

Counter Rotating Fan

38mm sq.

San Ace 38

48mm thick (CRA type)



General Specifications With a pulse sensor

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 Inlet ⊕ red ⊖ black (Sensor) yellow (Control) brown
Outlet ⊕ orange ⊖ gray (Sensor) purple (Control) white
- Storage Temperature -10°C to +70°C (Non-condensing)

38×38×48mm

[Mass : 80g]

CRA type

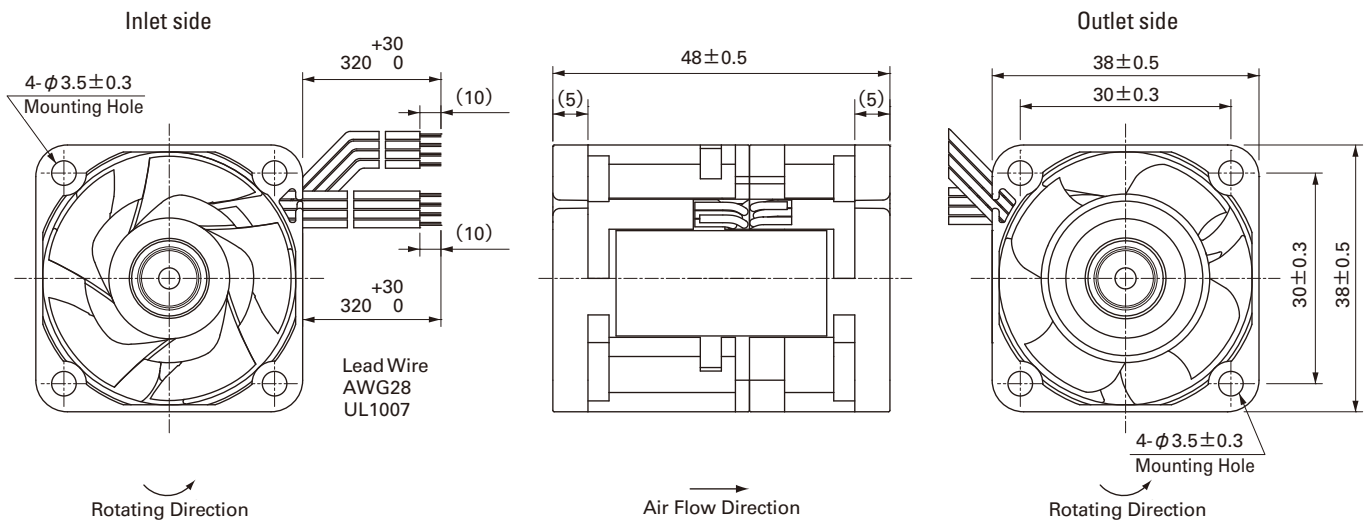
Specifications

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]
						Inlet	Outlet							
9CRA0312P4K03	12	10.8 to 13.2	100	1.5	18.0	17,600	14,520	0.77	27.2	700.0	2.81	64	-10 to +70	30,000
			0	0.2	2.4	5,280	4,200	0.22	7.8	54.9	0.22	33		
9CRA0312P4J03			100	1.1	13.2	16,000	13,200	0.7	24.7	560.0	2.25	62		40,000
			0	0.18	2.2	4,800	3,960	0.21	7.4	50.4	0.20	31		

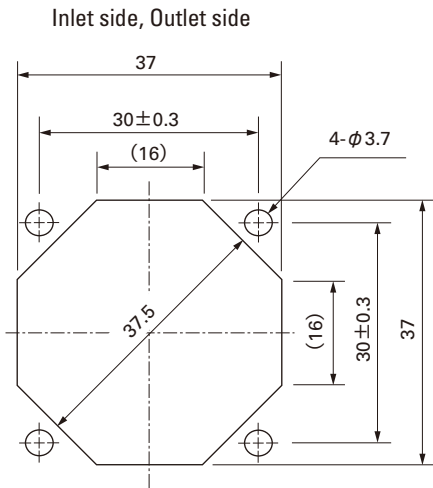
※PWM Frequency : 25kHz

Without Sensor Pulse Sensor PWM Control Available in all models.

