



PMSM INVERTER SCREW AIR COMPRESSOR

AirHorse[®]
— AIRHORSE COMPRESSOR —



GUANGZHOU AIRHORSE COMPRESSOR CO.,LTD



CHOOSE AIRHORSE, CHOOSE QUALITY



AIRHORSE PERMANENT MAGNET VARIABLE SPEED SCREW AIR COMPRESSOR (EPM SERIES)

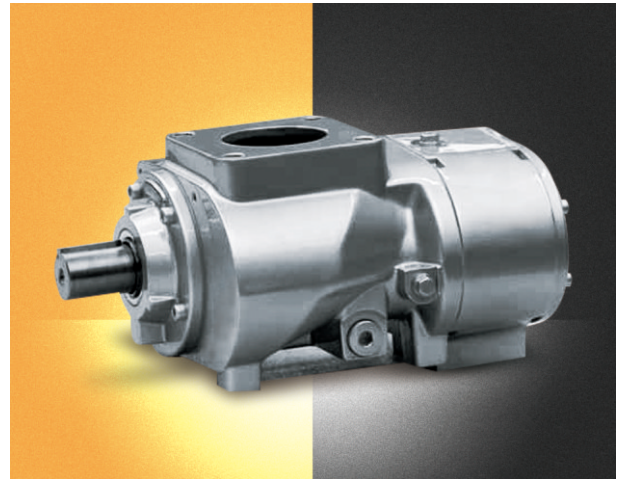
ENERGY SAVING AND ENVIRONMENTAL PROTECTION are new technological challenges for today's industrial product and have become the largest mission of air compressor industry in the 21st century. In order to meet the needs of the times, leading its peers, Guangzhou AirHorse Compressor take meeting customers' demand as the core of technology development, constantly developing advanced leading screw compressors suitable for the trend of the times. AirHorse EPM series screw air compressors are exporting to more than 100 countries and area, with advantage of reliable operation, low noise, long life, high efficiency and more energy-saving.



- ✓ MORE EFFICIENT
- ✓ MORE COMFORTABLE
- ✓ MORE STABLE
- ✓ MORE CONVENIENT

1 MORE EFFICIENT
GERMAN TECHNOLOGY

- ✔ Technology Innovation ✔ Long Life
- ✔ Low Noise ✔ High Efficiency Air End
- ✔ More Efficient ✔ Low Vibration



2 MORE COMFORTABLE
LOWER NOISE

The frequency conversion type supplies energy according to the gas demand, without too much energy loss, the motor running frequency is low, and the mechanical rotation noise is reduced accordingly. Since the frequency conversion adjusts the motor rotation speed, it does not require repeated loading and unloading, which reduces the noise caused by frequent loading and unloading. Continuous loading pressure, reducing the noise generated by the unstable pressure.

3 MORE STABLE

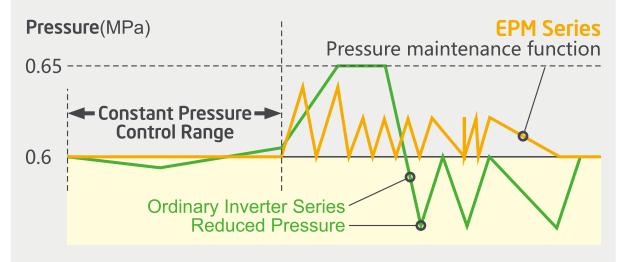
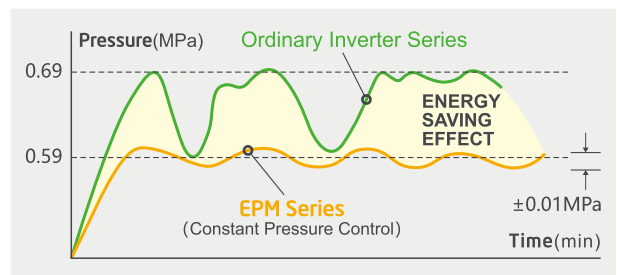
VARIABLE FREQUENCY REGULATION
STABLE SUPPLY PRESSURE

- ✔ Adopting frequency conversion speed control to make full use of energy-saving effects to create a new generation of energy-saving compressor that saves electricity and energy

The conventional speed regulation method of the air compressor is to adjust the air intake volume by adjusting the inlet valve. The input power is large, and a large amount of energy is consumed in the current-carrying process of the valve. When using the variable frequency speed, if the flow requirements are reduced, the requirements can be met by reducing the speed of the host.

