Please inquire as the availability of these functions depend on the model.

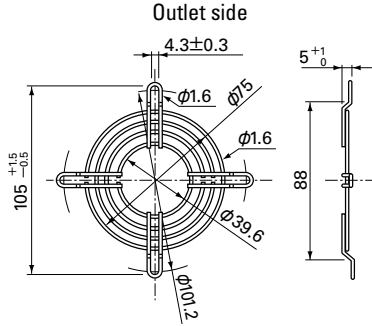
Dimensions (Unit : mm) (With ribs)

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



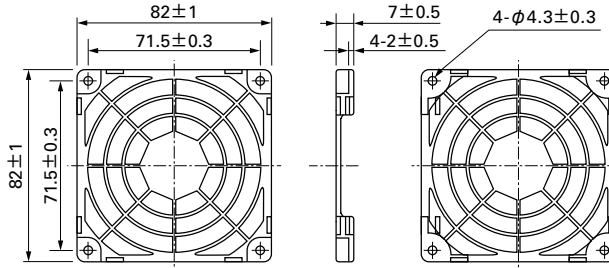
Finger guards

Model : 109-049C Surface treatment : Nickel-chrome plating (silver) Color : Nickel-chrome plating (silver)

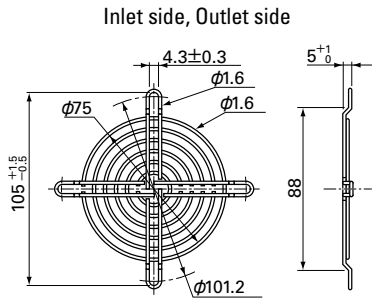


Resin finger guards

Model : 109-1002G

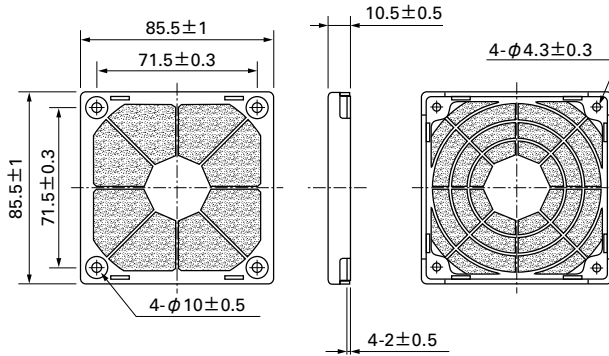


Model : 109-049E Surface treatment : Nickel-chrome plating (silver) Color : Nickel-chrome plating (silver)
: 109-049H : Cation electropainting (black)



Resin filter kits

Model : 109-1002F13 (13PPI), 109-1002F20 (20PPI)
: 109-1002F30 (30PPI), 109-1002F40 (40PPI)



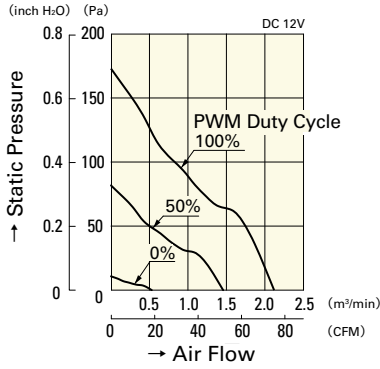
80 mm sq.

San Ace 80

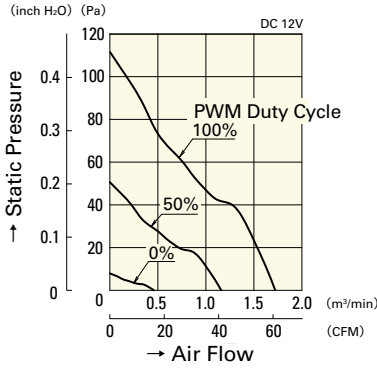
80×80×25 mm (Mass : 125g)

Air Flow and Static Pressure Characteristics

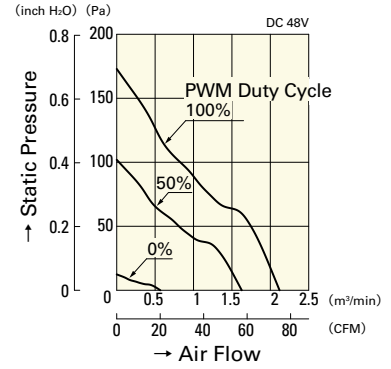
PWM Duty Cycle



9GV0812P4K03(031)

