San Ace C175 9TGA type
Centrifugal Fan

Features

High Airflow and Static Pressure

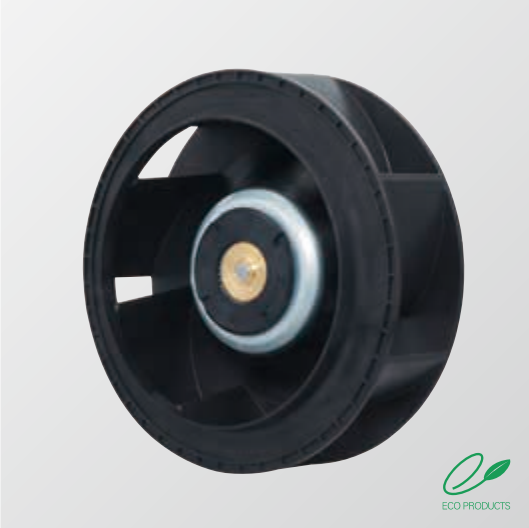
- Maximum airflow: 17.6 m³/min*
- Maximum static pressure: 1,100 Pa*

Provides efficient cooling for devices

Low Noise and High Energy Efficiency

Its PWM control function enables the external control of fan rotational speed, contributing to the lower noise and higher energy efficiency of devices.

* The values are for the 9TGA48P0G001 model.



φ175 mm×69 mm

Specifications

The following nos. have **PWM controls and pulse sensors**.

Model no.	Rated voltage [V]	Operating voltage range [V]	PWM duty cycle (Note 1, 2) [%]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	SPL [dB(A)]	Operating temperature [℃]	Expected life [h]
9TGA24P0H001	24	16 to 36	100	4.8	115	4,950	15.3	541	830	3.33	77	-20 to +70	40,000 / 60 ℃ (70,000 / 40 ℃)
			15	0.14	3.36	800	2.5	88.3	21.8	0.088	38		
9TGA48P0G001	48	36 to 72	100	3.5	168	5,700	17.6	622	1,100	4.42	80		
			15	0.07	3.36	800	2.5	88.3	21.8	0.088	38		

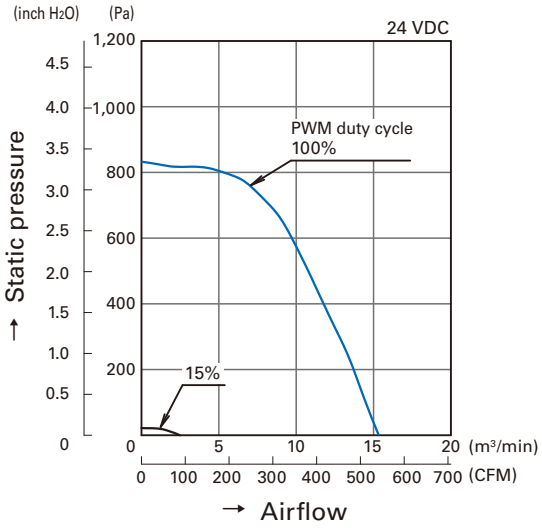
Note 1 PWM frequency: 25 kHz
Note 2 Fans do not rotate when PWM duty cycle is 0%.
Note 3 When inlet nozzle [Option (Model: 109-1073)] is mounted.
Note 4 Max input of 9TGA24P0H001: 210 W, 9TGA48P0G001: 325 W at rated voltage.

Common Specifications

☐ Material	Motor case: Aluminum (Black coating), Impeller: Plastics (Flammability: UL94V-0)
☐ Expected life	Refer to specifications (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, 500 VAC, 1 minute (between lead conductor and motor case)
☐ Sound pressure level (SPL)	Expressed as the value at 1 m from air inlet side
☐ Operating temperature	Refer to specifications (Non-condensing)
☐ Storage temperature	-30 ℃ to +70 ℃ (Non-condensing)
☐ Lead wire	⊕Red ⊖Black Sensor: Yellow Control: Brown
☐ Mass	Approx. 720 g

