



Ø 136x28 mm

San Ace 136RF 9RF type US

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)
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 529.
- 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 ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ 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 frequency: 25 kHz

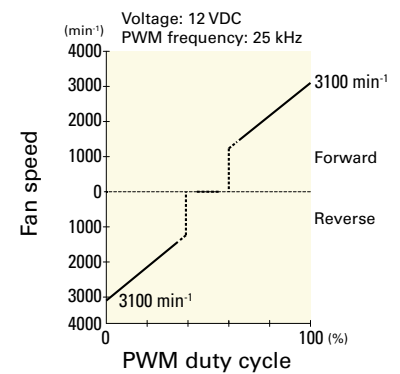
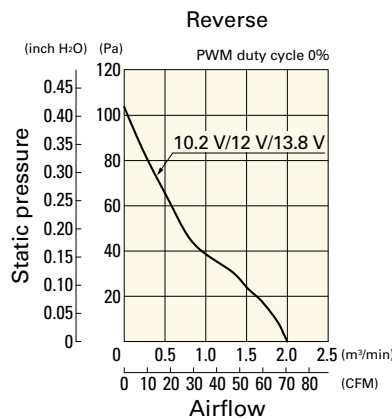
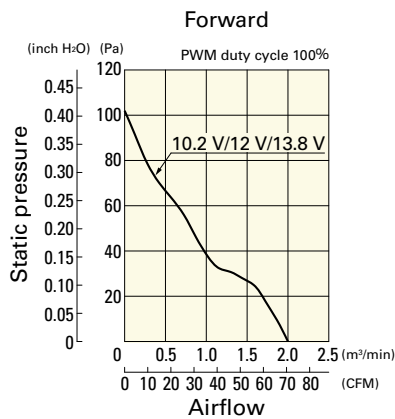
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9RF1312P3H001 With pulse sensor with PWM control function

Operating voltage range

Operating voltage range

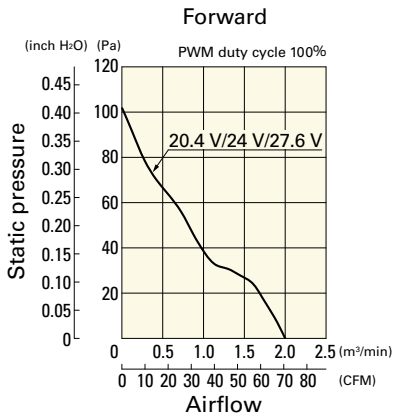
PWM duty - Speed characteristics example



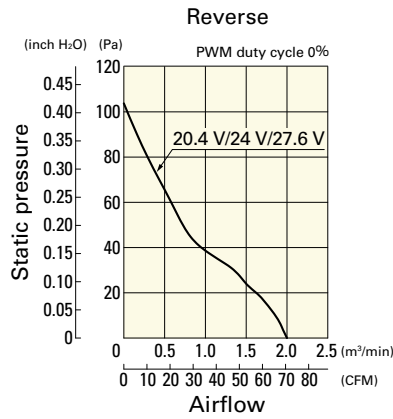
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9RF1324P3H001 With pulse sensor with PWM control function

