



# ∅92x38 mm

**San Ace 92RF 9RF** type

DC

Reversible Flow Fan ∅92 mm

## General Specifications

- Material ..... Frame: Plastic (Flammability: UL 94V-0), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life ..... See the table below. (L10 life: 90% survival rate for continuous operation in 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. 599.
- Dielectric strength ..... 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and frame)
- Insulation resistance ..... 10 MΩ or more with a 500 VDC megger (between lead wire conductors and frame)
- 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 ..... 150 g

## Specifications

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

Model no.	Airflow direction	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]
9RF0912P1H001	Forward	12	10.2 to 13.8	100	0.17	2.0	5500	1.2 42.4	156 0.63	39	-20 to +70	40000/60°C (70000/40°C)
	Reverse			0								
9RF0924P1H001	Forward	24	20.4 to 27.6	100	0.09	2.2	5500	1.2 42.4	156 0.63	39		
	Reverse			0								

\* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

Note: The mark indicates Short Lead Time Service applicable models. See p. 654 for details.

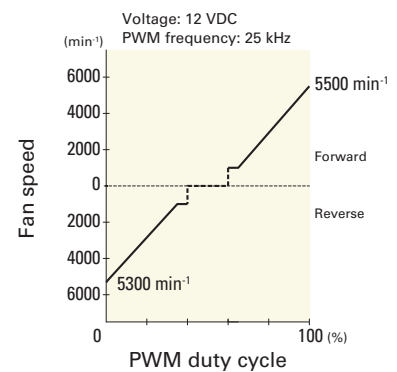
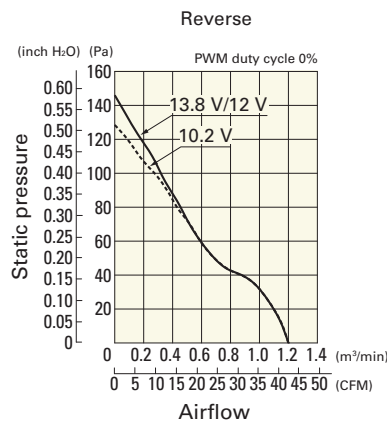
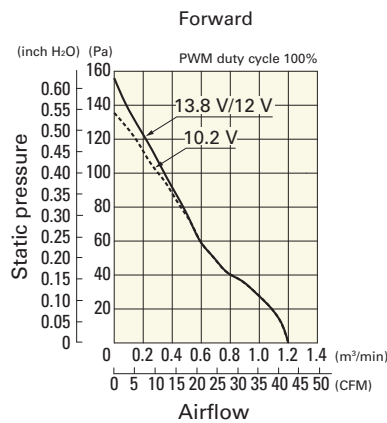
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9RF0912P1H001** With pulse sensor with PWM control function

Operating voltage range

Operating voltage range

PWM duty - Speed characteristics example



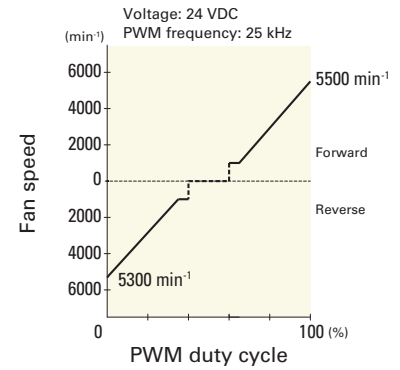
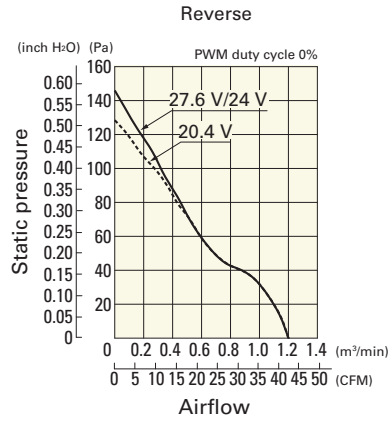
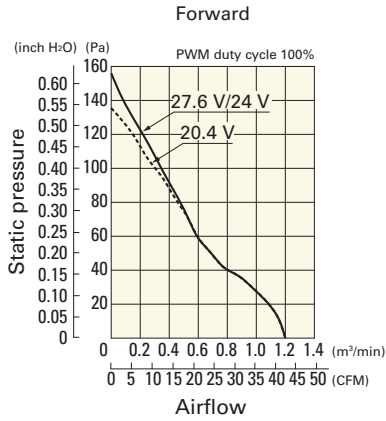
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9RF0924P1H001** With pulse sensor with PWM control function

