San Ace 120
DC fan

Features

High Static Pressure
Maximum static pressure is increased by approx. 3.6times compared with our conventional product*1.

Energy-saving
Power consumption is reduced by approx. 11% compared with our conventional product *1,2.

*1: Our conventional product is 120 x 120 x 38 mm thick. San Ace 120 GVtype, Model No. 9GV1248P1J01.
*2: When air flow and static pressure is almost identical.

120×120×38mm HV type

Specifications

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM Duty Cycle [%] Note1)	Rated Current [A]	Rated Input [W]	Rated Speed [min⁻¹]	Max. Air Flow [m³/min]	[CFM]	Max. Static Pressure [Pa]	[inchH2O]	SPL [dB(A)]	Operating Temperature [℃]	Note2) Expected Life [h]
9HV1248P1G001	48	36 to 60	100	2.0	96	11,500	8.3	293	1,300	5.22	75	−10 to +70	40,000/60℃ (70,000/40℃)
			0	0.23	11	3,800	2.7	95	161	0.65	46		
9HV1248P1H001	48	36 to 60	100	1.4	67	10,000	7.2	254	1,050	4.22	72		
			0	0.23	11	3,800	2.7	95	161	0.65	46		

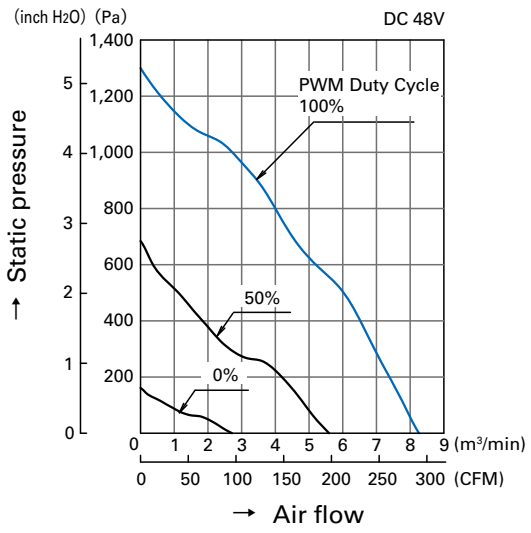
Note1 : PWM Frequency : 25kHz
Note2 : Expected life at 40 degreeC ambient is just reference value.

Common Specifications

- ☐ Material ····· Frame: Aluminum, Impeller: Plastics (Flammability: UL94V-1)
- ☐ Expected Life ····· Varies for each model
  (L10: Survival rate: 90% at 60℃, 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℃ to +70℃ (Non-Condensing)
- ☐ Lead Wire ····· ⊕red ⊖black Sensor: yellow Control : brown
- ☐ Mass ····· Approx. 460g

Air Flow - Static Pressure Characteristics

• PWM Duty Cycle



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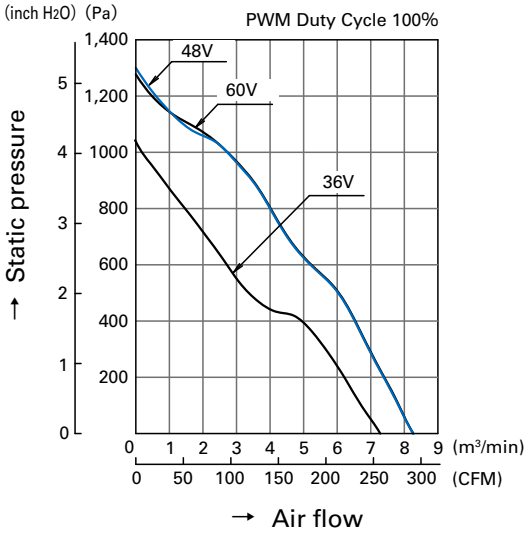
• Operating Voltage Range



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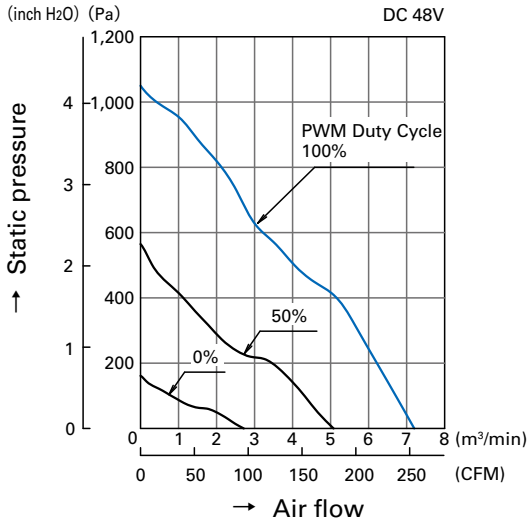

