

New Product Introduction
January 30th, 2023

San Ace 120

Low noise fan (9RA type)
120 mm × 38mm

SANYO DENKI

SANYO DENKI AMERICA, INC.
Cooling Systems Division
www.Sanyodenki.com/america



Products Highlights

- Low Noise and Energy Saving
- Long Life
- Extensive Lineup
- Target applications: Medical equipment, communication equipment, built-in power supplies, AV equipment, measuring instruments, arcade machines

Low Noise, Energy Saving & Long Life San Ace 120/9RA type

□ Specification

*Rated speed and sound pressure level are values at rated voltage in free air.

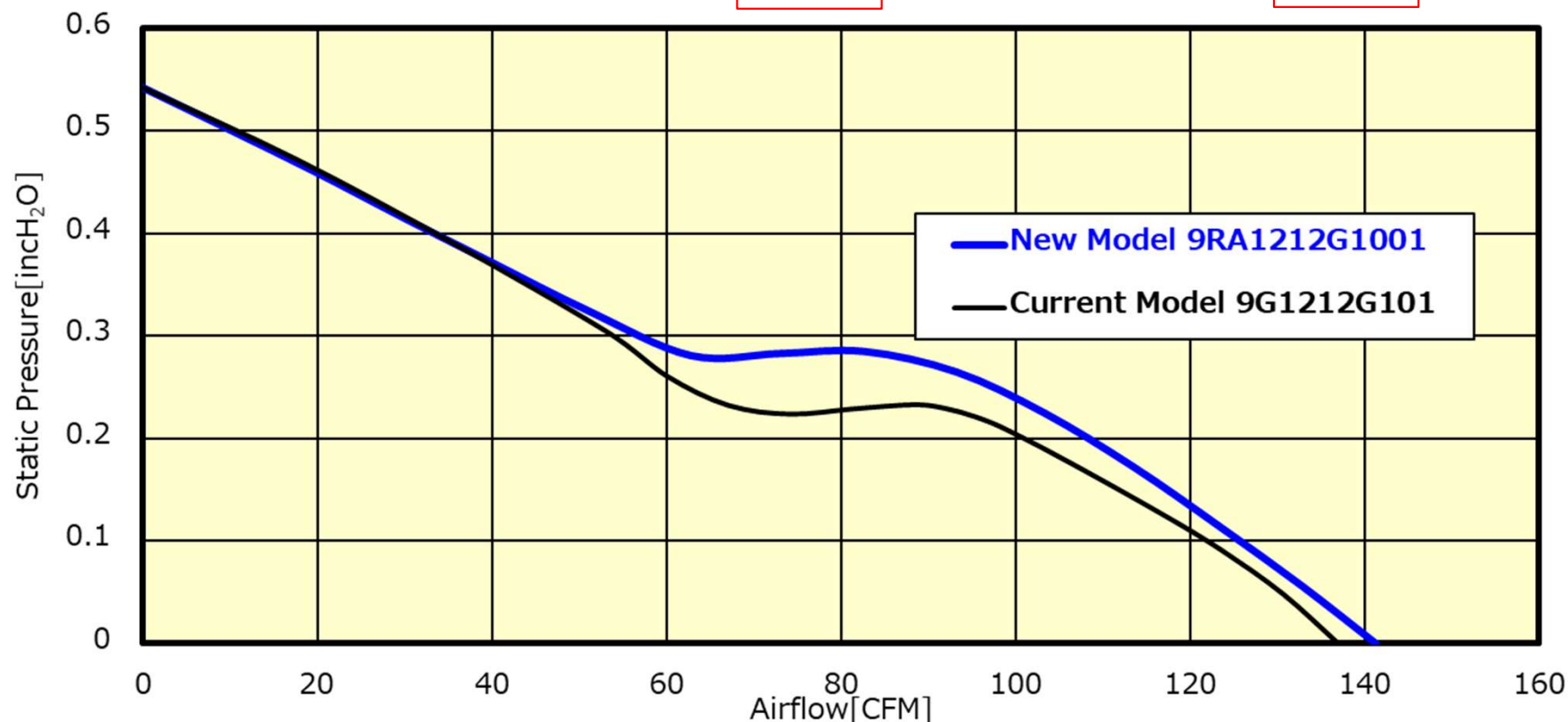
*Sound pressure level is measured at one meter from the inlet.

