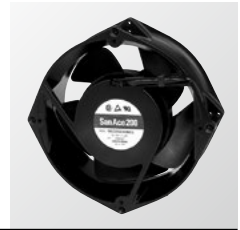


# Ø200x70 mm



San Ace 200 9EC type Model 9EC2048J001 is not certified.

## General Specifications

- Material ..... Frame: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-1)
- 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 or Blue (Sensor) Yellow
- Mass ..... 1800 g

Power on when current is shut off. Do not power on 10 s or more after power off.

## Specifications

The models listed below **have pulse sensors**.

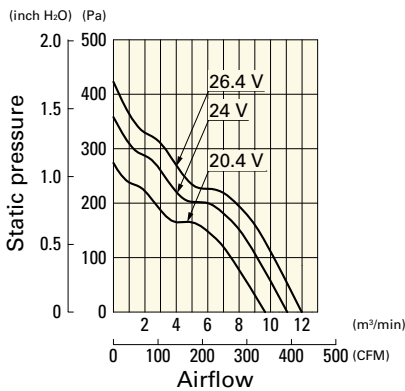
Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min <sup>-1</sup> ]	Max. airflow [m <sup>3</sup> /min] [CFM]	Max. static pressure [Pa] [inchH <sub>2</sub> O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9EC2024H001	24	20.4 to 26.4	2.0	48.0	3600	11.0 388	360 1.446	60	-20 to +60	40000/60°C
9EC2048J001	48	40.8 to 55.2	4.4	211.2	6100	18.3 646	1000 4.016	75		
9EC2048A001		43.0 to 51.0	2.2	105.6	4800	14.7 519	640 2.57	68		
9EC2048H001		40.8 to 52.8	1.2	57.6	3600	11.0 388	360 1.446	60		

Other sensor specifications are available as options. Refer to the index (p. 548).

