

San Ace 92 GA type

DC Fan 92mm

Features

Energy-saving

Power consumption is reduced by approx. 30 % with our conventional product*.

It achieved Industry's top class large air flow and high static pressure.

* Our conventional product is the DC cooling fan :
92 x 92 x 38 mm fan "San Ace 92" GV type (Model No.: 9GV0912P1H03).
When air flow and static pressure performance is almost identical.



92mm×92mm×38mm

Specifications

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM Duty Cycle [%] <small>Note)</small>	Rated Current [A]	Rated Input [W]	Rated Speed [min ⁻¹]	Air Flow		Static Pressure		SPL [dB(A)]	Operating Temperature [°C]	Life Expectancy [h]
							[m ³ /min]	[CFM]	[Pa]	[inchH ₂ O]			
9GA0912P1H03(031)	12	10.2 to 13.8	100	2.10	25.2	9,700	4.00	141	500	2.01	63	-10 to +70	40,000
			0	0.16	1.92	2,500	0.97	34.3	33.0	0.13	29		

The numbers in () represent ribless models.
Note : PWM Frequency : 25kHz

Common Specifications

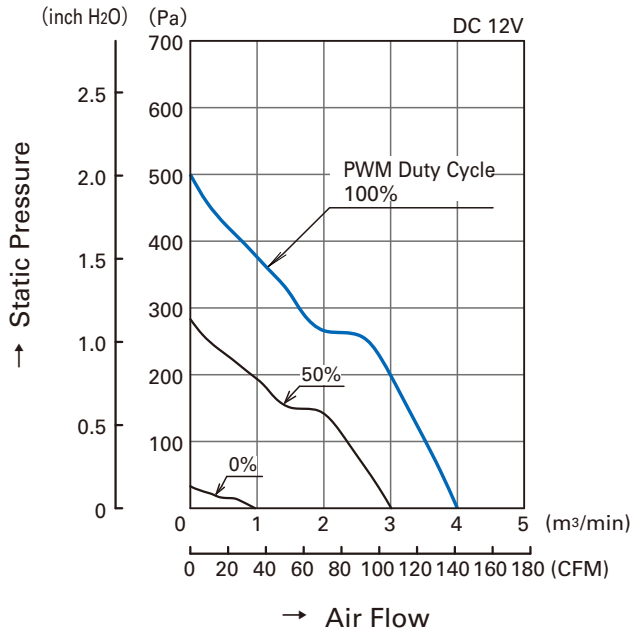
- Material Frame: Plastics (Flammability: UL94V-0) , Impeller: Plastics (Flammability: Min.UL94V-1)
- Life Expectancy Varies for each model
(L10: Survival rate: 90% at 60°C, rated voltage, and continuously run in a free air state)
- Motor Protection System Current blocking function and Reverse polarity protection
- Dielectric Strength 50/60 Hz, 500VAC, 1 minute (between lead conductor and frame)
- Sound Pressure Level (SPL) Expressed as the value at 1m from air inlet side
- Operating Temperature Varies for each model (Non-condensing)
- Storage Temperature -30°C to +70°C (Non-Condensing)
- Lead Wire ⊕red ⊖black Sensor: yellow Control: brown
- Mass Approx. 240g