Model no.	Rated Voltage [V]	Rated speed [min ⁻¹]	Rated input [W]	Max. airflow [CFM]	Max. static pressure [inch H ₂ O]	SPL [dB(A)]	Expected life [h]
New model 9RA1212G1001	12	4,200	8.40	141	0.542	46	40,000
Current model 9G1212G101	12	3,600	11.76	137	0.542	49	40,000

28.6%
down

Equal or more

3dB(A)
down



Specification and Extensive Lineup

San Ace 120/9RA type

The product lineup is available in a wide variety in 12/24/48 voltage, cooling performance level, noise level, and PWM control. This allows users to choose the most suitable one for their applications.

■ Specifications

*Rated speed, sound pressure level, power consumption are values at rated voltage in free air.

*Sound pressure level is the value at one meter away from the inlet.

The models listed below **have ribs and pulse sensors with PWM control function**. For models without ribs, append "1" to the end of model numbers.

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]
9RA1212P1K001	12	10.8 to 13.2	100	0.96	11.5	4700	4.5 158	170 0.683	50	-20 to +70	30000/60°C (53000/40°C)
			25	0.12	1.4	1800	1.7 60	24 0.096	25		
9RA1224P1K001	24	21.6 to 26.4	100	0.48	11.5	4700	4.5 158	170 0.683	50		
			25	0.06	1.4	1800	1.7 60	24 0.096	25		
9RA1248P1K001	48	43.2 to 52.8	100	0.25	12.0	4700	4.5 158	170 0.683	50		
			25	0.04	1.9	1500	1.4 50	17 0.069	21		

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

The models listed below **have ribs and pulse sensors**. For models without ribs, append "1" to the end of model numbers.

