

New Product Introduction
October 25, 2021

San Ace 92

Low noise fan (9RA type)
92 mm × 25mm



SANYODENKI

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

Products Highlights

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



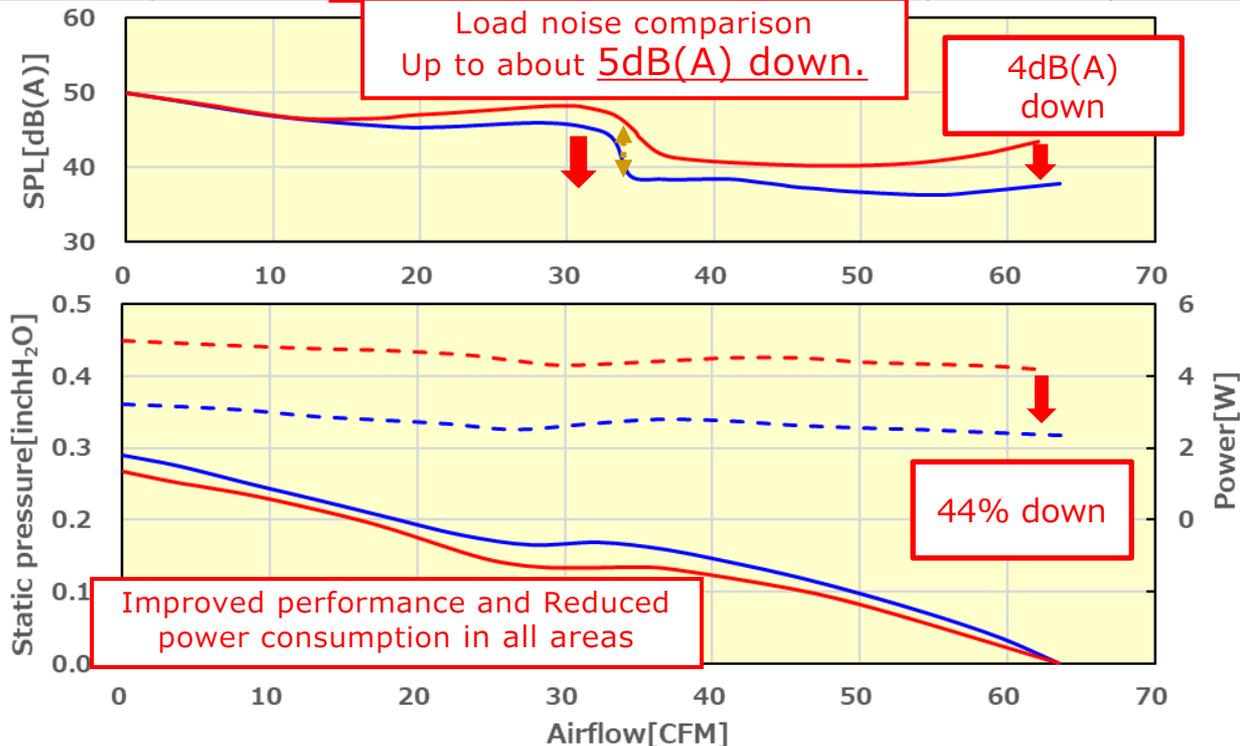
Ultrasound Diagnostic equipment

Low Noise, Energy Saving & Long Life San Ace 92/9RA 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 [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life@60°C[h]
New model 9RA0912G4001	12	4,200	2.64	63.5	0.290	37	-20~+70	60,000
Current model 9A0912G401	12	3,900	4.68	62.1	0.267	41	-20~+60	30,000



Specification and Rich Lineup

San Ace 92/9RA type

The product lineup is available in a wide variety in 12/24/48 voltage, cooling performance, 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]		Noise level [dB(A)]	Operating temperature [°C]	Expected life [h]
9RA0912P4G001	12	10.8 to 13.2	100	0.22	2.64	4200	1.8	63.5	73.5	0.29	37	-20 to +70	60000/60°C (90000/40°C)
			30	0.03	0.36	1000	0.42	14.8	4.1	0.016	11		
9RA0924P4G001	24	21.6 to 26.4	100	0.13	3.12	4200	1.8	63.5	73.5	0.29	37		
			20	0.03	0.72	1000	0.42	14.8	4.1	0.016	11		
9RA0948P4G001	48	43.2 to 52.8	100	0.07	3.36	4200	1.8	63.5	73.5	0.29	37		
			20	0.03	1.44	1400	0.6	21.2	8.1	0.033	14		