- ✔ Provide the necessary amount of air with the necessary pressure through constant pressure control

High-accuracy constant-pressure control with a pressure variation range of ± 0.01 MPa or less can be performed, effectively providing the machine with the most suitable air pressure necessary. Moreover, the accuracy of the set pressure is 0.01MPa, accurate setting to achieve maximum energy savings.



4 MORE CONVENIENT

MICROCOMPUTER CONTROL TOUCH SCREEN
SIMPLE AND CONVENIENT OPERATION



✔ **One-touch switch for changing control pressure settings**
The power saving control pressure can be easily changed on the operation panel.

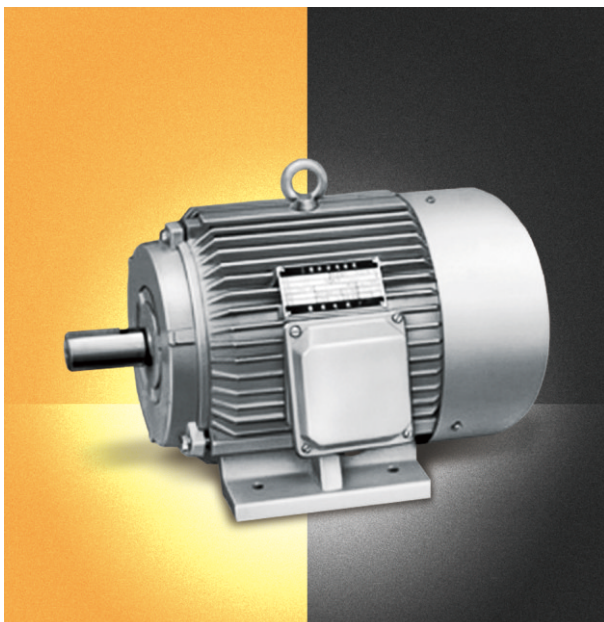
✔ **The newly developed operating panel is simple and easy to understand**
Energy saving mode and remote operation conversion can be realized directly on the operation panel. Moreover, in the event of a failure, the display will show the contents of the fault and the fault can be quickly eliminated.

✔ **AirHorse unique in-line vector control*1 and PID control achieve fast response while ensuring safety and reliability.**
The variable speed control of the EPM Series and the system control of the compressor are all technologies developed by AirHorse. Exhaust pressure $\pm 0.01\text{MPa}$ control system, while achieving a high degree of response, but also to play a superior load following up and safety.

✔ **The status of the compressor and various settings can be confirmed on the LED display**

✔ **You can use the functions of timing operation, alternate operation, etc. to save energy and save labor.**

AIRHORSE PERMANENT MAGNET SYNCHRONOUS MOTOR



✔ **Super-level energy efficiency More energy efficient**
The permanent magnet frequency conversion synchronous motor used in AirHorse compressor passes national level energy efficiency laboratory tests, have exceeded the national first-class energy efficiency standards.

✔ **High Degree Of Protection Design**
Safety and reliability have been guaranteed. Motor adopts IP54 high protection grade design, which can prevent failure caused by bad environment.

✔ **Comparison of Different Speed Efficiency of Permanent Magnet Synchronous Motor and Asynchronous Induction Motor**
Due to different working principles, permanent-magnet variable-frequency synchronous motors maintain more than 95% efficiency and higher power factor at different speeds. The efficiency of permanent magnet frequency conversion synchronous motor at low speed is 20% higher than traditional asynchronous motor.

COMPARISON OF ENERGY-SAVING EFFECTS

When buying an air compressor, the traditional cost (ie, purchase cost + maintenance cost) accounts for only 25% of the total cost, while energy consumption accounts for 75%.

