

SANYO DENKI



SANYO DENKI San Ace 97W

97 x 33 mm 9W1B type

Splash Proof Blower

May 24th, 2019

Cooling Systems Division
Sanyo Denki America, Inc.

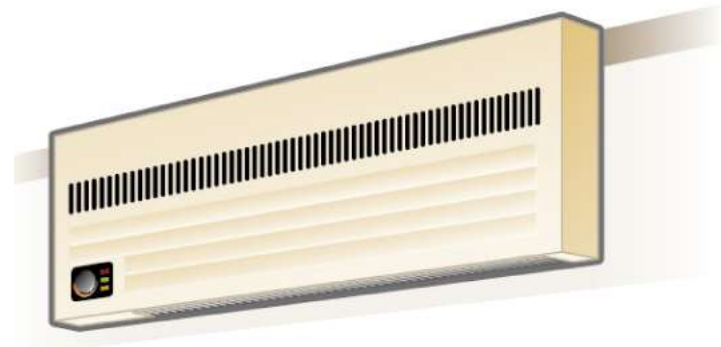
www.sanyodenki.com/america

Products Highlights

- High static pressure and high air flow
- IP68 rated water and dust resistance
- Target applications: Commercial kitchen equipment, ventilation systems, and battery packs



Bread Machine

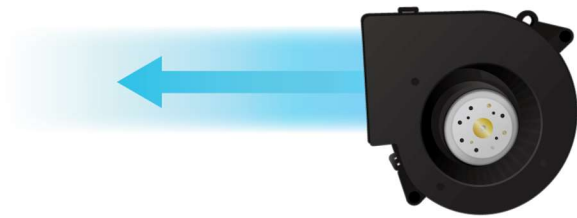


Automatic Ventilation System

Characteristics of Blowers

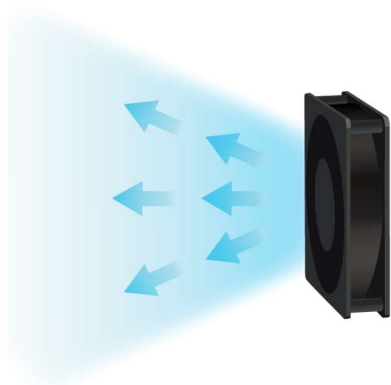
High static pressure

Compared to axial fans, air is blown straighter with more force.



[Blowers]

With their high static pressure, Blowers are ideal for localized cooling and suction applications.

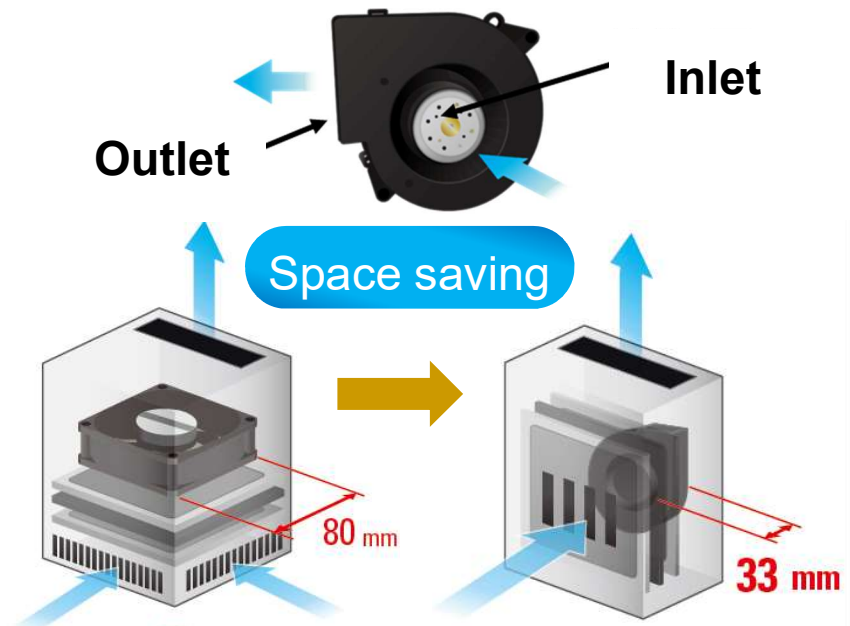


[Axial fans]

With their higher airflow, they are ideal for removing heat from within equipment housing and circulating air.