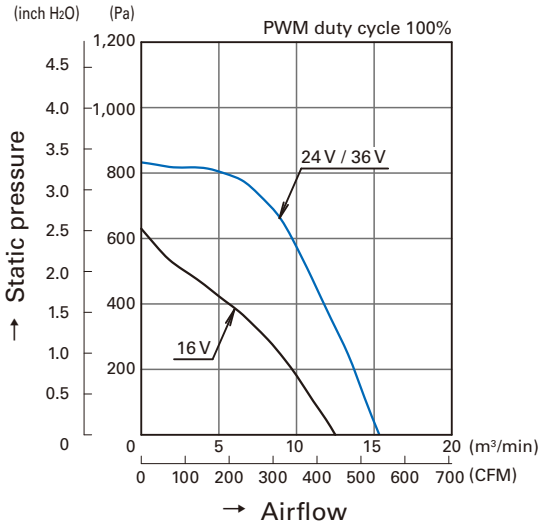
Airflow - Static Pressure Characteristics

- PWM duty cycle

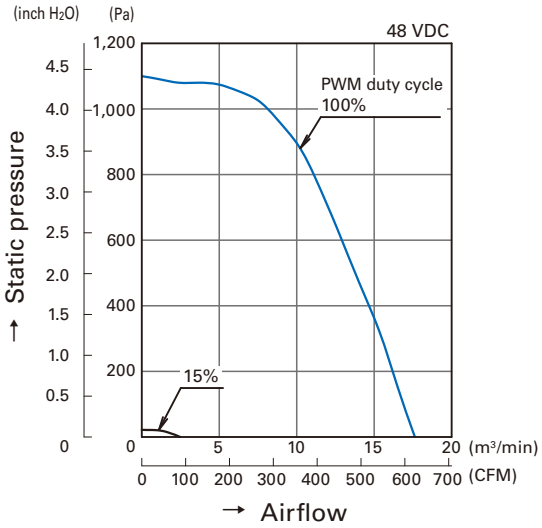


9TGA24P0H001

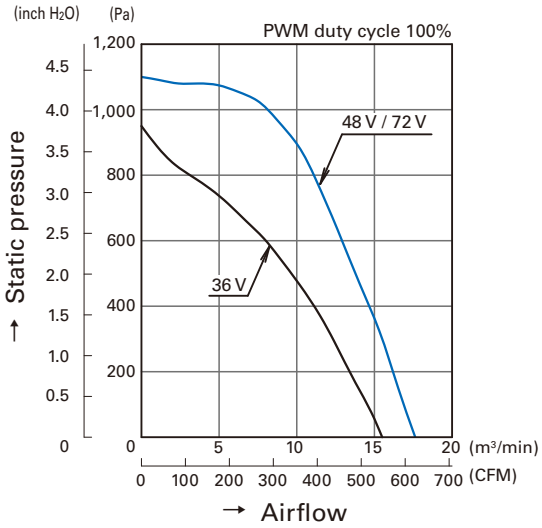
- Operating voltage range



9TGA24P0H001

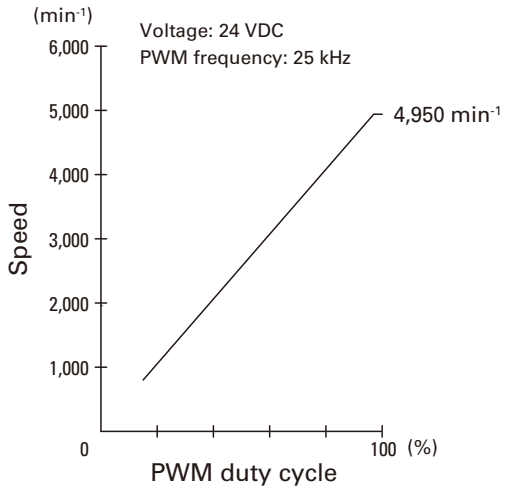


9TGA48P0G001

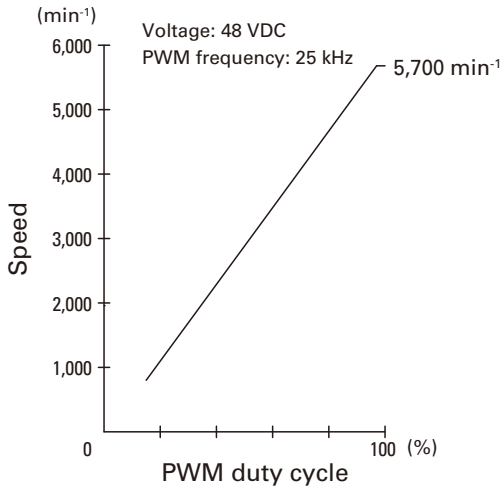


9TGA48P0G001

PWM Duty - Speed Characteristics Example



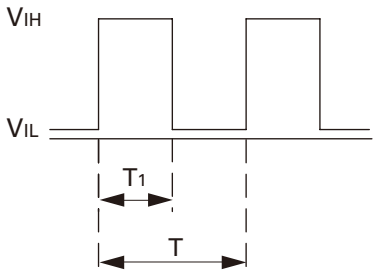
9TGA24P0H001



9TGA48P0G001

PWM Input Signal Example

Input signal waveform



V_{IH}=4.75 V to 5.25 V

V_{IL}=0 V to 0.4 V

PWM duty cycle (%) = $\frac{T1}{T} \times 100$

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

Source current (Isource) : 1 mA max. at control voltage 0 V