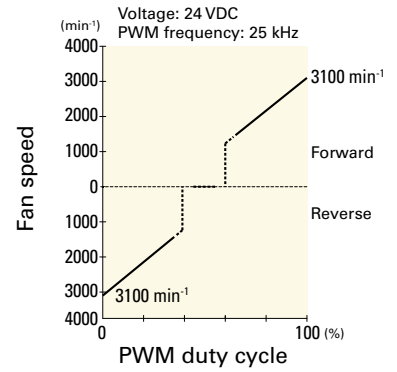
Operating voltage range



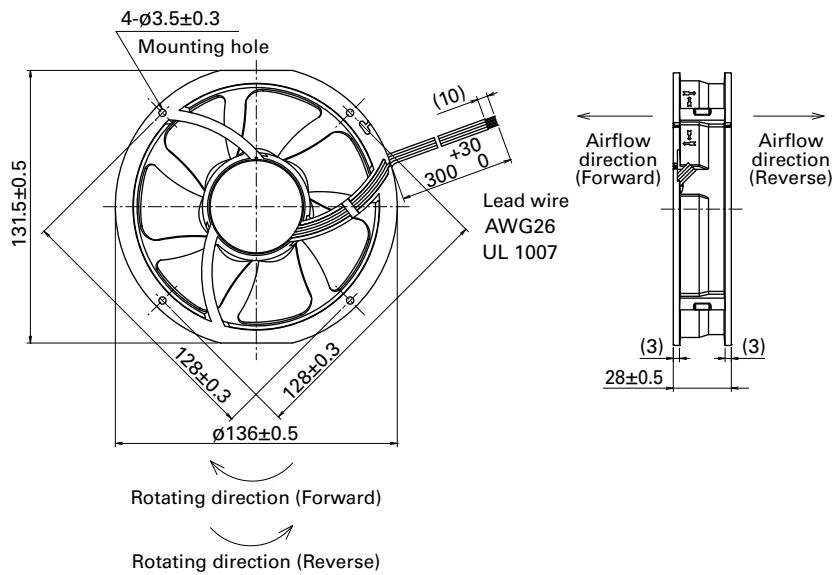
Operating voltage range



PWM duty - Speed characteristics example

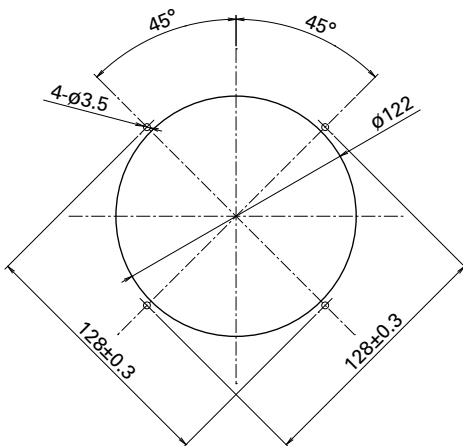


Dimensions (unit: mm)



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

Impeller side, Nameplate side



Options

Finger guards

page: p. 514

Model no.: 109-1139

DC
Reversible Flow Fan ϕ 136 mm

Splash Proof Fan

Cooling fan of IP54, IP55 and IP68 waterproof capability. For more information on IP rating, refer to p. 534.
 Related product: Splash Proof Centrifugal Fan p. 319, Oil Proof Fan p. 333

Model Numbering System Not every combination of the following codes or characters is available. Contact us for an available combination.

9WS	08	12	H	4	01	
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications	Frame form

Fans with PWM control function

9WV	08	48	P	1	H	001	
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (2 to 3 digits)	Frame form

Type name	9W	9WB	9WE	9WG	9WL	9WP	9WS	9WV
Frame size (mm)	04	06	08	09	12	14	17	57
	40×40	60×60	80×80	92×92	120×120	140×140	∅172	∅172×150 (sidecut)
Voltage (V)	12	24	48					
	12	24	48	etc.				
Speed code	A	D	E	F	G	H	J	L
	M	S	etc.					
Frame thickness (mm)	1	4	5	6				
	38	25	51	20				
Sensor specifications	01		02			D01		
	With a pulse sensor		Without a sensor			With a lock sensor		
Frame form	Nil				1			
	Plastic frame: Ribbed frame				Plastic frame: Ribless frame			
	Aluminum frame: Ribless frame							

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	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]
9GA0412G7001	12	7 to 13.8	0.17	2.04	13100	0.36 12.7	192 0.77	42	-20 to +70	40000/60°C (70000/40°C)

- Rated voltage** This is the necessary voltage to drive the fan. E.g.) 12 VDC, 24 VDC, 48 VDC
- Operating voltage range** The voltage range over which fan operation is guaranteed.
- Rated current** The current when the fan is operating at rated voltage (at free air).
- Rated input** The power value when the fan is operating at rated voltage (at free air).
- Rated speed** The speed when the fan is operating at rated voltage (at free air).
- Max. airflow** The maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
- Max. static pressure** The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
- SPL** SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
- Operating temperature** The temperature range over which fan operation is guaranteed (Non- condensing).
- Expected life** Service life hours that 90% of bearings will survive without failing when continuously operated at the rated voltage and 60°C temperature. Expected life at 40°C is for reference only. For more information, please refer to the technical material section.