

New Product Introduction  
October 25th, 2021

# San Ace 80

Low noise fan (9RA type)  
80 mm × 25mm



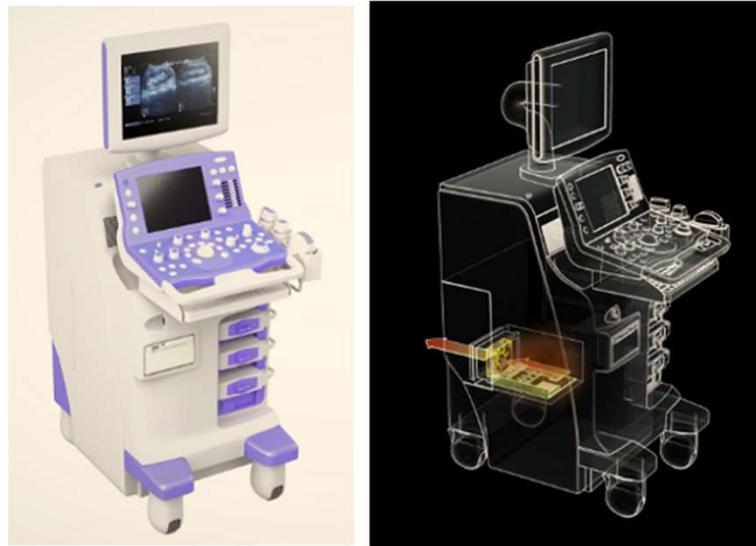
**SANYO DENKI**

SANYO DENKI AMERICA, INC.  
Cooling Systems Division  
[www.Sanyodenki.com/america](http://www.Sanyodenki.com/america)

# Products Highlights

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- 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

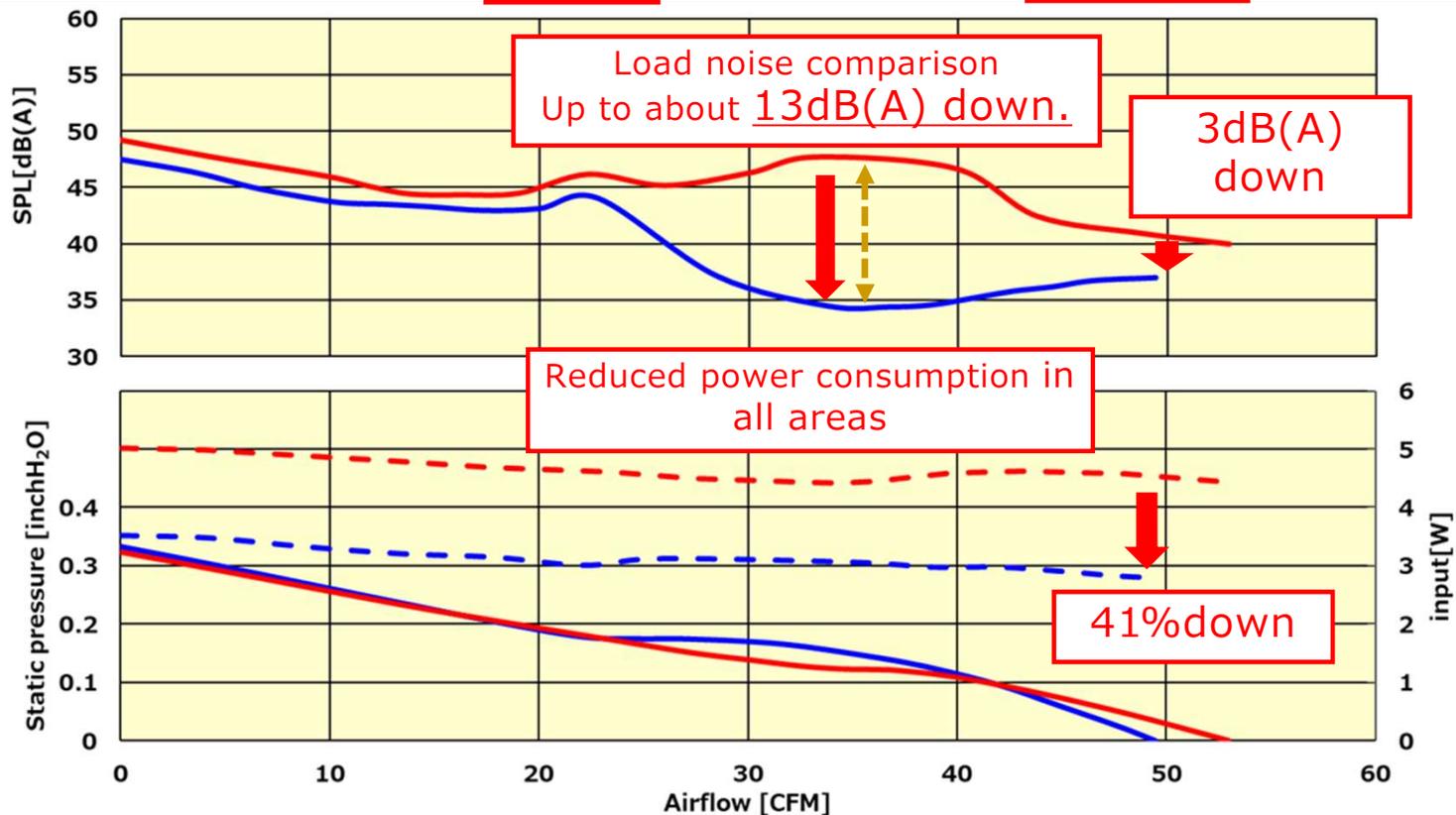
# Low Noise, Energy Saving & Long Life San Ace 80/9RA type

