

San Ace 172

Counter Rotating Fan

■ Features

High Air Flow and Static Pressure

- Excellence in delivering high airflow and static pressure made possible by our industry's first counter rotating fan that has a ϕ 172 mm diameter.
- Its cooling performance is more than that of four standard fans* (ϕ 172 x 150 x 51 mm).
Just one unit powerfully cools your equipment, greatly helping downsize the equipment.

* : Two sets of two tandem-placed "San Ace 172"
 ϕ 172 x 150 x 51 mm; Model No. 9GV5748P5H03



ϕ 172x150x102mm CR type

■ 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]		Max. Air Flow		MAX. Static Pressure		SPL [dB(A)]	Operating Temperature [°C]	Expected Life [h]
						Inlet	Outlet	[m ³ /min]	[CFM]	[Pa]	[inchH ₂ O]			
9CR5748P9G001	48	36 to 72	100	5.5	264	7,300	6,400	18	636	1400	5.62	83	-10 to 70°C	40,000
			0	0.5	24	2,400	1,900	5.5	194.3	152	0.61	54		

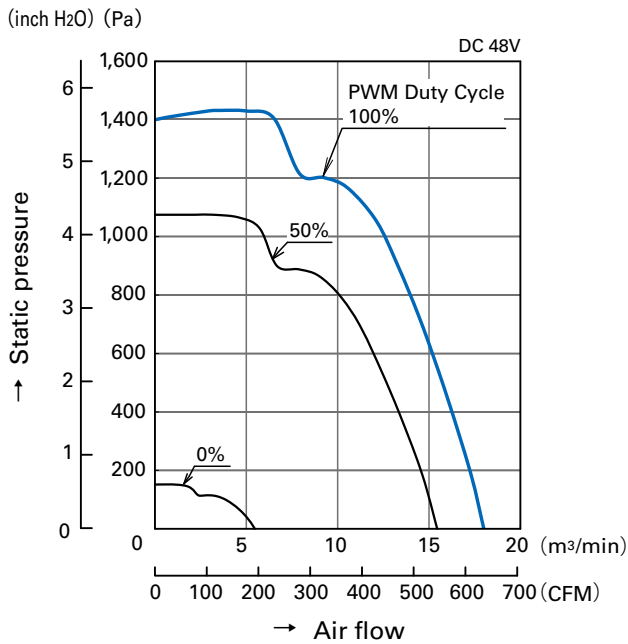
Note : PWM Frequency : 25kHz

■ Common Specifications

- Material Frame : Aluminum, Impeller : Plastics (Flammability: UL94V-0)
- Expected Life 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 Inlet : ⊕Red ⊖Black Sensor: Yellow Control: Brown
Outlet : ⊕Orange ⊖Gray Sensor: Purple Control: White
- Mass Approx. 1,600g

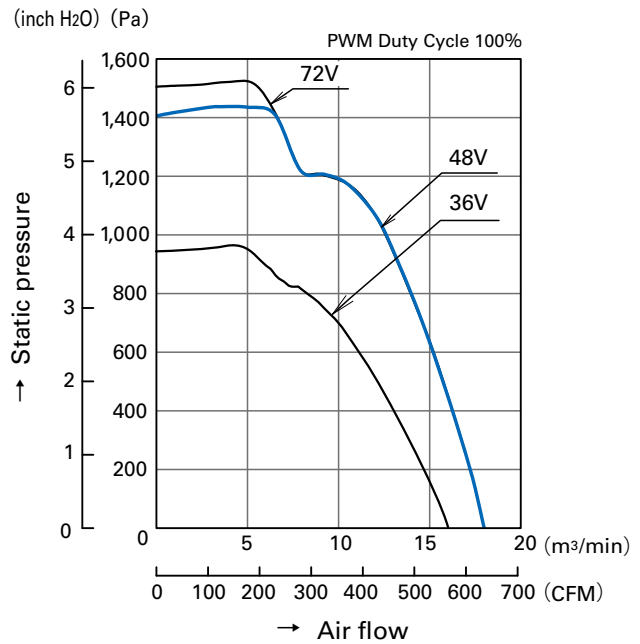
Air Flow - Static Pressure Characteristics

- PWM Duty Cycle



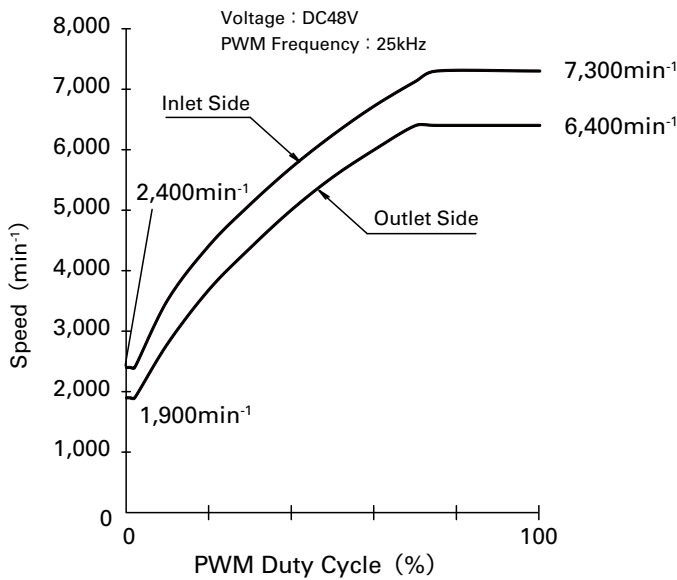
9CR5748P9G001

- Operating Voltage Range



9CR5748P9G001

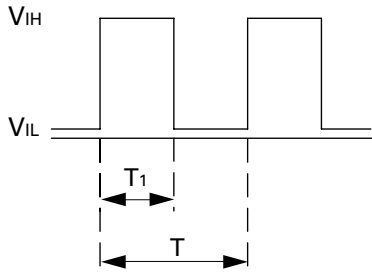
PWM Duty - Speed Characteristics Example



