

Counter Rotating Fan

40mm sq.

San Ace 40

48mm thick (CRA type)
 56mm thick (CRE type)
 56mm thick (CRA type)



General Specifications With a pulse sensor

With PWM speed control function

- Material Frame: Aluminum, Impeller: Plastics (Flammability: UL94V-0)
- 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 ... -30°C to +70°C (Non-condensing)

40×40×56mm (Mass : 110g)

Low vibration CRE type

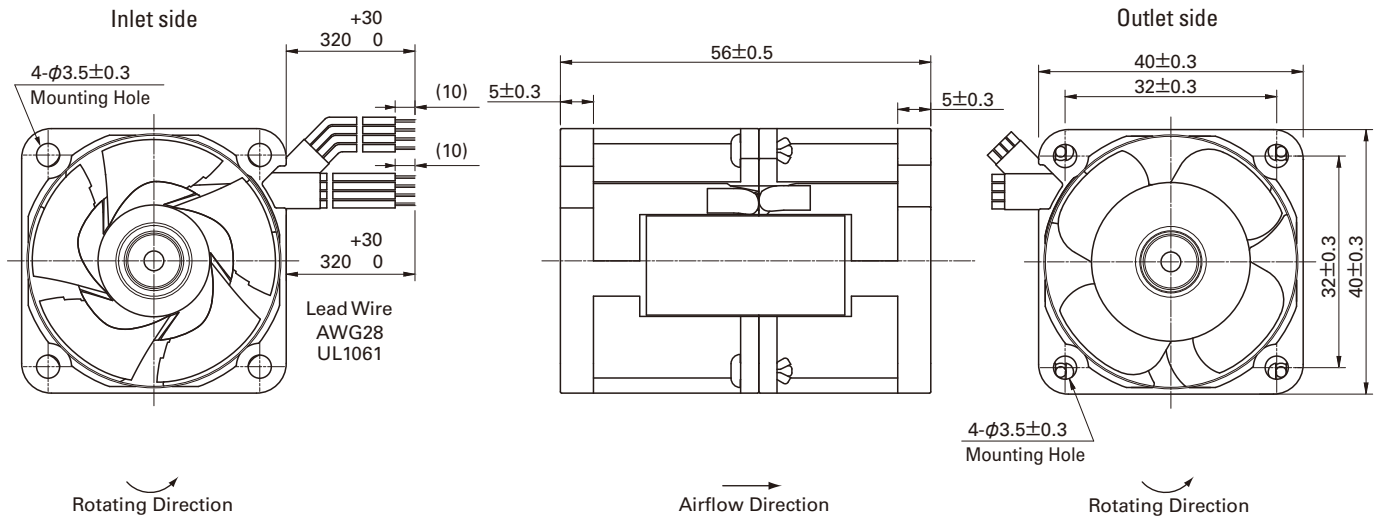
Specifications

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							
9CRE0412P5J03	12	10.8 ~ 13.2	100	1.4	16.8	15,800	12,200	0.90	31.8	570.0	2.290	62	-10 ~ +70	40,000
			0	0.1	1.2	2,850	2,250	0.12	4.2	13.7	0.055	21		

※PWM Frequency : 25kHz

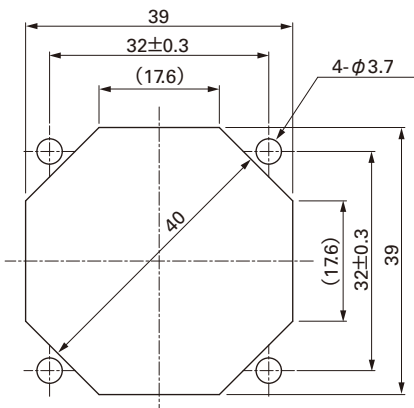
Without Sensor **Pulse Sensor** **PWM Control** Available in all models.

Dimensions (Unit : mm)



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

Inlet side, Outlet side



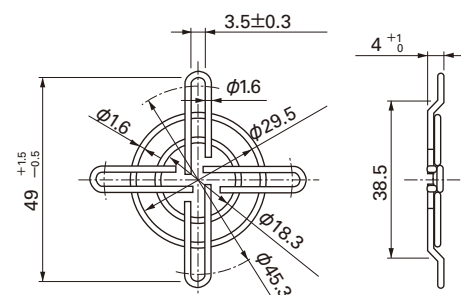
Options (Unit : mm)

Finger guards

Model : 109-059 Surface treatment : Nickel-chrome plating (silver)

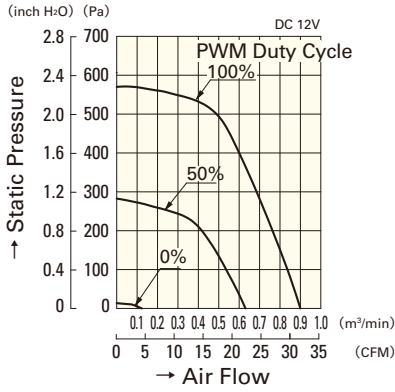
Color

Inlet side, Outlet side



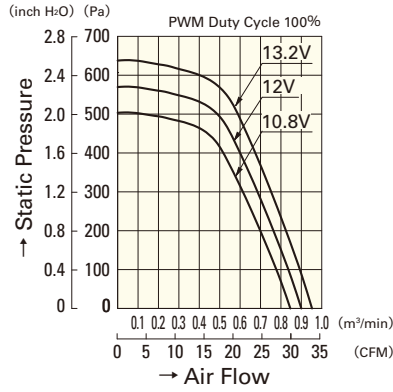
Air Flow and Static Pressure Characteristics

PWM Duty Cycle



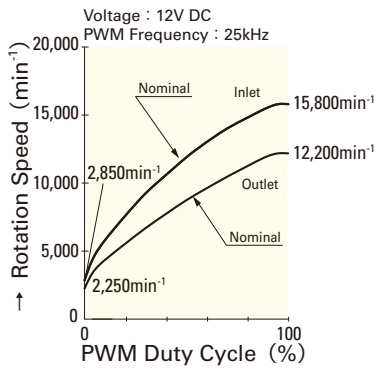
9CRE0412P5J03

Operating Voltage Range



9CRE0412P5J03

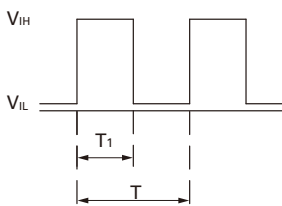
PWM Duty - Speed Characteristics Example



9CRE0412P5J03

PWM Input Signal Example

Input Signal Wave Form



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

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

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

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

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 duty cycle.

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

Connection Schematic

