

# GentleTyphoon<sup>TM</sup> **NEW**

**D0925C Series**

**D0925C Series**

A **Nidec** Group Company

**SERVO**

All for dreams



A fan to hush the noise in your next device. : 92mm x 25mm, Thin Form and Low Noise.

**NIDEC SERVO CORPORATION**

# Brushless DC Fans & Blowers

# GentleTyphoon™ D0925C Series □ 92×25mm

## GentleTyphoon™ D0925C



□ 90×25mm

Max. airflow : 2.0m³ / min  
Max. static pressure : 67Pa  
Mass : 100g

### Fan model code

D0925C12B4AS-00  
D0925C12B4AZ-00  
D0925C12B6AS-00  
D0925C12B6AZ-00  
D0925C12B8AS-00  
D0925C12B8AZ-00  
D0925C12B8ZP-00  
D0925C24B4AS-00  
D0925C24B4AZ-00  
D0925C24B6AS-00  
D0925C24B6AZ-00  
D0925C24B7AS-00  
D0925C24B7AZ-00  
D0925C24B8ZP-00

## Standard specification

Max. Airflow m³/min	CFM	Max. Static Pressure Pa	inH <sub>2</sub> O	Noise dB	Speed r/min	Voltage Spec. V Rating Operating Range	Current mA Rating Starting	Model Code	Operating Temp. Range C
2.0	71	67	0.27	40 *	4450	12 10.2-13.2	330 850	D0925C12B8AZ-00	-20~+60
1.84	65	55	0.22	38 *	4000	24 12.0-26.4	140 430	D0925C24B7AZ-00	-20~+65
1.66	59	48	0.19	35 *	3750	12 10.2-13.2	200 650	D0925C12B6AZ-00	-20~+70
				36 *		24 12.0-26.4	110 360	D0925C24B6AZ-00	
1.5	53	40	0.16	32 *	3400	12 10.2-13.2	150 530	D0925C12B4AZ-00	
				34 *		24 12.0-26.4	90 280	D0925C24B4AZ-00	

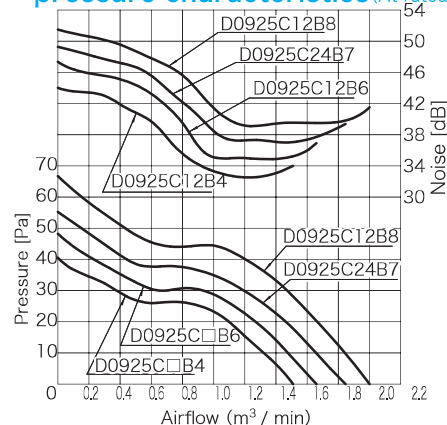
\* (as shown in the noise graph below).

- Figures in the table are average measured values. Please request the product delivery specification when preparing a purchase specification.
- The characteristics are the values at rated voltage, and normal temperature and humidity.
- The only venturi shape available for these products is a ribbed flange.
- This fan is specially designed for long life. At rated voltage and in continuous operation the expected life is 60,000 hours at 60 °C. (100,000 hours at 40 °C)

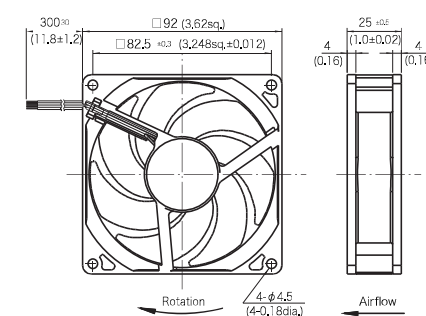
## General specification

Materials Used	Venturi : SPS synthetic resins Propeller : SPS synthetic resins Bearing : Both side shielded ball bearing
Motor	Brushless DC motor, Protection type : Current shut off by detecting lock state, automatically reset

## Standard airflow and static pressure characteristics (At rated voltage)

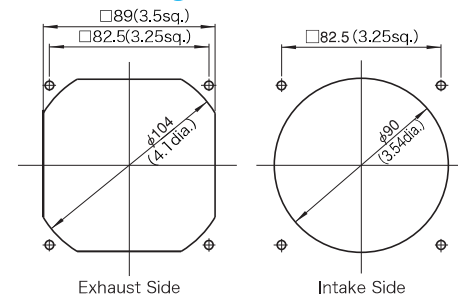


## External dimensions in mm



Lead wire spec UL3265 AWG28  
Color (+) Red (-) Black

## Mounting Hole Dimensions



## DC axial fan with sensor

Rated Voltage	Model Code
12V	D0925C12B4AS-00 D0925C12B6AS-00 D0925C12B8AS-00 D0925C12B8ZP-00
24V	D0925C24B4AS-00 D0925C24B6AS-00 D0925C24B7AS-00 D0925C24B8ZP-00

### ! WARNING

- Please do not exceed the specifications noted in this catalog, otherwise there is a chance of electric shock, injury, or other damage.
- Please do not insert your fingers or any other object into the fan's interior, otherwise there is a chance of electric shock, injury, or fire.
- Any modifications made to this fan are beyond the limits of our guarantee. Japan Servo cannot take responsibility for any customer modifications.
- Please ensure that a thorough evaluation has been done before using this fan in medical equipment or other devices related to human lives.
- Please ensure that a thorough evaluation has been done before using this fan in applications that have a serious effect on the public.