## □ 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 <sup>-1</sup> ]	Rated input [W]	Max. airflow [CFM]	Max. static pressure [inchH <sub>2</sub> O]	SPL [dB(A)]	Operating temperature [°C]	Expected life [h]
<b>New model 9RA0812G4001</b>	<b>12</b>	<b>5,000</b>	<b>2.64</b>	<b>49.4</b>	<b>0.33</b>	<b>37</b>	<b>-20~+70</b>	<b>60,000</b>
<b>Current model 109R0812G401</b>	<b>12</b>	<b>4,500</b>	<b>4.44</b>	<b>53.0</b>	<b>0.32</b>	<b>40</b>	<b>-20~+70</b>	<b>40,000</b>



# Specification and Rich Lineup

San Ace 80/9RA 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 <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]
9RA0812P4G001	12	10.8 to 13.2	100	0.22	2.64	5000	1.4 49.4	83 0.33	37	-20 to +70	60000/60°C (90000/40°C)
			30	0.03	0.36	1100	0.3 10.6	4 0.01	11		
9RA0824P4G001	24	21.6 to 26.4	100	0.11	2.64	5000	1.4 49.4	83 0.33	37		
			20	0.02	0.48	1000	0.28 9.8	3.3 0.01	10		
9RA0848P4G001	48	43.2 to 52.8	100	0.07	3.36	5000	1.4 49.4	83 0.33	37		
			20	0.02	0.96	1700	0.47 16.5	9.6 0.04	14		

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

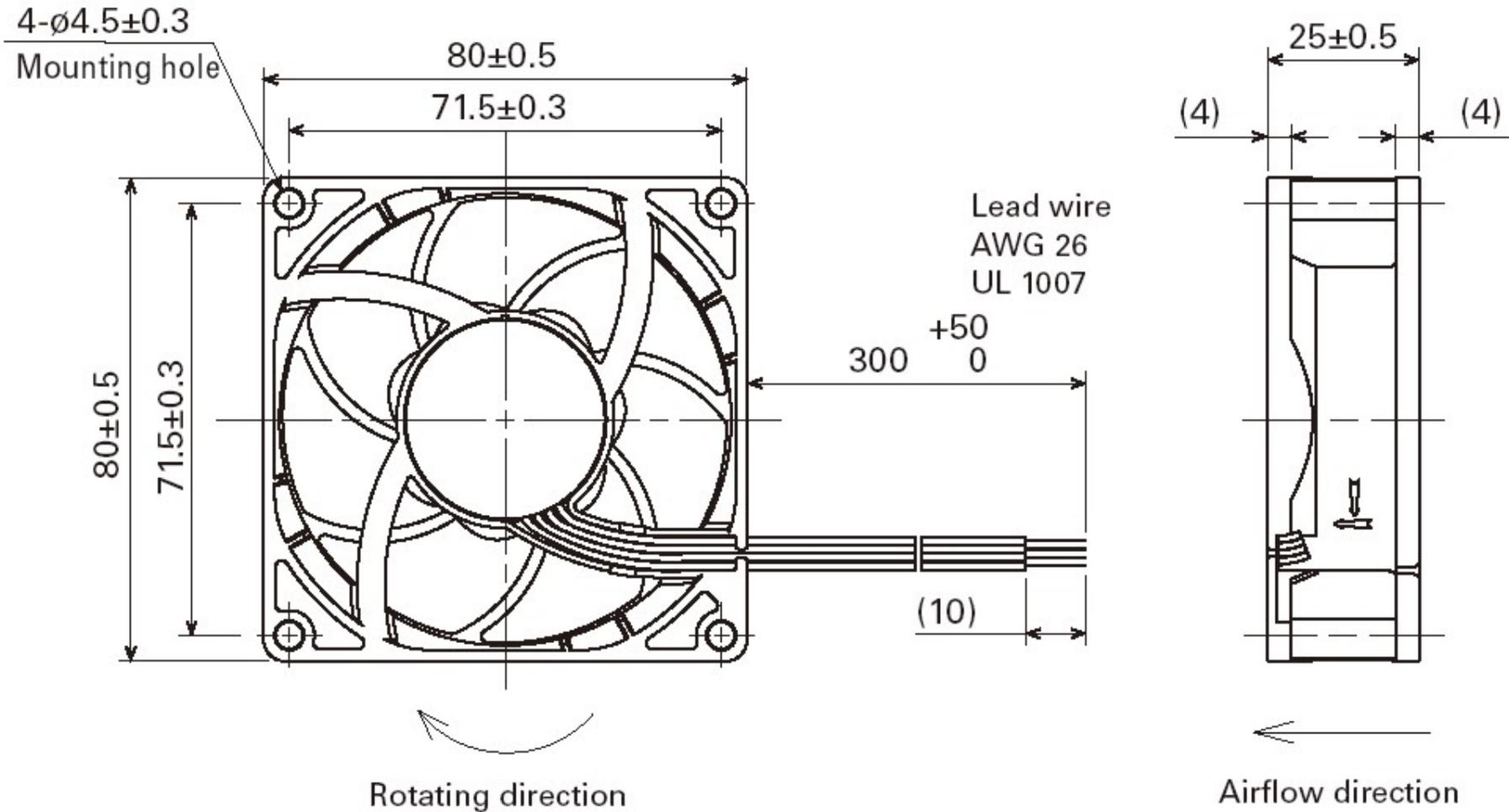
The models listed below **have ribs and pulse sensors.** For models without ribs, append "1" to the end of model numbers.

