

San Ace C150

Centrifugal Fan

■ Features

Large air flow and high static pressure

- Maximum air flow : 3.83 m³/min (135 CFM)
- Maximum static pressure : 410 Pa (1.65 inchH₂O)

Energy-saving design

- Power consumption: 14.9 W

Low noise

- Sound Pressure Level: 59 dB(A)



φ 150mm × 35mm

■ Specifications (Note 3)

Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM Duty Cycle [%] <small>Note 1,2)</small>	Rated Current [A]	Rated Input [W]	Rated Speed [min ⁻¹]	Air Flow		Static Pressure		SPL [dB(A)]	Operating Temperature [°C]	Life Expectancy [h]
							[m ³ /min]	[CFM]	[Pa]	[inchH ₂ O]			
9TN24P1H01	24	20.4 to 27.6	100	0.62	14.9	3,800	3.83	135	410	1.65	59	- 10 to +70	40,000
9TN48P1H01	48	36.0 to 55.2	100	0.32	15.4	3,800	3.83	135	390	1.57	59		

Note 1 : PWM Frequency : 25kHz

Note 2 : Fan does not rotate when PWM duty cycle is 0%.

Note 3 : When our inletnozzle [Option (Model : 109-1081)] is mounted.

Note 4 : Max input is 9TN24P1H01 : 21.4W, 9TN48P1H01 : 22W.

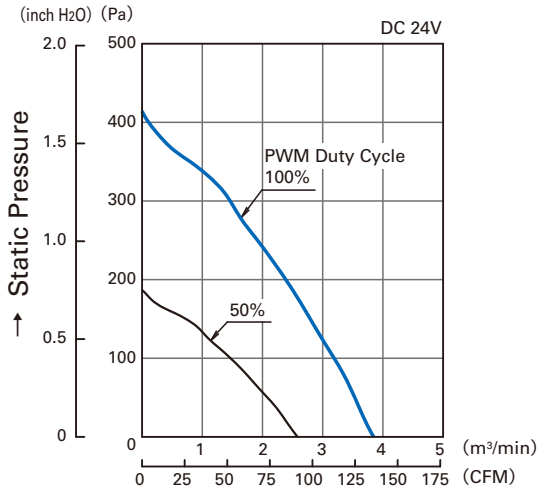
■ Common Specifications

- Material Frame: Aluminum, 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 Range 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.330g

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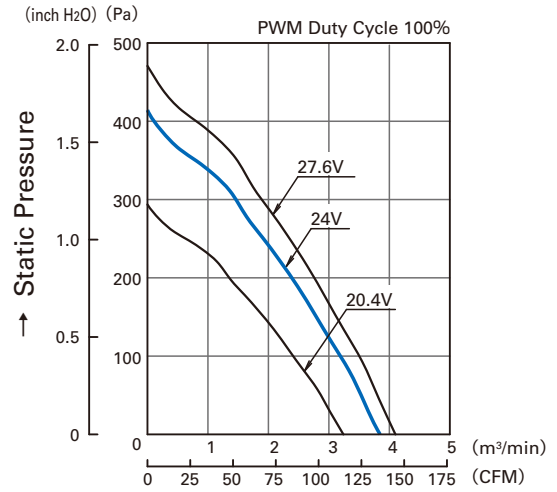
Air Flow and Static Pressure Characteristics