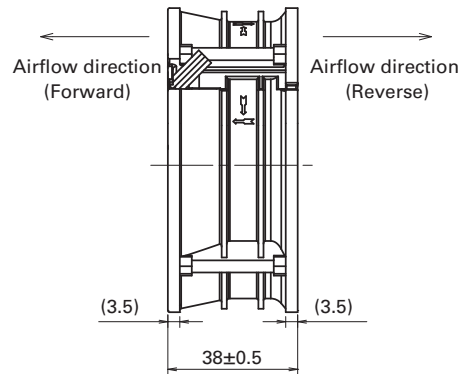
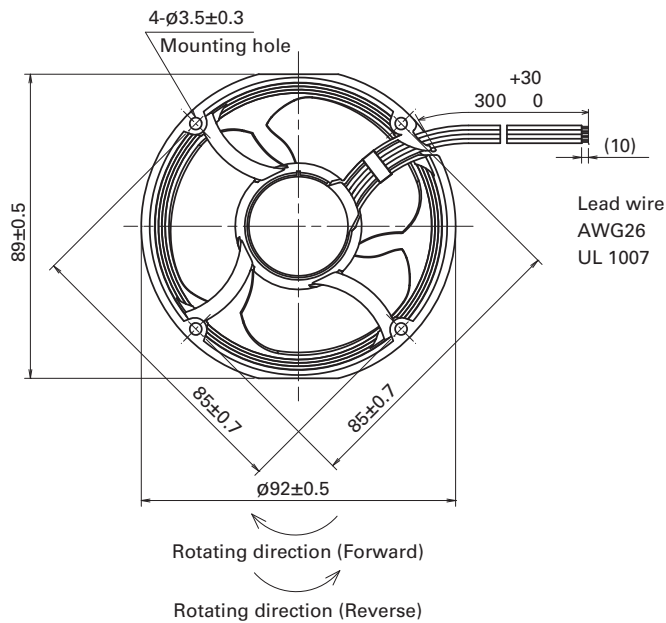
Operating voltage range

Operating voltage range

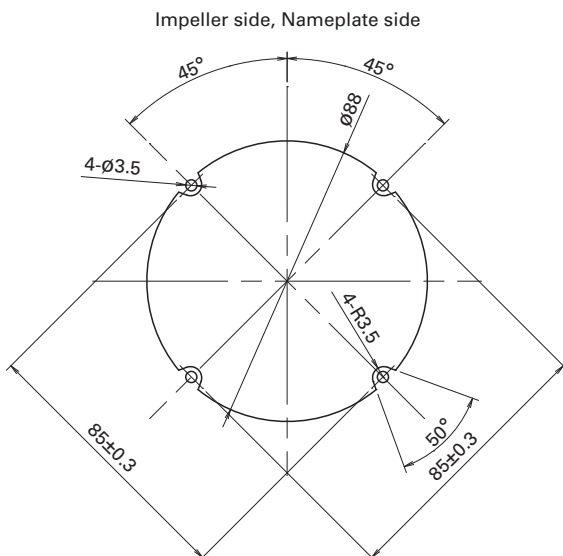
PWM duty - Speed characteristics example