Sends air along the vertical axis

Airflow changes direction when entering the inlet and again when leaving the outlet.



High Static Pressure and High Air Flow

□ Specification

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

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

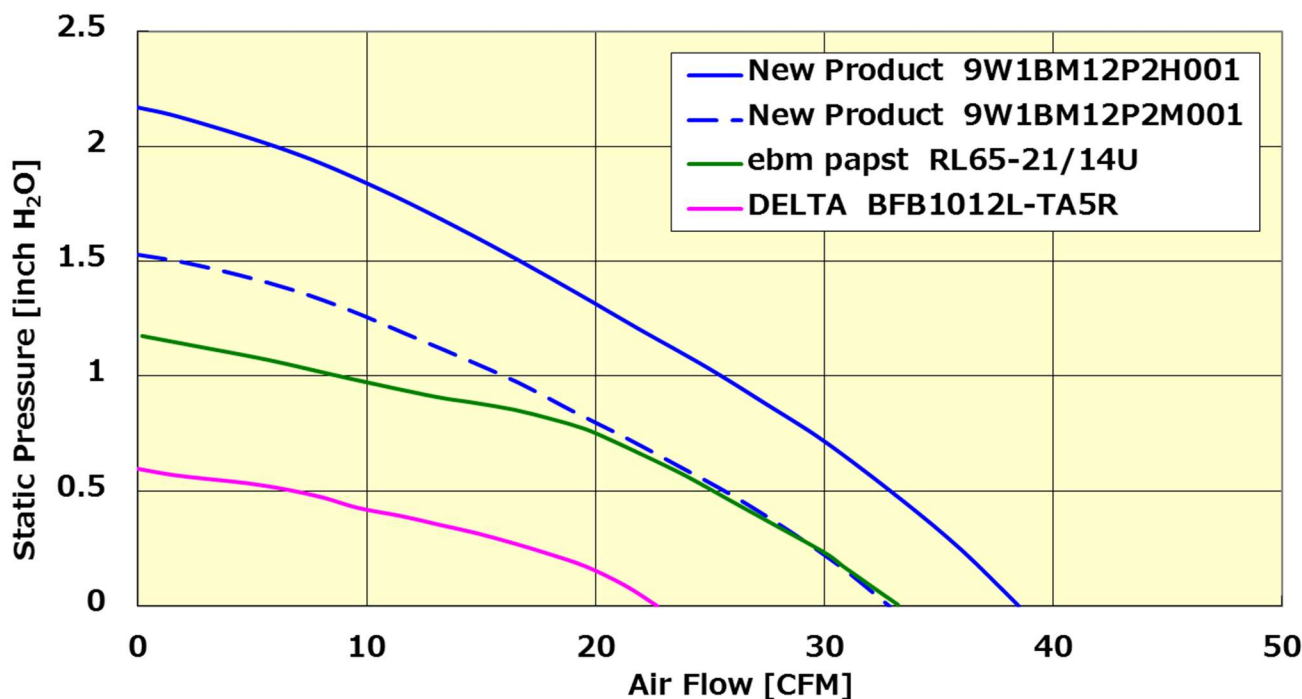
Model	Rated speed [min ⁻¹]	Max. airflow [CFM]	Max. static pressure [inchH ₂ O]	SPL [dB(A)]	Rated input [W]	Operating temperatur e [°C]	Expected life [h]	IP code
New 9W1BM12P2H001	4,800	38.5	2.17	58	15.6	-20~+70	40,000@60°C	IP68
New 9W1BM12P2M001	4,100	32.8	1.53	55	10.8	-20~+70	40,000@60°C	IP68
ebm-papst RL65-21/14U	4,500	33.2	1.16	62	14.4	-20~+70	60,000@40°C	IP54
DELTA BFB1012L-TA5R	2,700	22.6	0.60	49.5	4.0	-10~+60	50,000@40°C	IP55

1.16 times

1.86 times

-4dB(A)

