

San Ace 175W 9W2T type

Splash Proof Centrifugal Fan

Features

High Airflow and High Static Pressure

This fan delivers a maximum airflow of 17.3 m³/min and a maximum static pressure of 1,100 Pa.

Compared with the current model*, the maximum airflow and maximum static pressure have increased to approximately 1.9 times and 3 times, respectively.

Water and Dust Resistance

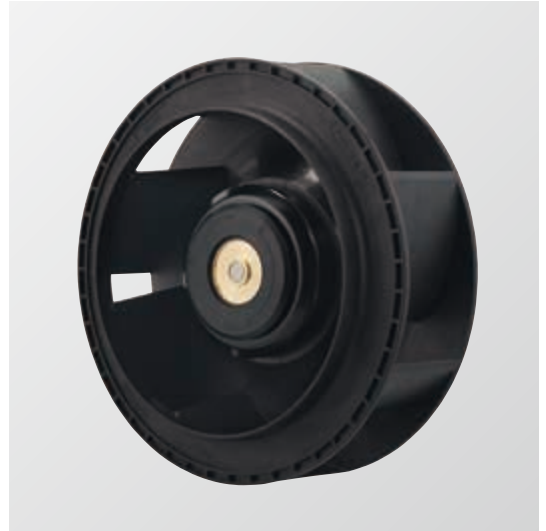
Its IP56-rated** water and dust protection ensures stable fan operation even in harsh environments.

High Energy Efficiency and Low Noise

The PWM control function enables the external control of fan speed, contributing to lowering noise and improving energy efficiency of devices.

* Current model: San Ace 175W9W1T type ϕ 175 x 69 mm Splash Proof Centrifugal Fan (model no.: 9W1TG48P0H61).

** The degree of protection (IP code) is defined by IEC 60529 (International Electrotechnical Commission).
IP56:
 • Protection against a level of dust that could hinder operation or impair safety
 • Protection against powerful water jets



ϕ 175 x 69 mm

Specifications When the optional inlet nozzle (109-1073H) is mounted.

The models listed below **have pulse sensors with PWM control function.**

Model no.	Rated voltage [V]	Operating voltage range [V]	PWM duty cycle* [%]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB(A)]	Operating temperature [°C]	Expected life [h]
9W2TGA48P0G001	48	36 to 72	100	3.85	184.8	5700	17.3 611	1100 4.42	80	-30 to +60	40000/60°C (70000/40°C)
			15	0.08	3.84	800	2.4 84.7	21.7 0.087	38		

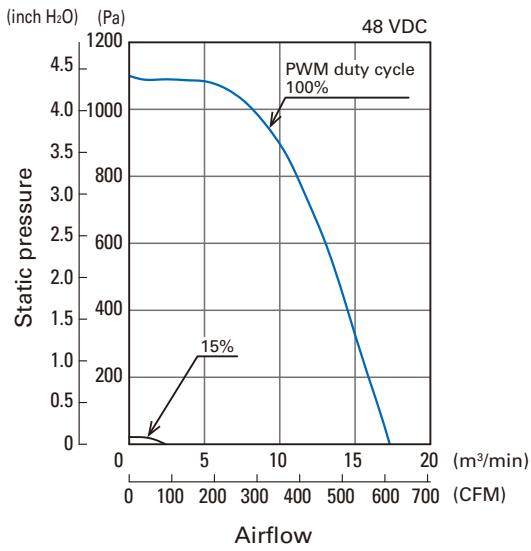
* PWM frequency: 25 kHz. Fan does not rotate when PWM duty cycle is 0%.
Max input is 330 W at rated voltage.

Common Specifications

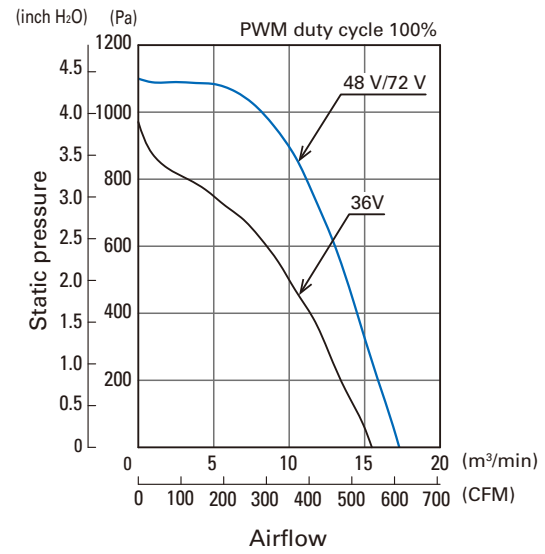
- Material Motor case: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life Refer to specifications
(L10 life: 90% survival rate for continuous operation in indoor free air at 60°C, rated voltage)
Expected life at 40°C is for reference only.
- Motor protection system Current blocking function and reverse polarity protection
- Dielectric strength 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and motor case)
- Sound pressure level (SPL) At 1 m away from the air inlet
- Operating temperature Refer to specifications (Non-condensing)
- Storage temperature -30 to +70°C (Non-condensing)
- Lead wire ⊕ Red ⊖ Black Sensor Yellow Control Brown
- Mass Approx. 980 g
- Ingress protection IP56