ORDINARY (INVERTER) SCREW AIR COMPRESSOR SAVES 10-20% ENERGY THAN ORDINARY (POWER FREQUENCY) SCREW AIR COMPRESSOR

AIRHORSE EPM FREQUENCY CONVERSION SCREW AIR COMPRESSOR SAVES 33-35% ENERGY THAN ORDINARY (POWER FREQUENCY) SCREW AIR COMPRESSOR

For Example:

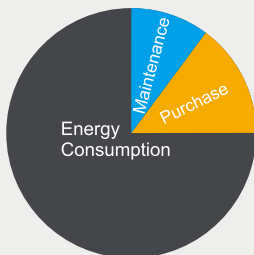
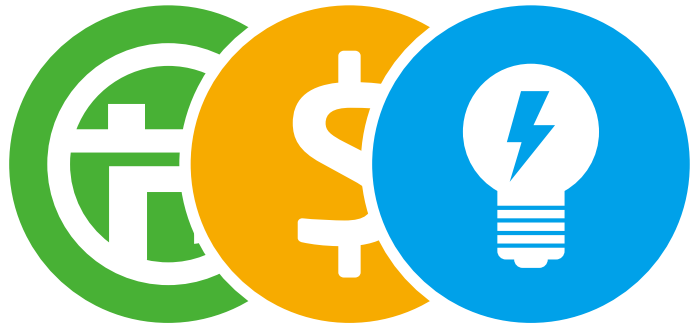
1. A 75KW ordinary screw air compressor runs for 8000 hours a year, with an electricity fee of ¥ 0.62/kWh, and the electricity charge for one year is:

$$75KW * 8000 \text{ hours} * 0.62 / KW.h = ¥ 372,000$$

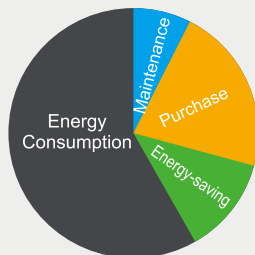
2. AirHorse EPM 75KW screw air compressor, saving about 35% of energy a year

$$\text{A Total of: } 372,000 * 35\% = ¥ 130,200$$

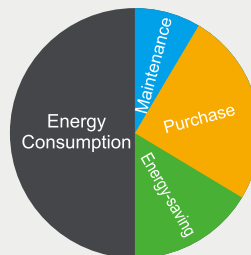
3. Return on Investment (ROI) : **About 1 Year**



Ordinary
(Power Frequency)



Ordinary
(Frequency Conversion)



AIRHORSE
(EPM Series)

- ▲ Energy consumption
- ▲ Maintenance
- ▲ Purchase
- ▲ Power saving



MAINTENANCE OF AIR COMPRESSOR

We provide selective maintenance services for customer's equipment maintenance. The content is customized for your equipment. You can choose a single price maintenance or choose long-term parts supply or preventive maintenance contract, through the above contract, you can enjoy valued service and guarantee and overhauled and updated parts at competitive price. We also provide energy saving solution, such as energy recovery, frequency conversion, and energy-saving optimization systems, can greatly reduce your production cost.



Only use genuine parts and service of AirHorse Compressor Co., Ltd., to ensure the normal operation of the compressor group and normal life to the greatest extent.

TECHNICAL PARAMETER OF EPM SCREW AIR COMPRESSOR

Model	Exhaust Pressure (Mpa)	Air Flow (m ³ /min)	Motor Power (KW)	Size (L×W×H)mm	Outlet Size (size)	Weight (Kg)
EPM-10A	0.8	1.1	7.5	950×650×900	3/4"	260
	1.0	0.9				
EPM-20A	0.8	2.3	15	1160×700×1100		350
	1.0	2.0				
EPM-30A	0.8	3.8	22	1200×900×1150	1"	530
	1.0	3.6				
EPM-40A	0.8	5.2	30	1400×900×1225	1 ½"	630
	1.0	4.8				
EPM-50A	0.8	6.5	37	1560×1000×1365		750
	1.0	5.7				
EPM-60A	0.8	7.5	45	1560×1000×1365		830
	1.0	6.8				
EPM-75A	0.8	10.5	55	1800×1070×1490	2"	1120
	1.0	8.9				
EPM-100A	0.8	13.5	75	1800×1070×1490		1290
	1.0	11.5				
EPM-120A	0.8	16.5	90	2100×1400×1780	1900	
	1.0	13.7				
EPM-150A	0.8	20.5	110	2500×1450×1800	2 ½"	2300
	1.0	17.9				
EPM-175A	0.8	24.0	132	2700×1550×1800		3500
	1.0	21.3				
EPM-220A	0.8	28.5	160	2700×1550×1800	3800	
	1.0	25.5				



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