Dimensions (Unit : mm)



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

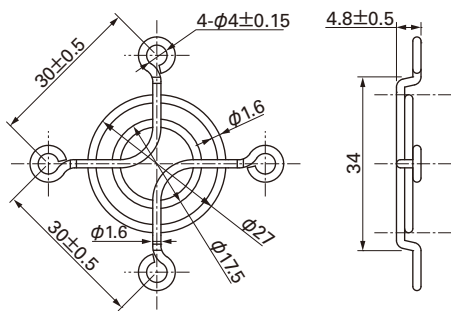


■ Options (Unit : mm)

Finger guards

Model : 109-1065 Surface treatment : Nickel-chrome plating (silver) Color

Inlet side, Outlet side



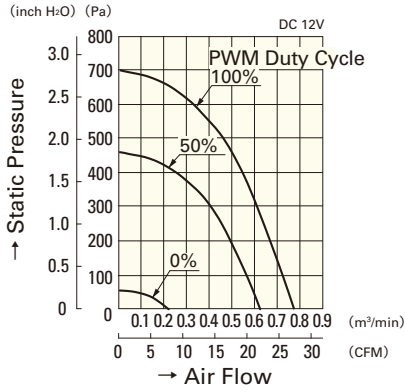
38mm sq.

San Ace 38

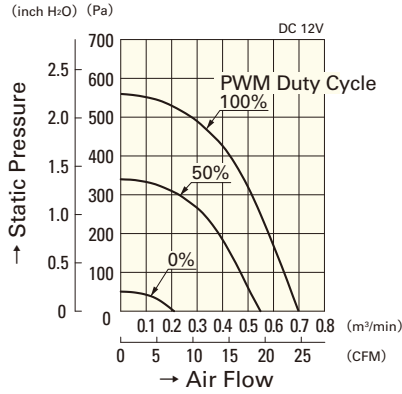
38×38×48mm [Mass : 80g]

Air Flow and Static Pressure Characteristics

PWM Duty Cycle

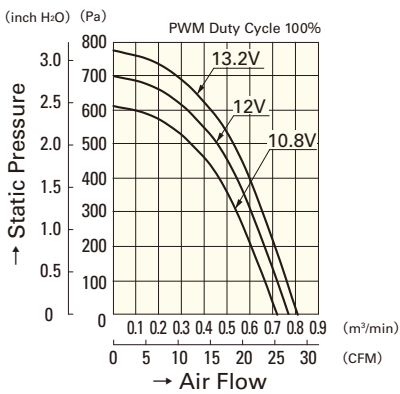


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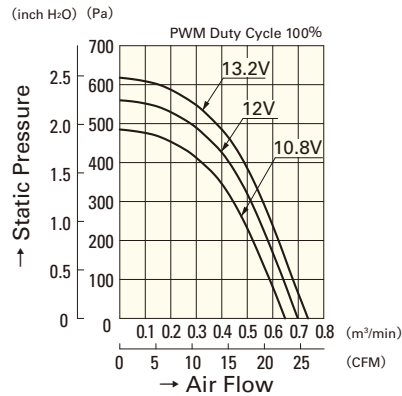


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Operating Voltage Range

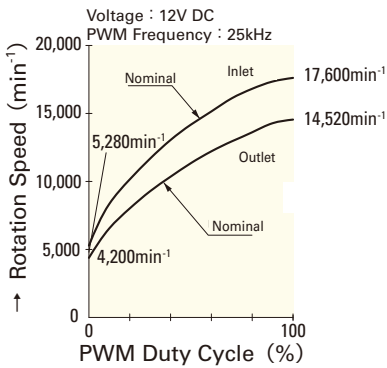


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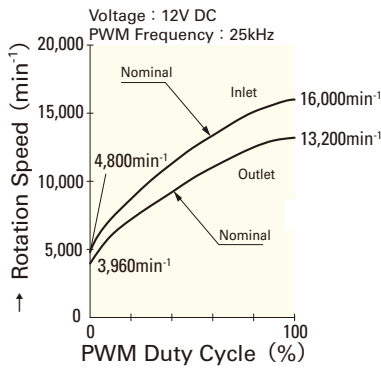


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PWM Duty - Speed Characteristics Example



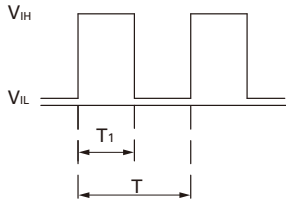
9CRA0312P4K03



9CRA0312P4J03

PWM Input Signal Example

Input Signal Wave Form



$V_{IH}=2.8V$ to $3.8V$

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

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

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

Source Current (I_{source}) : 2mA Max. at control voltage 0V

Sink Current (I_{sink}) : 2mA Max. at control voltage 3.8V

Control Terminal Voltage : 3.8V 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