-25%



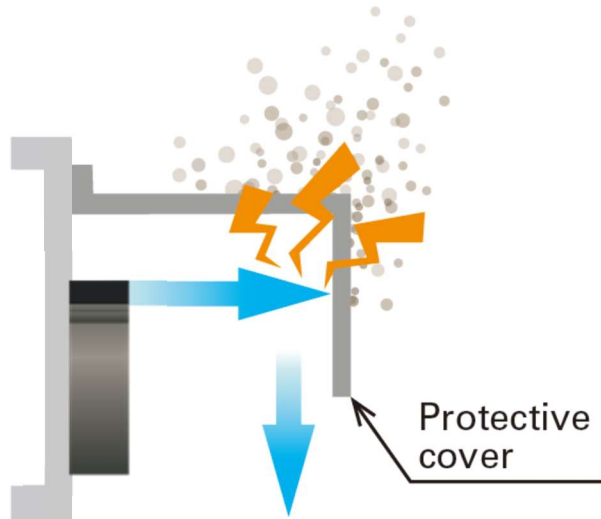
IP68 Rated Water and Dust Resistant

- IP68 rated water and dust protection ensures stable fan operation even in harsh environments.

<Conventionally>

With protective cover to protect the fan against water and dust;

- Cost and labor increased
- Device size increased
- Exhaust air makes noise with the cover



<Splash Proof Fan>

With the protective cover removed;

- Cost and labor reduced
- Device downsized
- Noise level lowered

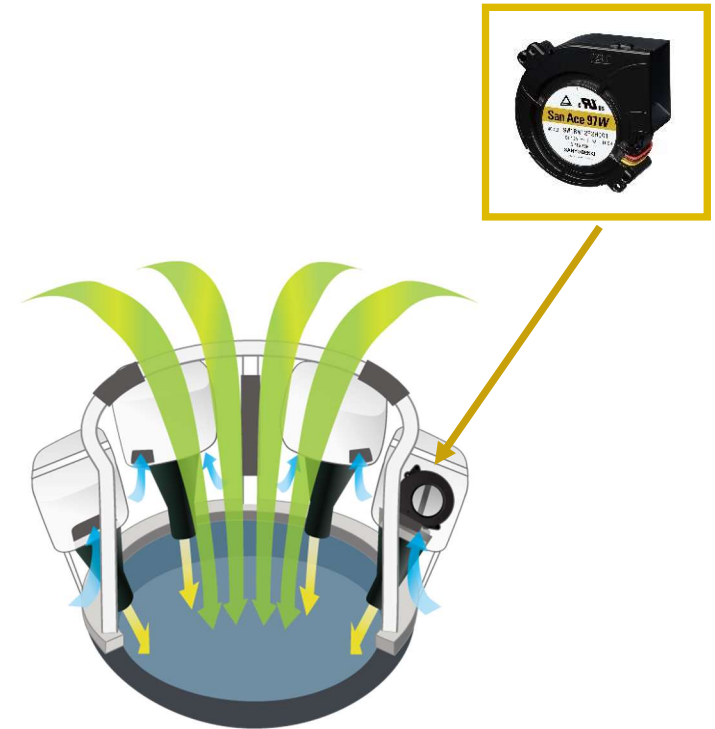


Target Applications

- Commercial kitchen equipment
- Ventilation systems
- Battery packs etc.