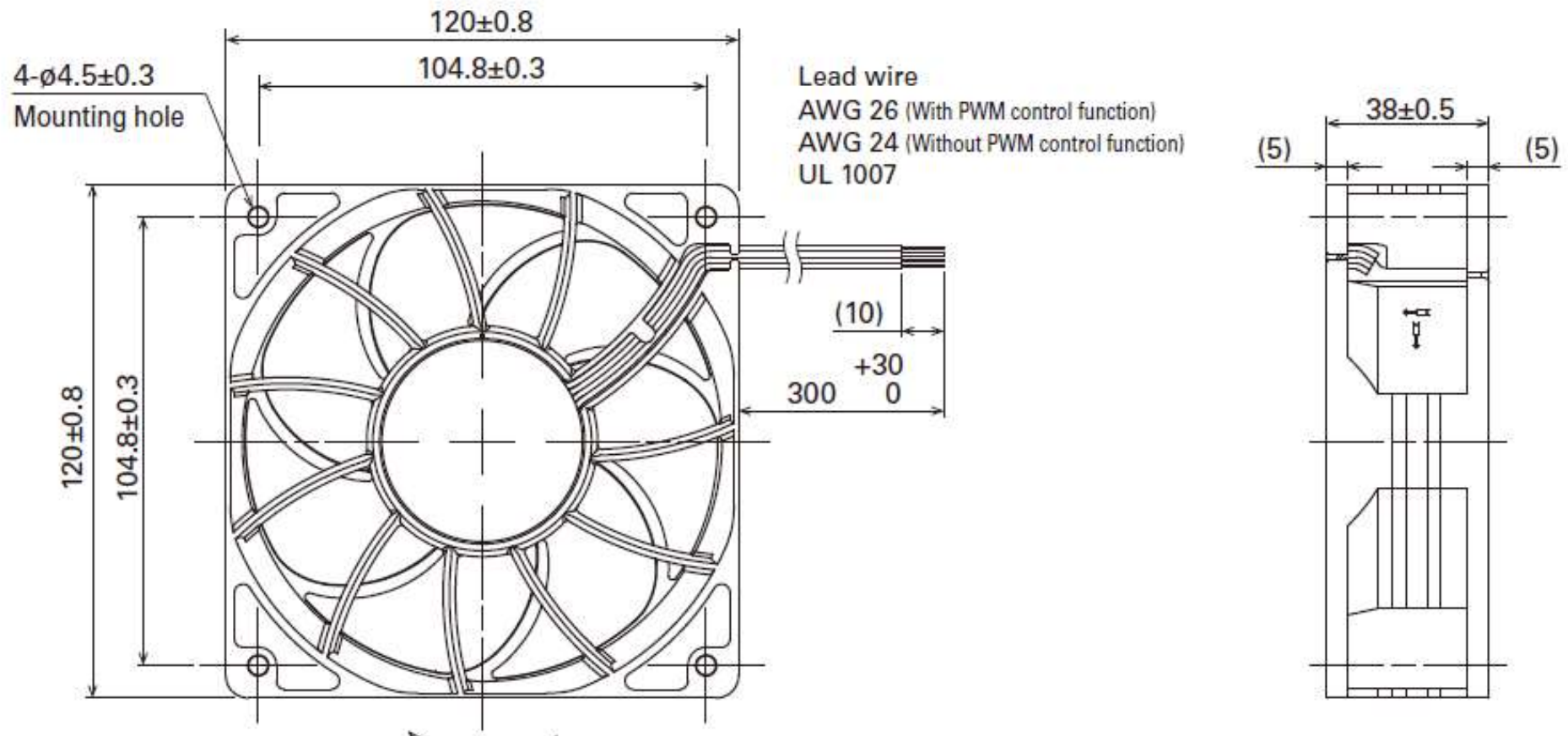
Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB(A)]	Operating temperature [°C]	Expected life [h]
9RA1212G1001	12	7 to 13.8	0.70	8.4	4200	4.0 141	135 0.542	46	-20 to +70	40000/60°C (70000/40°C)
9RA1212E1001			0.47	5.6	3600	3.4 120	100 0.402	43		
9RA1212H1001			0.25	3.0	3000	2.8 99	70 0.281	37		
9RA1224G1001	24	14 to 27.6	0.35	8.4	4200	4.0 141	135 0.542	46		
9RA1224E1001			0.24	5.8	3600	3.4 120	100 0.402	43		
9RA1224H1001			0.13	3.1	3000	2.8 99	70 0.281	37		
9RA1248G1001	48	40.8 to 55.2	0.18	8.6	4200	4.0 141	135 0.542	46		
9RA1248E1001			0.12	5.8	3600	3.4 120	100 0.402	43		
9RA1248H1001			0.07	3.4	3000	2.8 99	70 0.281	37		

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Dimensions

San Ace 120/ 9RA type

(unit : mm) (With pulse sensor with PWM control function)



□ MTBF = 3 million hours

□ FIT rate = 330

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Target Applications

Equipment used near by people that require both cooling performance and noise reduction

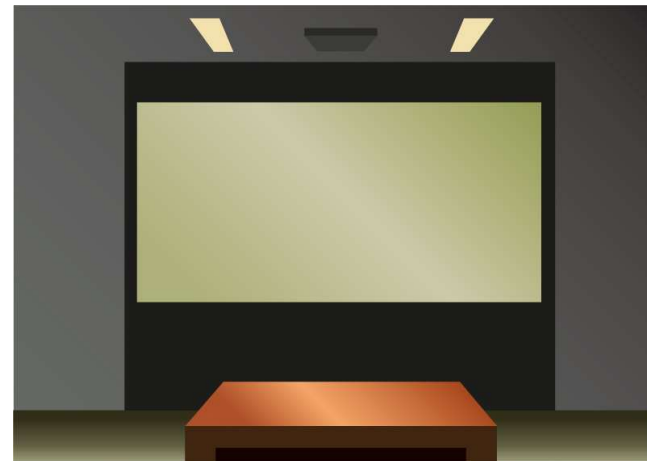
- Medical equipment
- Communication equipment
- Built-in power supplies
- Audio-Visual equipment
- Measuring instruments
- Arcade machines