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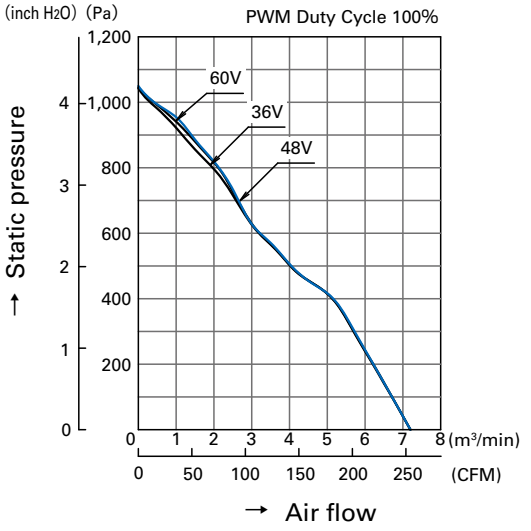

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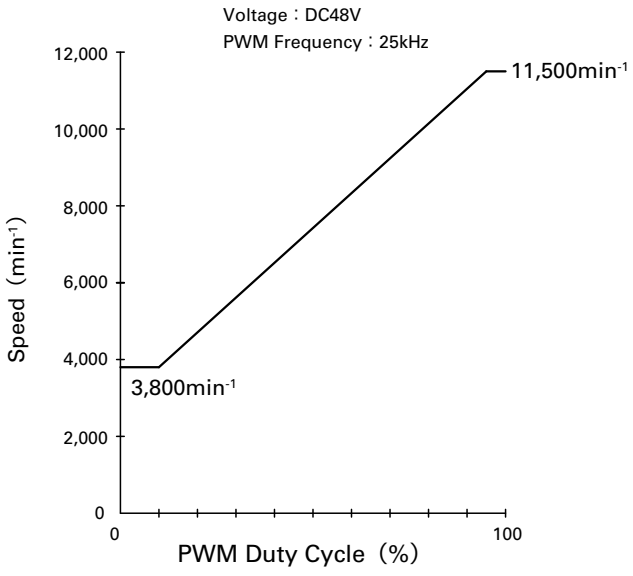
PWM Duty - Speed Characteristics Example



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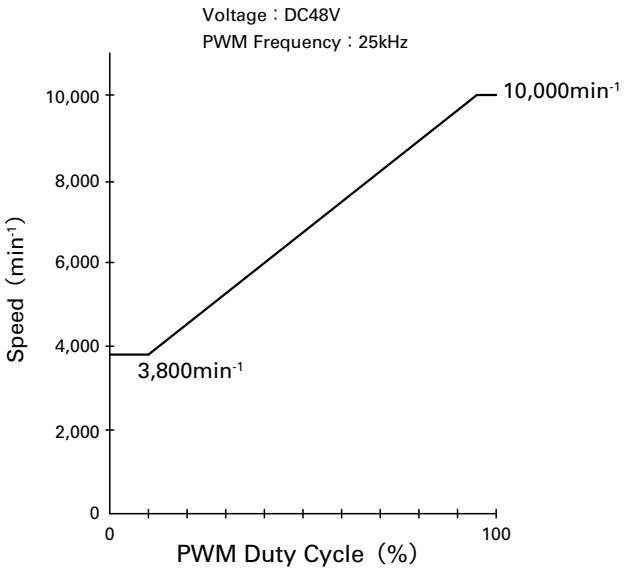

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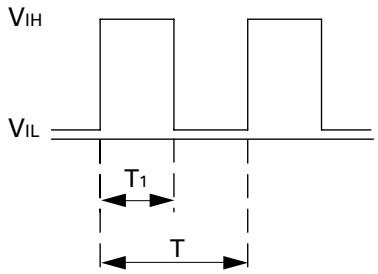
PWM Input Signal Example

Input Signal Wave Form



V_{IH}=4.75V to 5.25V

V_{IL}=0V to 0.4V

PWM Duty Cycle (%) = $\frac{T1}{T} \times 100$

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

Source Current (Isource) : 1mA Max. at control voltage 0V

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

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

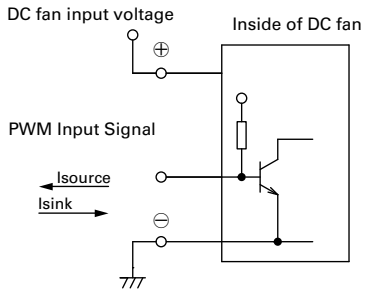
When the control lead wire is open,

speed is same as one at 100% PWM duty cycle.

This fan speed should be controlled by PWM input signal of either

TTL input or open collector, drain input.

