

# Mechanical Contactless Magnetic Levitation Blower Permanent Drive Intelligent Optimised Flow Field blower

## **Basic Information**

Place of Origin: China
Brand Name: Aipu
Model Number: GF250
Minimum Order Quantity: 1

• Price: Negotiable

Packaging Details: Export Standard Packaging

• Payment Terms: T/T, L/C



## **Product Specification**

Typology: Centrifugal Fan
Flow Range: 110-270m³/min
Boost: 40-120kPa

Bear: Autonomous Domestic Magnetic Bearings

• Efficiency: 97%

• Highlight: Permanent Drive Magnetic Levitation Blower,

**Mechanical Contactless Magnetic Levitation** 

Blower



## More Images



## Mechanical contactless magnetic levitation high-efficiency permanent magnet drive intelligent optimised flow field fan

## **Product Description**

Contactless Magnetic Levitation Bearing

Adopting advanced electromagnetic levitation technology, completely eliminating mechanical contact.

Significantly improves system reliability and service life

Supports high speed rotation, optimising the airflow output of the fan.

High-efficiency permanent magnet motor drive

Adopts high efficiency, high power density permanent magnet motors as the drive system.

Higher energy conversion efficiency than conventional induction motors

Fast response characteristics for quick adjustment of speed and output

Intelligent optimised 3D flow field design

Advanced numerical simulation and intelligent algorithms are used to optimise the design of the three-dimensional flow field.

Creates complex vortex airflow patterns, dramatically improving overall aerodynamic efficiency.

Reduces flow losses and noise and vibration

Directly coupled compact structure

The motor is directly coupled to the impeller, eliminating the need for a gearbox or belt drive.

Simplified overall structural design and improved transmission efficiency

Smaller and lighter overall dimensions.

Excellent performance indicators

Ultra-high efficiency: the perfect combination of magnetic levitation, high-efficiency motors and an optimised flow field significantly reduces energy consumption.

Outstanding reliability: maintenance-free due to the mechanical contact-free construction of the maglev and permanent magnet motors.

High-speed performance: Maglev technology supports higher speeds and optimised airflow output.

Compact and lightweight: direct coupled design for smaller and lighter overall dimensions.

#### **Performance Features**

#### Energy saving and high efficiency

High-speed permanent magnet motor and high-efficiency ternary flow impeller are directly coupled.

More than 30% energy-saving than traditional Roots fan.

More than 20% energy-saving than multi-stage centrifugal blower.

More than 10% energy-saving than single-stage high-speed centrifugal blower.

#### Low noise

Adopting self-balancing technology, the vibration amount of magnetic levitation bearing is one order of magnitude smaller than that of traditional bearing and no friction. At the same time to take the active damping design, stable operation, body vibration is very small, fan noise at 80dB (A) or so.

#### Maintenance-free

Integrated design, skid mounted structure, easy installation, one key start and stop. Daily operation, free of mechanical maintenance, only need to replace the filter.

#### Intelligent control

Adopting PLC+GPRS/3G/4G, it can monitor the running status of the fan in real time, and realise the intelligent regulation of wind volume, wind pressure, rotational speed, etc. as well as manual mode control. In case of failure, it can also be remotely repaired and debugged.

#### **Magnetic Levitation Blower Series Selection**

Product Series	GF 50	GF 75	GF 100	GF 12 5	GF 150	GF 175	GF 200	GF 250	GF 300	GF3 50	GF 400
Motorpower(K W)	50	75	100	12 5	150	175	200	250	300	350	400
Boost (kPa)	Inlet flow rate (m³/min) 1atm 20°C										
40	55	86	110	15 6	168	208	219	270	323	425	443
50	50	74	100	13 2	149	185	198	247	297	375	396
60	43	64	85	11 3	127	158	169	210	253	320	356
70	37	55	74	99	111	140	148	184	222	280	312
80	33	49	65	86	97	120	129	160	193	240	271
90	28	44	57	75	84	105	112	139	167	210	235
100		40	52	68	77	96	102	127	153	190	215
110					71	88	95	118	142	175	199
120					66	82	88	110	132	165	185
130									124	152	165

150											148	
sizes(mm)	1700× ×1480		1850×1700×1780			2150×1750×1700			2370×2260×2080			
Weight (kg)	800	1000	1200		1500		2000	2500	2800		3500	

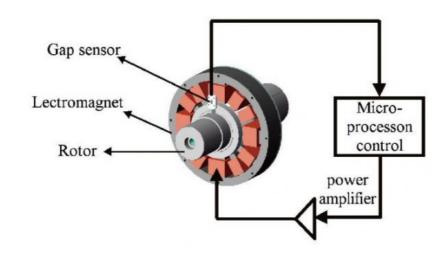
When the use conditions of the blower and the above table does not match, the need for performance conversion, our company can be non-standard design according to user requirements to meet the specific needs of users of various working

## core technology

#### Core Technology with independent intellectual property right-Magnetic Bearing design and control technology

With independent intellectual property rights of 5 degrees of freedom magnetic levitation bearing technology, can ensure that when the equipment is energised, the rotor system can be levitated by electromagnetic force. The controller ensures more than 10,000 times of signal acquisition per second and gives real-time correction signals synchronously to ensure the stable levitation of the high-speed rotor.

With redundant power supply system and protection bearings to achieve multiple protection, will not cause any damage due to sudden power failure or fault shutdown.





magnetic levitation bearing

controllers

Aipu Yixing Aipu Air System Equipment Co., Ltd