## Airflow - Static Pressure Characteristics

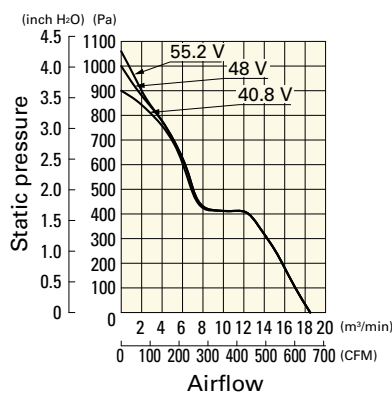
**9EC2024H001** With pulse sensor

Operating voltage range



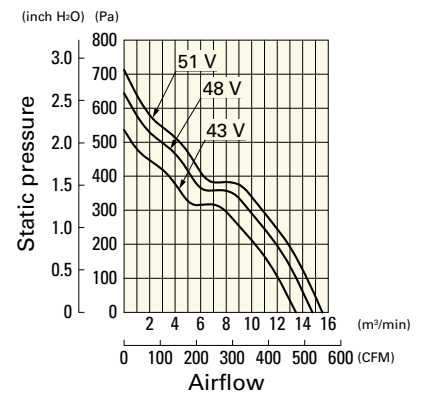
**9EC2048J001** With pulse sensor

Operating voltage range



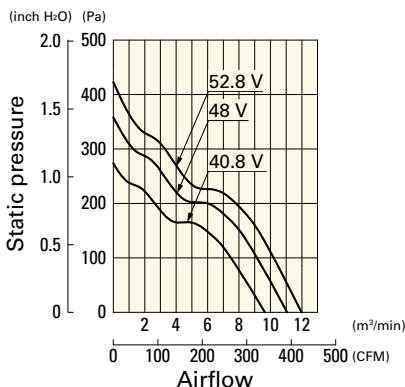
**9EC2048A001** With pulse sensor

Operating voltage range

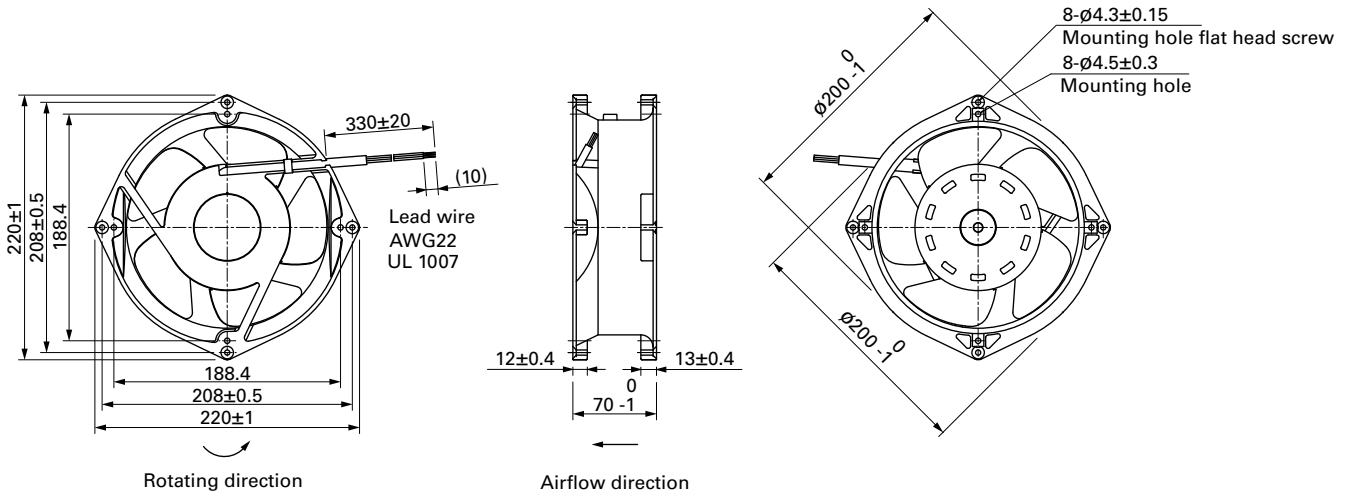


**9EC2048H001** With pulse sensor

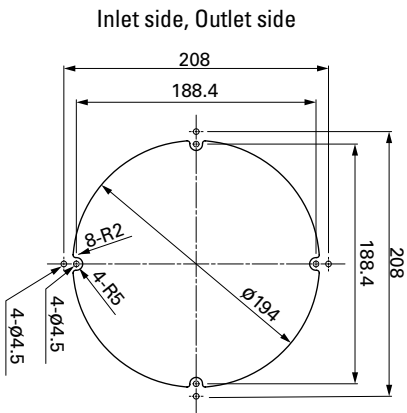
Operating voltage range



**Dimensions (unit: mm)**



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



**Options**

Finger guards

page: p. 516

Model no.: 109-720, 109-720H, 109-721, 109-721H



# Counter Rotating Fan

Counter rotating fans feature high airflow and high static pressure.  
Related product: Long Life Fan pp. 361, 366

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

<b>9CRA</b>	<b>04</b>	<b>12</b>	<b>K</b>	<b>4</b>	<b>01</b>
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications

Fans with PWM control function

<b>9CRA</b>	<b>03</b>	<b>12</b>	<b>P</b>	<b>4</b>	<b>K</b>	<b>03</b>
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (2 to 3 digits)

Type name	9CR	9CRA	9CRB	9CRD	9CRE	9CRH	9CRV
Frame size (mm)	03	04	06	08	12	57	
	38×38	40×40	60×60	80×80	120×120	∅172×150 (sidecut)	
Voltage (V)	12	48					
	12	48					
Speed code	G	H	J	K	S	etc.	
Frame thickness (mm)	0	4	5	6	8	9	
	76	48	51, 56	56	80	102	
Sensor specifications	01		02			D01	
	With a pulse sensor		Without a sensor			With a lock sensor	

## How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	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]
<b>9GA0412G7001</b>	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.