Coffee Maker



Manhole Ventilation System

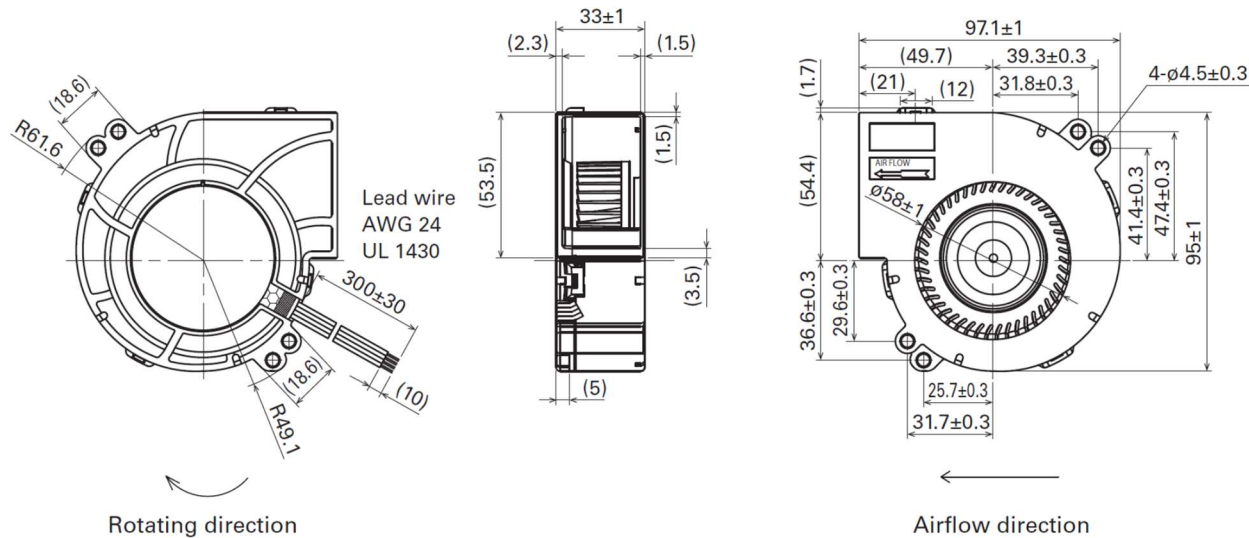
Specifications

□ Specification

* Rated speed, sound pressure level, power consumption are values at rated voltage in free air.
 * Sound pressure level is measured at one meter from the inlet.
 * PWM frequency: 25 kHz. Fan does not rotate when PWM duty cycle is 0%.

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]
9W1BM12P2H001	12	10.2 to 13.8	100	1.30	15.6	4800	1.09 38.5	540 2.17	58	-20 to +70	40000/60°C (70000/40°C)
			20	0.14	1.68	1500	0.32 11.3	51 0.20	30		
9W1BM12P2M001			100	0.90	10.8	4100	0.93 32.8	380 1.53	55		
			20	0.14	1.68	1500	0.32 11.3	51 0.20	30		
9W1BM24P2H001	24	20.4 to 27.6	100	0.65	15.6	4800	1.09 38.5	540 2.17	58		
			20	0.07	1.68	1500	0.32 11.3	51 0.20	30		
9W1BM24P2M001			100	0.45	10.8	4100	0.93 32.8	380 1.53	55		
			20	0.07	1.68	1500	0.32 11.3	51 0.20	30		

