

San Ace 225AD

9ADB1TS type

ACDC Fan

■ Features

Maximizes Strengths of the Centrifugal Fan

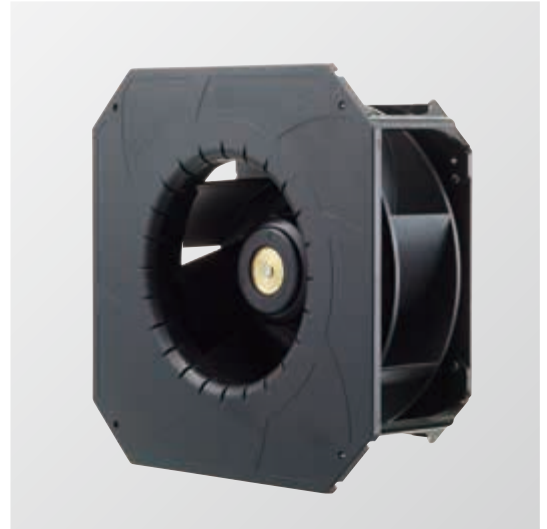
To maximize fan performance, an air inlet needs to be precisely mounted to the fan. Bracket-mounted centrifugal fan has an air inlet and a mounting bracket integrated in one unit. The precise assembly at factory ensures the optimized balance, helping the fan perform at its maximum potential.

Easy Installation

Centrifugal fan comes equipped with an air inlet and a mounting bracket, making your installation work easy.

No DC Power Supply Needed

With an embedded AC-DC converter, these fans can be driven by an AC power supply. This eliminates the need for a high-capacity DC power supply, reducing the overall costs.



270 x 270 x 119 mm

■ Specifications

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]
9ADB1TS11P0G001	115	90 to 132	100	3.6	155	3200	23.0 812	815 3.27	74	-20 to +60	40000/40°C
			20	0.3	10	1000	7.1 252	80 0.32	50		
9ADB1TS11P0F001			100	1.6	70	2450	17.6 621	480 1.93	68		
			20	0.3	10	1000	7.1 252	80 0.32	50		
9ADB1TS23P0G001	230	180 to 264	100	2.0	155	3200	23.0 812	815 3.27	74		
			20	0.2	10	1000	7.1 252	80 0.32	50		
9ADB1TS23P0F001			100	0.9	70	2450	17.6 621	480 1.93	68		
			20	0.2	10	1000	7.1 252	80 0.32	50		

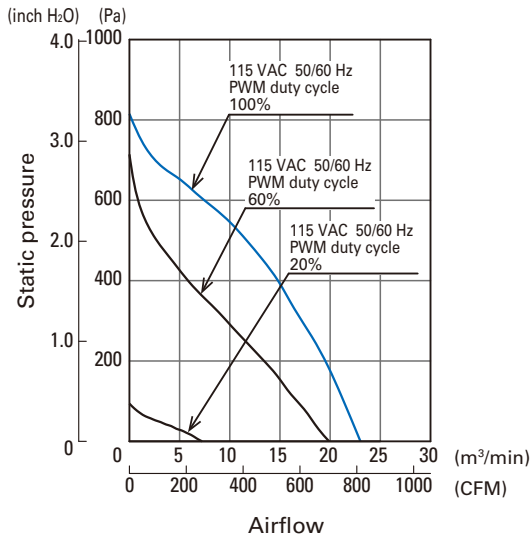
* PWM input frequency is 1 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