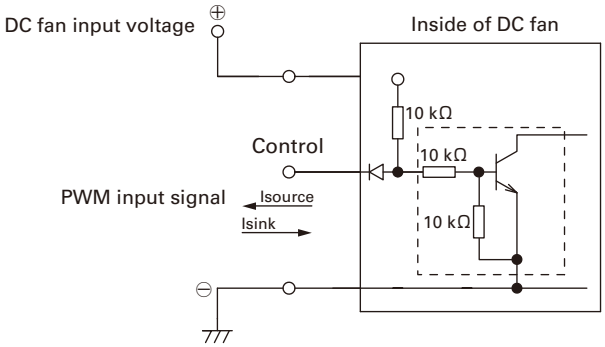
Sink current (Isink) : 1 mA max. at control voltage 5.25 V

Control terminal voltage: 5.25 V max. (Open circuit)

When the control lead wire is open,
the fan speed is the same as the one at a PWM duty cycle of 100%.

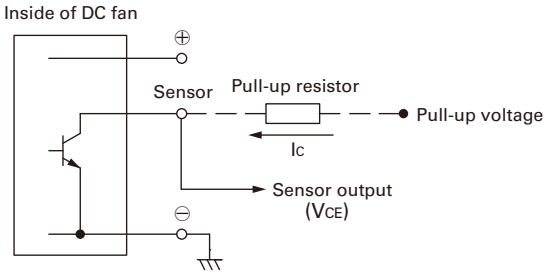
Either TTL input, open collector or open drain can be used for
PWM control input signal.

Example of Connection Schematic



Specifications for Pulse Sensors

Output circuit: Open collector



Rated Voltage 24 V Fan

V_{CE}=+36 VDC max.

I_C=10 mA max. [V_{OL}=V_{CE} (SAT) =1 V max.]

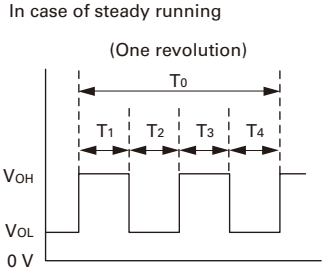
Rated Voltage 48 V Fan

V_{CE}=+72 VDC max.

I_C=10 mA max. [V_{OL}=V_{CE} (SAT) =1 V max.]

Output waveform (Need pull-up resistor)

