

San Ace 172W

Splash Proof Fan 172mm

Features

Splash proof and dust resistant

- Protection class IP55* water and dust resistant performance.
- Maintains safe operation even in harsh environments.

Large air flow and high static pressure

- Maximum airflow : 15.46m³/min
- Maximum static pressure : 1000Pa



※ "IP55" is a protection specification for protection against water sprays and dust. It is based on IEC (International Electrotechnical Commission) and JIS (Japanese Industrial Standards) and specified as follows. Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact. Water projected in jets against the enclosure from any direction shall have no harmful effect.

φ172mm × 51mm

Specifications

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM Duty Cycle [%] <small>Note1)</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] <small>Note2)</small>
9WG5748P5G001	48	40.8 to 55.2	100	2.91	140.0	8,600	15.46	546	1000	4.02	78	-10 to +70	40,000/60°C (70,000/40°C)
			0	0.21	10.1	2,000	3.59	127	75.1	0.30	40		
9WG5748P5H001			100	1.62	78.0	6,500	11.60	410	770	3.09	71		
			0	0.21	10.1	2,000	3.59	127	75.1	0.30	40		

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

Common Specifications

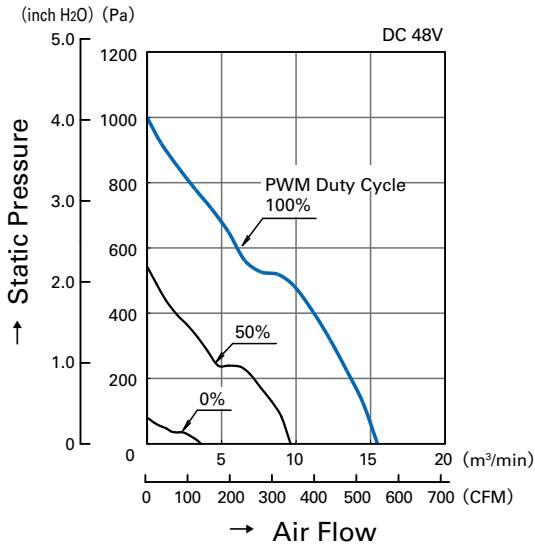
- Material Frame: Aluminum, Impeller: Plastics (Flammability: UL94V-1)
- Life Expectancy Varies for each model
(L10: Survival rate: 90% at 60°C, rated voltage, and continuously run in a free air state)
- Motor Protection System Current blocking function and Reverse polarity protection
- Dielectric Strength 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. 860g

172mm

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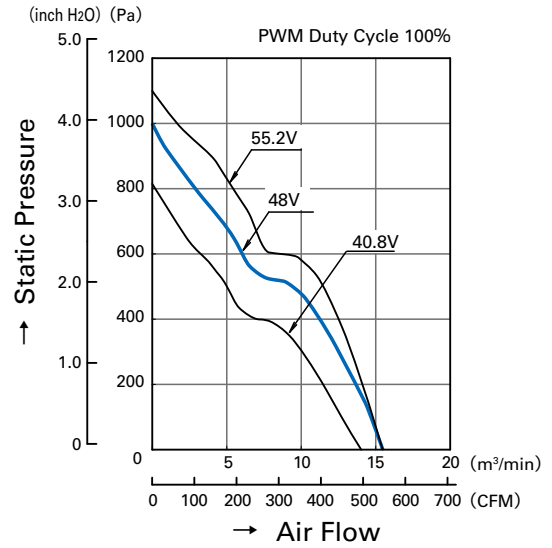
Air Flow and Static Pressure Characteristics