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

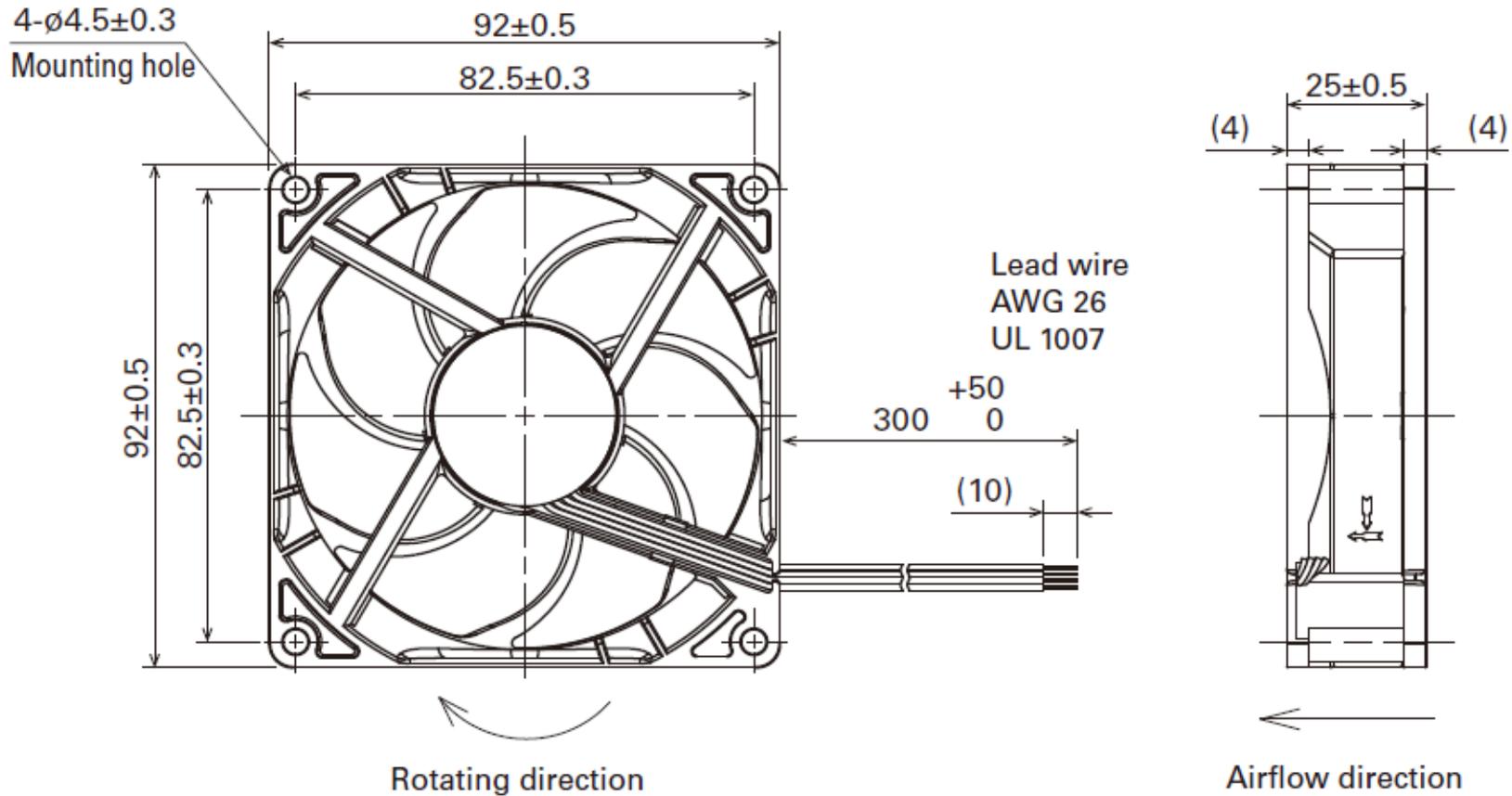
The models listed below **have ribs and pulse sensors.** For models without ribs, append "1" to the end of model numbers.