In case of steady running

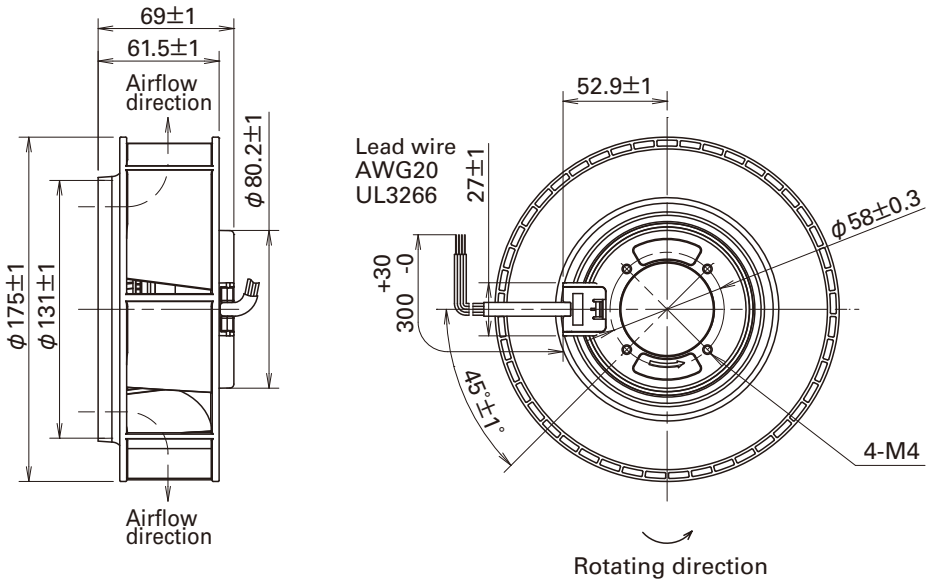


$T_{1\ to\ 4} \fallingdotseq$ (1/4) T_0

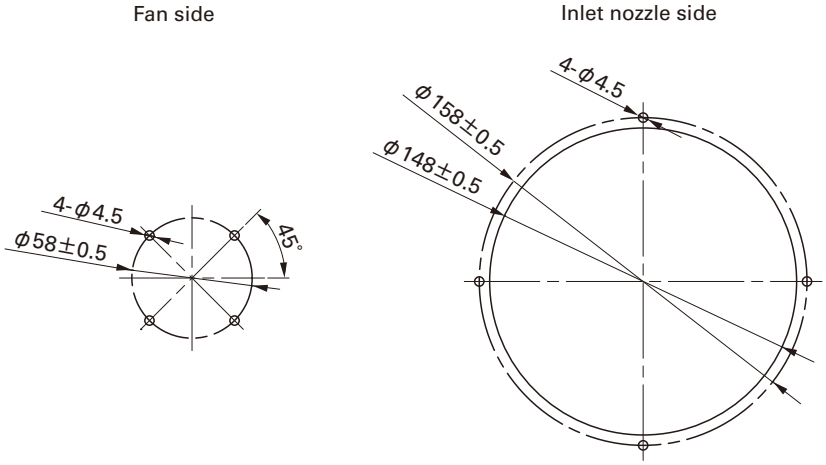
$T_{1\ to\ 4} \fallingdotseq$ (1/4) T_0=60/4N (sec)

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

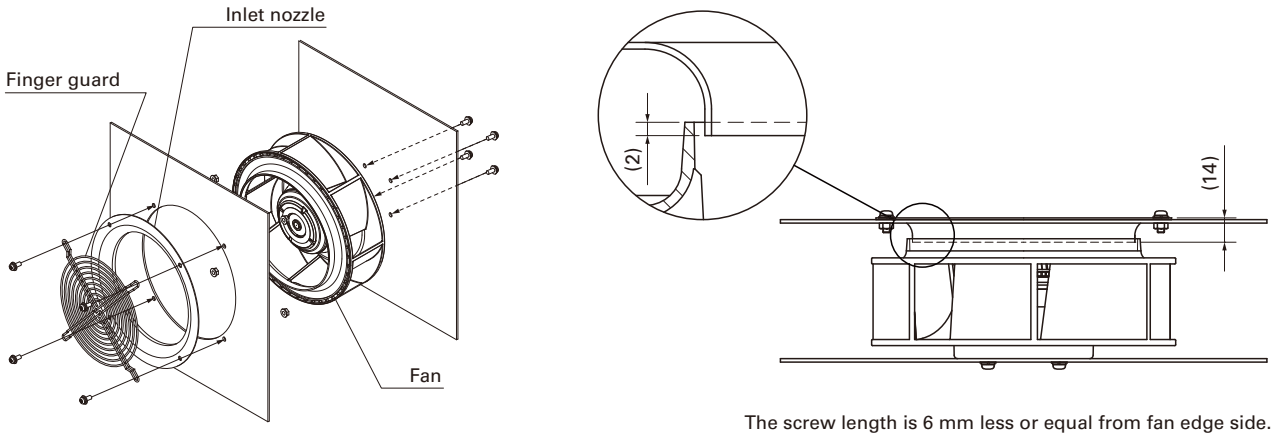
Dimensions (unit: mm)



Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)



Referance Diagram for Mounting



The screw length is 6 mm less or equal from fan edge side.

Notice

- Please read the "Safety Precautions" on our website before using the product.
- The products shown in this catalog are subject to Japanese Export Control Law. Diversion contrary to the law of exporting country is prohibited.
- For protecting fan bearings against electrolytic corrosion near strong electromagnetic noise sources, we provide effective countermeasures such as Electrolytic Corrosion Proof Fans and EMC guards. Contact us for details.

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