



Yixing Aipu Air System Equipment Co., Ltd

aipukqdl.com



## Micro oil screw air compressor with excellent performance and durability

Our Product Introduction

### Basic Information

- Place of Origin: China
- Brand Name: Aipu
- Model Number: PMVFQ
- Minimum Order Quantity: 1PC
- Price: negotiable
- Packaging Details: container
- Delivery Time: 10
- Payment Terms: tt
- Supply Ability: 10t/y



### Product Specification

- Exhaust Pressure: 0.5-1.25Mpa
- Displacement: 13.7-77m<sup>3</sup>/min
- Type: Micro Oil Screw Air Compressor
- Power Source: Electric
- Motor Type: Frequency Conversion

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## Product Description

### Product Description:

#### Permanent magnet frequency conversion control technology



The patented design of weak magnetic control, pressure control, and simple and stable open-loop control of permanent magnet motors can adapt to various harsh working conditions, making the system more stable.

No rotor angle position sensor is required, which simplifies the system and improves its stability. Torque can be compensated at any angle within 360 degrees to achieve perfect torque control. The utilization rate of bus voltage is greater than 93%, far exceeding ordinary frequency converters on the market.

By adopting advanced PID control algorithm, the control speed is accelerated, the control accuracy is improved, and a more stable gas supply pressure is provided to customers.

Constant power control technology fully utilizes motor power. When the set pressure is lower than the maximum pressure, the motor speed can be increased to obtain more exhaust volume.

#### Efficient permanent magnet synchronous motor



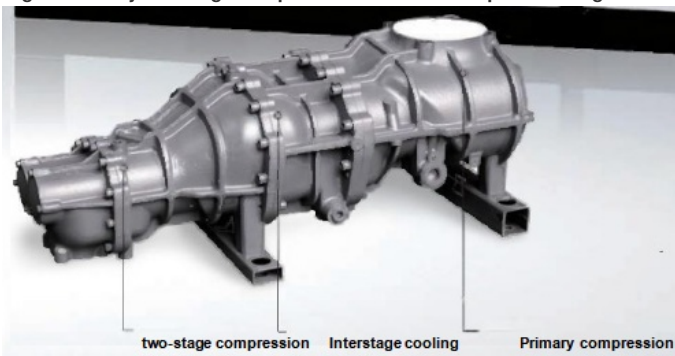
The excitation magnetic field of permanent magnet synchronous motor is provided by permanent magnet, and the rotor does not require excitation current, which improves the efficiency of the motor. Compared with asynchronous variable frequency speed regulation, it saves energy at any speed point, especially at lower speeds. This advantage is more obvious.

Ensure lower temperature rise, protect permanent magnets, and extend motor lifespan; Permanent magnets can withstand temperatures up to 180 degrees Celsius; High protection level.

The efficiency and power factor of permanent magnet variable frequency motors approximate a horizontal curve. Even when the motor is only at 20% load, the force and energy indicators of the permanent magnet motor are still above 80% of full load, which greatly improves the efficiency of electrical energy use and grid quality factor under low load conditions.

The main magnetic field of the permanent magnet synchronous variable frequency speed control motor is constant, and the stator current is almost entirely active current, resulting in a small starting current. Smooth soft start, with a starting current not exceeding twice the rated current.

#### High efficiency two-stage compression host with unique advantages



The performance of the unit is better than the national first level energy efficiency standard in the frequency conversion range of 60-100%, and the energy-saving effect is most significant in the load range of 40-90%.

Adopting a two-stage compression structure reduces the inter stage compressor and minimizes internal leakage, thereby improving the

efficiency of the unit.

There is gear transmission between the first and second stages, which facilitates the adjustment of both rotors within the optimal linear speed range, resulting in higher efficiency.

Innovative atomization and oil air mixing system design enhances inter stage cooling, reduces the flow of lubricating oil, and improves efficiency

The main engine bearings adopt specialized bearings jointly developed with SKF, with a total of 9 bearings to ensure the service life and performance of the main engine.