Ultrasound
Diagnostic
equipment



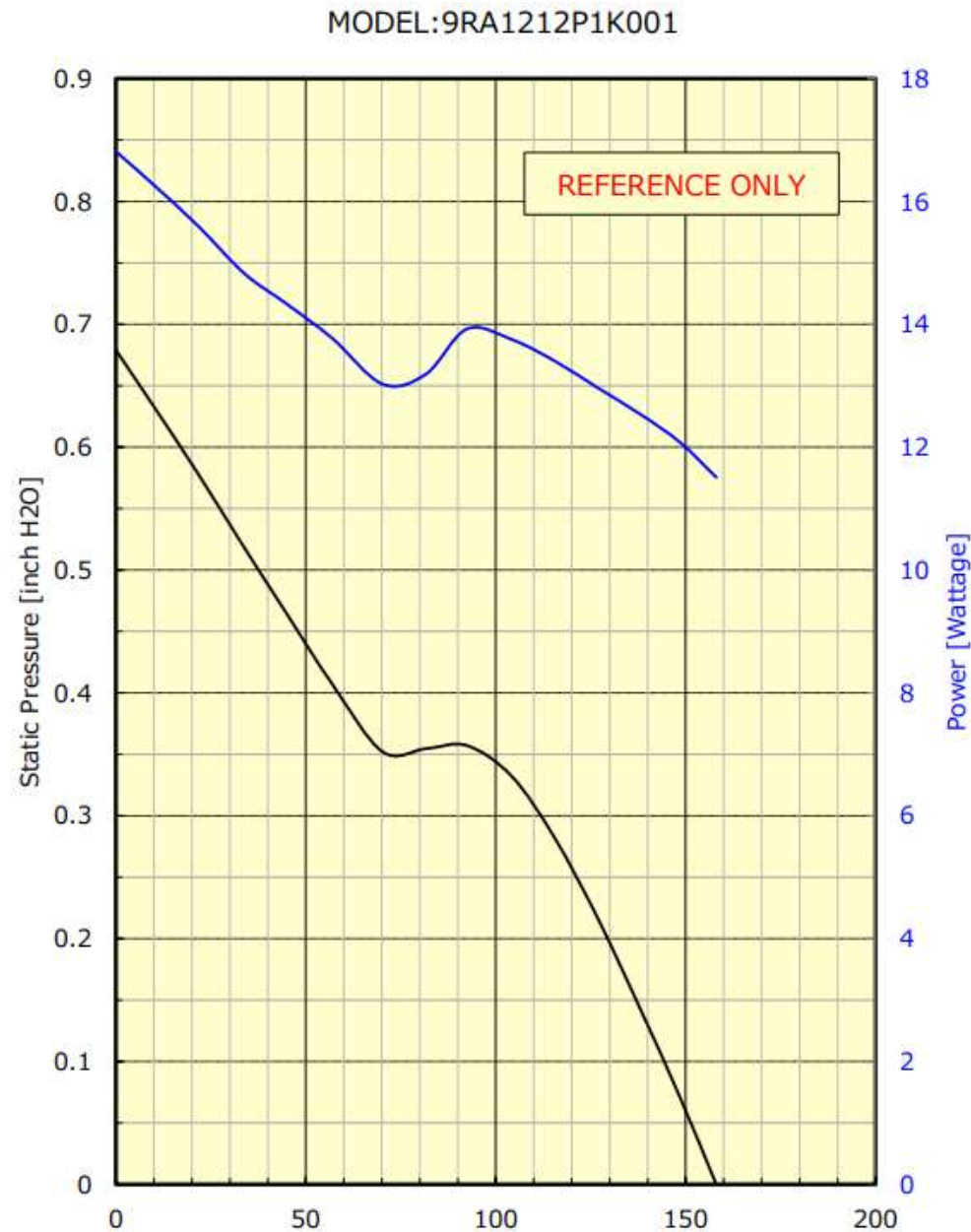
Medical
Endoscope



Home Theater equipment

