

San Ace B120

Blower

Blower 120mm

Features

Large air flow and high static pressure

- Maximum air flow : 1.6 m³/min(56.5 CFM)
- Maximum static pressure : 1250 Pa(5.02 inch H₂O)

Energy-saving

- Power consumption: 26.4 W*

Low Sound Pressure Level

- Sound Pressure Level: 62 dB(A)

* When model No. 9BFB24P2H003 is used.



120mm × 32mm

Specifications

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM Duty Cycle [%] <small>Note1,2)</small>	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]
9BFB12P2H003	12	10.8 to 13.2	100	2.3	27.6	3,750	1.6 56.5	1,250 5.02	62	-20 to +70	40,000
9BFB24P2H003	24	21.6 to 26.4	100	1.1	26.4	3,750	1.6 56.5	1,250 5.02	62		
			0	0.12	2.88	1,300	0.46 16.2	43 0.17	41		

Note1 : PWM Frequency : 25kHz

Note2 : 9BFB12P2H003 does not rotate when PWM duty cycle is 0%.

Common Specifications

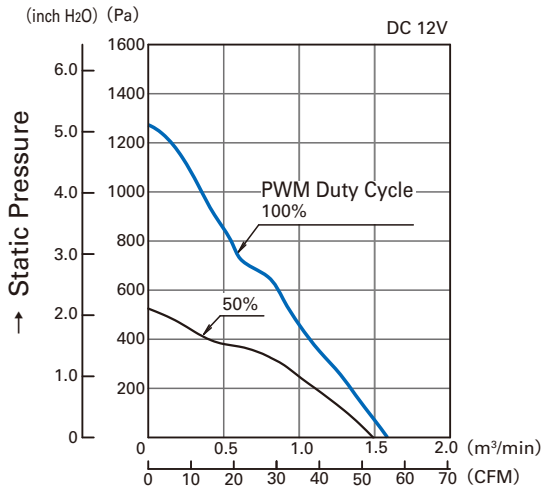
- Material Frame, Impeller : Plastics (Flammability: UL94V-0)
- Life Expectancy Varies for each model
(L10: Survival rate: 90% at 60°C, rated voltage, and continuously run in a free air state)
- Motor Protection System Current blocking function and Reverse polarity protection
- Dielectric Strength 50/60 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. 340g

120mm

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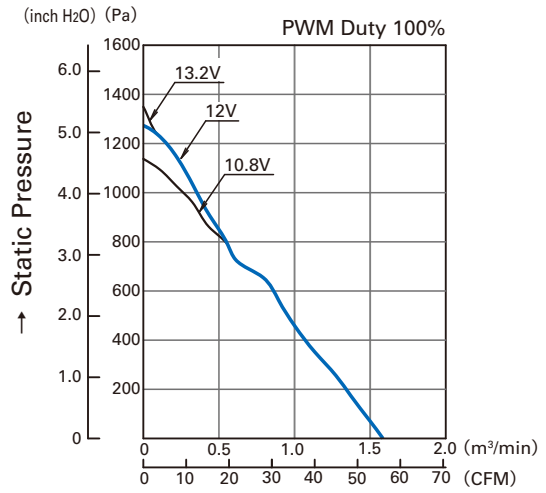
Air Flow - Static Pressure Characteristics