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min <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]
9RA0812G4001	12	7 to 13.8	0.22	2.64	5000	1.4 49.4	83 0.33	37	-20 to +70	60000/60°C (90000/40°C)
9RA0812S4001			0.12	1.44	3900	1.09 38.5	50 0.21	31		
9RA0812H4001			0.08	0.96	3300	0.92 32.5	36 0.14	27		
9RA0812M4001			0.06	0.72	2650	0.74 26.1	23 0.09	22		
9RA0824G4001	24	14 to 27.6	0.11	2.64	5000	1.4 49.4	83 0.33	37		
9RA0824S4001			0.06	1.44	3900	1.09 38.5	50 0.21	31		
9RA0824H4001			0.05	1.2	3300	0.92 32.5	36 0.14	27		
9RA0824M4001			0.04	0.96	2650	0.74 26.1	23 0.09	22		
9RA0848G4001	48	36 to 55.2	0.07	3.36	5000	1.4 49.4	83 0.33	37		
9RA0848S4001			0.05	2.4	3900	1.09 38.5	50 0.21	31		

# Dimensions

San Ace 80/9RA type

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



□ MTBF = 3 million hours

□ FIT rate = 330

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# Target Applications

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

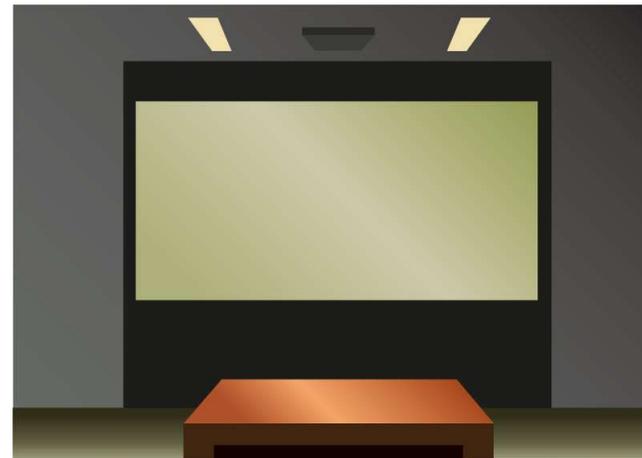
- Medical equipment
- Built-in power supplies
- Audio-Visual equipment
- Measuring instruments
- Arcade machines