Airflow - Static Pressure Characteristics

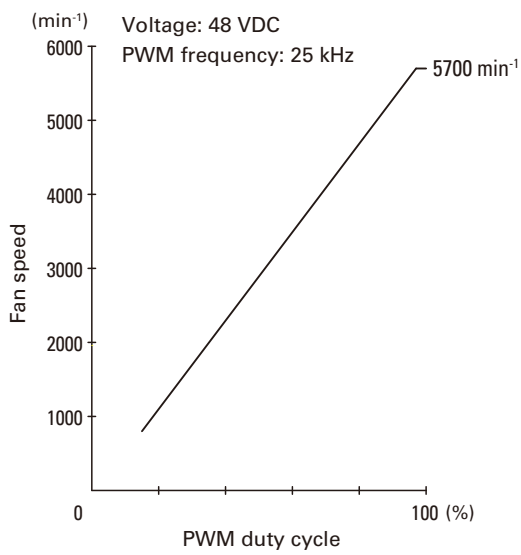
- PWM duty cycle



- Operating voltage range

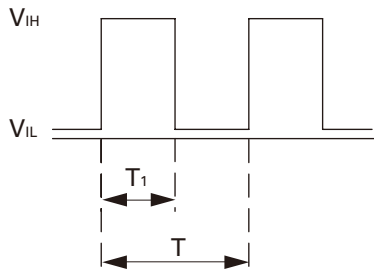


PWM Duty - Speed Characteristics Example



PWM Input Signal Example

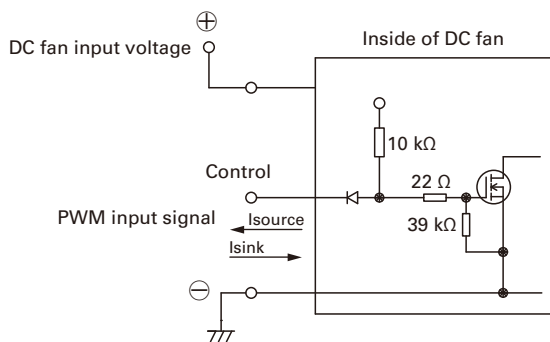
Input signal waveform



$V_{IH} = 4.75 \text{ to } 5.25 \text{ V}$ $V_{IL} = 0 \text{ to } 0.4 \text{ V}$
 PWM duty cycle (%) = $\frac{T_1}{T} \times 100$ PWM frequency 25 (kHz) = $\frac{1}{T}$
 Current source (I_{source}) = 1 mA max. (when control voltage is 0 V)
 Current sink (I_{sink}) = 1 mA max. (when control voltage is 5.25 V)
 Control terminal voltage = 5.25 V max. (when control terminal is open)

When the control terminal is open,
 fan speed is the same as when PWM duty cycle is 100%.
 Either TTL input, open collector or open drain can be used for
 PWM control input signal.