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A Nidec Group Company

**SERVO**

All for dreams

# Nidec Servo brings you a Box Fan with high performance and low noise made with our cutting edge technology\*.

## ■ User Optimization - Point #1

You can reduce noise in your device even in high-density applications, because of the wider low-noise operating range.

Over the operating range from 50% of maximum airflow and above the “GentleTyphoon” is 5 dB quieter than our previous fans. (An increase in 30% of the low-noise range compared with our previous fans.) You can now reduce noise even in your high-density devices with high system impedance. Using our cutting edge fluid analysis technology we have achieved a significant reduction in noise.

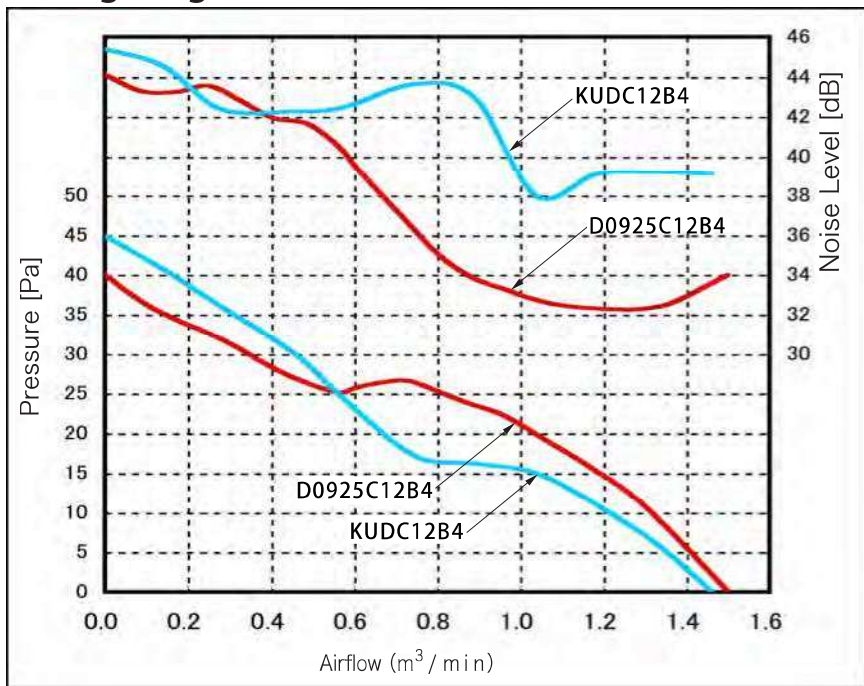


Figure-A: Comparison with our previous model.

## ■ User Optimization - Point #2

The “GentleTyphoon” uses two methods to reduce vibration with a third of the vibration of our previous fans. Resonant noise has also been suppressed.

Typically vibration from the fan motor will transfer to the fan case, which often causes resonant vibration in the device and an increase in noise. Our newly developed low vibration motor and vibration absorbing structure work together to reduce this problem. (A vibration reduction of about 66% compared to our other fans.) Also

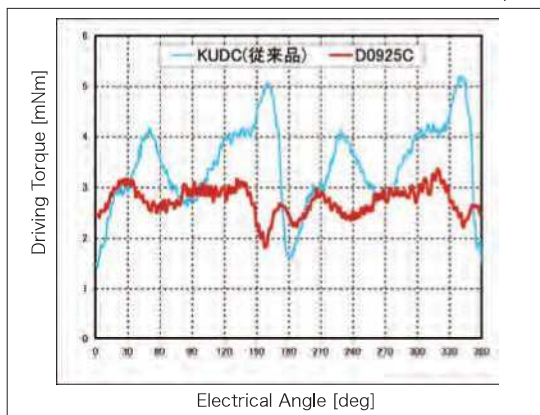


Figure-B: Comparison of driving torque variation.

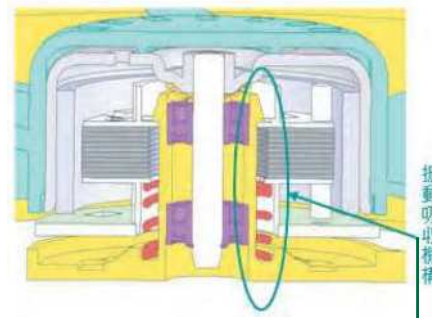


Figure-C: Inner vibration absorbing structure of the motor. (Patent pending)

the motor stator uses an adhesive free design increasing its recyclability.

\*Implementing cutting edge technology: In cooperation with Hitachi and making use of our fluid, structural, and magnetic analysis techniques we have completely redesigned the fan motor greatly improving its performance.