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]		Noise level [dB(A)]	Operating temperature [°C]	Expected life [h]
9RA0912G4001	12	7 to 13.8	0.22	2.64	4200	1.8	63.5	73.5	0.29	37	-20 to +70	60000/60°C (90000/40°C)
9RA0912S4001			0.2	2.4	3850	1.65	58.3	61.7	0.25	35		
9RA0912H4001			0.14	1.68	3400	1.46	51.6	48.1	0.19	31		
9RA0912F4001			0.1	1.2	2850	1.22	43.1	33.8	0.14	27		
9RA0912M4001			0.07	0.84	2450	1.05	37.1	25	0.1	23		
9RA0924G4001	24	14 to 27.6	0.13	3.12	4200	1.8	63.5	73.5	0.29	37		
9RA0924S4001			0.1	2.4	3850	1.65	58.3	61.7	0.25	35		
9RA0924H4001			0.08	1.92	3400	1.46	51.6	48.1	0.19	31		
9RA0924F4001			0.06	1.44	2850	1.22	43.1	33.8	0.14	27		
9RA0924M4001			0.04	0.96	2450	1.05	37.1	25	0.1	23		
9RA0948G4001	48	36 to 55.2	0.07	3.36	4200	1.8	63.5	73.5	0.29	37		
9RA0948S4001			0.06	2.88	3850	1.65	58.3	61.7	0.25	35		
9RA0948H4001			0.05	2.4	3400	1.46	51.6	48.1	0.19	31		

Dimensions

San Ace 92/ 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
- Built-in power supplies
- Audio-Visual equipment
- Measuring instruments
- Arcade machines