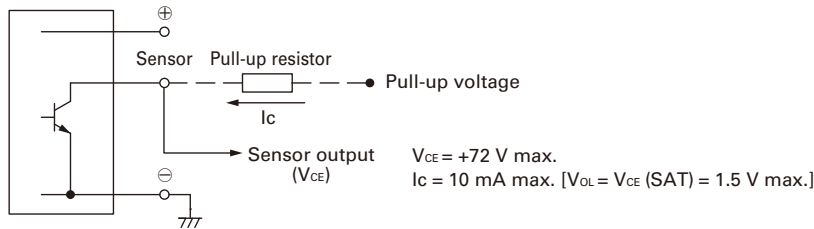
Example of Connection Schematic



Specifications for Pulse Sensors

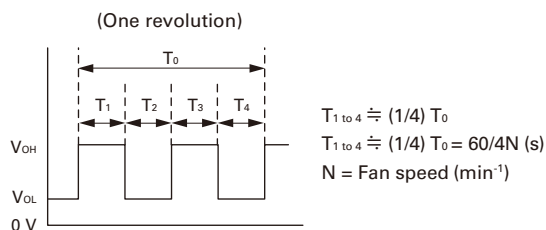
Output circuit: Open collector

Inside of DC fan



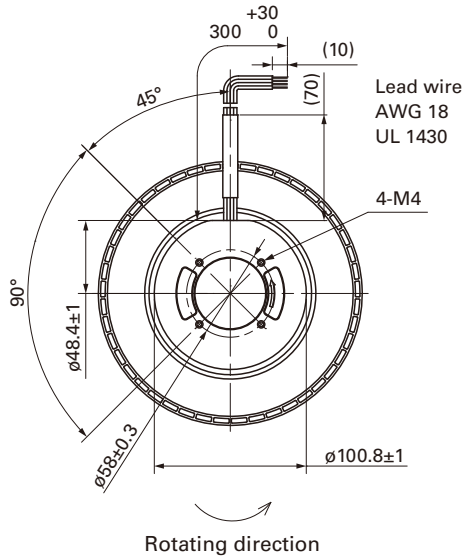
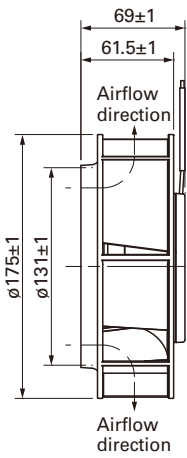
Output waveform (Need pull-up resistor)

In case of steady running



Dimensions (unit: mm)

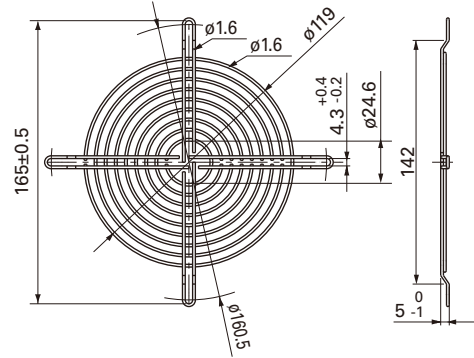
Fan



Lead wire
AWG 18
UL 1430

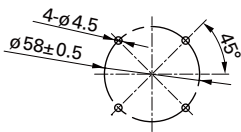
Finger guards (Model no.: 109-722H)

Surface treatment: Cation electropainting (black)
Mass: 43 g

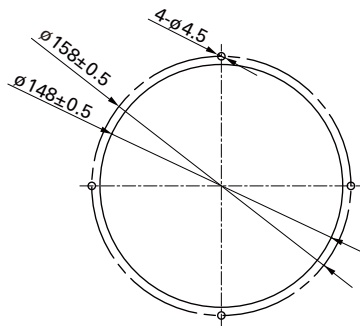


Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)

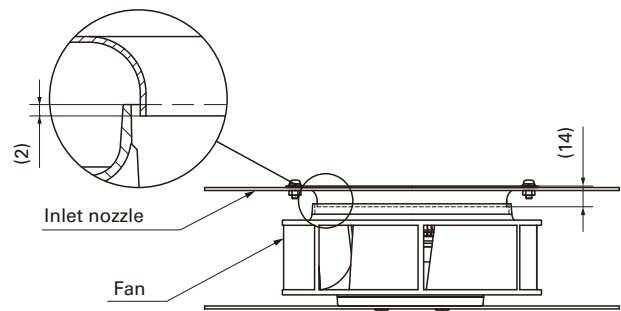
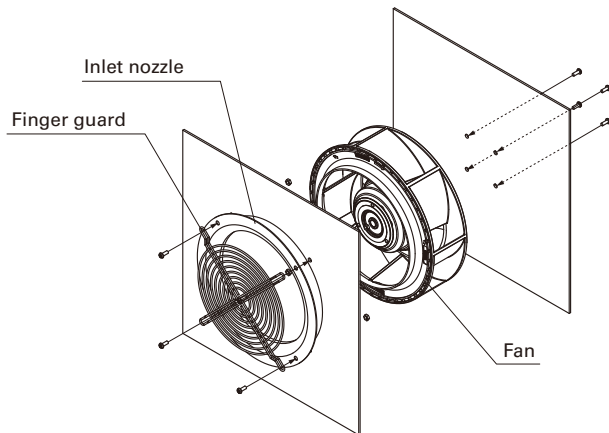
Fan side



Inlet nozzle side



Reference Diagram for Mounting



Bolt length: 6 mm max.

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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