Performance vs Power

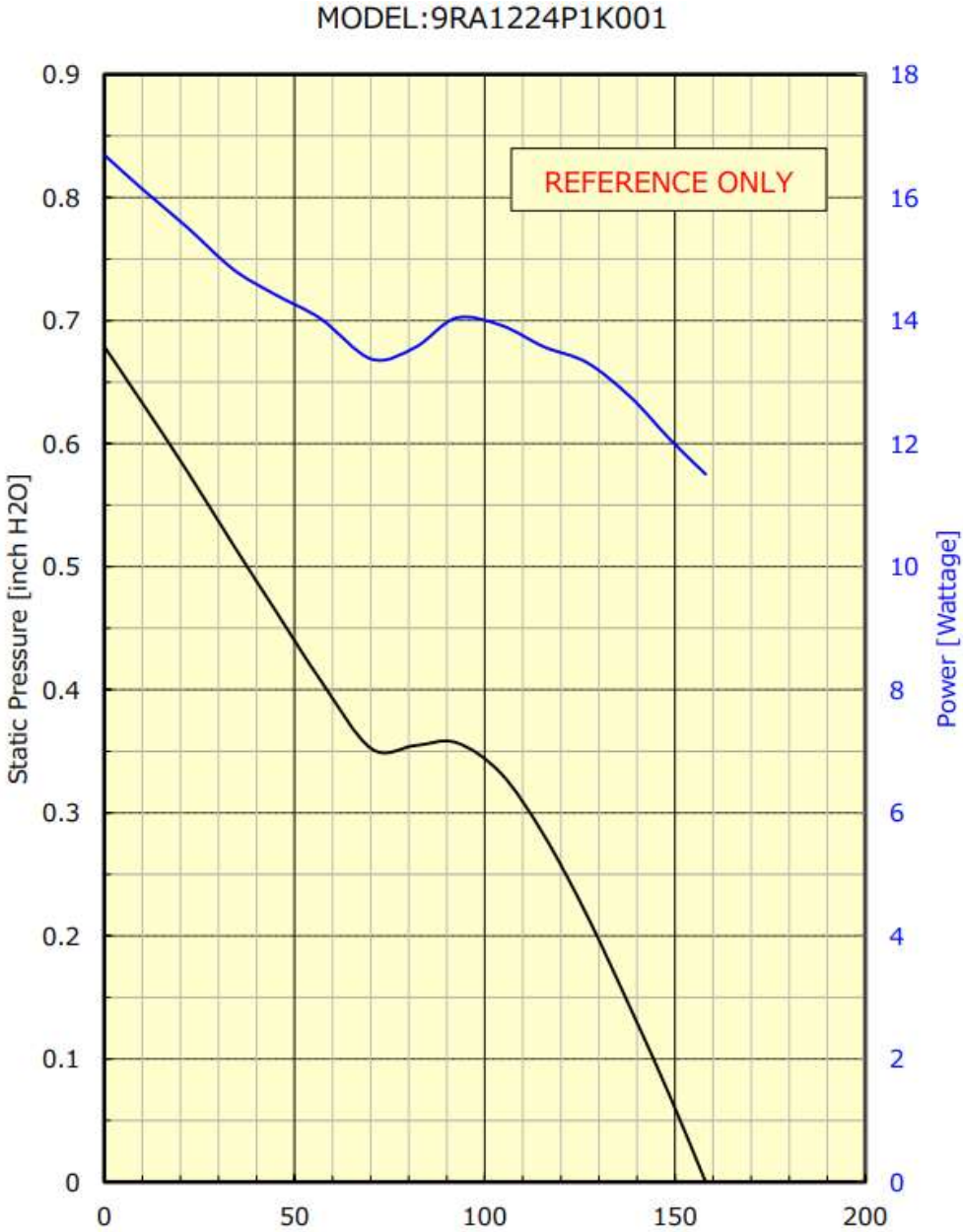
San Ace 120/ 9RA type/12V