Ultrasound  
Diagnostic  
equipment



Medical  
Endoscope

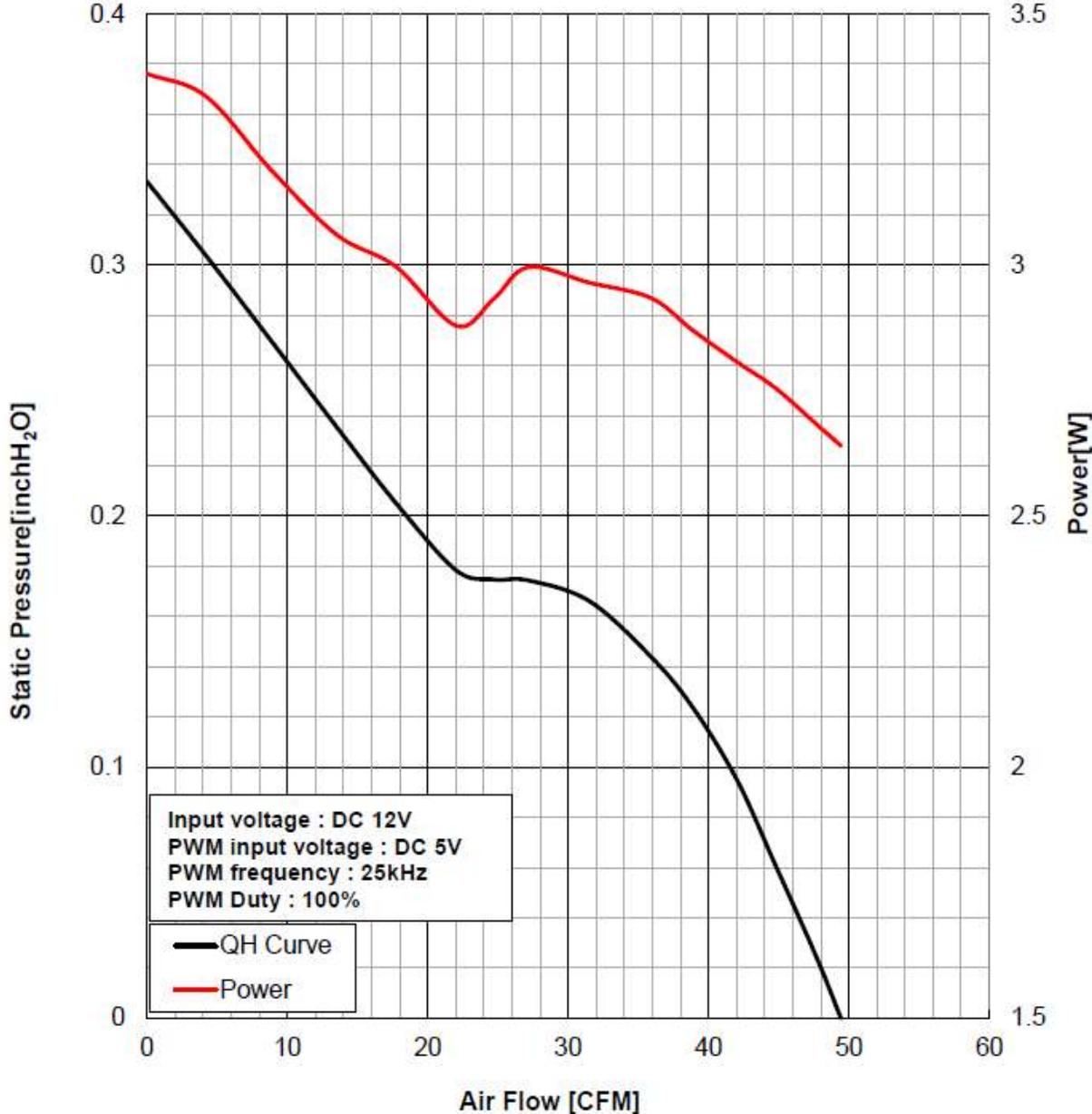


Home Theater equipment

# Performance vs Power

San Ace 80/ 9RA type/12V/G Speed

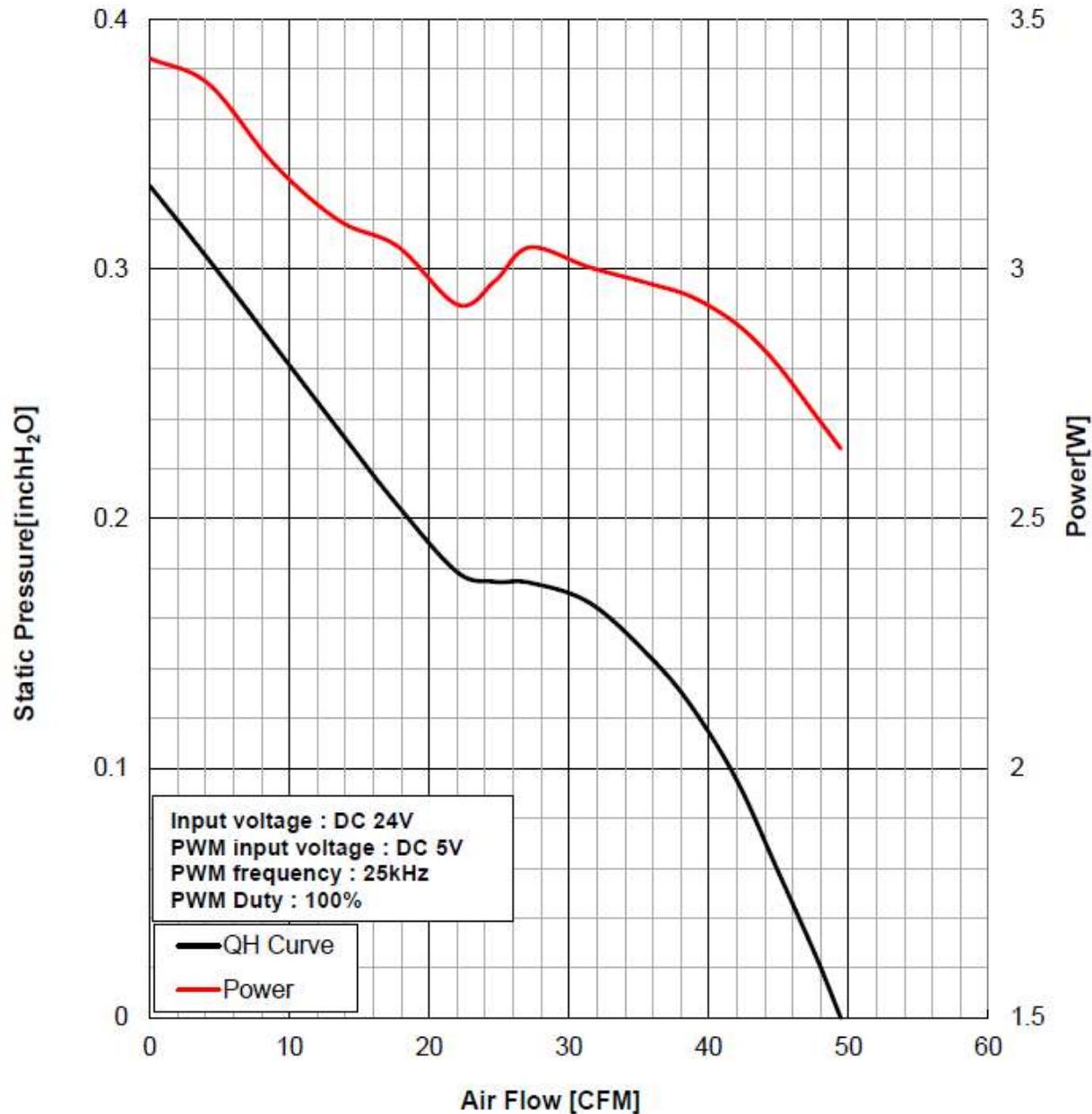
