



AERODYNAMIC BEARINGS

# MICRO BLOWERS

**NIDEC COPAL ELECTRONICS CORP.**

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Our unique Aerodynamic Bearings technology generates a non-contact rotational motion to provide ultra-high speed rotation.  
(Max.50,000 rpm)

**Compact**  
**Light weight**

Actual size ratio



**Dime**  
Coin diameter  
φ 0.705 inch (φ 17.9 mm)



**TF029B-1000-F**  
Impeller diameter  
φ 1.142 inch (φ 29 mm)



**TF037F-2000-F**  
Impeller diameter  
φ 1.457 inch (φ 37 mm)



**TF037C-2000-F**  
Impeller diameter  
φ 1.457 inch (φ 37 mm)



**TF037C-2100-F**  
Impeller diameter  
φ 1.457 inch (φ 37 mm)



**TF037E-2000-F**  
Impeller diameter  
φ 1.457 inch (φ 37 mm)

**High static**  
**Pressure**



Ultra high-speed rotation



**Low vibration**  
**Long life**



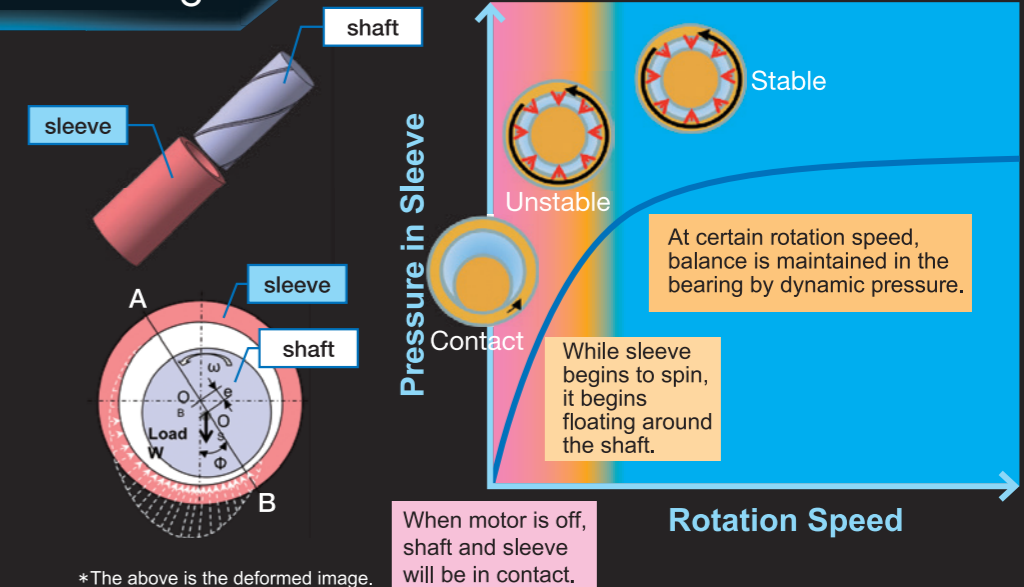
No wear on shaft and sleeve



## Aerodynamic bearings

**Non-contact bearing structure**

**balancing optimization**



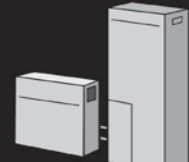
Please watch the high performance of our Micro Blowers with the video on YouTube.  
<https://youtu.be/UWwYQcCXxtk>

## Applications

Compact and high power microblowers are ideal for the following applications.



**CPAP**  
(Medical Devices)



**Fuel Cell System**



**Server**



**Air Cleaner**



**Ionizer**



**3D Printer**

## Quick Reference Table

Item	Part No.	TF037C-2100-F / TF037C-2000-F	TF037E-2000-F	TF037F-2000-F	TF029B-1000-F
Rated Voltage		24 VDC ±10%	24 VDC ±10%	12~24 VDC	12~27 VDC
Rated Power Supply Current		1.2 A Max.	0.86 A Max.	0.67 A Max.	0.62 A Max.
Rated Power Consumption		29 W Max.	22.7 W Max.	16.1 W Max.	14.9 W Max.
Rated Rotation Speed		40,000 r/min	35,500 r/min	31,000 r/min	36,000 r/min
Rated Air Flow		100 l/min	100 l/min	100 l/min	100 l/min
Rated Pressure		4 kPa	3 kPa	2 kPa	2 kPa
Maximum Rotation Speed		45,000 r/min	45,000 r/min	45,000 r/min	50,000 r/min
Maximum Pressure		4.5 kPa	4.5 kPa	4.5 kPa	3.5 kPa
Acoustic Audible Noise		67.0 dB (A) Max.	65.0 dB (A) Max.	65.0 dB (A) Max.	65.0 dB (A) Max.
Weight		2100-F: 94 g / 2000-F: 90 g	165 g	72 g	55 g
Material in Resin		Full compliance with UL94 V0		Full compliance with FDA standards	

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