**Efficient intake valve**

National patented intake valve

Through 5 million cycles of life testing

Large caliber, low pressure drop

The check valve closes quickly to prevent oil and gas from spraying out of the main engine

**Special motor**

High starting torque

Multiple specifications of motors available for selection

SKF bearings have low noise and long service life

Equipped with refueling device, refueling can be done without stopping the machine

**Customized display and control integrated touch screen**

High definition touch screen display

Friendly and intuitive interface, user-friendly menu structure design, easy to query and maintain

Can display multiple lines of running parameters and historical records

**Cooling system**

Low power consumption and low noise

Efficient axial flow cooling fan

Adopting intake and exhaust noise reduction design

**Core advantages:**

1. Efficient and energy-saving, reducing operating costs  
Adopting Kaishan's independent high-efficiency screw host, optimizing the rotor profile, improving compression efficiency, and saving 10% to 20% energy compared to ordinary air compressors.  
Permanent magnet variable frequency drive (optional), automatically adjusts the speed according to actual gas demand, avoids idle waste, and has significant energy-saving effect.  
Low friction bearings and efficient cooling systems reduce energy loss and extend equipment lifespan.
2. Micro oil technology provides clean compressed air  
Adopting a multi-stage oil and gas separation system, the oil content in the outlet air is  $\leq 3\text{ppm}$  (in accordance with ISO 8573-1 Class 1 standard).  
Suitable for industries with strict air quality requirements such as food, medicine, and electronics.
3. Intelligent control system, easy to operate  
7-inch touch screen human-machine interface, real-time display of operating parameters (pressure, temperature, current, running time, etc.).  
It has functions such as fault self diagnosis, remote monitoring, and data recording, supports Internet of Things (IoT) access, and achieves intelligent management.  
Multiple machine linkage control can be set up to optimize the coordinated operation of multiple air compressors and improve energy efficiency.
4. Stable and reliable, easy to maintain  
The host adopts high-strength cast iron and precision bearings, with a design life of over 100000 hours.  
Intelligent temperature control system ensures stable operating temperature and avoids high temperature shutdown.  
Modular design, key components such as oil filters, air filters, and oil separation cores are easy to replace, reducing maintenance costs.
5. Low noise, environmentally friendly and energy-saving  
Adopting a silent chassis and shock-absorbing design, the noise level is as low as 65-75dB (A), which meets industrial environmental noise standards.