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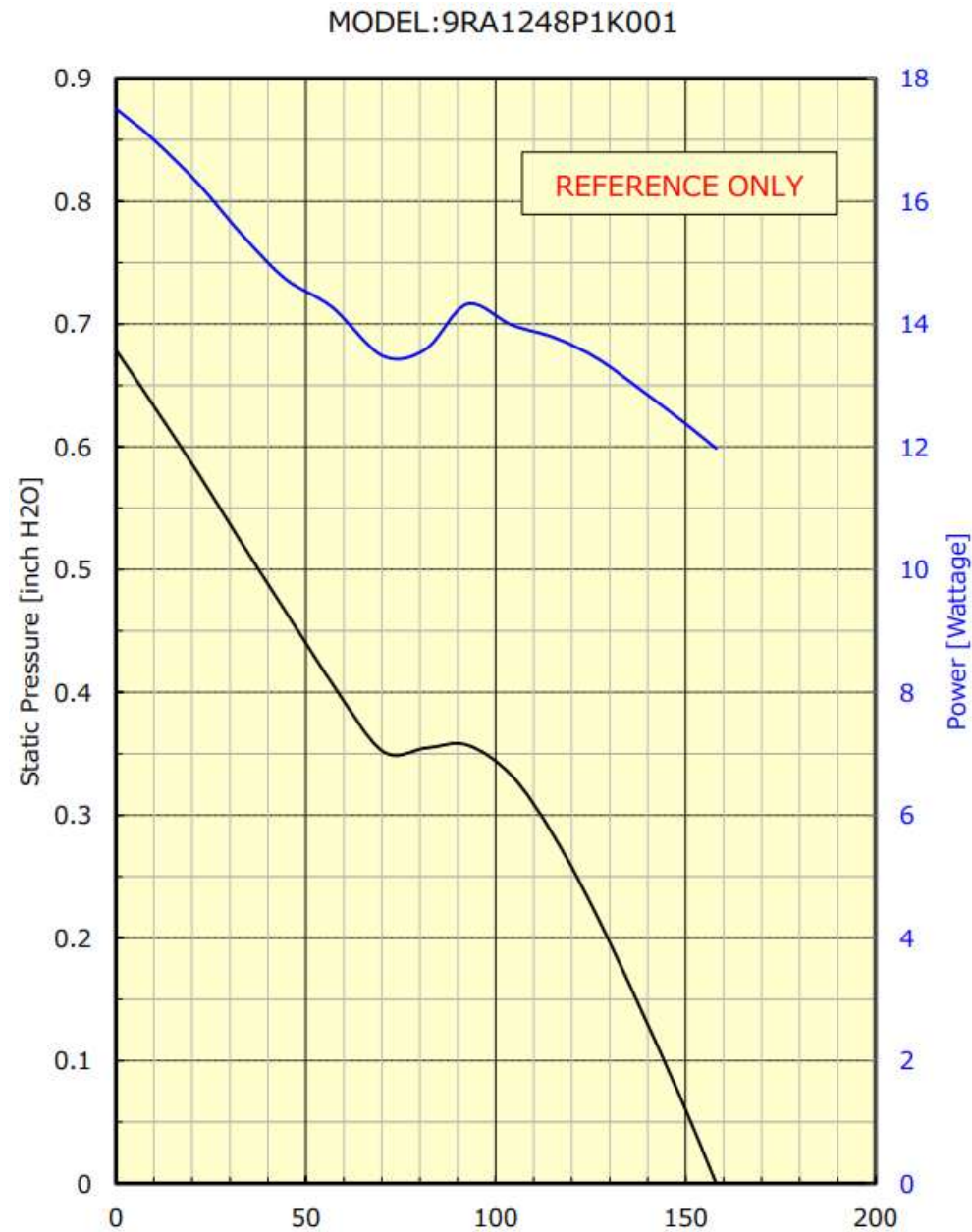
Performance vs Power