Connection Schematic

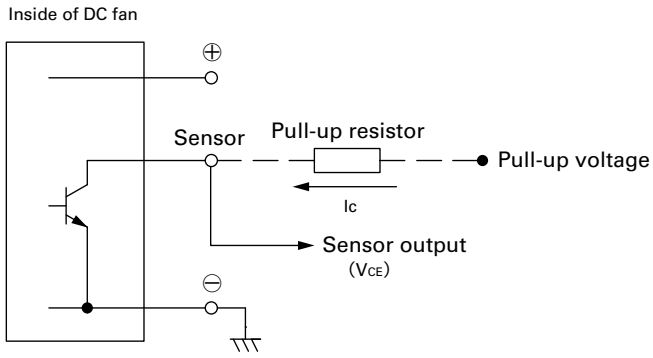


Specifications for Pulse Sensors

Output circuit : Open collector

V_{CE}=+60V MAX.

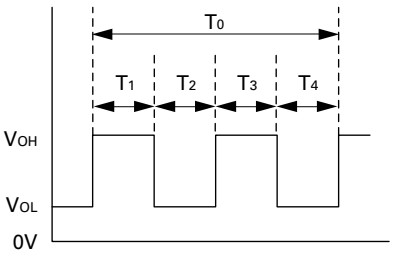
Ic=10mA MAX. [V_{OL}=V_{CE} (SAT) =0.6V MAX.]



Output waveform (Need pull-up resistor)

In case of steady running

(One revolution)

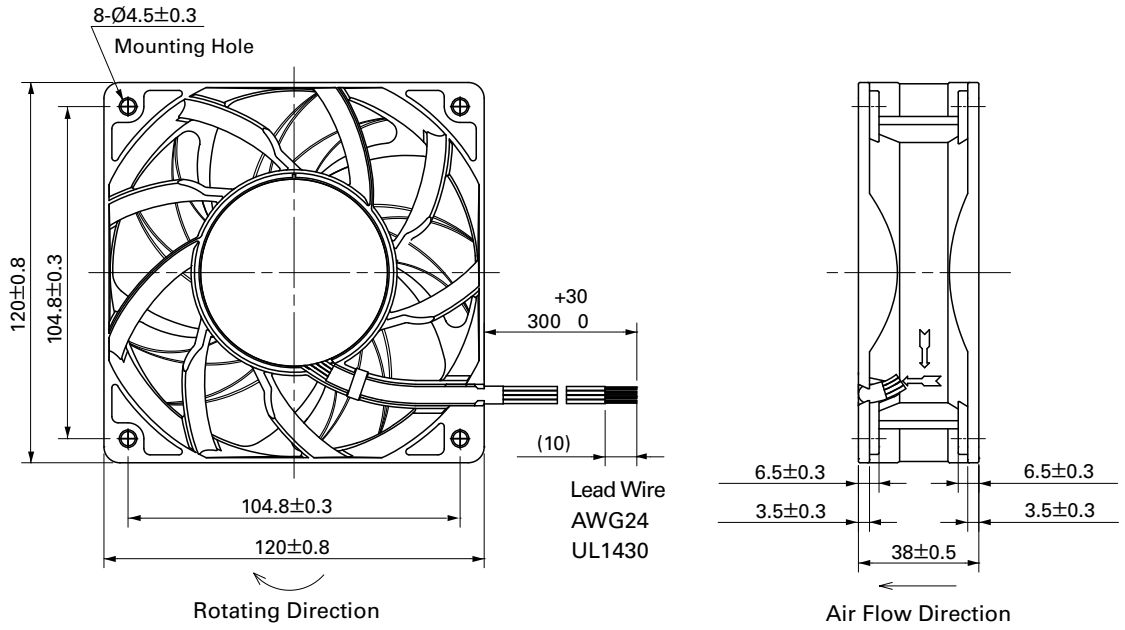


$T_{1\sim4} \fallingdotseq (1/4)\ T_0$

$T_{1\sim4} \fallingdotseq (1/4)\ T_0 = 60/4N$ (sec)

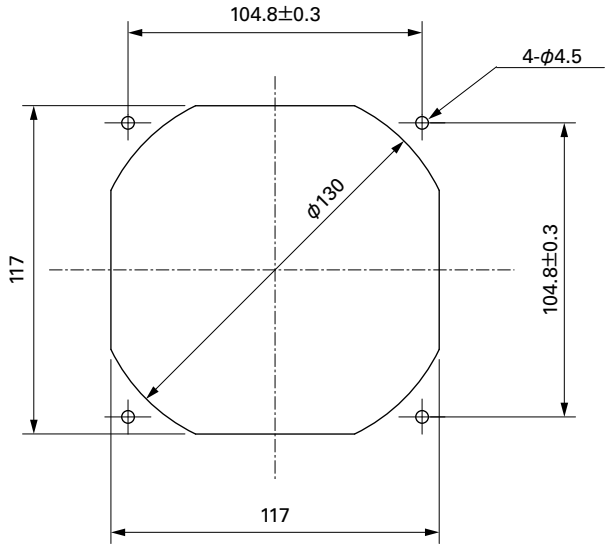
N=Fan speed (min^{-1})

Dimensions (unit : mm)



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

Inlet Side, Outlet Side



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.

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