• PWM Duty Cycle

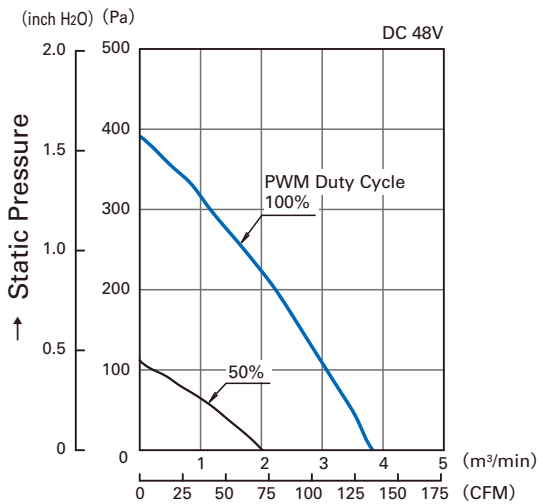


→ Air Flow
9TN24P1H01

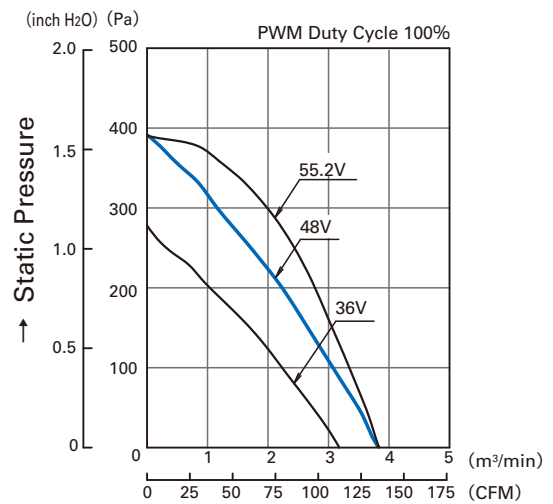
• Operating Voltage Range



→ Air Flow
9TN24P1H01

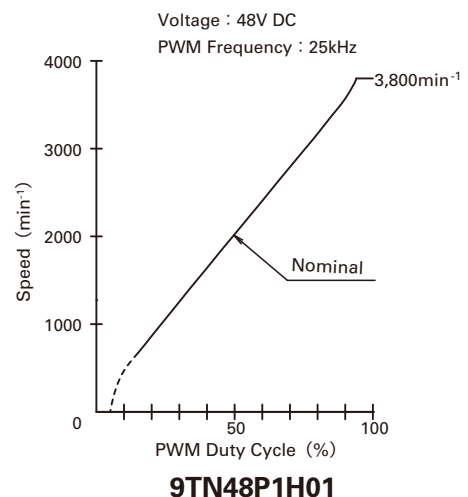
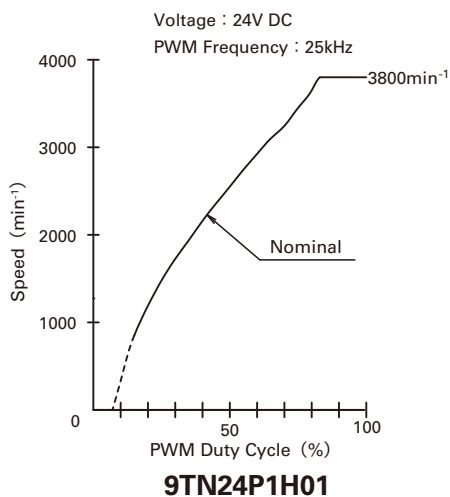


→ Air Flow
9TN48P1H01



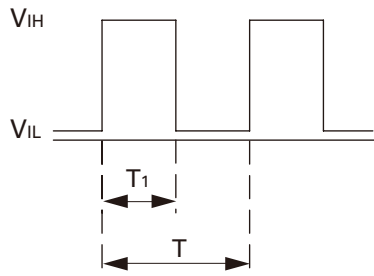
→ Air Flow
9TN48P1H01

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}) : 2mA Max. at control voltage 0V

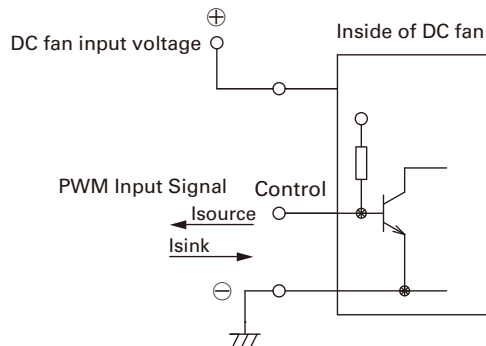
Sink Current (I_{sink}) : 1mA Max. at control voltage 5.25V

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.