Ultrasound
Diagnostic
equipment



Medical
Endoscope

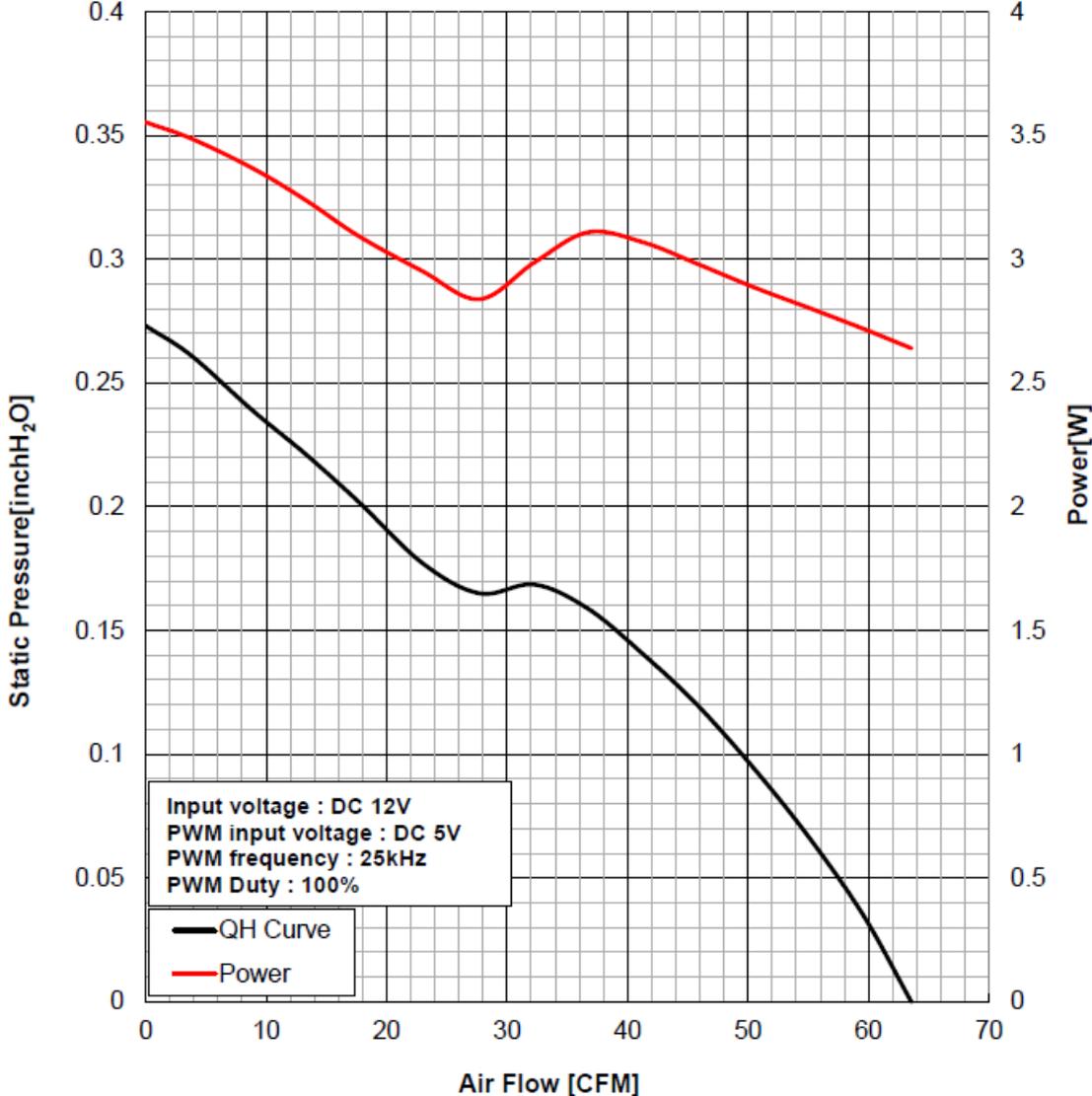


Home Theater equipment

Performance vs Power

San Ace 92/ 9RA type/12V/G Speed