## Dimensions (unit: mm)



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



DC  
Reversible Flow Fan  $\varnothing 92$  mm

## Options

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Finger guards

page: p. 584

Model no.: 109-1147

DC

Reversible Flow Fan 92 mm



# Ø136x28 mm

San Ace 136RF 9RF type US

DC Reversible Flow Fan Ø136 mm

## General Specifications

- Material ..... Frame: Plastic (Flammability: UL 94V-0), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life ..... See the table below. (L10 life: 90% survival rate for continuous operation in 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. 599.
- Dielectric strength ..... 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and frame)
- Insulation resistance ..... 10 MΩ or more with a 500 VDC megger (between lead wire conductors and frame)
- 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 ..... 220 g

## Specifications

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

Model no.	Airflow direction	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]
9RF1312P3H001	Forward	12	10.2 to 13.8	100	0.15	1.8	3100	2.0 70.7	102 0.41	35	-20 to +70	40000/60°C (70000/40°C)
	Reverse			0								
9RF1324P3H001	Forward	24	20.4 to 27.6	100	0.09	2.2	3100	2.0 70.7	102 0.41	35		
	Reverse			0								

\* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

Note: The mark indicates Short Lead Time Service applicable models. See p. 654 for details.

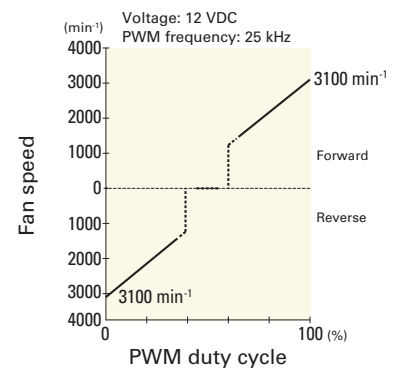
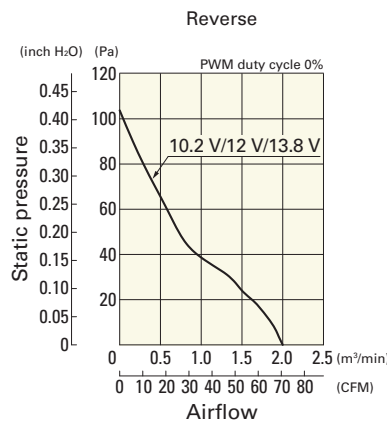
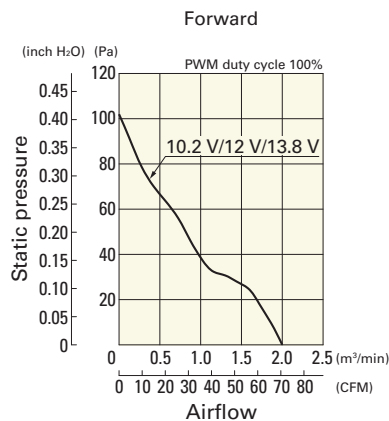
## Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

