



Ø **221×71** mm

**San Ace 221W 9W2TP** type  

DC Splash Proof Centrifugal Fan Ø221 mm

**General Specifications**

- Material ..... Motor case: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life ..... See the table below. (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 function ..... Locked rotor burnout protection, Reverse polarity protection  
For details, please refer to p. 608.
- Dielectric strength ..... 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and motor case)
- Insulation resistance ..... 10 MΩ min. at 500 VDC (between lead wire conductors and motor case)
- Sound pressure level (SPL) ..... A-weighted sound pressure level (SPL) at 1 m away from the air inlet.
- Storage temperature ..... -30 to +70°C (Non-condensing)
- Lead wire ..... ⊕Red ⊖Black (Sensor) Yellow (Control) Brown
- Mass ..... 1250 g
- Ingress protection ..... IP56 For more information on IP rating, refer to p. 617.

**Specifications** When the optional inlet nozzle (109-1135H) is mounted.

The models listed below **have a pulse sensor with PWM control.**

Model no.	Rated voltage [V]	Operating voltage range [V]	PWM duty cycle [%]	Rated current [A]	Rated input [W]	Rated speed [min <sup>-1</sup> ]	Max. airflow [m <sup>3</sup> /min] [CFM]	Max. static pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9W2TP24P0H001	24	16 to 36	100	3.35	80.4	3050	17.6 621	530 2.13	71.5	-25 to +70	40000/60°C (70000/40°C)
			15	0.4	9.6	1000	5.75 203	57.0 0.23	53.5		
9W2TP48P0S001	48	36 to 72	100	2.3	110.4	3400	19.6 692	659 2.65	73.5	-25 to +70	40000/60°C (70000/40°C)
			15	0.2	9.6	1000	5.75 203	57.0 0.23	53.5		

\* PWM frequency is 25 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

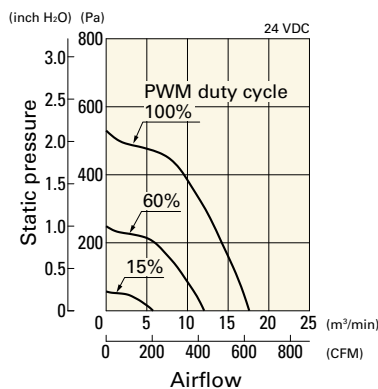
Note 1: Max input of 9W2TP24P0H001: 150 W, 9W2TP48P0S001: 210 W at rated voltage.

Note 2: The  mark indicates Short LeadTime Service applicable models. See p. 664 for details.

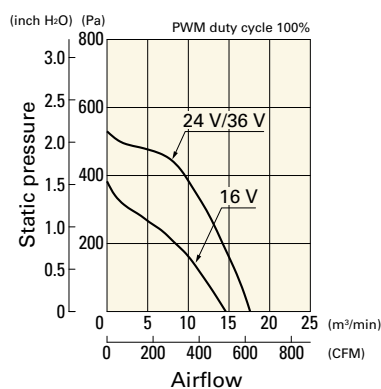
**Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example**

**9W2TP24P0H001** With pulse sensor with PWM control

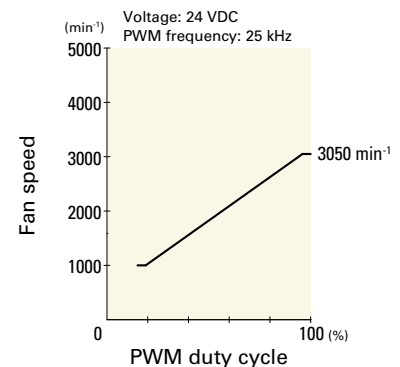
PWM duty cycle



Operating voltage range



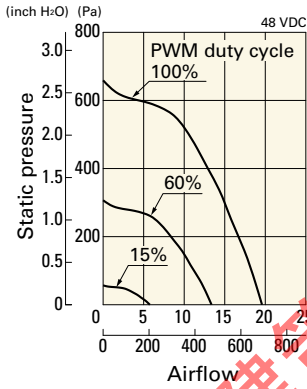
PWM duty - Speed characteristics example



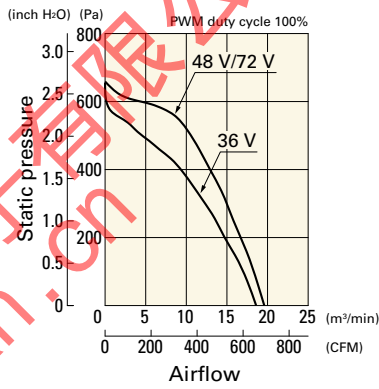
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9W2TP48P0S001 With pulse sensor with PWM control

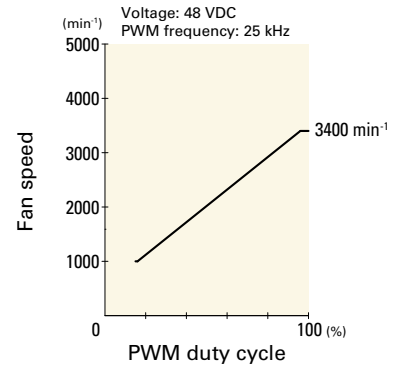
PWM duty cycle



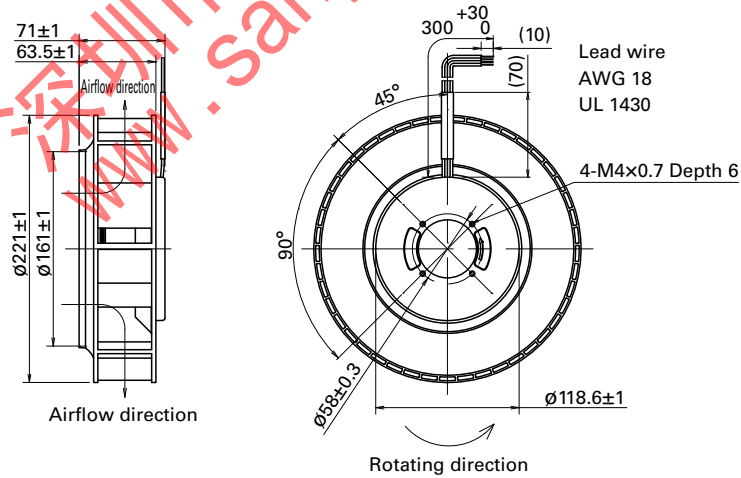
Operating voltage range



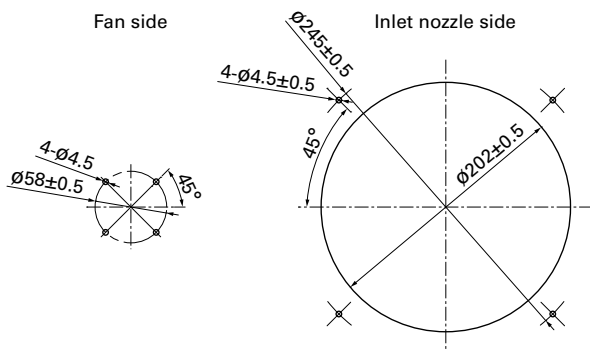
PWM duty - Speed characteristics example



## Dimensions (unit: mm)



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



## Reference Diagram for Mounting (unit: mm) Bracket-mounted model of this fan is available. For details, refer to pp. 335 to 337.