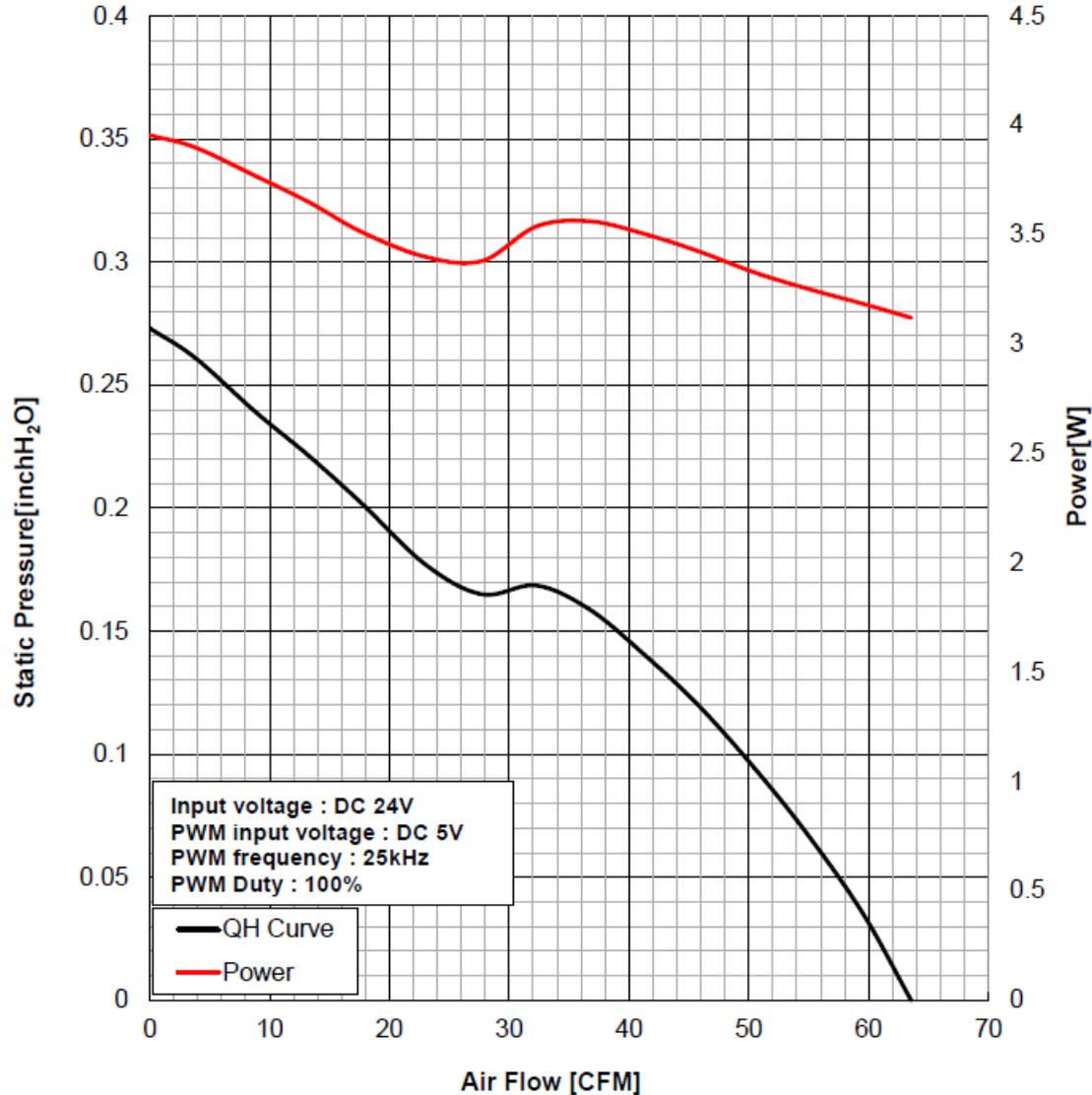
MODEL : 9RA0912P4G001



Performance vs Power

San Ace 92/ 9RA type/24V/G Speed

MODEL : 9RA0924P4G001

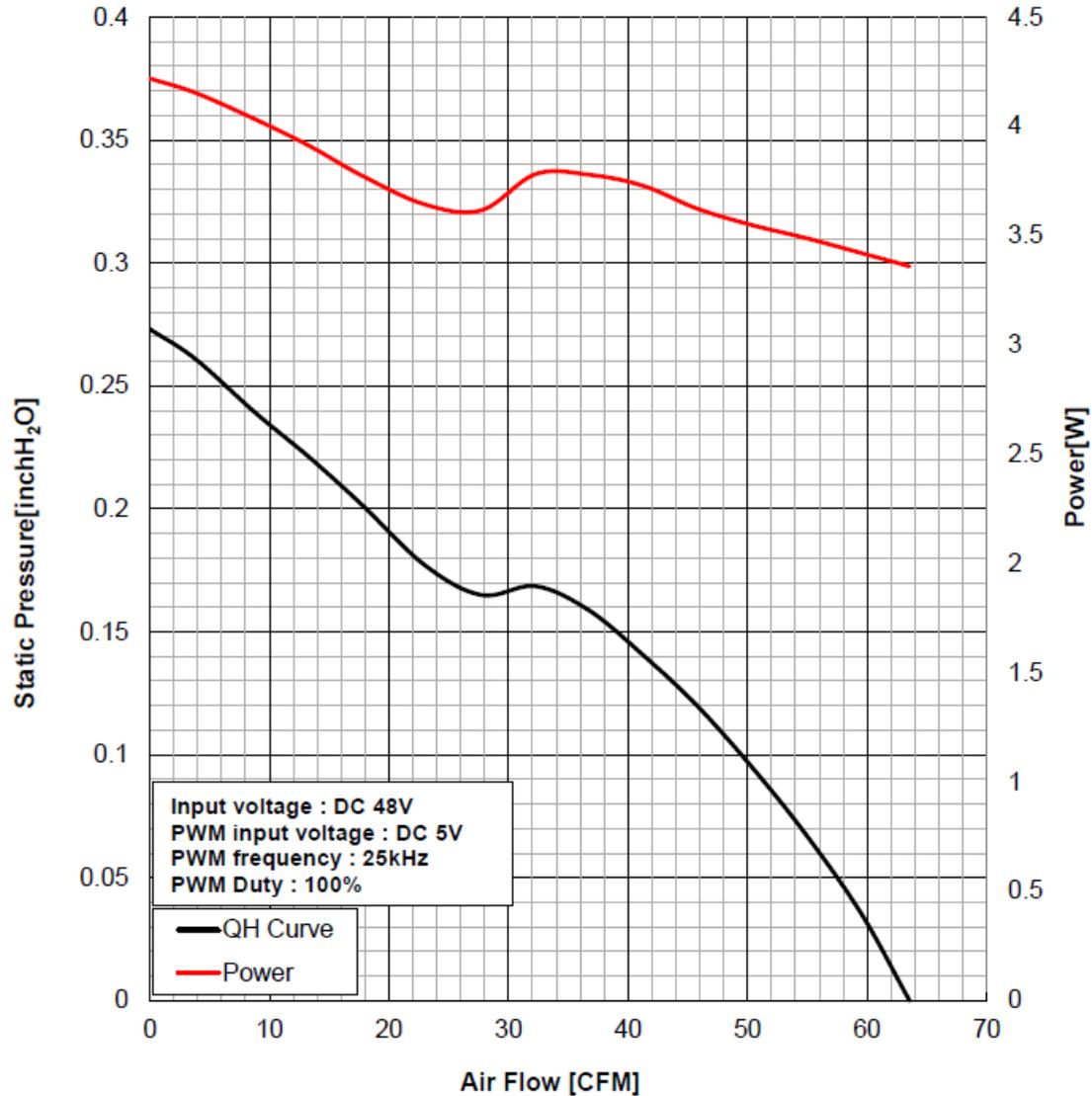