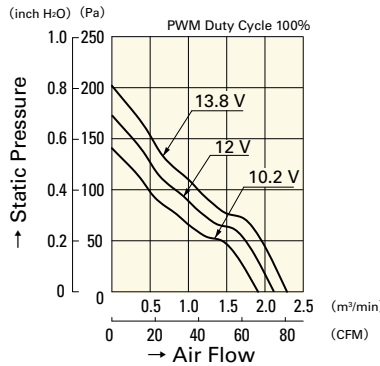


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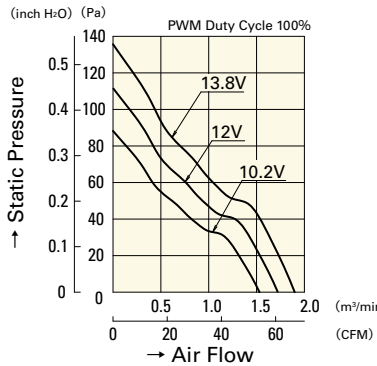


9GV0848P4K03

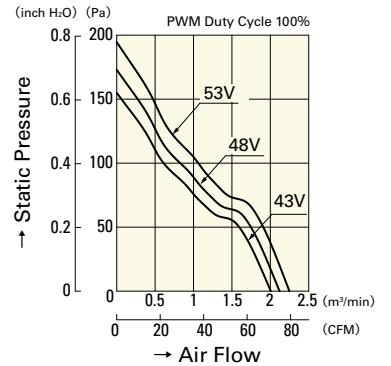
Operating Voltage Range



9GV0812P4K03(031)

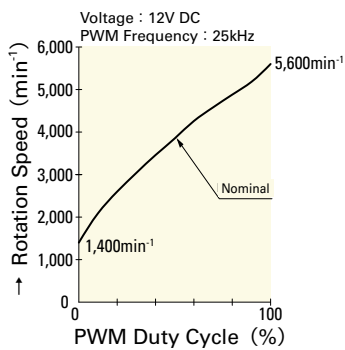


9GV0812P4J03(031)

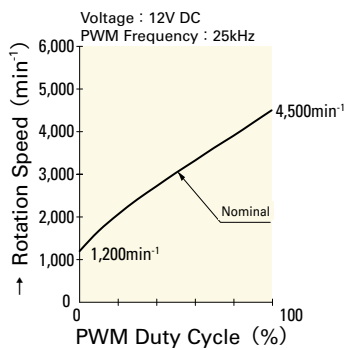


9GV0848P4K03

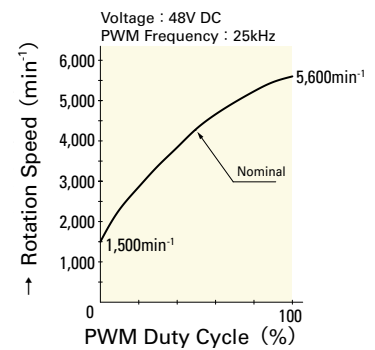
PWM Duty - Speed Characteristics Example



9GV0812P4K03(031)



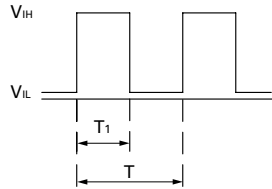
9GV0812P4J03(031)



9GV0848P4K03

PWM Input Signal Example

Input Signal Wave Form



$V_{IH}=4.75V$ to $5.25V$

$V_{IL}=0V$ to $0.4V$

PWM Duty Cycle (%) = $\frac{T_1}{T} \times 100$

PWM Frequency 25 (kHz) = $\frac{1}{T}$

Source Current (I_{source}) : 1mA Max. at control voltage 0V

Sink Current (I_{sink}) : 1mA Max. at control voltage 5.25V

Control Terminal Voltage : 5.25V Max. (Open Circuit)

When the control lead wire is no connecting, the speed is the same speed as at 100% of PWM cycle.

This fan speed should be controlled by PWM input signal of either TTL input or open collector, drain input.

Connection Schematic