□ Dimensions

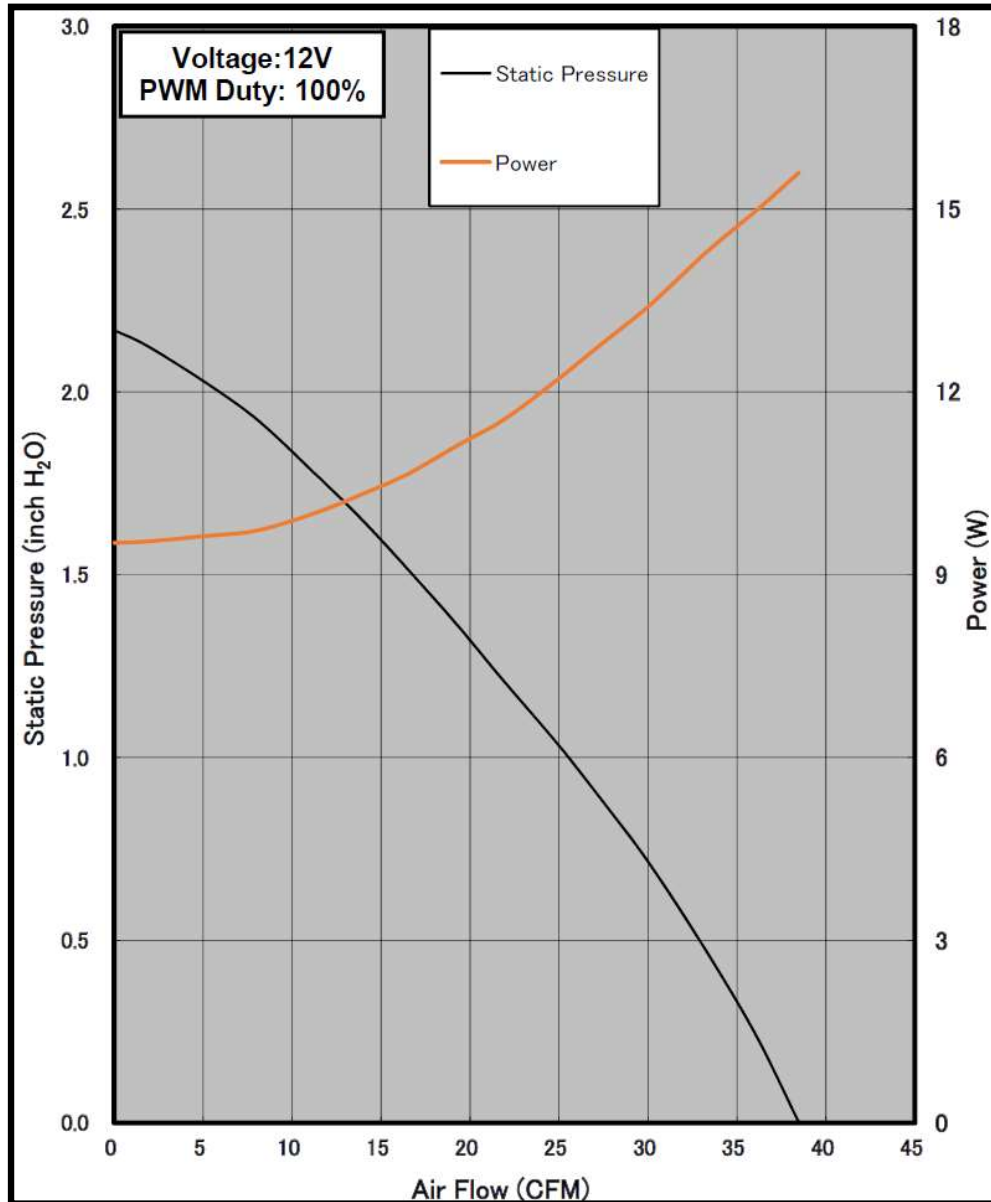


□ MTBF = 3 million hours

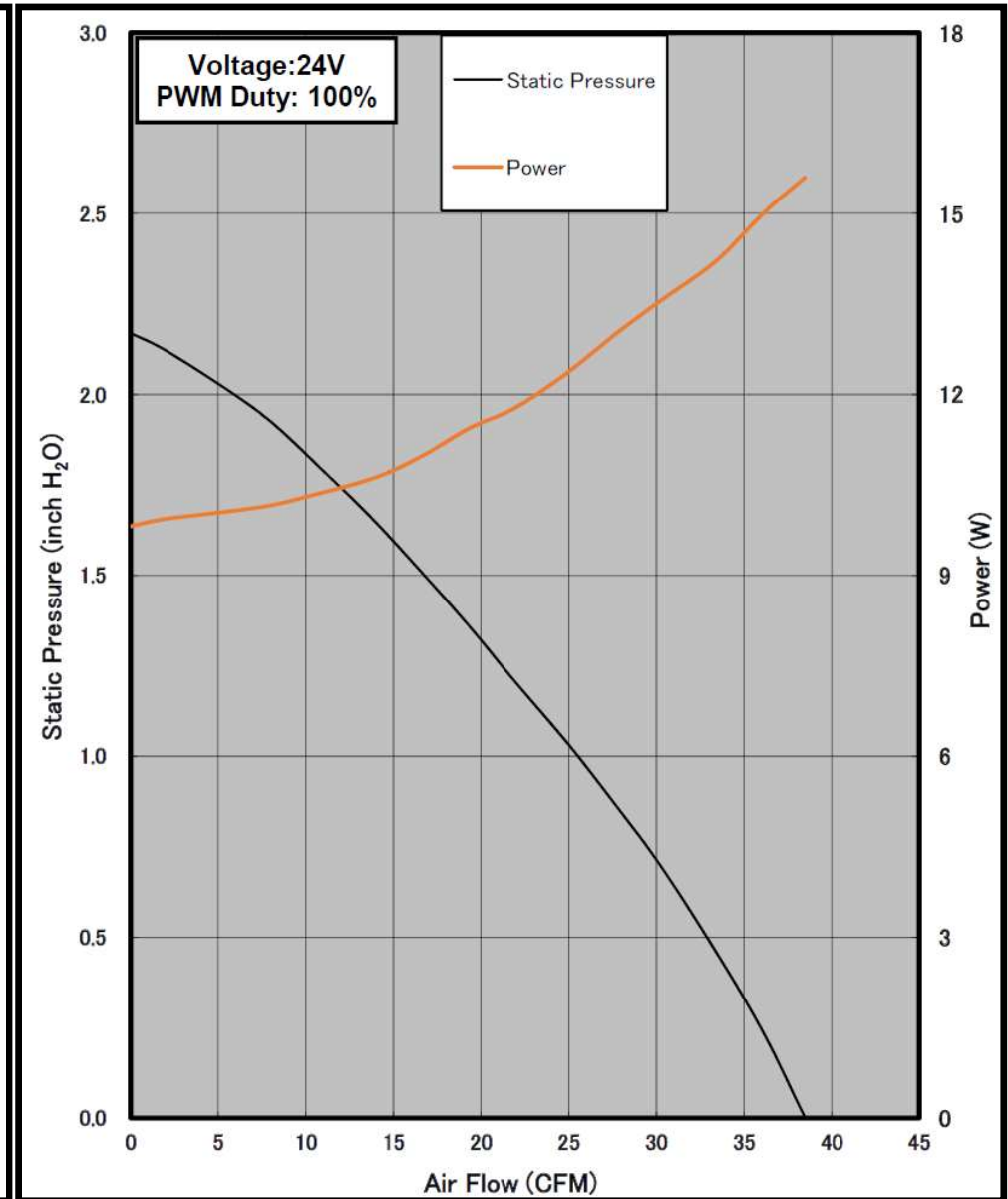
□ FIT rate = 330

Performance vs Power

Model: 9W1BM12P2H001



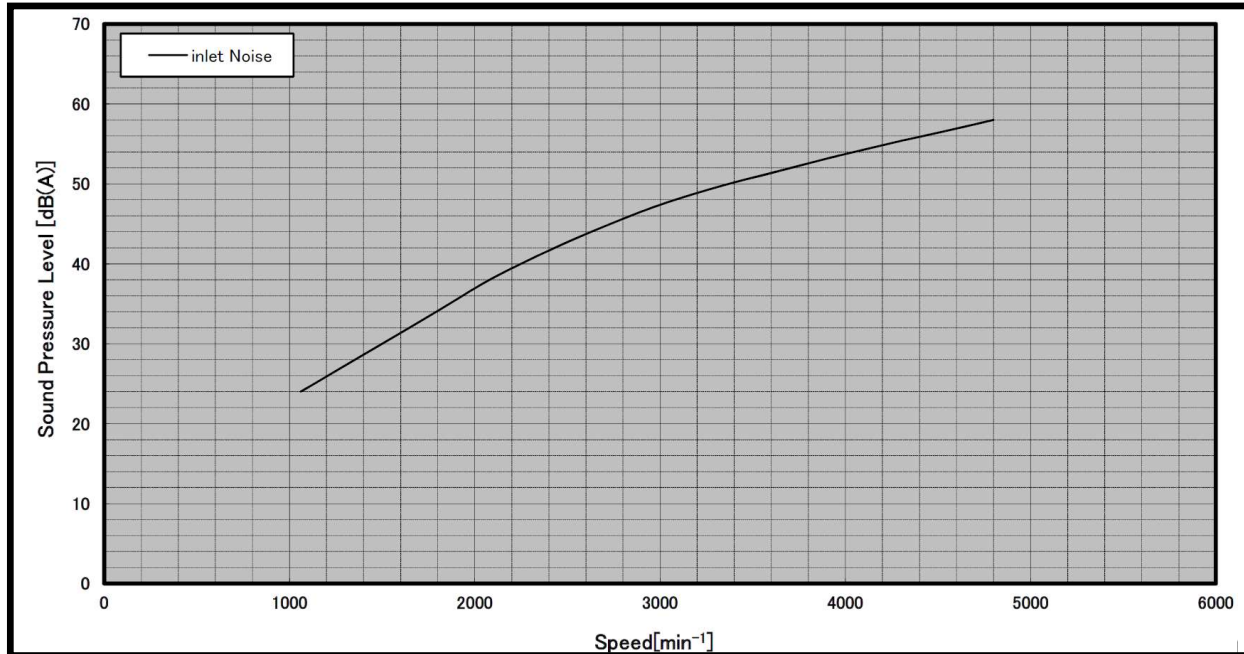
Model: 9W1BM24P2H001



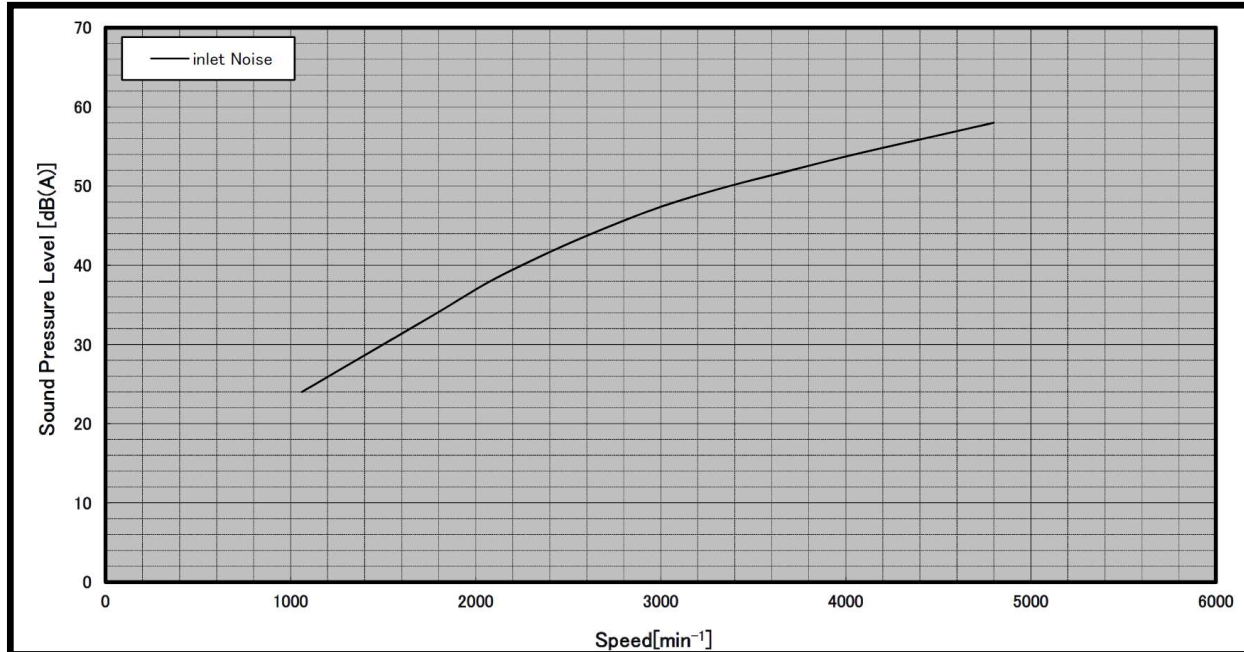
(Measurement by SANYO DENKI Double Chamber System)

Sound Pressure vs RPM

Model: 9W1BM12P2H001



Model: 9W1BM24P2H001



(Measured at 1m from the air inlet [Measurement Value])

SANYO DENKI *AMERICA, INC.*

Competitors

- ebm-papst RL65-21/14U
 - 33.2 CFM
 - 1.16 inchH2O
 - L10 life: 60,000 Hrs. @ 40C
 - IP54

- DELTA BFB1012L-TA5R
 - 22.6 CFM
 - 0.60 inchH2O
 - L10 life: 50,000 Hrs. @ 40C
 - IP55



Miscellaneous

- Customizations available;
 - Harness assembly



Sanyo Denki can recommend connectors and terminals.

- Others
- cUL and TUV approved