92mm

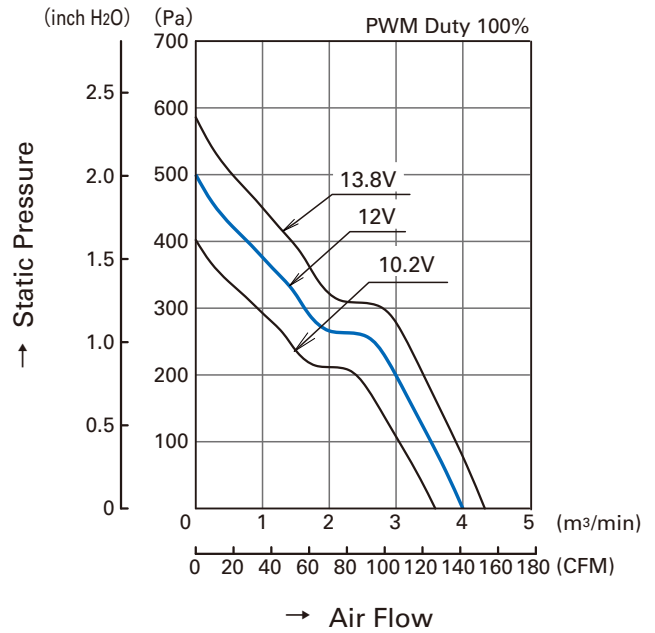
San Ace 92 GA_{type}

Air Flow and Static Pressure Characteristics

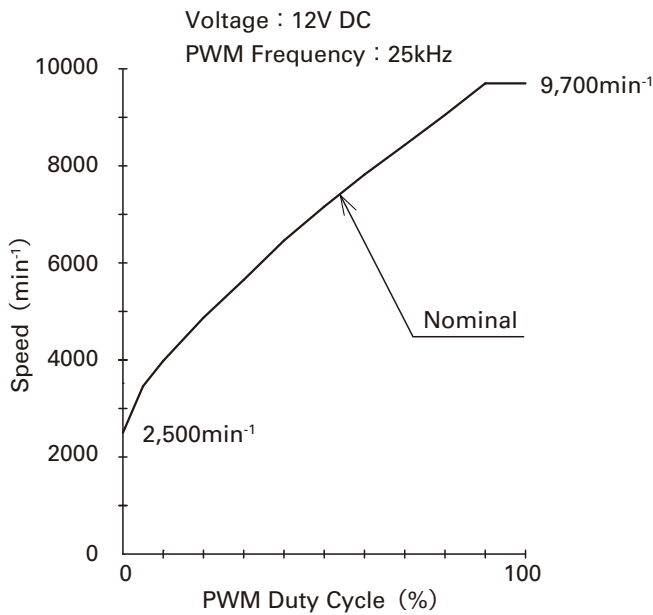
- PWM Duty Cycle



- Operating Voltage Range

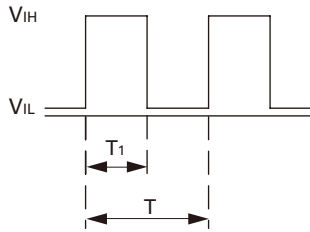


PWM Duty - Speed Characteristics Example



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 : 1mA Max. at control voltage 0V

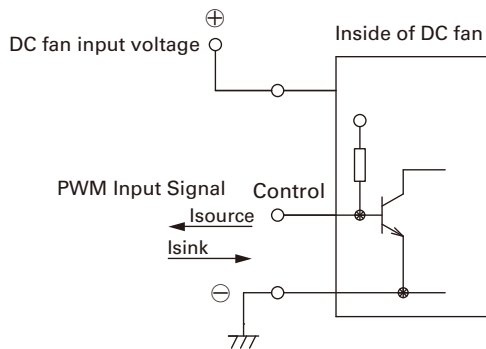
Sink Current : 1mA Max. at control voltage 5.25V

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.

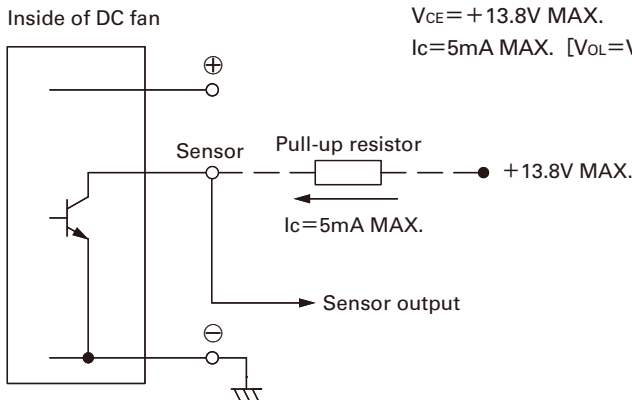
This fan speed should be controlled by PWM input signal of either TTL input or open collector, drain input.