■ Common Specifications

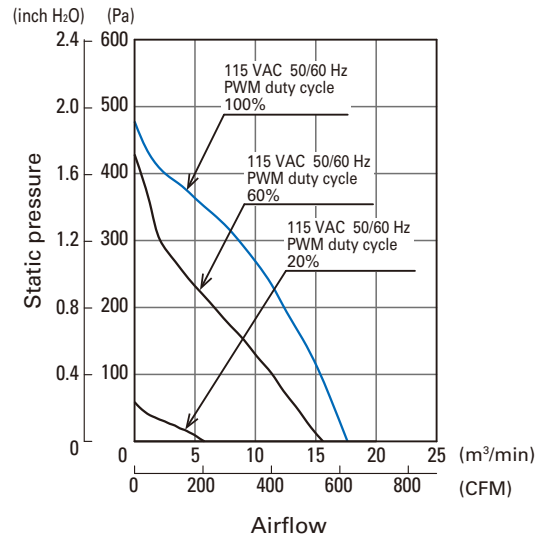
- Material Motor case: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-0)
Bracket: Aluminum (Black coating), Plastic (Flammability: UL94V-0)
- Expected life Refer to specifications
(L10 life: 90% survival rate for continuous operation in free air at 40°C, rated voltage)
- Motor protection function Locked rotor burnout protection
- Dielectric strength 50/60 Hz, 1,500 VAC, for 1 minute (between lead wire conductors and bracket)
- Insulation resistance 10 MΩ or more with a 500 VDC megger (between lead wire conductors and bracket)
- Sound pressure level (SPL) At 1 m away from the air inlet
- Storage temperature -30 to +70°C (Non-condensing)
- Lead wire AC power input L: Orange N: Gray Ground Yellow / Green
+10 VDC output Red ⊖ Black Sensor Yellow Control Brown
- Mass 2500 g

Airflow - Static Pressure Characteristics

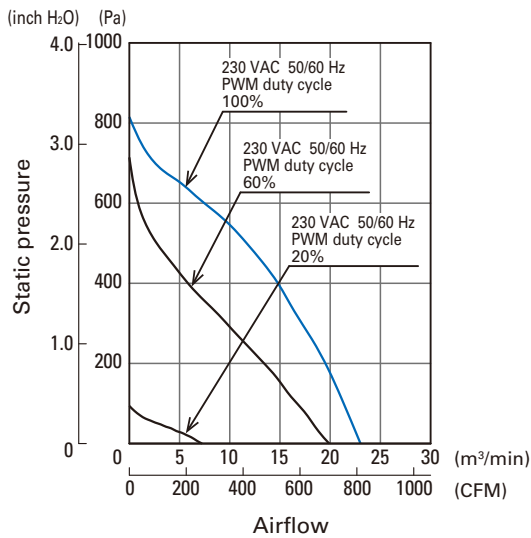
• PWM duty cycle



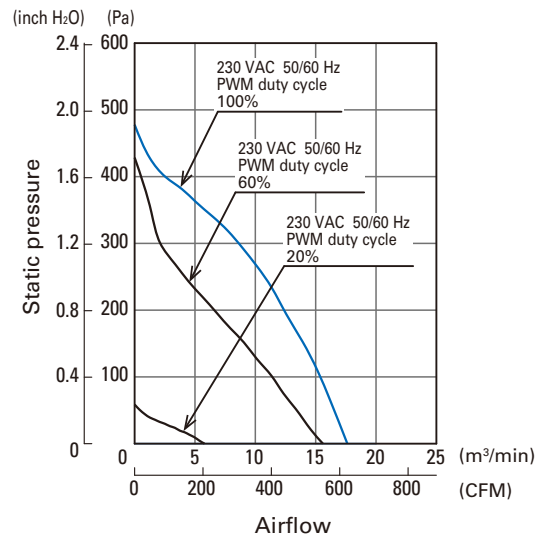
9ADB1TS11P0G001



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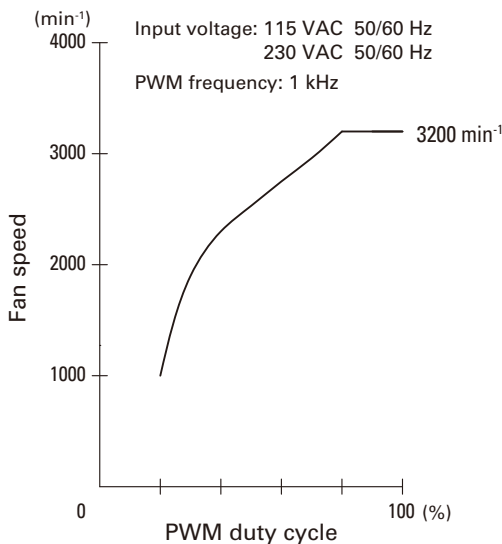