**Product Selection Table:**

PMVF Two stage compression permanent magnet series products

| Model          | Exhaust pressure<br>(Mpa) | Exhaust volume<br>(m³/min) | Motor Power<br>(KW) | Exhaust<br>interface | Weight<br>(kg) | External<br>dimensions(mm) |
|----------------|---------------------------|----------------------------|---------------------|----------------------|----------------|----------------------------|
| PMVF100-6-II   | 0.6                       | 16.55                      | 75                  | DN65                 | 2220           | 2760×1630×1735             |
| PMVF100-7-II   | 0.7                       | 15.80                      | 75                  | DN65                 | 2220           | 2760×1630×1735             |
| PMVF100-8-II   | 0.8                       | 14.65                      | 75                  | DN65                 | 2220           | 2760×1630×1735             |
| PMVF100-10-II  | 1.0                       | 13.70                      | 75                  | DN65                 | 2220           | 2760×1630×1735             |
| PMVF120-6-II   | 0.6                       | 21.68                      | 90                  | DN80                 | 2720           | 2760×1630×1735             |
| PMVF120-7-II   | 0.7                       | 20.15                      | 90                  | DN80                 | 2700           | 2760×1630×1735             |
| PMVF120-8-II   | 0.8                       | 19.25                      | 90                  | DN65                 | 2680           | 2760×1630×1735             |
| PMVF120-10-II  | 1.0                       | 16.48                      | 90                  | DN65                 | 2680           | 2760×1630×1735             |
| PMVF150-6-II   | 0.6                       | 25.54                      | 110                 | DN80                 | 3000           | 3070×1810×1800             |
| PMVF150-7-II   | 0.7                       | 24.02                      | 110                 | DN80                 | 3000           | 3070×1810×1800             |
| PMVF150-8-II   | 0.8                       | 23.00                      | 110                 | DN80                 | 3000           | 3070×1810×1800             |
| PMVF150-10-II  | 1.0                       | 20.10                      | 110                 | DN80                 | 3000           | 3070×1810×1800             |
| PMVF180-6-II   | 0.6                       | 32.88                      | 132                 | DN100                | 4050           | 3300×1810×2080             |
| PMVF180-7-II   | 0.7                       | 28.55                      | 132                 | DN100                | 3150           | 3070×1810×2080             |
| PMVF180-8-II   | 0.8                       | 26.90                      | 132                 | DN80                 | 3050           | 3070×1810×1800             |
| PMVF180-10-II  | 1.0                       | 23.94                      | 132                 | DN80                 | 3050           | 3070×1810×1800             |
| PMVF215-6-II   | 0.6                       | 38.07                      | 160                 | DN100                | 4700           | 3660×1980×2100             |
| PMVF215-7-II   | 0.7                       | 36.60                      | 160                 | DN100                | 4700           | 3660×1980×2100             |
| PMVF215-8-II   | 0.8                       | 34.31                      | 160                 | DN100                | 4700           | 3660×1980×2100             |
| PMVF215-10-II  | 1.0                       | 28.46                      | 160                 | DN100                | 4700           | 3660×1980×2100             |
| PMVF250-6-II   | 0.6                       | 45.26                      | 185                 | DN100                | 5070           | 3660×1980×2230             |
| PMVF250-7-II   | 0.7                       | 41.10                      | 185                 | DN100                | 4860           | 3660×1980×2100             |
| PMVF250-8-II   | 0.8                       | 39.80                      | 185                 | DN100                | 4860           | 3660×1980×2100             |
| PMVF250-10-II  | 1.0                       | 34.31                      | 185                 | DN100                | 4860           | 3660×1980×2100             |
| PMVF270-6-II   | 0.6                       | 47.90                      | 200                 | DN100                | 4950           | 3660×1980×2230             |
| PMVF270-7-II   | 0.7                       | 45.28                      | 200                 | DN100                | 4950           | 3660×1980×2230             |
| PMVF270-8-II   | 0.8                       | 43.12                      | 200                 | DN100                | 4950           | 3660×1980×2100             |
| PMVF270-10-II  | 1.0                       | 36.60                      | 200                 | DN100                | 4950           | 3660×1980×2100             |
| PMVF295-6-II   | 0.6                       | 55.90                      | 220                 | DN100                | 6120           | 3890×2160×2250             |
| PMVF295-7-II   | 0.7                       | 50.26                      | 220                 | DN100                | 6120           | 3890×2160×2250             |
| PMVF295-8-II   | 0.8                       | 47.48                      | 220                 | DN100                | 5450           | 3890×2160×2250             |
| PMVF295-10-II  | 1.0                       | 41.02                      | 220                 | DN100                | 5450           | 3890×2160×2250             |
| PMVF335-6-II   | 0.6                       | 59.70                      | 250                 | DN125                | 6700           | 3890×2160×2250             |
| PMVF335-7-II   | 0.7                       | 56.00                      | 250                 | DN125                | 6700           | 3890×2160×2250             |
| PMVF335-8-II   | 0.8                       | 52.50                      | 250                 | DN100                | 6320           | 3890×2160×2250             |
| PMVF335-10-II  | 1.0                       | 45.00                      | 250                 | DN100                | 6320           | 3890×2160×2250             |
| PMVF375-6-II   | 0.6                       | 64.80                      | 280                 | DN125                | 7100           | 4110×2310×2350             |
| PMVF375-7-II   | 0.7                       | 62.40                      | 280                 | DN125                | 7100           | 4110×2310×2350             |
| PMVF375-8-II   | 0.8                       | 59.50                      | 280                 | DN125                | 7100           | 4110×2310×2350             |
| PMVF375-10-II  | 1.0                       | 55.70                      | 280                 | DN125                | 7100           | 4110×2310×2350             |
| PMVF420-6-II   | 0.6                       | 73.30                      | 315                 | DN125                | 8100           | 4110×2370×2525             |
| PMVF420-7-II   | 0.7                       | 66.70                      | 315                 | DN125                | 8100           | 4110×2370×2525             |
| PMVF420-8-II   | 0.8                       | 64.80                      | 315                 | DN125                | 7000           | 4110×2310×2350             |
| PMVF420-10-II  | 1.0                       | 59.10                      | 315                 | DN125                | 7000           | 4110×2310×2350             |
| PMVF475A-6-II  | 0.6                       | 77.00                      | 355                 | DN125                | 8200           | 4110×2310×2350             |
| PMVF475A-7-II  | 0.7                       | 73.20                      | 355                 | DN125                | 8200           | 4110×2310×2350             |
| PMVF475A-8-II  | 0.8                       | 69.90                      | 355                 | DN125                | 7100           | 4110×2310×2350             |
| PMVF475A-10-II | 1.0                       | 62.10                      | 355                 | DN125                | 7100           | 4110×2310×2350             |