• PWM Duty Cycle

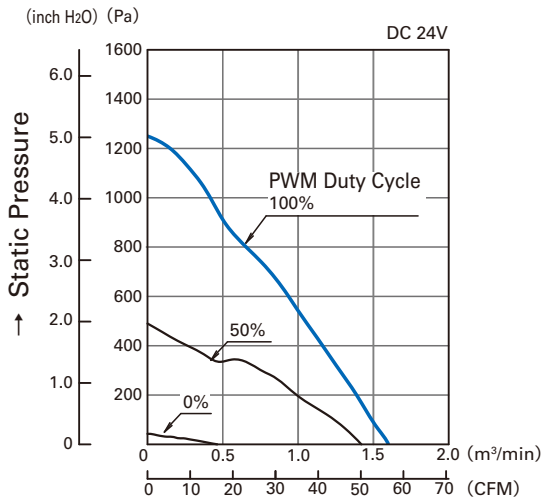


→ Air Flow
9BFB12P2H003

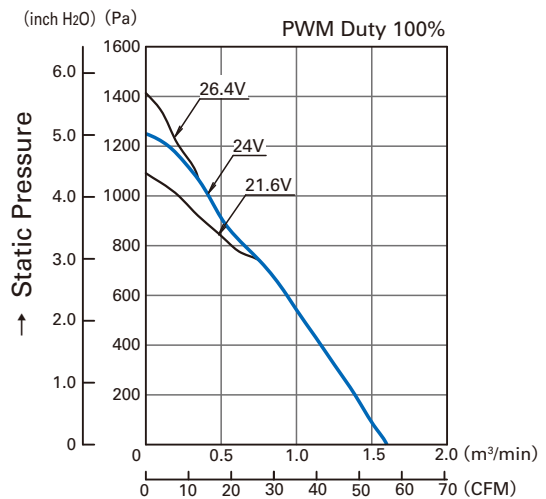
• Operating Voltage Range



→ Air Flow
9BFB12P2H003

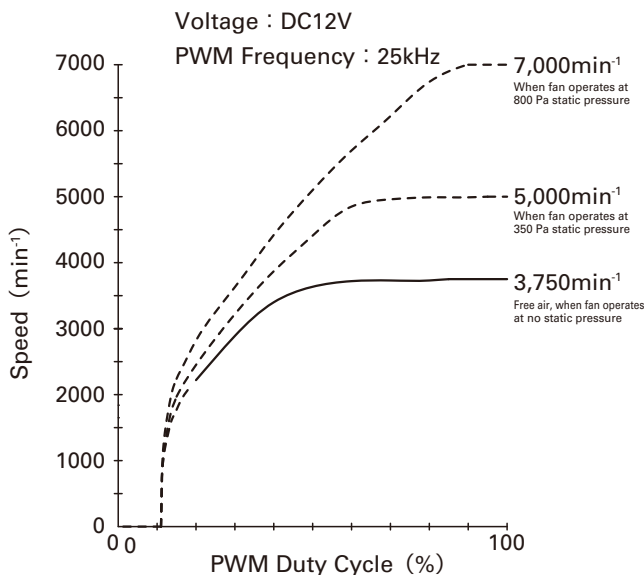


→ Air Flow
9BFB24P2H003

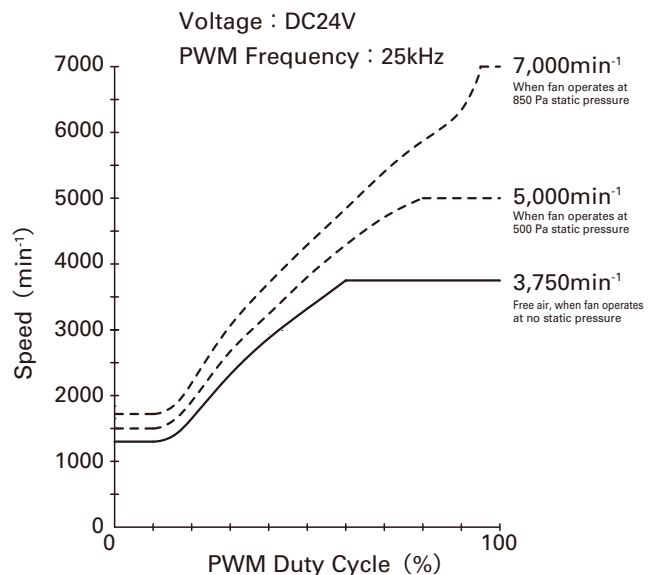


→ Air Flow
9BFB24P2H003

PWM Duty - Speed Characteristics Example



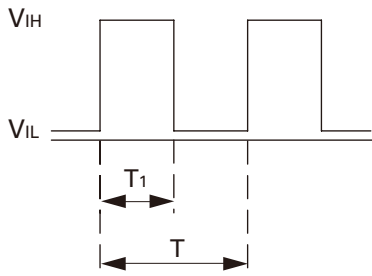
9BFB12P2H003



9BFB24P2H003

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 (Rated Voltage 12V fan)

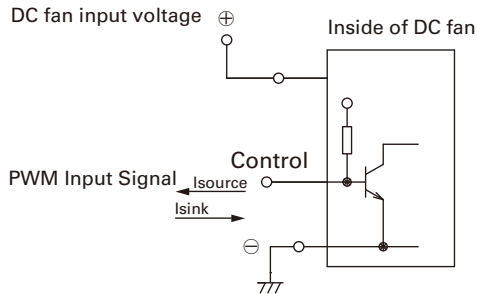
3mA Max. at control voltage 5.25V (Rated Voltage 24V fan)

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.

