Intelligent control of magnetic levitation vacuum systems - fully automated monitoring and optimisation of vacuum perfor

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Aipu
- Certification: CE CCC SABS TUV RoHS
- Model Number: GFV100
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: Export Standard Packaging
- Payment Terms: T/T, L/C

Product Specification

- Vacuum Degree: 10-70kpa
- Flow Range: 44-91m³/min
- Voltage: 380V
- Color: Silver

Product Description

Intelligent control of magnetic levitation vacuum systems - fully automated monitoring and optimisation of vacuum performance

Product Description

Intelligent Control of Magnetic Levitation Vacuum Systems - Fully Automated Monitoring and Optimisation of Vacuum Performance
Key Features:
Advanced Vacuum Control Algorithms:
Proprietary control algorithms for optimal vacuum performance
Continuously monitor and adjust critical system parameters
Integrated Sensor Network:
Comprehensive array of sensors throughout the vacuum system
Real-time monitoring of pressure, temperature, vibration, and more
Intelligent Diagnostics and Predictive Maintenance:
Automated fault detection and diagnosis capabilities
Predictive maintenance algorithms to minimize downtime
Remote Monitoring and Control:
Secure cloud-based platform for system monitoring and control
Accessible through web interface and mobile apps
Optimised Energy Efficiency:
Dynamic power management and load balancing
Reduces energy consumption and operating costs
This intelligent control system for magnetic levitation vacuum systems offers fully automated monitoring and optimisation of vacuum performance. Leveraging advanced control algorithms and an integrated sensor network, the system continuously monitors critical parameters and dynamically adjusts the vacuum components to maintain optimal performance.
The proprietary control algorithms are designed to ensure the highest possible vacuum quality, taking into account factors such as pressure, temperature, and vibration. By continuously monitoring and adjusting these parameters, the system can adaptively respond to changes in the vacuum environment, ensuring consistent and reliable operation.
The integrated sensor network provides comprehensive real-time data on the vacuum system's status, enabling advanced diagnostics and predictive maintenance capabilities. The intelligent system can detect potential issues before they escalate, allowing for proactive maintenance and minimizing unexpected downtime.
Remote monitoring and control capabilities, accessible through a secure cloud-based platform, allow users to manage the vacuum system from anywhere, optimizing efficiency and reducing the need for onsite personnel.
Recognizing the importance of energy efficiency, the intelligent control system incorporates dynamic power management and load balancing features, significantly reducing energy consumption and operating costs for the vacuum system.

Performance Features

Energy saving and High efficiency
Ternary flow Impeller is directly coupled with high-speed PMSM;
Save more than 30% energy than Water Ring Vacuum Pump,no not need circulating water,
Save more than 20% energy than Multi-stage Centrifugal Vacuum Pump;·
Save more than 10% energy than Single Stage High Speed Centrifugal Vacuum Pump;

Low Noise
With the self-balancing technology, the vibration level of Magnetic bearing is lower than traditionabearings, and there is no friction, Adopting the active vibration damping design, the blower can op
erate smoothly of less vibration.

Maintenance Free
Integrated design, skid mounted structure, convenient installation, one key to start and stop theblower, No need for mechanical maintenance during daily operation, only to replace the filter.

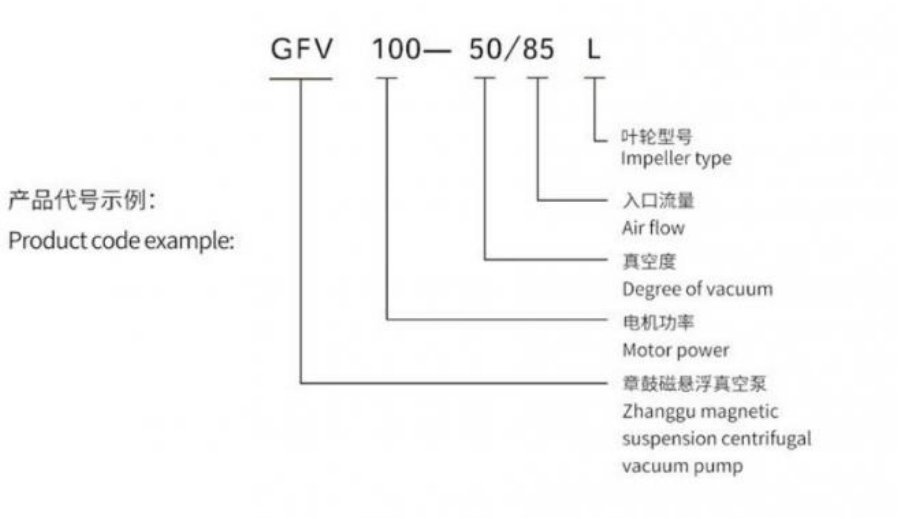
Intelligent Control
With PLC+GPRS/3G/4G, we can real time monitor the operation status of the Blower and controlflow, air pressure and speed by intelligently or manually mode. in case of failure, it can also be repaired and debugged remotely.

Application

It is suitable for vacuum dehydration,post treatment of origami machine,material conveying,tailgas recovery,etc.

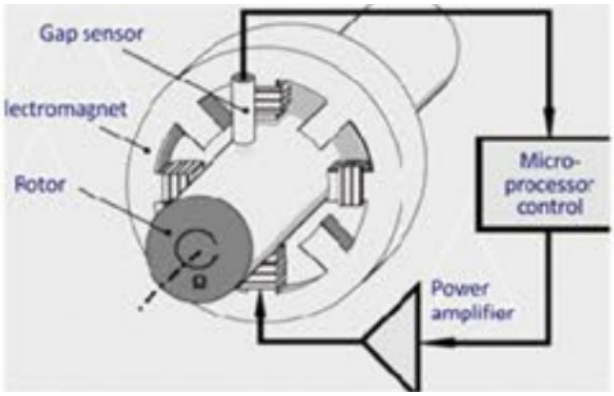
Model Selection of Magnetic Suspension Centrifugal Vacuum Pump

Model	Vacuum pump(kPa)	Air volume range	Power (kw)	Suction pipe diameter
GFV75		44~91	75	DN150
GFV100		53~121	100	DN200
GFV150	10-70	75~182	150	DN250
GFV200		93~235	200	DN300
GFV300		112~290	300	DN400



Technology core

Five-degree-of-freedom magnetic suspension bearing technology which have independentintellectual property rights can guarantee the rotor system is suspended by electromagneticforce when the equipment is powered on.The controller ensures that the signal is collectedmore than 10000 times per second and the stable suspension of high-speed rotor.Redundant power systems and spare bearings could provide multiple protection to avoid anydamage due to the sudden power failure or downtime.



Bearing technology

Active Magnetic Bearing Technology is converted from the magnetic Suspension flywheel tech.nology in the field of space satellite. The high performance attitude control and high eficiencyenergy conversion of the satellite are realized from magnetic Suspension flywheel technology,which greatly improves the attitude control and operation level of the satellite and effectivelysolves the problems of low efficiency, short service life, routine maintenance requirement and lu-brication issues on mechanical support transmission system.

First-class lean manufacturing and testing base

We has built laboratories, R & D buildings, processing work-shops, etc., with internationally advanced and China leading high-precision processingequipment.

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