

San Ace 172 SG type

DC Fan 172mm

Features

Large air flow and high static pressure

- Maximum airflow : increased by approx. 37 %
- Maximum static pressure : increased by approx. 45 %

* Our conventional product is the DC cooling fan :
 φ172 mm × 51 mm thick fan "San Ace 172" GV type (9GV5748P5H03)



φ172mm × 51mm

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 Range [°C]	Life Expectancy [h]
9SG5748P5G01	48	36 to 72	100	2.91	140	8,600	15.46	546	1000	4.02	78	-10 to +60	40,000
			0	0.21	10.1	2,000	3.59	127	75.1	0.30	40		
9SG5748P5H01			100	1.62	78	6,500	11.60	410	770	3.09	71		
			0	0.21	10.1	2,000	3.59	127	75.1	0.30	40		

※PWM Frequency : 25kHz

Common Specifications

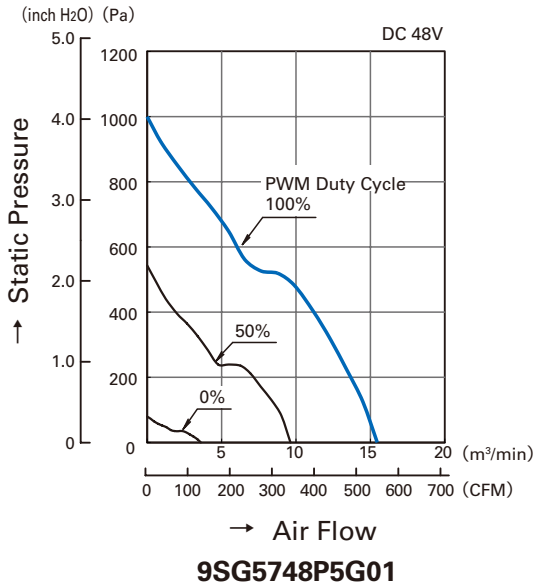
- Material Frame: Aluminum , Impeller: Plastics (Flammability: UL94V-1)
- Life Expectancy Varies for each model
 (L10: Survival rate: 90% at 60°C, rated voltage, and continuously run in a free air state)
- Motor Protection System Current blocking function and Reverse polarity protection
- Dielectric 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 Range Varies for each model (Non-condensing)
- Lead Wire ⊕red ⊖black Sensor: yellow Control: brown
- Mass 760g

172mm

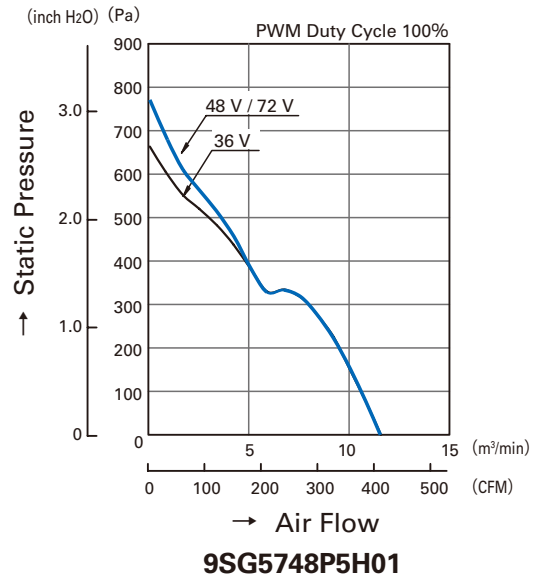
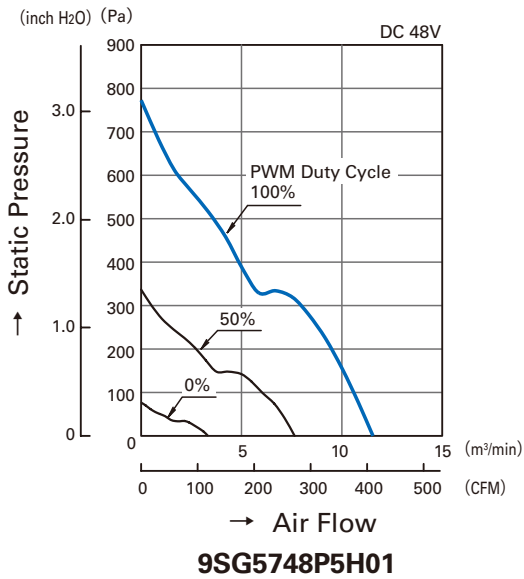
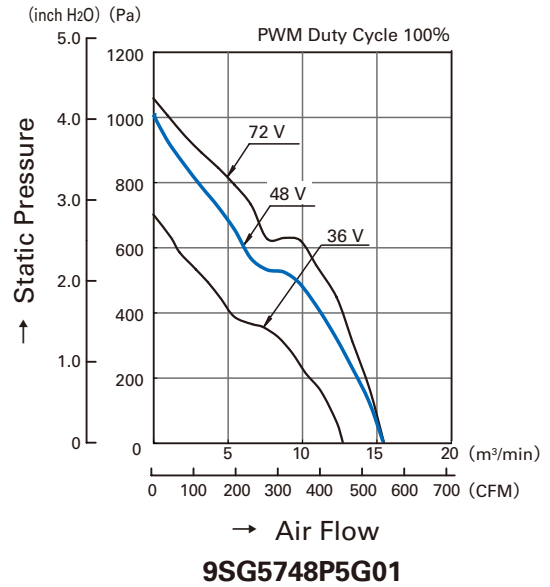
SanAce 172 SG type