**MODEL : 9RA0812P4G001**



# Performance vs Power

San Ace 80/ 9RA type/24V/G Speed

**MODEL : 9RA0824P4G001**

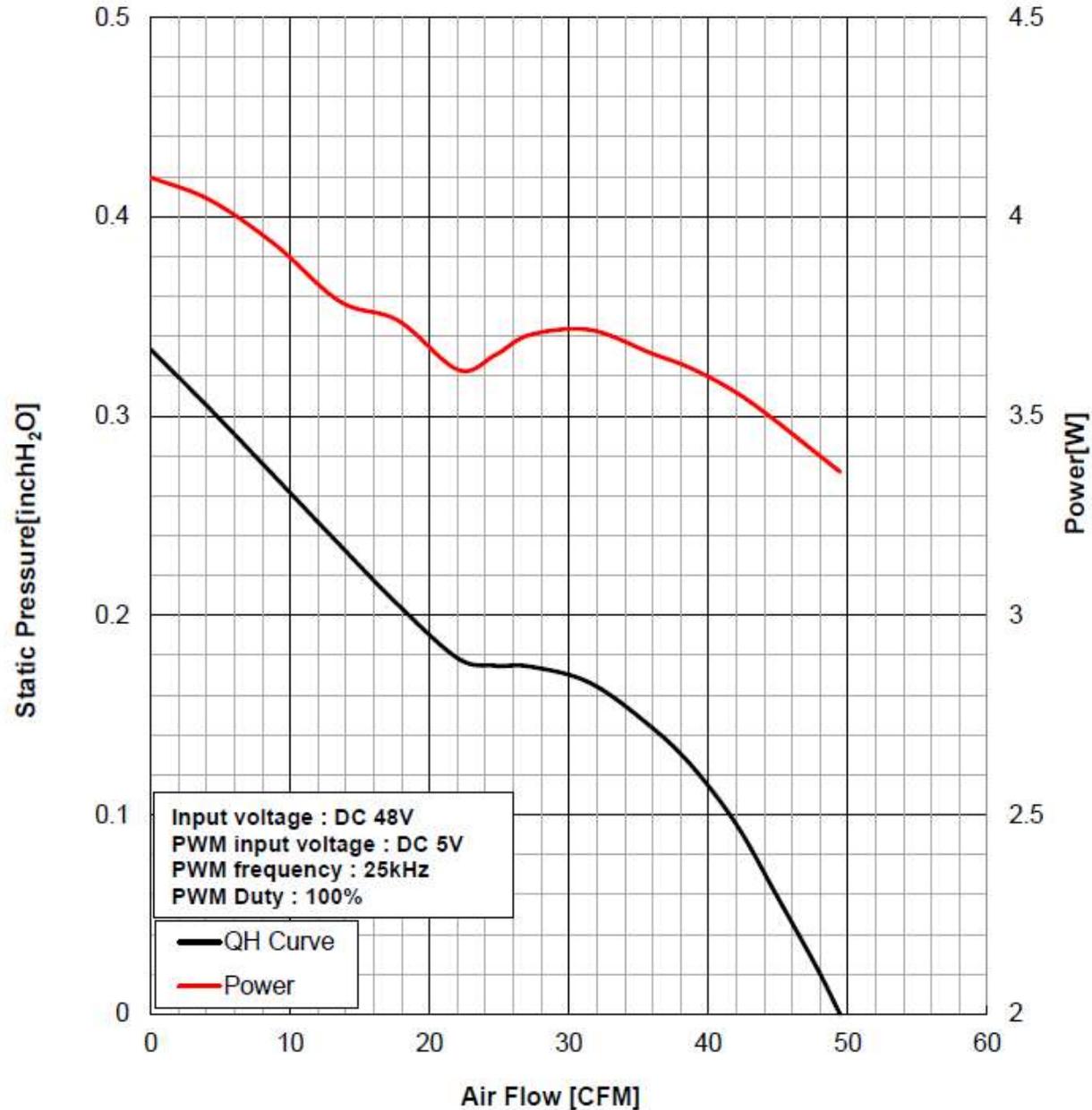


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# Performance vs Power