PMVF two-stage compression permanent magnet 5bar series

| Model        | Exhaust pressure<br>(Mpa) | Exhaust volume<br>(m³/min) | Motor Power<br>(KW) | Exhaust<br>interface | Weight<br>(kg) | External<br>dimensions(mm) |
|--------------|---------------------------|----------------------------|---------------------|----------------------|----------------|----------------------------|
| PMVF75-5-II  | 0.5                       | 14.70                      | 55                  | DN65                 | 1860           | 2450×1460×1580             |
| PMVF100-5-II | 0.5                       | 19.89                      | 75                  | DN80                 | 2650           | 2760×1730×1900             |
| PMVF120-5-II | 0.5                       | 25.56                      | 90                  | DN80                 | 2660           | 2760×1730×1900             |
| PMVF150-5-II | 0.5                       | 30.34                      | 110                 | DN100                | 3820           | 3660×1980×2100             |
| PMVF180-5-II | 0.5                       | 34.65                      | 132                 | DN100                | 4700           | 3660×1980×2100             |
| PMVF215-5-II | 0.5                       | 43.10                      | 160                 | DN125                | 5260           | 3910×2160×2280             |
| PMVF250-5-II | 0.5                       | 48.20                      | 185                 | DN125                | 6200           | 3910×2160×2280             |
| PMVF270-5-II | 0.5                       | 50.47                      | 200                 | DN125                | 6300           | 3910×2160×2280             |
| PMVF295-5-II | 0.5                       | 59.66                      | 220                 | DN150                | 6820           | 3560×2350×2350             |
| PMVF335-5-II | 0.5                       | 64.76                      | 250                 | DN150                | 6920           | 3560×2350×2350             |

PMVF-II two-stage compression permanent magnet series products

| Model      | Exhaust pressure<br>(Mpa) | Exhaust volume<br>(m³/min) | Motor Power<br>(KW) | Exhaust<br>interface | Weight<br>(kg) | External<br>dimensions(mm) |
|------------|---------------------------|----------------------------|---------------------|----------------------|----------------|----------------------------|
| PMVF22-II  | 0.6-0.9                   | 3.8-4.6                    | 22                  | G1                   | 550            | 1650×900×1110              |
| PMVF37-II  | 0.6-0.9                   | 65-765                     | 37                  | G1/2                 | 740            | 1820×1000×1140             |
| PMVF37L-II | 0.5-0.7                   | 7.95-9.05                  | 37                  | G11/2                | 800            | 1820×1000×1440             |
| PMVF55-II  | 0.6-0.9                   | 10.5-12.5                  | 55                  | G11/2                | 1100           | 2100×1200×1330             |
| PMVF75-II  | 0.6-0.9                   | 14.5-16.5                  | 75                  | G2                   | 1450           | 2160×1220×1580             |
| PMVF90-II  | 0.6-0.9                   | 17.6-20.9                  | 90                  | DN65                 | 2040           | 2650×1280×1650             |
| PMVF110-II | 0.6-0.9                   | 21.5-25.5                  | 110                 | DN80                 | 2400           | 2700×1400×1880             |
| PMVF132-II | 0.6-0.9                   | 25.5-32.5                  | 132                 | DN80                 | 2460           | 2700×1400×1880             |
| PMVF160-II | 0.6-0.9                   | 32.5-38.3                  | 160                 | DN100                | 4180           | 3560×1980×2100             |
| PMVF185-II | 0.6-0.9                   | 37.5-45.2                  | 185                 | DN100                | 4220           | 3560×1980×2100             |
| PMVF200-II | 0.6-0.9                   | 40.5-47.9                  | 200                 | DN100                | 4710           | 3560×1980×2230             |