Air Flow and Static Pressure Characteristics

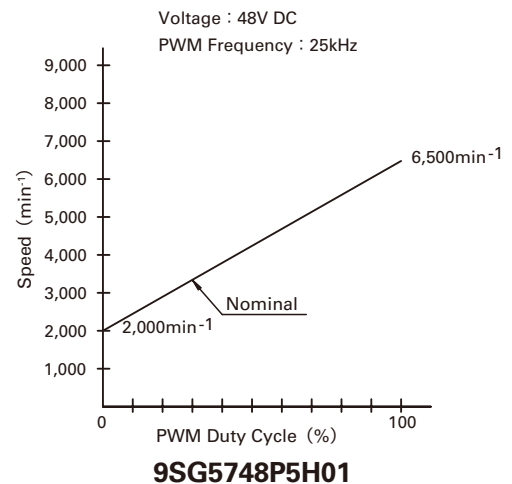
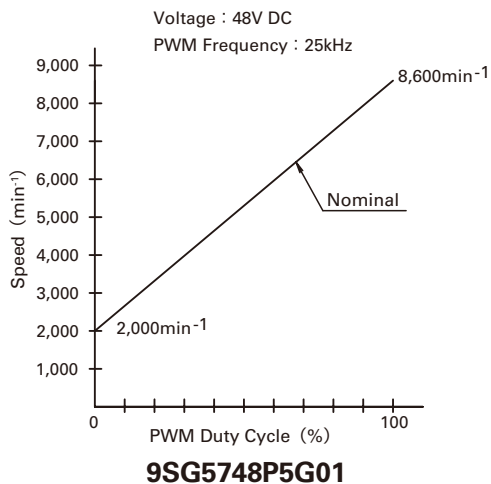
PWM Duty Cycle



Operating Voltage Range

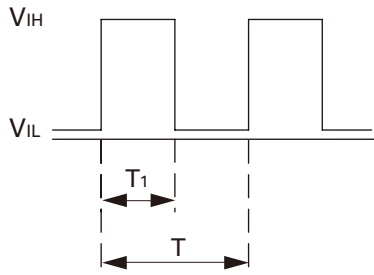


PWM Duty - Speed Characteristics Example



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

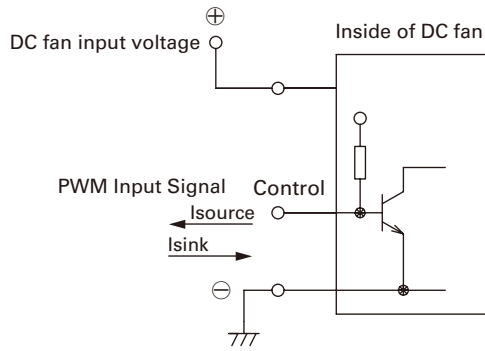
Sink Current (I_{sink}) : 1mA Max. at control voltage 5.25V

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

When the control lead wire is no connecting, the speed is the same speed as at 100% of PWM cycle.

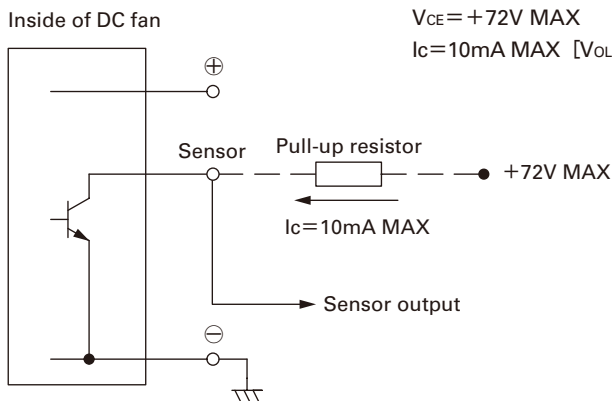
This fan speed should be controlled by PWM input signal of either TTL input or open collector, drain input.

Connection Schematic



Specifications for Pulse Sensors

Output circuit : Open collector



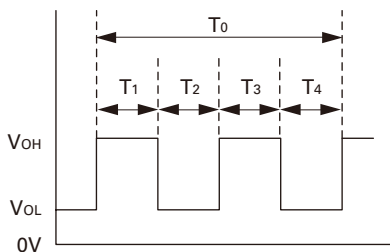
$V_{CE}=+72V$ MAX

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

Output waveform (Need pull-up resistor)

In case of steady running

(One revolution)

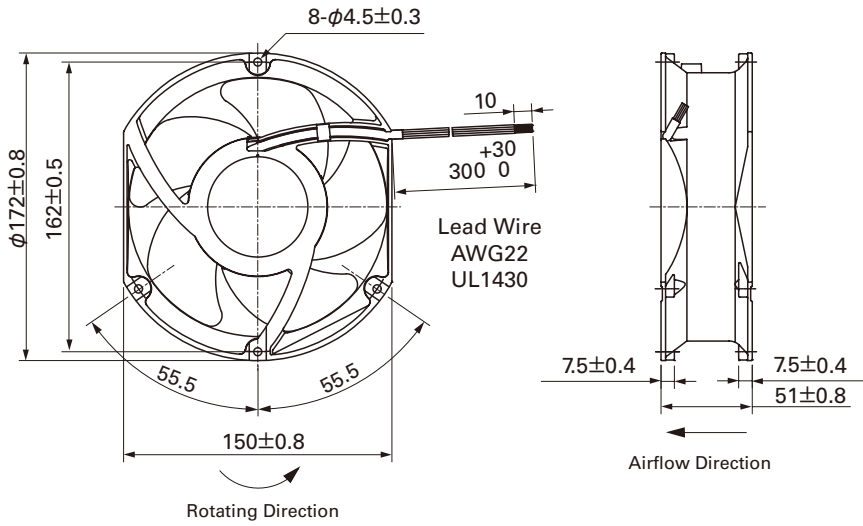


$T_{1\sim 4} \doteq (1/4) T_0$

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

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

■ Dimensions (unit : mm)



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

