

GentleTyphoonTM

NEW

D1225C Series
(for high speed applications)

D1225C Series

A **Nidec** Group Company

SERVO

All for dreamsTM



The unique rectifier ring reinforces the propeller blades and simultaneously produces a surge-less, direct rearward, high impetus airflow.

NEW MODEL

★★★ The 120x25mm Gentle Typhoon is surge-less and quiet, and will outperform 38mm models. ★★★

NIDEC SERVO CORPORATION

GentleTyphoon™ D1225C



NEW

□ 120×25mm

Max. airflow : 4.25m³ / min
Max. static pressure : 150Pa
Mass : 200g

Fan model code

D1225C12B7AZ-00
D1225C12B9AZ-00
D1225C12BBAZ-00
D1225C12BBZP-00
D1225C24B7AZ-00
D1225C24B9AZ-00
D1225C24BBZP-00

■ Features

- Surge-less PQ performance (increased airflow)
- Direct rearward, high impetus airflow (improved cooling)
- 2-way vibration reduction (lowers resonant noise of entire device)
- Design to improve sound (improved noise)
- Sensors Available (lock, pulse)
- Variable speed available (PWM)

■ Standard specification

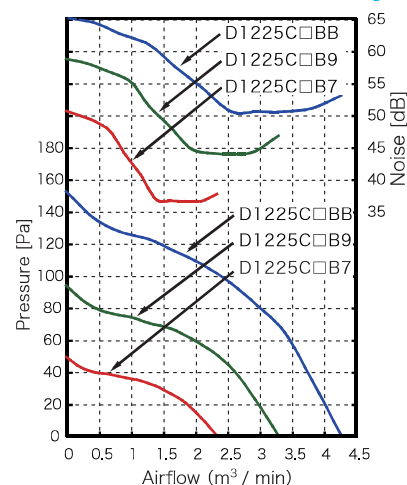
Max. Airflow m³/min CFM	Max. Static Pressure Pa inH ₂ O	Noise dB	Speed r/min	Voltage Spec. V		Current mA		Model Code	Operating Temp. Range °C	Expectation Life
				Rating	Operating Range	Rating	Starting			
4.25	150.1	50.5*	5400	12	10.2 -13.8	1140	2690	D1225C12BBAZ-00	-20~+60	60°C 45000hr 35°C 100000hr
				24	20.4 -27.6	580	1210	D1225C24BBAZ-00		
3.30	116.5	44*	4250	12	10.2 -13.8	560	1350	D1225C12B9AZ-00		60°C 60000hr 35°C 100000hr
				24	20.4 -27.6	290	650	D1225C24B9AZ-00		
2.35	83.0	36.5*	3000	12	10.2 -13.8	220	970	D1225C12B7AZ-00		
				24	20.4 -27.6	140	530	D1225C24B7AZ-00		

* Noise values shown at quiet zone (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.
- Depending on quantities, Nidec Servo can meet many of your requirements for customization, such as special connectors, sensors, variable speeds specifications and other modifications. Please contact Nidec Servo for more information.
- This fan is specially designed for long life. Above indicated longevity is based on continuous operation at: 90% survivability, standard voltage and free air.

■ Standard airflow and static pressure characteristics

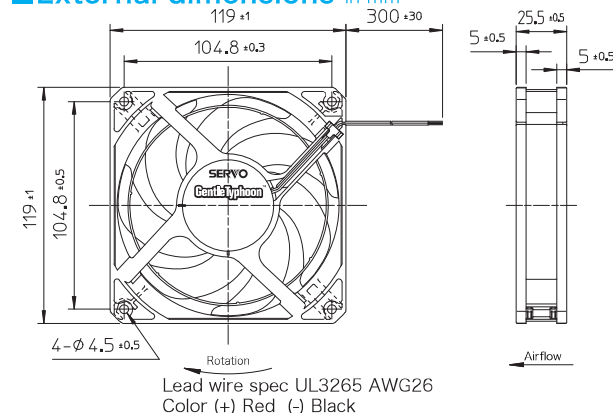
(At rated voltage)



■ General specification

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

■ External dimensions in mm



⚠ 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. Nidec 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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ISO 9001 / ISO 14001

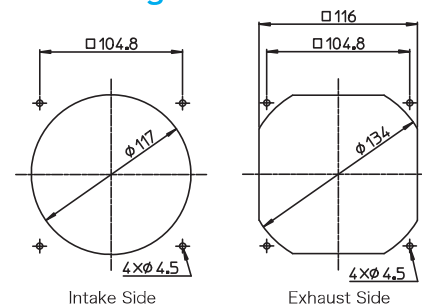
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■ Mounting Hole Dimensions



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NIDEC SERVO boldly challenges the old convention that the thicker fan will have higher airflow and operate more quietly than a low profile fan.