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Performance vs Power

San Ace 92/ 9RA type/48V/G Speed

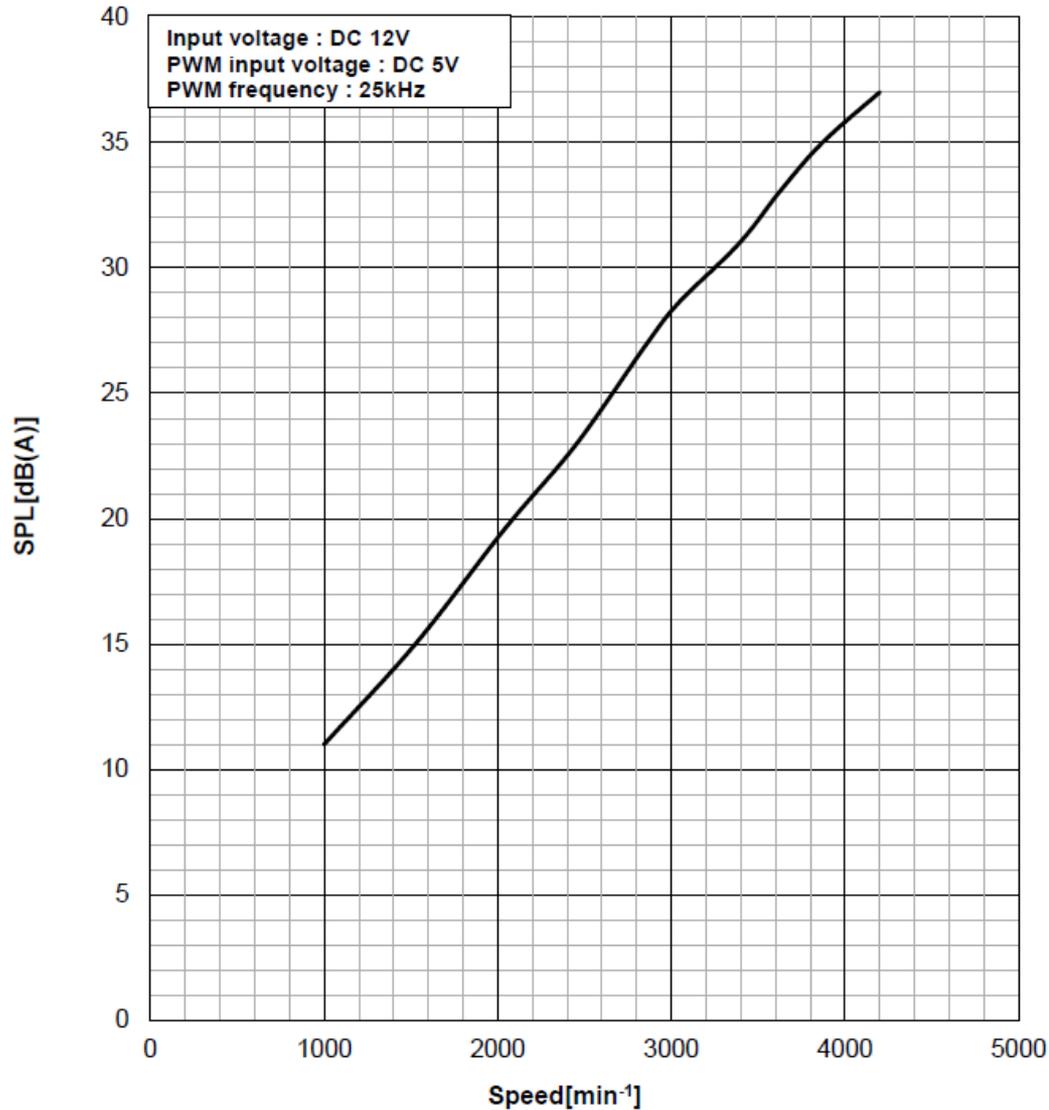
MODEL : 9RA0948P4G001