San Ace 80/ 9RA type/48V/G Speed

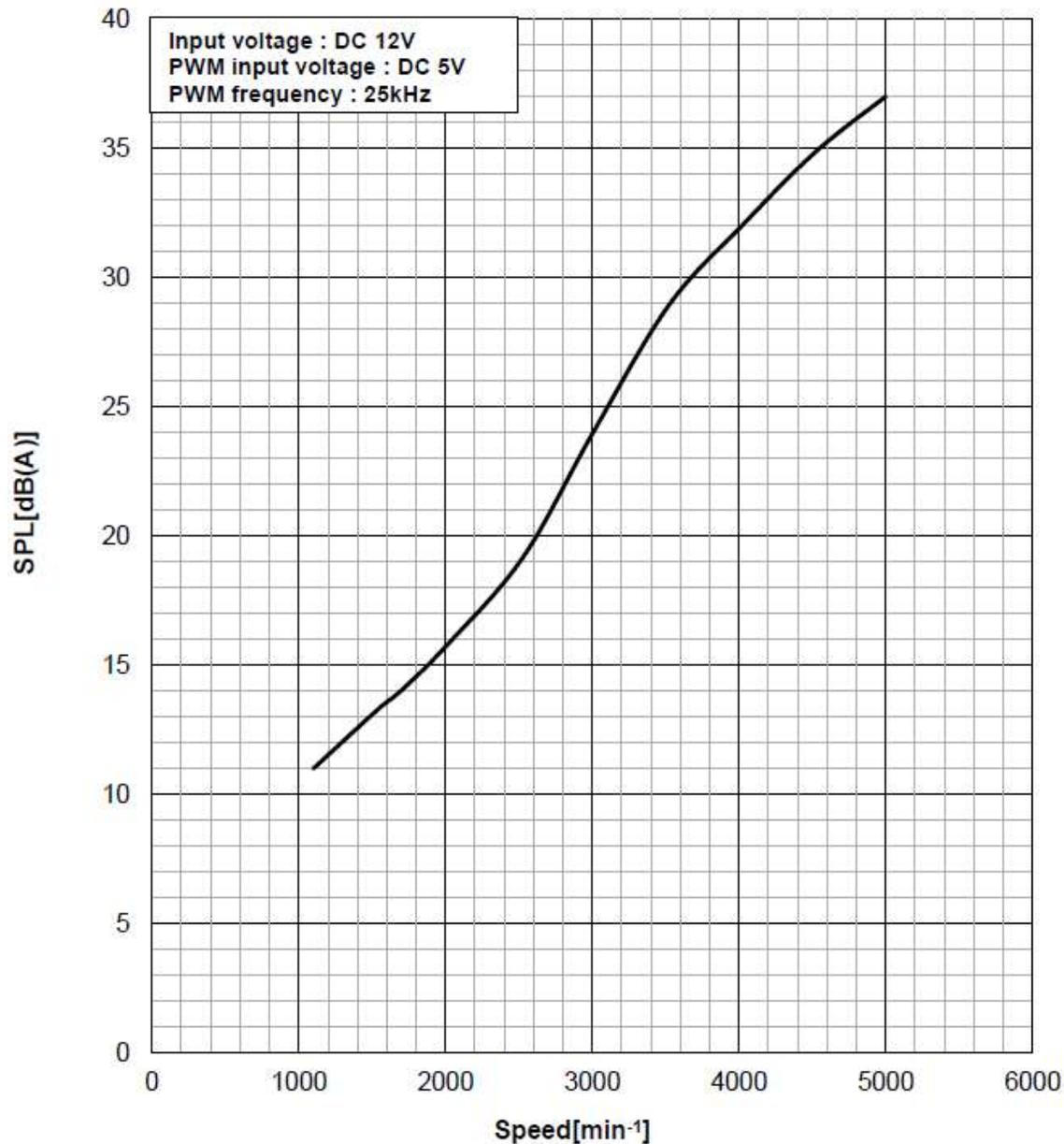
**MODEL : 9RA0848P4G001**



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# SPEED vs Sound Pressure Level (dB(A)) San Ace 80/ 9RA type/12V/G Speed