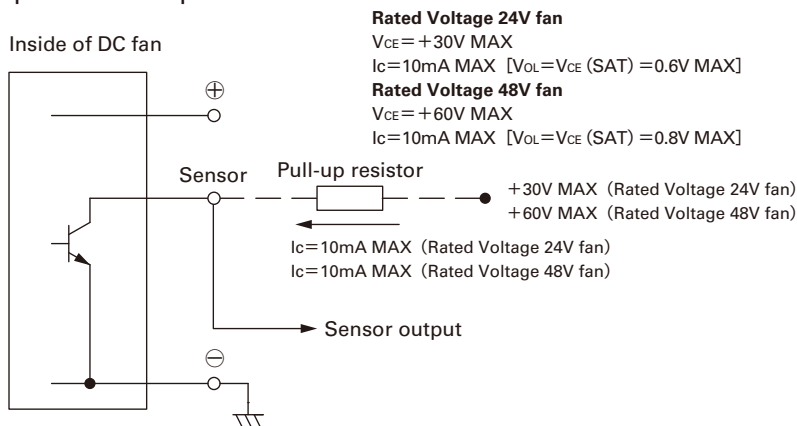
This fan speed should be controlled by PWM input signal of either TTL input or open collector, drain input.

Connection Schematic



Specifications for Pulse Sensors

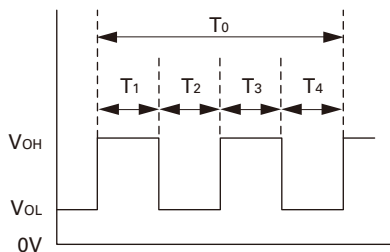
Output circuit : Open collector



Output waveform (Need pull-up resistor)

In case of steady running

(One revolution)