9CR5748P9G001

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

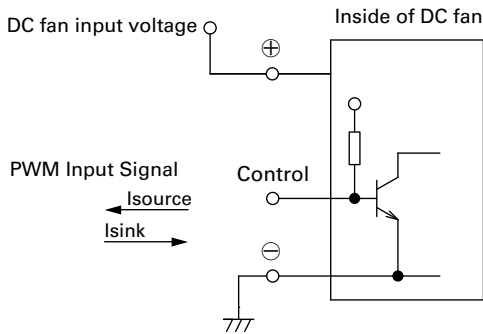
Sink Current (I_{sink}) : 1mA Max. at control voltage 5.25V

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.

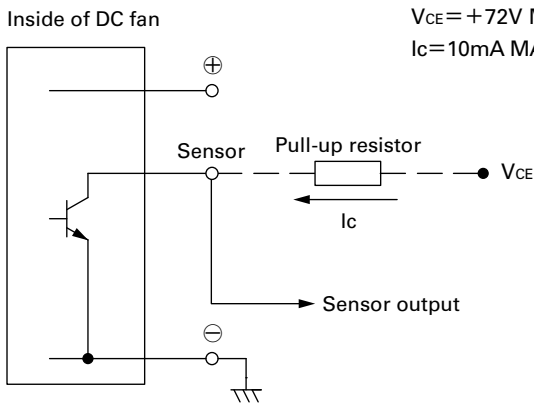
This fan speed should be controlled by PWM input signal of either TTL input or open collector, drain input.

Connection Schematic



Specifications for Pulse Sensors

Output circuit : Open collector



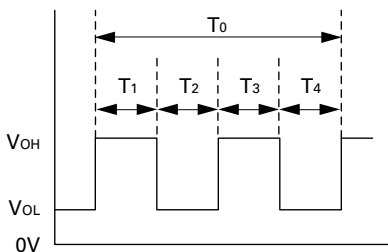
$V_{CE}=+72V$ MAX.

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

Output waveform (Need pull-up resistor)

In case of steady running

(One revolution)

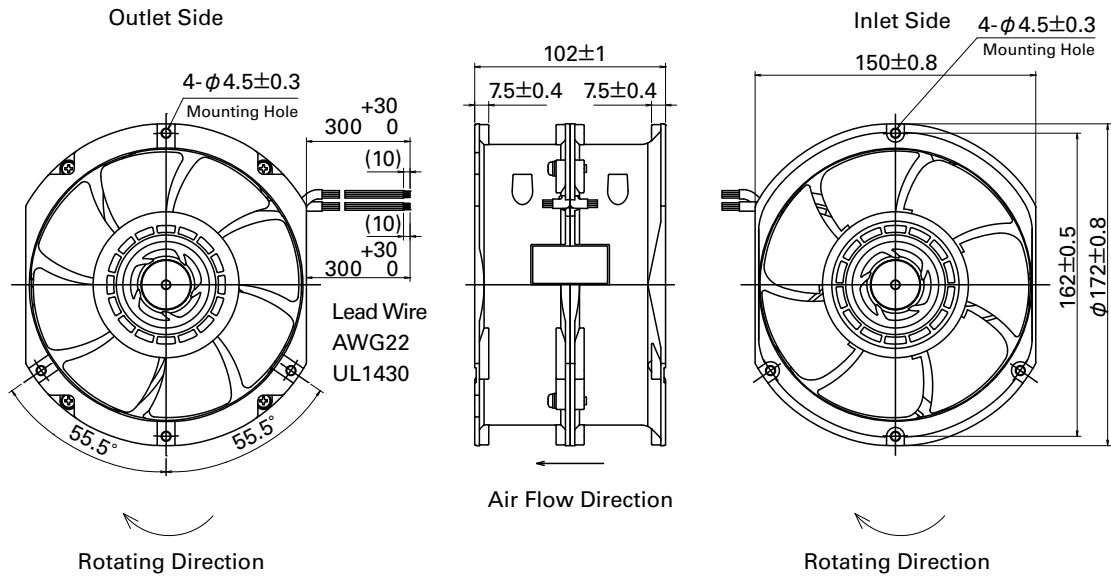


$T_{1\sim 4} \cong (1/4) T_0$

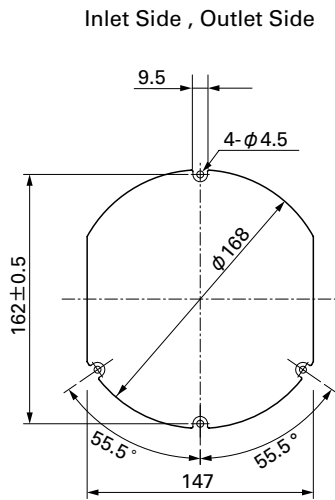
$T_{1\sim 4} \cong (1/4) T_0 = 60/4N$ (sec)

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

■ Dimensions (unit : mm)



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



- 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.

SANYO DENKI CO., LTD. 1-15-1, Kita-otsuka, Toshima-ku, Tokyo 170-8451, Japan. PHONE :+ 81 3 3917 5151

<http://www.sanyodenki.com>

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