**9RF1312P3H001** With pulse sensor with PWM control function

Operating voltage range

Operating voltage range

PWM duty - Speed characteristics example



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

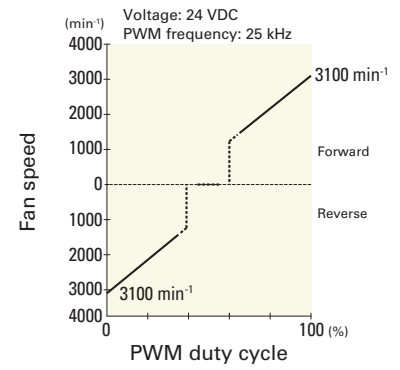
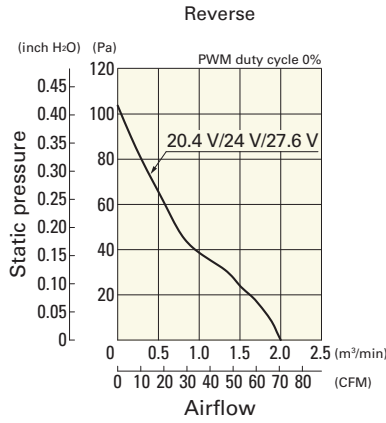
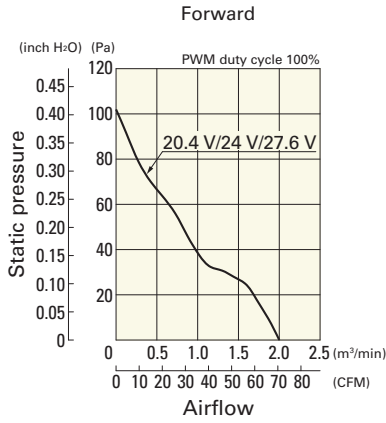
9RF1324P3H001 With pulse sensor with PWM control function

Operating voltage range

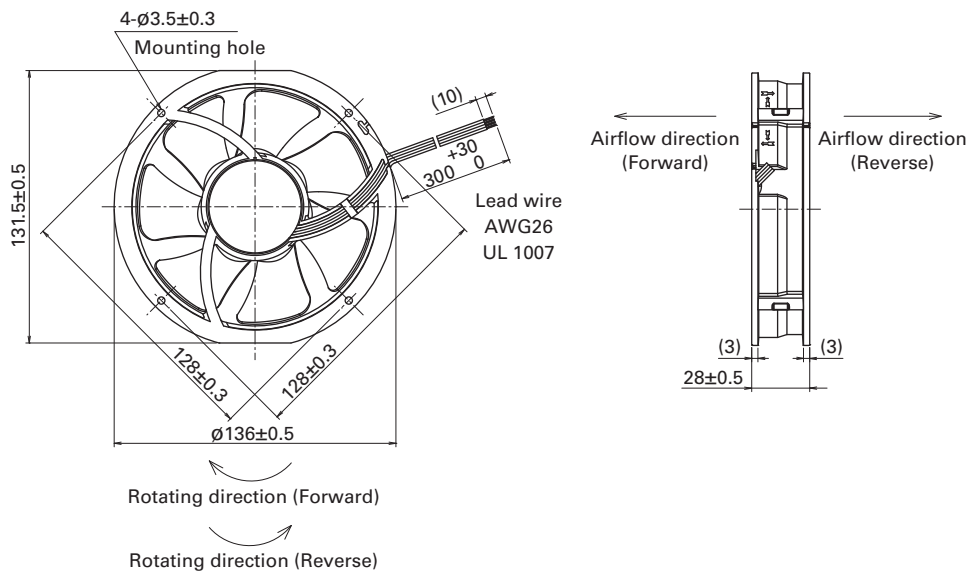
Operating voltage range

PWM duty - Speed characteristics example

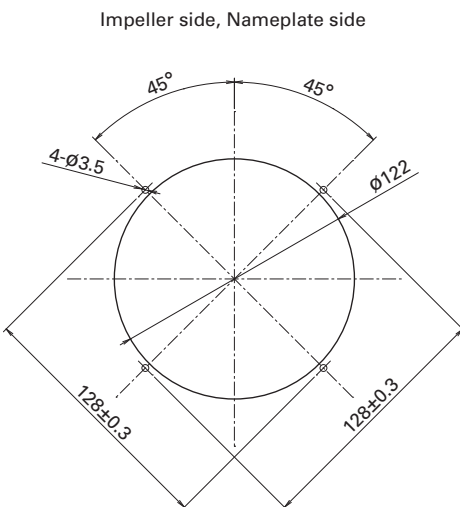
Reversible Flow Fan  $\varnothing 136$  mm DC



## Dimensions (unit: mm)



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



## Options

Finger guards

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Model no.: 109-1139