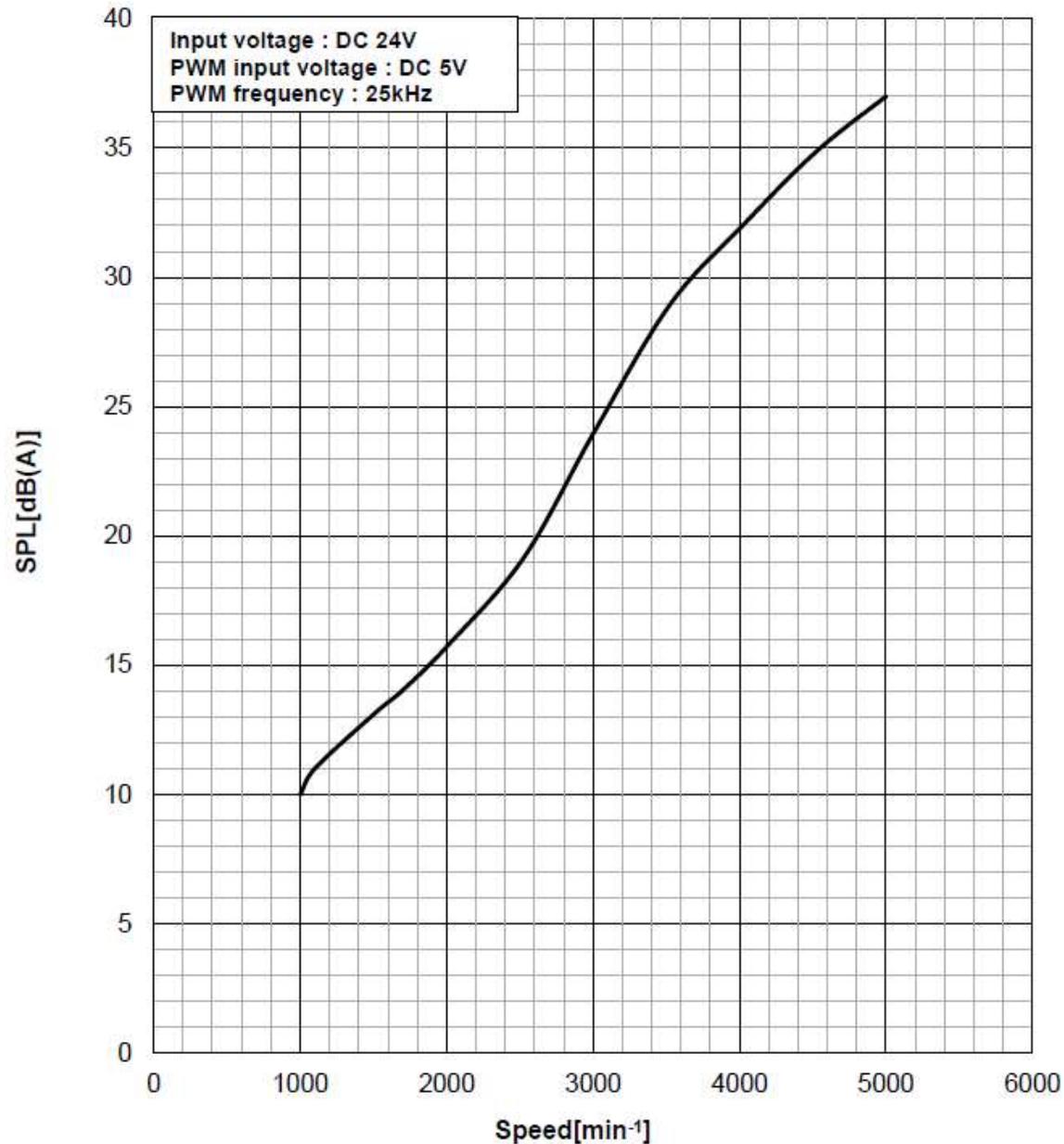
**MODEL : 9RA0812P4G001**



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# SPEED vs Sound Pressure Level (dB(A)) San Ace 80/ 9RA type/24V/G Speed