# Nidec Servo presents the Gentle Typhoon a venturi fan to subdue the noise in your next generation device.

## ■ User Optimization - Point #3

The 25 mm thick “GentleTyphoon” has the same high air flow as a 32 mm thick fan.

(System impedance in your high-density application can be reduced.)

If airflow and noise are the same, the 7 mm difference between a 32 mm fan and a 25 mm fan is a major benefit. The extra 7 mm allows you to reduce the system impedance of the entire system which will increase airflow and improve the level of cooling. By keeping the same level of cooling, and reducing the rotational speed of the fan will also allow for much quieter operation. The graph to the right compares the same level of cooling at the same time in two different fans.

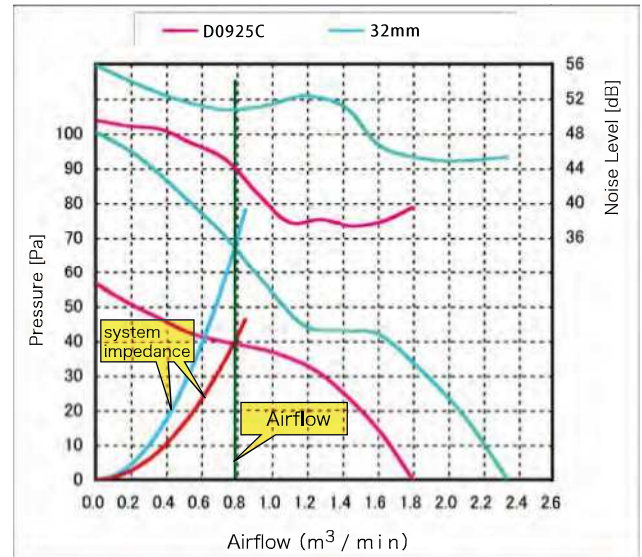


Figure-D: Comparison of installed 25 mm and 32 mm fan performance and system impedance.

## ■ User Optimization - Point #4

Our newly developed high efficiency motor and custom IC control result in energy savings.

(This savings is a 30% reduction in energy use compared with our previous 12 V fans)

Using the latest magnetic field analysis technology, we have made a smaller high efficiency motor core which requires less input than previous designs. An energy savings of 30% is achieved by using a specially designed bipolar 12V IC.

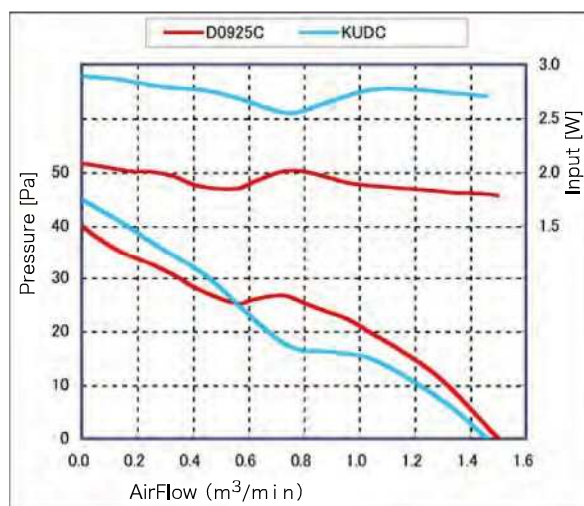


Figure-E: Input power comparison with previous model.

## ■ User Optimization - Point #5

Significant improvement in sound quality by focusing on an understanding of timbre.

Up until now it has been difficult to satisfy users concerned with sound quality through the measured values of fan noise alone. This difficulty stems from the fact that a fan motor's sound quality can be more disturbing than the actual noise level itself. We have studied the causes and mechanisms of bad sound quality (such as the peaks near 1000 Hz) and developed the know-how needed to produce fan motors avoiding these problems.

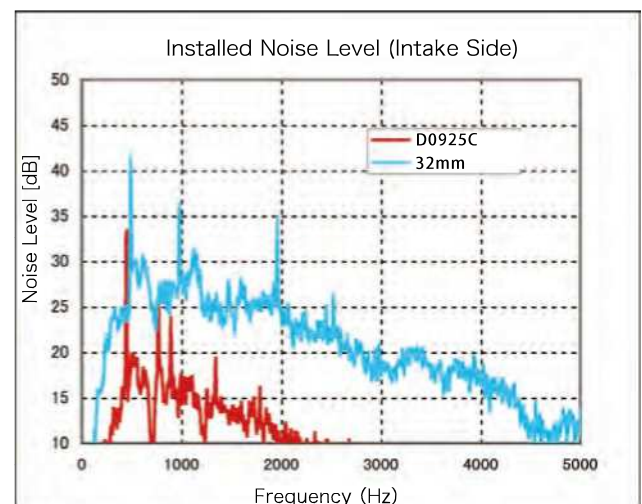


Figure-F: Comparison of installed 25 mm and 32 mm fan noise spectrum.