

# Magnetic Levitation Blower Direct Connection Frequency Conversion Low Noise Cement Factory Aquaculture Blower

## **Basic Information**

Place of Origin: China
Brand Name: Aipu
Model Number: GF300
Minimum Order Quantity: 1

• Price: Negotiable

Packaging Details: Export Standard Packaging

• Payment Terms: T/T, L/C



## **Product Specification**

Typology: Centrifugal Fan
Flow Range: 124-323m³/min
Boost: 40-130kPa

Bear: Autonomous Domestic Magnetic Bearings

• Efficiency: 97%

• Highlight: frequency magnetic levitation blower,

frequency magnetic levitation bearings, conversion magnetic levitation blower



## Magnetic levitation blower direct connection frequency conversion low noise cement factory aquaculture blower

#### **Product Description**

Magnetic levitation blower is a kind of high efficiency, energy saving and environmental protection product, which adopts the design of ternary displaced impeller and high speed permanent magnet synchronous motor integrated direct drive structure. It detects the vibration of the rotor shaft in real time through the built-in displacement sensor, and transmits the obtained information to the magnetic levitation bearing controller for adjustment and calculation, generates the control current and then inputs the current into the magnetic bearing coil to generate the electromagnetic force, so as to realise the levitation of the rotor shaft.

Permanent magnet synchronous motor through the frequency converter to generate frequency controlled current, the current will be input into the motor stator to generate rotating magnetic field, driving high-speed rotation of the rotor shaft.

The impeller rotating at high speed with the rotor shaft drives the air to enter from the inlet of the worm case, and through the work done by the impeller and the guidance of the worm case, it becomes the gas with a certain flow rate and pressure, and is discharged from the exhaust port of the worm case, thus realising the fan blowing air.

#### **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<br>50                           | GF 75 | GF<br>100      | GF12<br>5 | GF<br>150 | GF175          | GF<br>200 | GF<br>250 | GF<br>300      | GF350 | GF 400 |
|---------------------|------------------------------------|-------|----------------|-----------|-----------|----------------|-----------|-----------|----------------|-------|--------|
| Motor power<br>(KW) | 50                                 | 75    | 100            | 125       | 150       | 175            | 200       | 250       | 300            | 350   | 400    |
| Boost (kPa)         | Inlet flow rate (m³/min) 1atm 20°C |       |                |           |           |                |           |           |                |       |        |
| 40                  | 55                                 | 86    | 110            | 156       | 168       | 208            | 219       | 270       | 323            | 425   | 443    |
| 50                  | 50                                 | 74    | 100            | 132       | 149       | 185            | 198       | 247       | 297            | 375   | 396    |
| 60                  | 43                                 | 64    | 85             | 113       | 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)           | 1700×1500×1<br>480                 |       | 1850×1700×1780 |           | 780       | 2150×1750×1700 |           |           | 2370×2260×2080 |       |        |
| Weight (kg)         | 800                                | 1000  | 1200           | 1350      | 1500      | 1800           | 2000      | 2500      | 2800           | 3200  | 3500   |

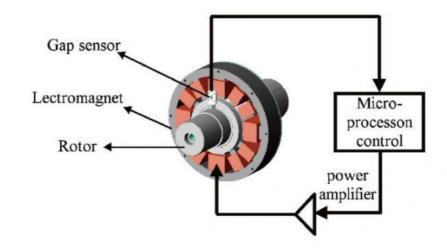
When the use conditions of the blower and the above table does not match, the need for performance conversion, our company can be non-standard design according to user requirements to meet the specific needs of users of various working conditions.

## 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

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