Connection Schematic



Specifications for Pulse Sensors

Output circuit : Open collector



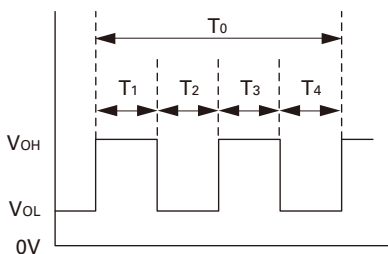
$V_{CE}=+13.8V$ MAX.

$I_c=5mA$ MAX. [$V_{OL}=V_{CE(SAT)}=0.6V$ MAX.]

Output waveform (Need pull-up resistor)

In case of steady running

(One revolution)

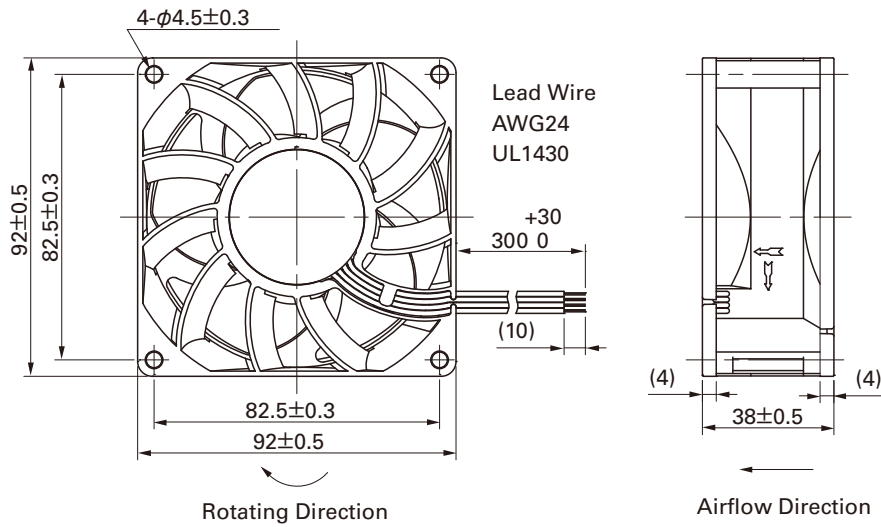


$T_{1\sim 4} \cong (1/4) T_0$

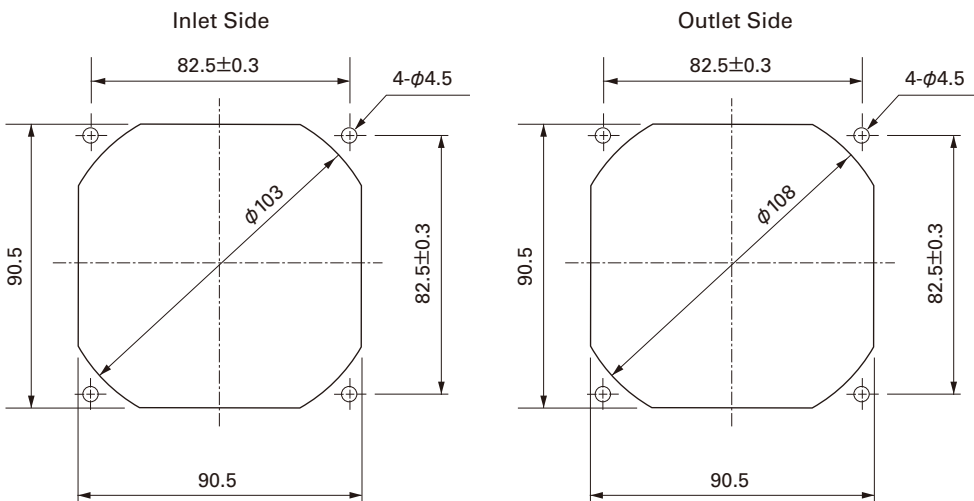
$T_{1\sim 4} \cong (1/4) T_0=60/4N$ (sec)

N = Fan speed (min^{-1})

■ **Dimensions (unit : mm)** (With ribs)



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



Notice

- The products shown in the catalog are subject to Japanese Export Control Law. Diversion contrary to the law of exporting country is prohibited.
- To protect against electrolytic corrosion that may occur in locations with strong electromagnetic noise, we provide fans that are unaffected by electrolytic corrosion.