• PWM Duty Cycle

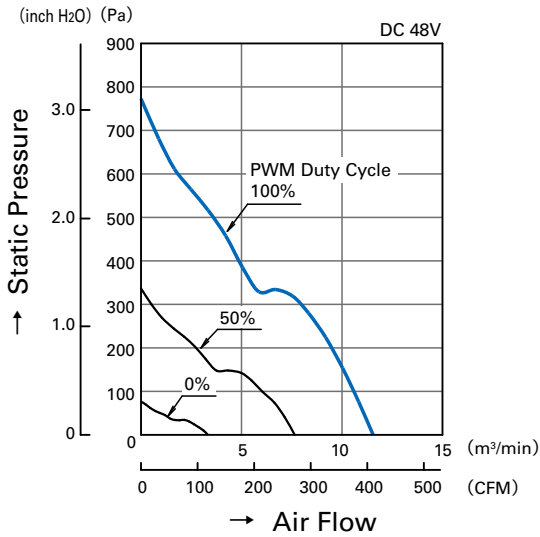


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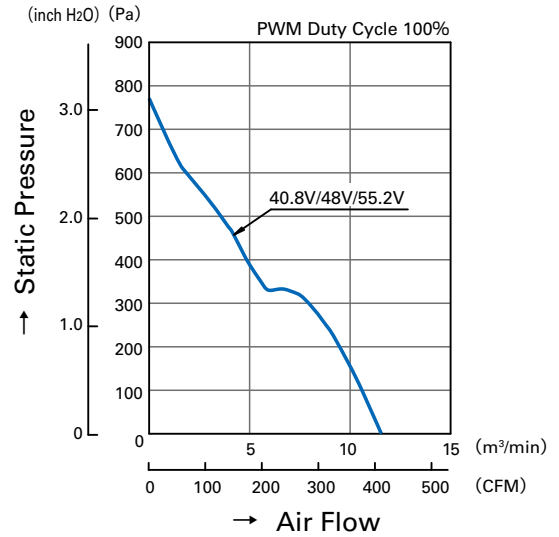
• Operating Voltage Range



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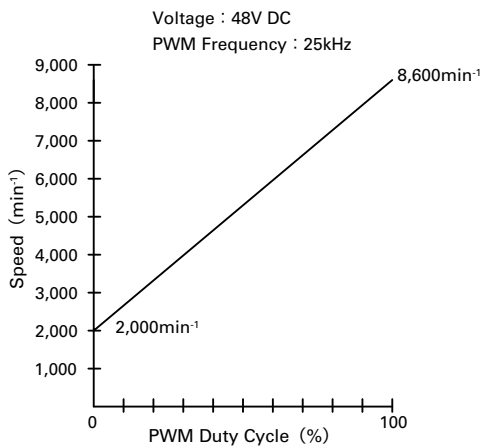


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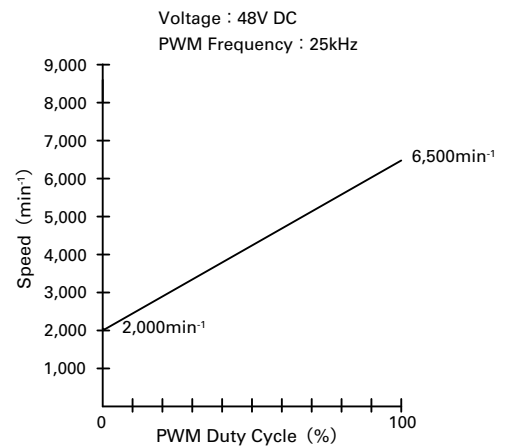


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PWM Duty - Speed Characteristics Example



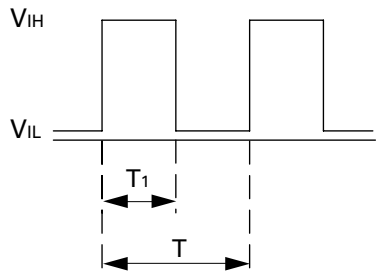
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PWM Input Signal Example

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 (I_{source}) : 1mA Max. at control voltage 0V

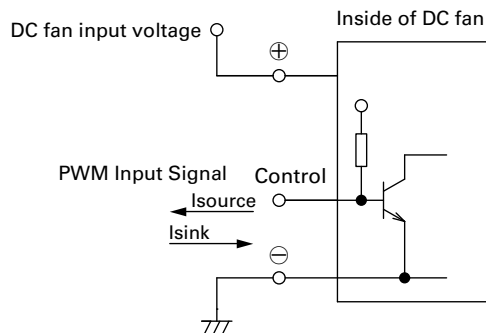
Sink Current (I_{sink}) : 1mA Max. at control voltage 5.25V

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.

