

# Magnetic Levitation Pump Advanced Technology for Versatile Vacuum Solutions Automated Control Compact Space- Energy

# **Basic Information**

Place of Origin: China
Brand Name: Aipu
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
 Models: GFV100
 Brand Name: Aipu

Gas Volume Range: 53-121m³/min
 Power: 100KW
 Suction Pipe Diameter: DN350

# **Product Description**

Modular Magnetic Levitation Vacuum Pumping Units - Flexible Configuration for Diverse Vacuum Needs Key Features:

Modular Design:

Configurable and scalable vacuum pumping modules

Easily combined to meet a wide range of vacuum requirements

Magnetic Levitation Technology:

Contactless operation for exceptional reliability and long service life

Eliminates the need for oil, ensuring a clean vacuum environment

High Vacuum Performance:

Advanced multi-stage turbomolecular design

Achieve vacuum levels down to -10~-70kpa

Automated Control and Monitoring:

Intelligent control system for optimized vacuum performance

Real-time monitoring and predictive maintenance capabilities

Compact and Space-Efficient:

Modular units with a small footprint

Versatile installation options to suit diverse applications

The modular magnetic levitation vacuum pumping units offer a flexible and scalable solution to address the diverse vacuum needs of various industries and applications. Leveraging the latest advancements in vacuum technology, these modular units utilize magnetic levitation to deliver exceptional reliability, performance, and energy efficiency.

The modular design allows for easy configuration and customization to meet the specific requirements of each application. Users can seamlessly combine multiple pumping modules to create a tailored vacuum system, ensuring optimal vacuum performance and capacity. This flexibility enables the system to adapt to changing demands, making it an ideal choice for dynamic or expanding operations.

Powered by magnetic levitation technology, these vacuum pumping units achieve contactless operation, eliminating mechanical wear and tear. This innovative design approach not only ensures exceptional reliability and extended service life but also enables oil-free operation, maintaining a clean vacuum environment and eliminating the need for oil disposal. Capable of reaching vacuum levels down to -10~-70kpa, the advanced multi-stage turbomolecular design of these modular units delivers high vacuum performance, making them suitable for a wide range of applications, from semiconductor manufacturing to scientific research.

To further enhance the system's performance, the modular vacuum pumping units are equipped with an intelligent control system that optimizes vacuum parameters in real-time. This automated control and monitoring capabilities, including predictive maintenance features, ensure consistent and reliable vacuum operation, minimizing downtime and maintenance requirements. Designed with a compact footprint, these modular vacuum pumping units offer versatile installation options, allowing for seamless integration into diverse industrial and research settings. The space-efficient design enables efficient use of available floor space, making them an ideal choice for facilities with limited or constrained environments.

## **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

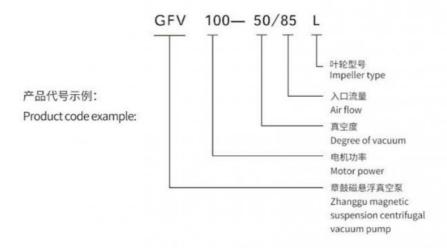
repaired and debugged remotely.

#### **Application**

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

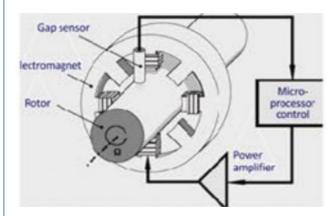
Model Selection of Magnetic Suspension Centrifugal Vacuum Pump

liviogei	Vacuum pump(kPa)	Air volume range	Power (kw)	Suction pipe diameter
GFV50	10-50	25-50	50	DN250
GFV75		44~91	75	DN250
GFV100		53~121	100	DN350
GFV150	10-70	75~182	150	DN350
GFV200		93~235	200	DN450
GFV300		112~290	300	DN450



# **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 effectively solves 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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