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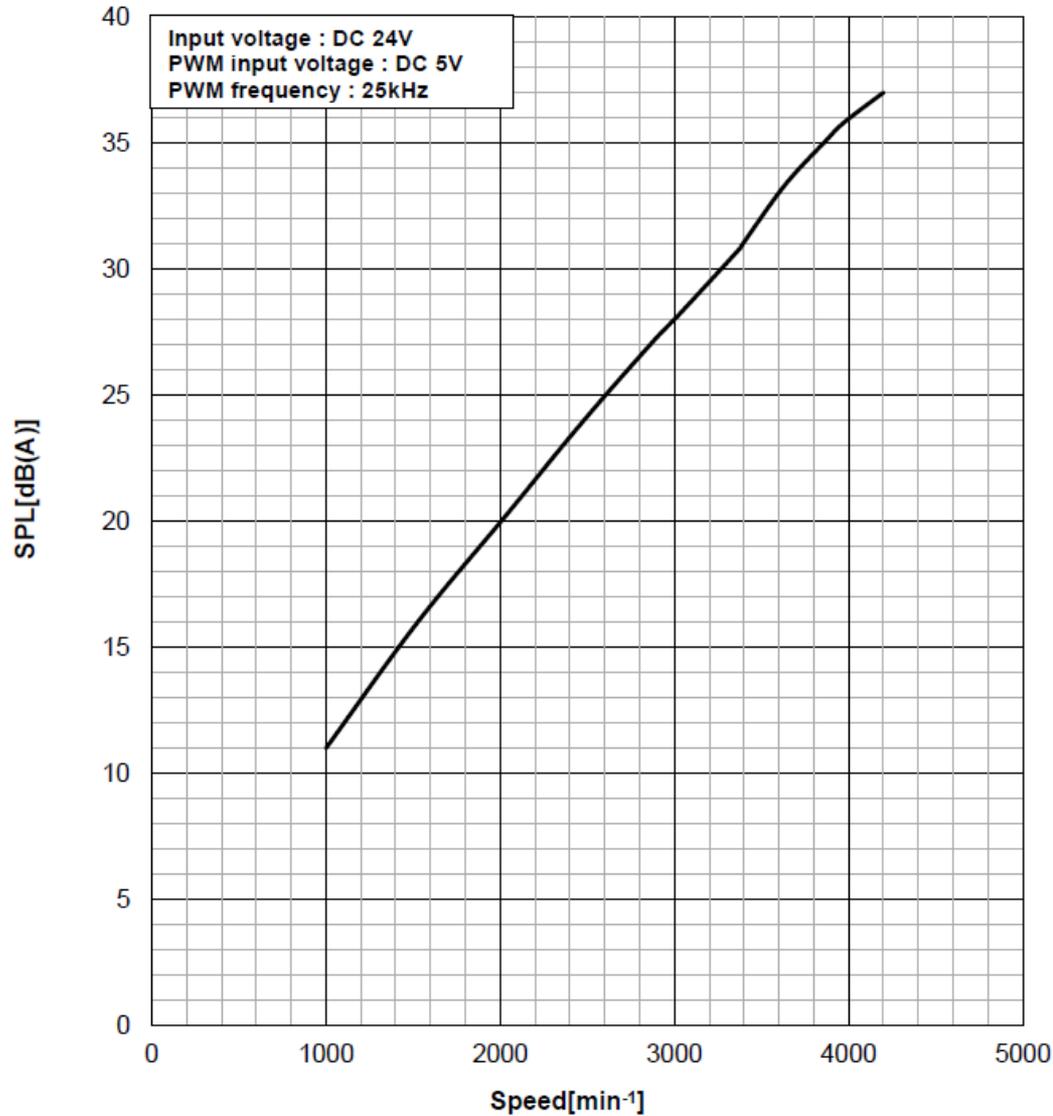
SPEED vs Sound Pressure Level (dB(A)) San Ace 92/ 9RA type/12V/G Speed