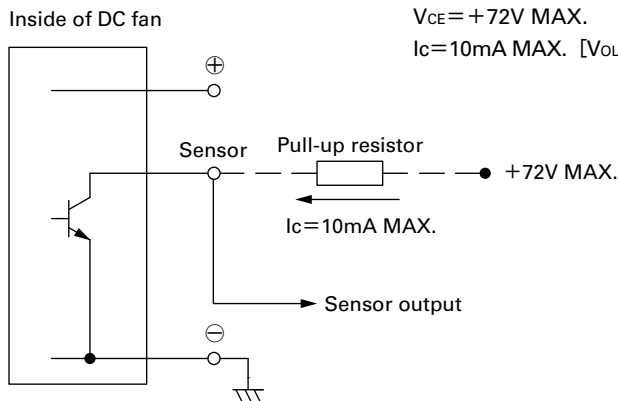
This fan speed should be controlled by PWM input signal of either TTL input or open collector, drain input.

Connection Schematic



Specifications for Pulse Sensors

Output circuit : Open collector



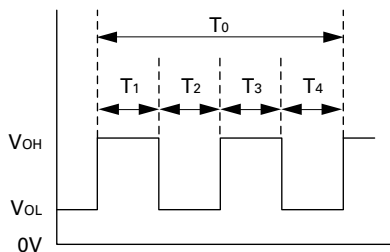
$V_{CE}=+72V$ MAX.

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

Output waveform (Need pull-up resistor)

In case of steady running

(One revolution)

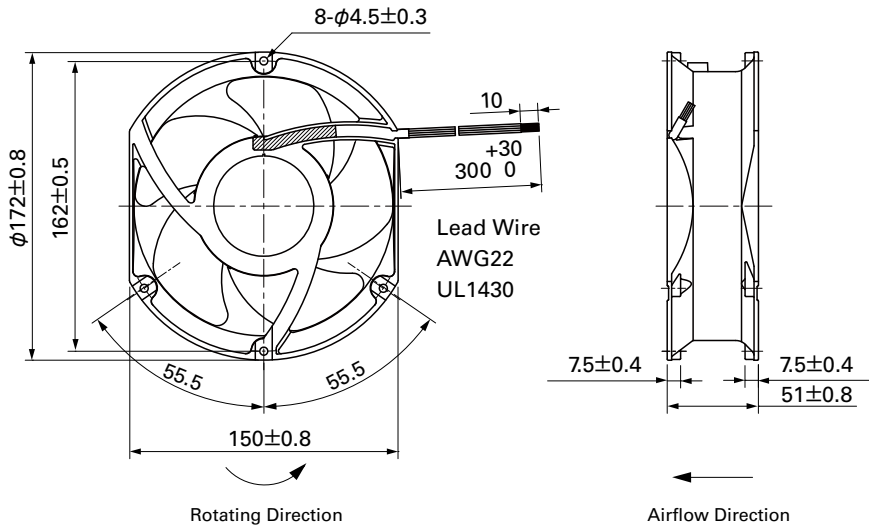


$T_{1\sim4} \doteq (1/4) T_0$

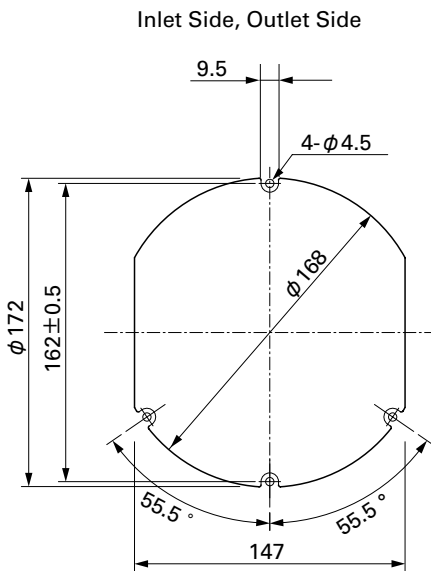
$T_{1\sim4} \doteq (1/4) T_0=60/4N$ (sec)

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

■ Dimensions (unit : mm)



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



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.