PMVF series mining safety products

| Model               | Exhaust pressure<br>(Mpa) | Exhaust volume<br>(m³/min) | Motor Power<br>(KW) | Exhaust<br>interface | Weight<br>(kg) | External<br>dimensions(mm) |
|---------------------|---------------------------|----------------------------|---------------------|----------------------|----------------|----------------------------|
| DLGF 23/8-132B(C)   | 0.8                       | 23                         | 132                 | DN80                 | 3000           | 3070x1810x1800             |
| DLGF 27/8-160B(C)   | 0.8                       | 27                         | 160                 | DN80                 | 3050           | 3100x1830x1800             |
| DLGF 34.5/8-185B(C) | 0.8                       | 34.5                       | 185                 | DN100                | 4700           | 3660x1980x2100             |
| DLGF 40/8-220B(C)   | 0.8                       | 40                         | 220                 | DN100                | 4860           | 3660x1980x2100             |
| DLGF 43/8-220B(C)   | 0.8                       | 43                         | 220                 | DN100                | 4950           | 3660x1980x2100             |
| DLGF 47.5/8-250B(C) | 0.8                       | 47.5                       | 250                 | DN100                | 5450           | 3900x2150x2250             |
| DLGF 52.5/8-280B(C) | 0.8                       | 52.5                       | 280                 | DN100                | 6320           | 3900x2150x2250             |
| DLGF 62.5/8-315B(C) | 0.8                       | 62.5                       | 315                 | DN125                | 7100           | 4100x2310x2350             |
| DLGF 65/8-355B(C)   | 0.8                       | 65                         | 355                 | DN125                | 7000           | 4100x2310x2350             |

#### PMVF-II series mining safety products

| Model              | Exhaust pressure<br>(Mpa) | Exhaust volume<br>(m³/min) | Motor Power<br>(KW) | Exhaust<br>interface | Weight<br>(kg) | External<br>dimensions(mm) |
|--------------------|---------------------------|----------------------------|---------------------|----------------------|----------------|----------------------------|
| DLGF 11/8-75B(D)   | 0.8                       | 11                         | 75                  | G1/2                 | 1100           | 2100x1200x1330             |
| DLGF 14.5/8-90B(D) | 0.8                       | 14.5                       | 90                  | G2                   | 1450           | 2160x1220x1580             |
| DLGF 19/8-110B(D)  | 0.8                       | 19                         | 110                 | DN65                 | 1980           | 2650x1280x1650             |
| DLGF 23/8-132B(D)  | 0.8                       | 23                         | 132                 | DN80                 | 2400           | 2700x1400x1880             |
| DLGF 27/8-160B(D)  | 0.8                       | 27                         | 160                 | DN80                 | 2460           | 2700x1400x1880             |

#### PMVFQ series products

| Model          | Exhaust pressure<br>(Mpa) | Exhaust volume<br>(m³/min) | Motor Power<br>(KW) | Exhaust<br>interface | Weight<br>(kg) | External<br>dimensions(mm) |
|----------------|---------------------------|----------------------------|---------------------|----------------------|----------------|----------------------------|
| <b>PMVFQ15</b> | 0.6-0.9                   | 2.37-2.88                  | 15                  | G1                   | 380            | 1200x830x1240              |
| <b>PMVFQ22</b> | 0.6-0.9                   | 3.61-4.22                  | 22                  | G1                   | 480            | 1200x830x1240              |
| <b>PMVFQ37</b> | 0.6-0.9                   | 6.28-7.42                  | 37                  | G1 1/2               | 710            | 1400x1000x1540             |
| <b>PMVFQ45</b> | 0.6-0.9                   | 7.39-9.27                  | 45                  | G1 1/2               | 990            | 1500x1160x1700             |
| <b>PMVFQ55</b> | 0.6-0.9                   | 9.99-11.95                 | 55                  | G1 1/2               | 990            | 1500x1160x1700             |