■ 1 The surge-less PQ characteristics allows for an easy crossover from 38mm fans.

By employing the unique rectifying ring in the propeller, we were able to obtain a surge-point similar to blower PQ characteristics.

When you chose from fans with similar operating points, the Gentle Typhoon provides for a marked improvement with regard noise. From the gambit of high airflow fans available, our GT fan can replace thicker 38mm versions and allows designers the added value of more space (for ex., the extra space may be utilized to reduce system impedance by distancing the exhaust from inhibiting components).

Put one in your next design and experience for yourself the distinguishable characteristics.

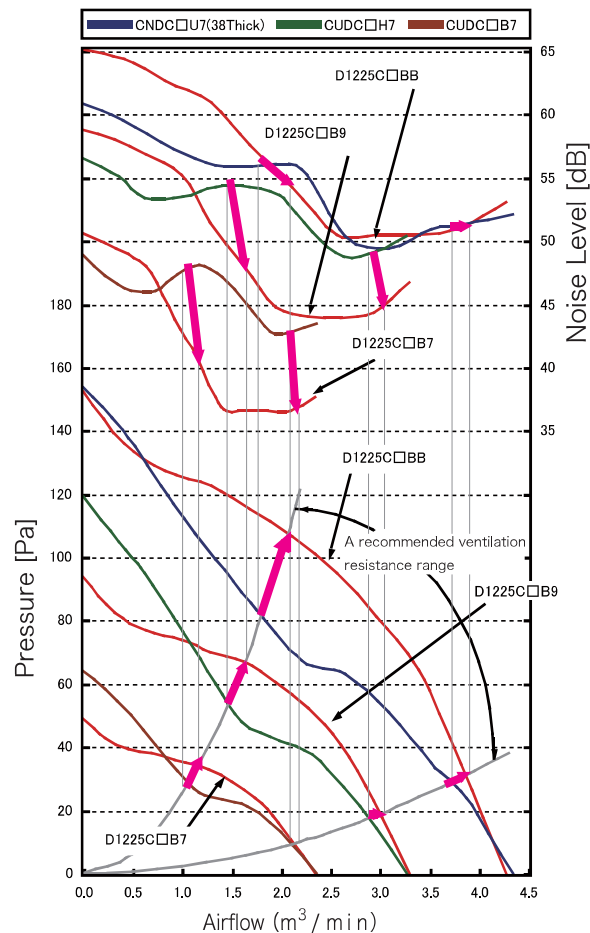


Figure-A: Comparison with our previous model.

■ 2 Greatly improved cooling via a forceful, linear and rearward flow.

The stabilizing ring of the whirlpool shaped fan blade causes the forceful gusts of air rearward in a narrow, linear fashion. Even in devices which utilize narrow ducts and which have obstacles near the exhaust, the powerfully directed air can deter blockage and the increase in noise. The Gentle Typhoon provides for highly efficient cooling which can penetrate even dense devices.

The thin design can further be utilized to keep potential flow-inhibiting objects away from the exhaust. This allows designers more wiggle-room for reducing system impedance in their cooling applications.

The above described characteristics are not easily discerned from a catalogue comparison. Try it in one of your company's devices and confirm for yourself the cooling characteristics of the Gentle Typhoon.