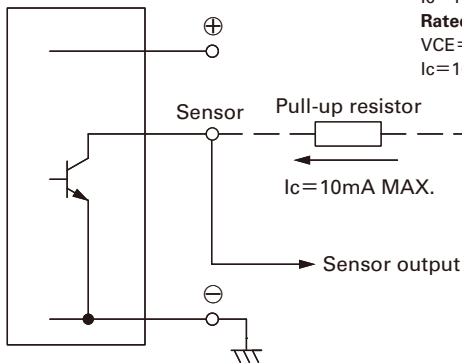
Connection Schematic



Specifications for Pulse Sensors

Output circuit : Open collector

Inside of DC fan



Rated Voltage 12V fan

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

$I_c=10mA$ MAX. [$V_{OL}=V_{CE} (SAT) =1.0V$ MAX.]

Rated Voltage 24V fan

$V_{CE}=+30V$ MAX.

$I_c=10mA$ MAX. [$V_{OL}=V_{CE} (SAT) =0.6V$ MAX.]

+13.8V MAX. (Rated Voltage 12V fan)

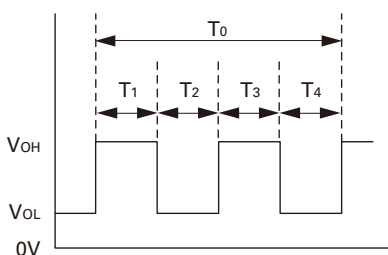
+30V MAX. (Rated Voltage 24V fan)

$I_c=10mA$ MAX.

Output waveform (Need pull-up resistor)

In case of steady running

(One revolution)

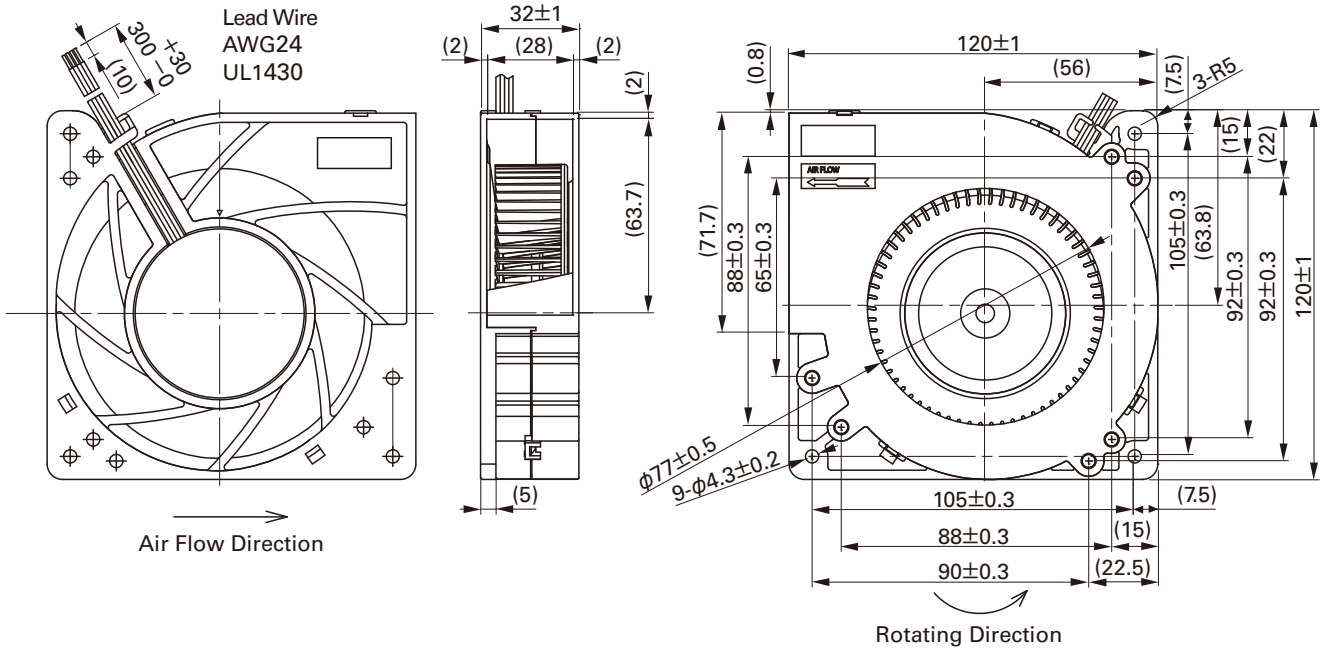


$T_{1\sim 4} \doteq (1/4) T_0$

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

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

■ Dimensions (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.