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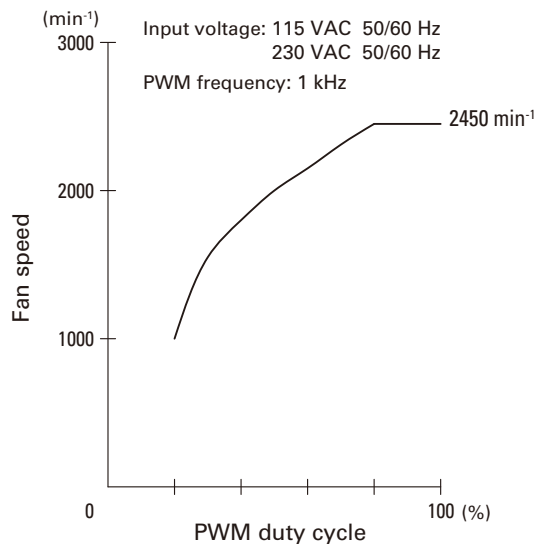


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PWM Duty - Speed Characteristics Example



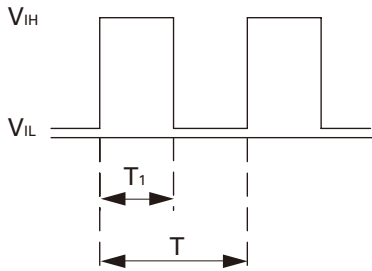
9ADB1TS11P0G001
9ADB1TS23P0G001



9ADB1TS11P0F001
9ADB1TS23P0F001

PWM Input Signal Example

Input signal waveform



$V_{IH} = 2.8 \text{ to } 10.5 \text{ V}$ $V_{IL} = 0 \text{ to } 0.5 \text{ V}$

PWM duty cycle (%) = $\frac{T_1}{T} \times 100$ PWM frequency 1 (kHz) = $\frac{1}{T}$

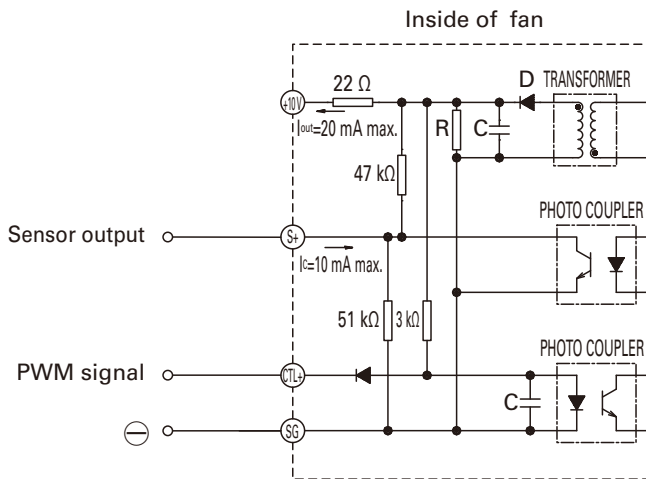
Current source (I_{source}) = 5 mA max. (when control voltage is 0 V)

Current sink (I_{sink}) = 0.1 mA max. (when control voltage is 10 V)

Control terminal voltage = 11.5 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.