## Applications:

### 1. Manufacturing industry

#### 1. Automobile manufacturing

Application scenarios: spraying, assembly, pneumatic tools, tire inflation

Advantages:

Provide stable and clean compressed air to avoid spraying impurities

Variable frequency models can adapt to gas fluctuations in production lines, saving energy and reducing consumption

#### 2. Mechanical processing

Application scenarios: CNC machine tools, pneumatic fixtures, laser cutting

Advantages:

Low oil content ( $\leq 3\text{ppm}$ ), protecting precision equipment

Efficient and energy-saving, reducing production costs

### 2. Food and beverage industry

#### 1. Food packaging

Application scenarios: blowing bottles (PET bottles), filling, labeling

Advantages:

Compliant with ISO 8573-1 Class 1 oil-free air standard

Avoid oil contamination and ensure food safety

#### 2. Food processing

Application scenarios: Pneumatic conveying, fermentation, stirring

Advantages:

Micro oil design to prevent oil from mixing into food

Stable gas supply to ensure continuous production

### 3. Pharmaceutical and Electronic Industry

#### 1. Pharmaceutical industry

Application scenarios: tablet compression, aseptic packaging, fermentation

Advantages:

Compliant with GMP standards to ensure that s are free from contamination

Low noise, suitable for clean workshops

#### 2. Electronic manufacturing

Application scenarios: chip packaging, PCB cleaning, SMT mounting

Advantages:

Ultra low oil content to prevent contamination of precision electronic components

Variable frequency control to meet high-precision production requirements

### 4. Textile and Chemical Industry

#### 1. Textile industry

Application scenarios: Jet loom, spinning, printing and dyeing

Advantages:

Stable gas supply to improve loom efficiency

Energy saving design to reduce power consumption

#### 2. Chemical industry

Application scenarios: Pneumatic conveying, reactor stirring, instrument control

Advantages:

High temperature resistant design, suitable for chemical environments  
Low maintenance costs and reduced downtime

#### 5, Other industries

#### Advantages of PMVF in Industry Application Scenarios

Stable gas supply for instrument control and pneumatic actuators in power plants, suitable for high load operation

Mining drilling and pneumatic tools are dust resistant and adaptable to harsh environments

Printing machines and paper conveying clean air to avoid ink pollution

Plastic processing injection molding machines and blow molding machines are energy-saving and reduce production costs

### Support and Services:

Our Micro oil screw air compressor product comes with comprehensive technical support and services to ensure that our customers are satisfied with their purchase. Our team of experts is available to provide assistance with installation, operation, and maintenance of the product. We also offer repair and replacement services for any faulty parts or components. Additionally, we provide training and educational resources to help our customers maximize the performance and lifespan of their Micro oil screw air compressor.

### Packing and Shipping:

#### Product Packaging:

The Micro oil screw air compressor comes in a sturdy cardboard box with the product image and specifications printed on the outside. Inside, the product is securely packaged with foam inserts to prevent any damage during transportation.

#### Shipping:

Our standard shipping time is 3-5 business days. For expedited shipping, please contact our customer service team. We ship via trusted carriers such as UPS, FedEx, and USPS and provide a tracking number for your convenience.

### FAQ:

#### Q: What is the brand name of this product?

A: The brand name of this product is Aipu.

#### Q: What is the model number of this product?

A: The model number of this product is Micro oil screw air compressor.

#### Q: Where is this product made?

A: This product is made in China.

#### Q: Does this product have any certifications?

A: Yes, this product is certified by CE, UL.

#### Q: What is the minimum order quantity for this product?

A: The minimum order quantity for this product is 1pc.

#### Q: Is the price of this product negotiable?

A: Yes, the price of this product is negotiable.

#### Q: What is the packaging details for this product?

A: The packaging details for this product is container.

#### Q: How long is the delivery time for this product?

A: The delivery time for this product is 10 days.

#### Q: What are the payment terms for this product?

A: The payment terms for this product is TT.

#### Q: What is the supply ability of this product?

A: The supply ability of this product is 10000t/y.



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