MODEL : 9RA0912P4G001



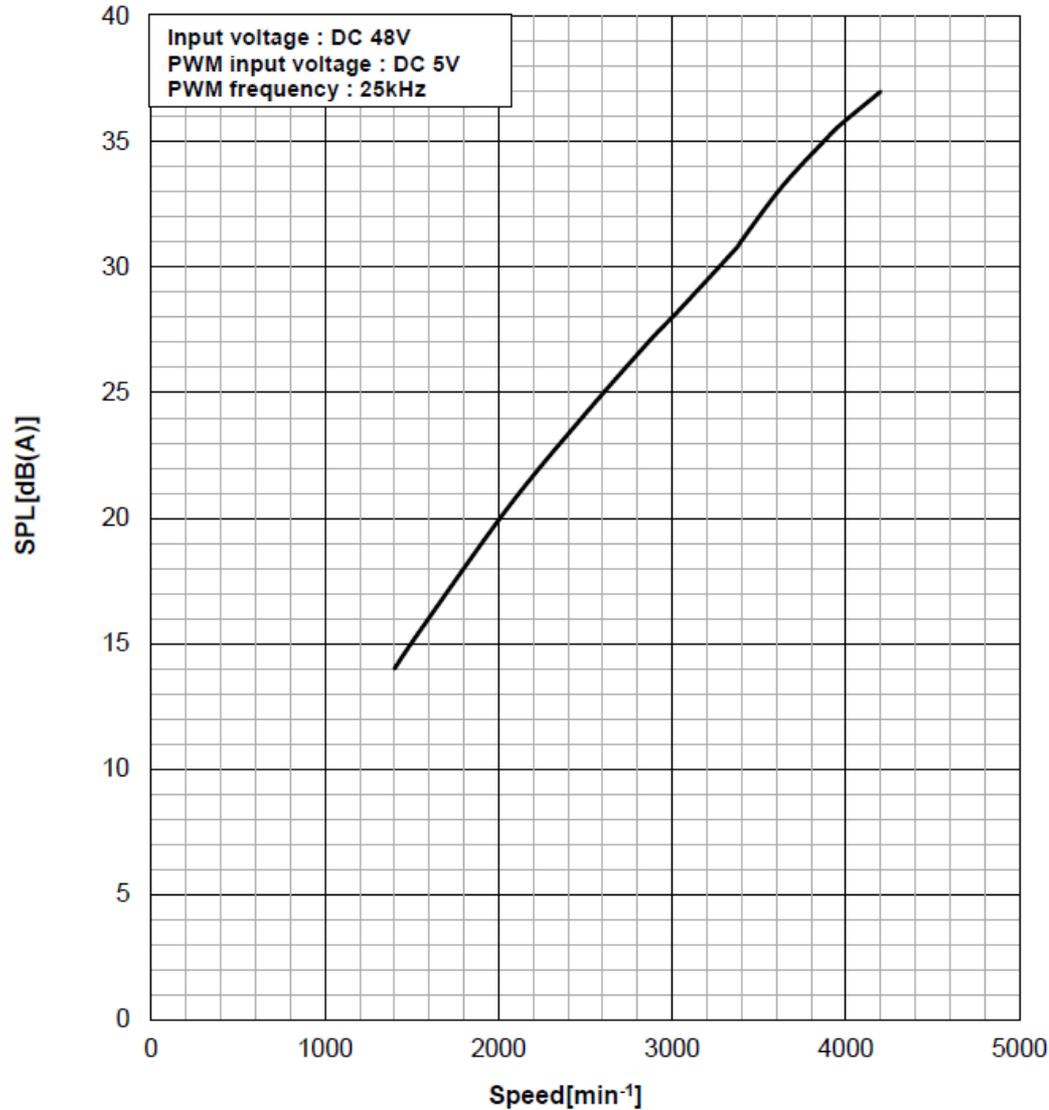
SPEED vs Sound Pressure Level (dB(A)) San Ace 92/ 9RA type/24V/G Speed

MODEL : 9RA0924P4G001



SPEED vs Sound Pressure Level (dB(A)) San Ace 92/ 9RA type/48V/G Speed

MODEL : 9RA0948P4G001



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