San Ace 120/ 9RA type/24V



Performance vs Power

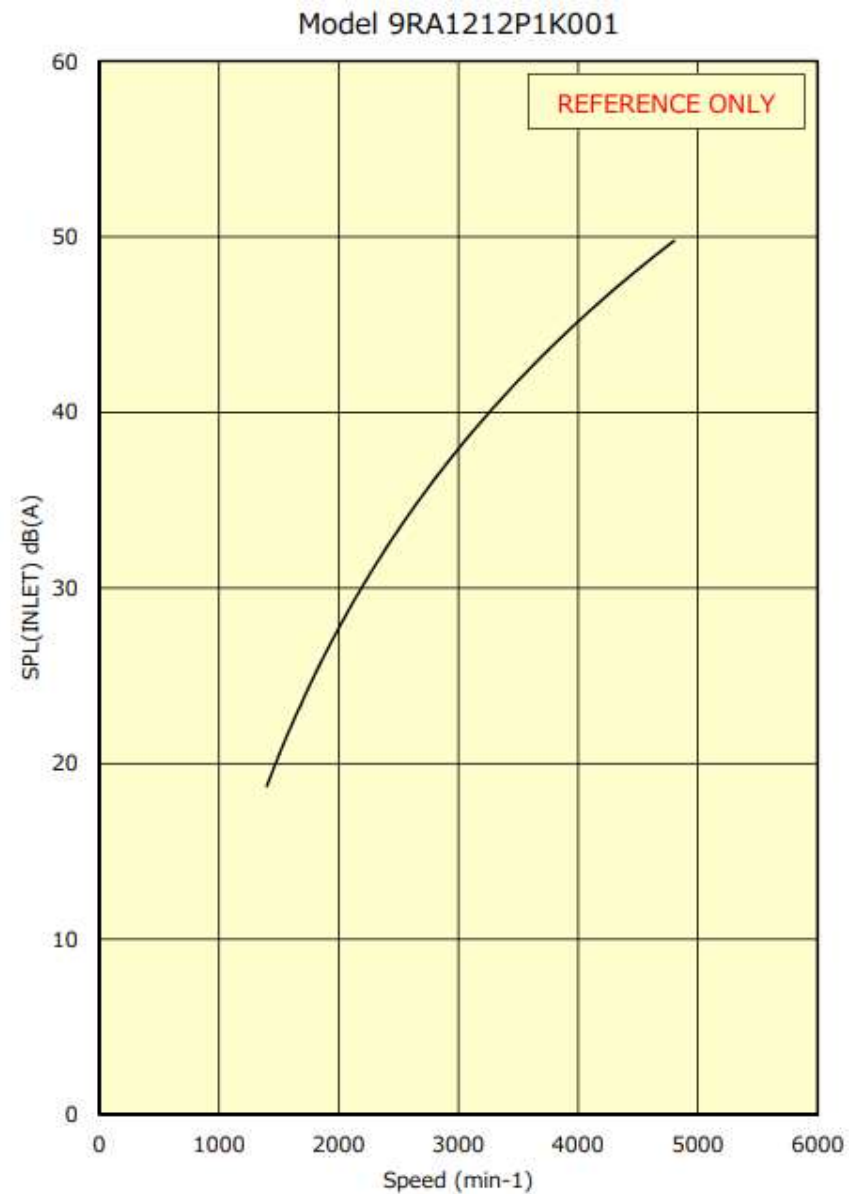
San Ace 120/ 9RA type/48V



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SPEED vs Sound Pressure Level (dB(A)) San Ace 120/ 9RA type/12,24,48V

* This data is equivalent to all voltage models.



Miscellaneous

- Customizations available

- Harness assembly: Sanyo Denki can recommend connectors and terminals.
- Additional conformal coating available
- Others

- PWM Control Models available

- PWM control function enables to control fan speed depending on the situation and to reduce the power consumption and noise.

- 12, 24 and 48VDC available

- cUL and TUV approved