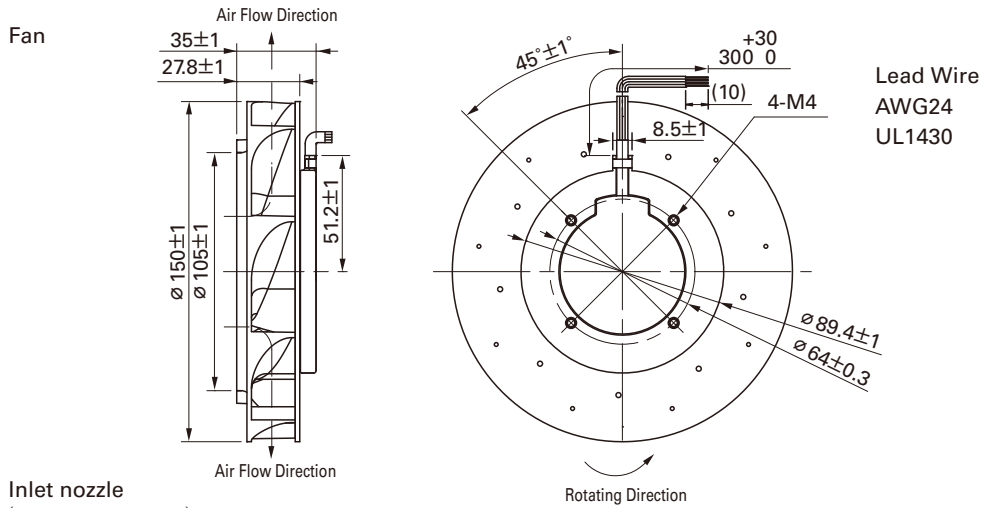


$T_{1\sim 4} \cong (1/4) T_0$

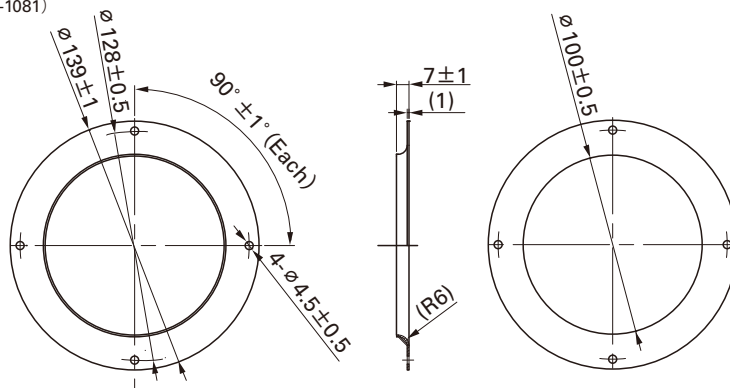
$T_{1\sim 4} \cong (1/4) T_0 = 60/4N$ (sec)

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

Dimensions (unit : mm)

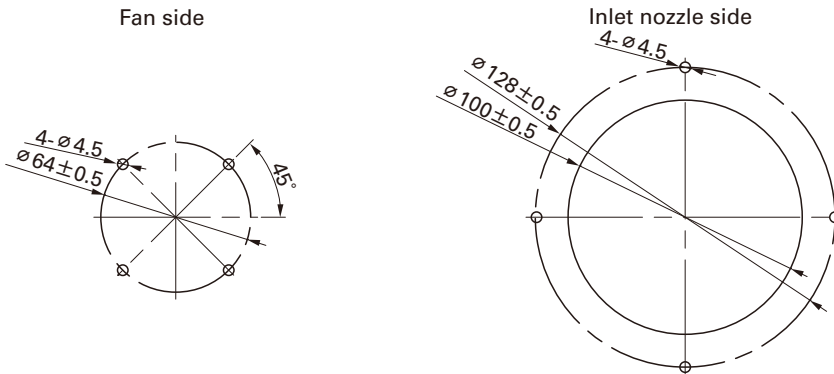


Inlet nozzle
(Model No. : 109-1081)

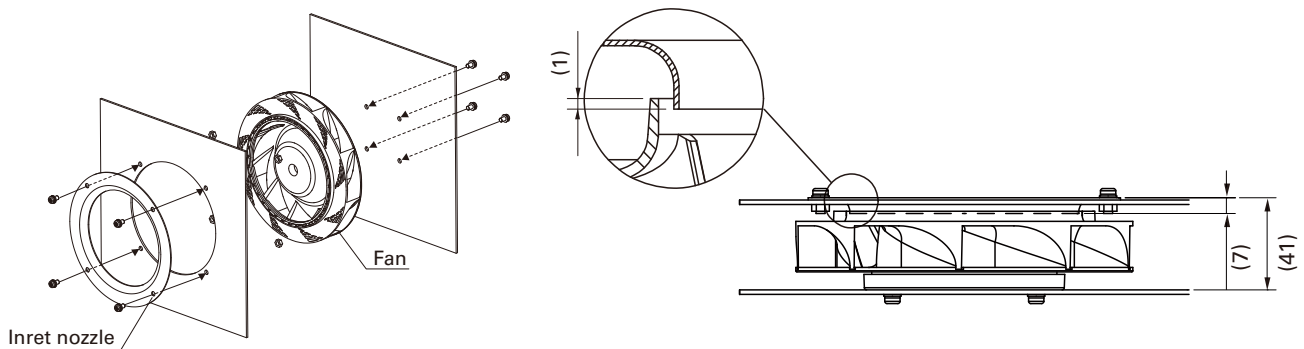


Inlet nozzle: Nozzle mounted in fan inlet side to adjust the flow of introduced air

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



Reference diagram for mounting



Screw length should be 4 mm or more but not exceeding 6 mm from fan edge face.

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.

SANYO DENKI CO., LTD. 1-15-1, Kita-otsuka, Toshima-ku, Tokyo 170-8451, Japan. PHONE :+ 81 3 3917 5151 Home Page: <http://www.sanyodenki.co.jp>