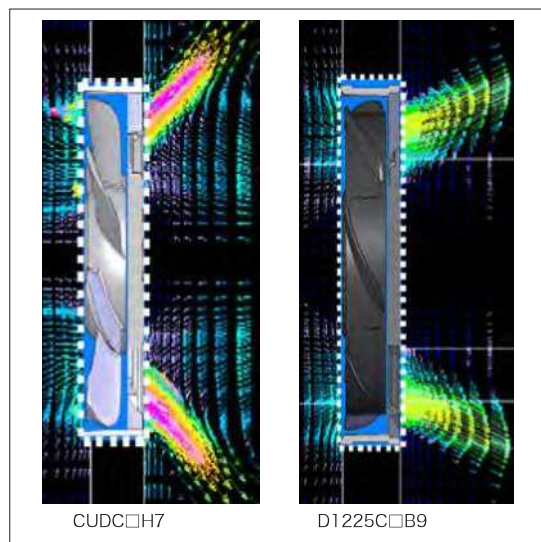


Figure-B : Aerodynamic analysis

NIDEC SERVO boldly challenges the old convention that the thicker fan will have higher airflow and operate more quietly than a low profile fan.

■ 3 Our 2-way vibration-reduction technology controls the rise of resonant noise.

We achieved marked improvement in motor vibration by employing a large motor having little fluctuation in rotational torque, and by integrating the vibration absorbing structure of our 92mm version. This 2-way technique greatly reduces the transfer of vibration from the motor to the venturi (fan case).

Less vibration to the case allows for reduction of resonant noise within the host device.

Assemble the Gentle Typhoon in one of your devices, and experience the lack of vibration for yourself.

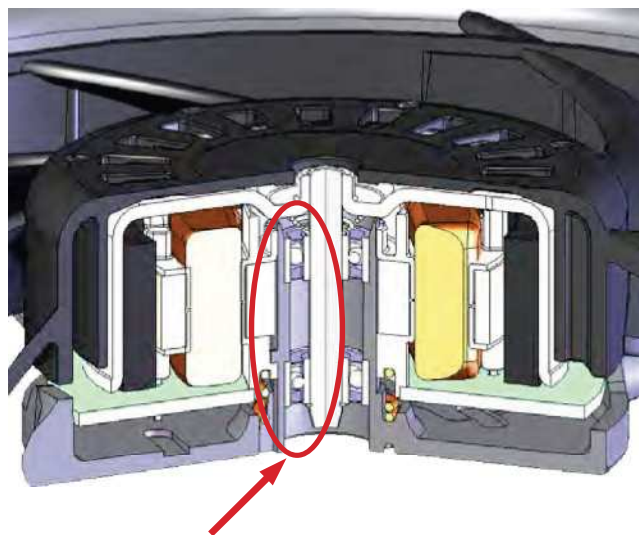


Figure-C: Inner vibration absorbing structure of the motor. (Patent pending)

■ 4 Timbre is also a factor !!

The Gentle Typhoon is not just about reduced resonance as our engineers were particular about the quality of noise also. From the noise spectrum comparison in Figure-D, it is easy to discern a prominent difference in the noise waves especially in the *quiet zone. Try the improved timbre of the Gentle Typhoon in your own device.

*Quiet Zone: areas at which noise is lowest both at high efficiency points and 65% air flow.

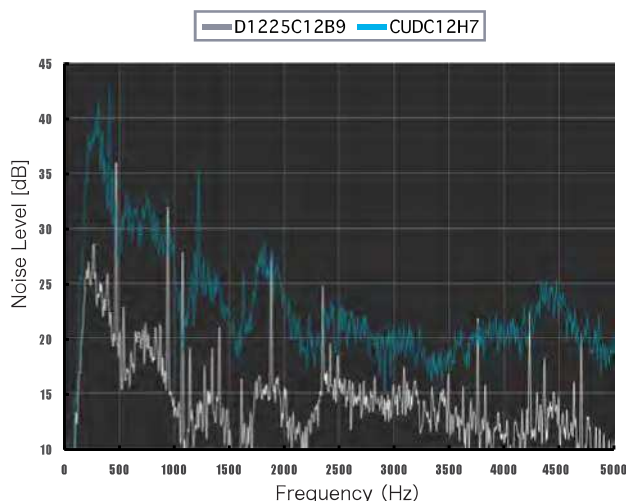


Figure-D: Noise Spectrum Analysis (Low Noise Comparison)

The GentleTyphoon series started with pleasant noise characteristics based on a wide low-noise region and 2-way vibration-reduction technology. However, the new 120mm version further adds two new features: surge-less PQ characteristics; and a surge-less, direct, high impetus airflow. NIDEC SERVO has realized a propeller design implementing a rectifying ring (patent pending). The new design has provided for the marked increase of airflow in the operating range (an industry first).

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