Wiring example



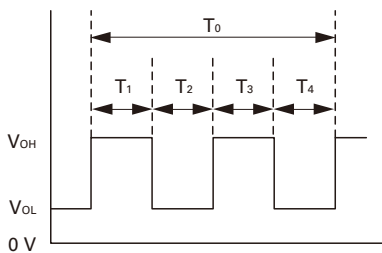
Specifications for Pulse Sensors

Output circuit: Open collector, Internal pulled up to 5 V

Output waveform

In case of steady running

(One rotation)

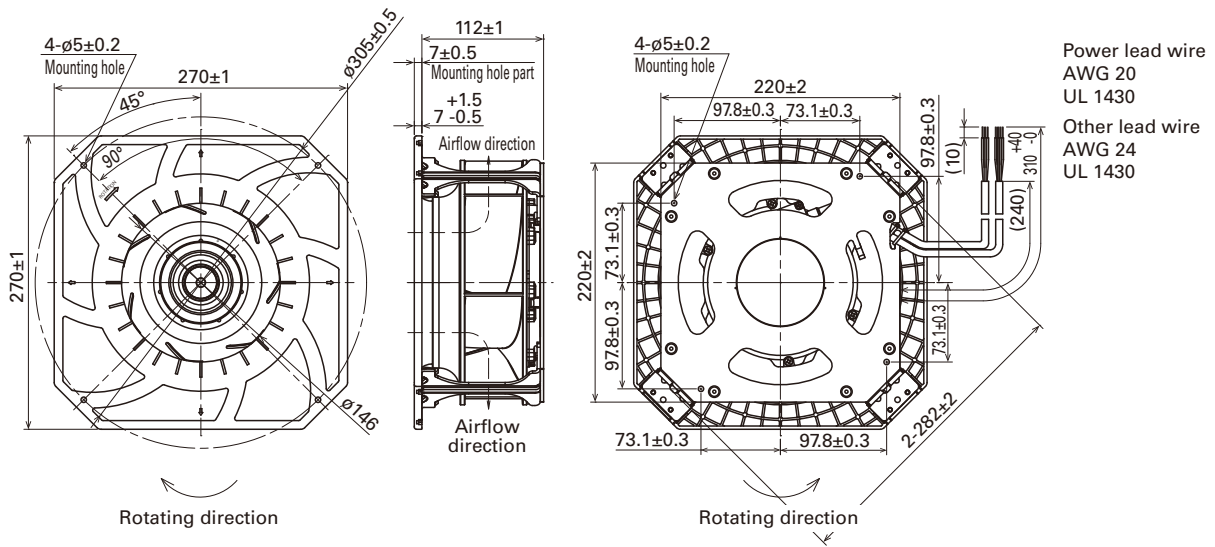


$$T_{1to4} \cong (1/4) T_0$$

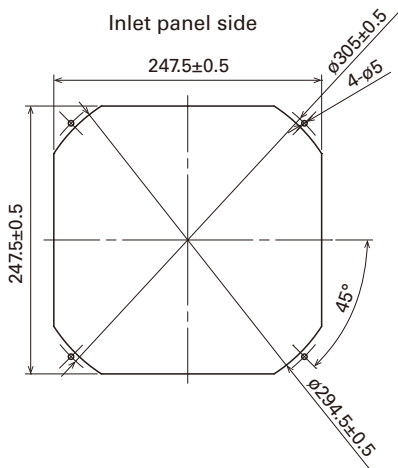
$$T_{1to4} \cong (1/4) T_0 = 60/4N \text{ (s)}$$

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

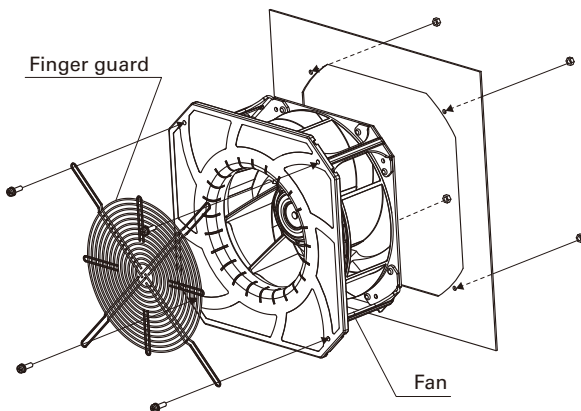
Dimensions (unit: mm)



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



Reference Diagram for Mounting



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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