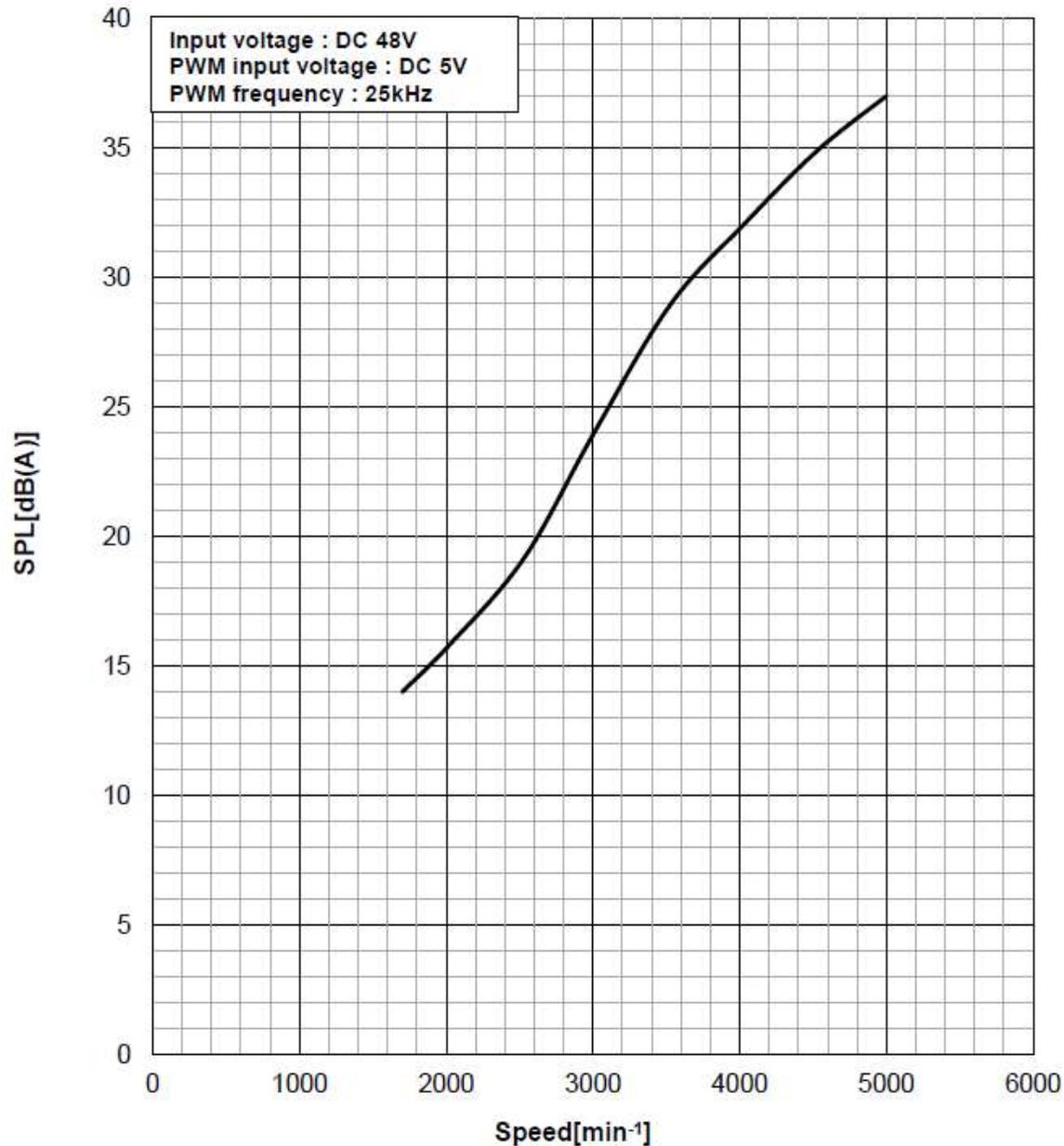
**MODEL : 9RA0824P4G001**



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# SPEED vs Sound Pressure Level (dB(A)) San Ace 80/ 9RA type/48V/G Speed

**MODEL : 9RA0848P4G001**



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# Miscellaneous

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- 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