

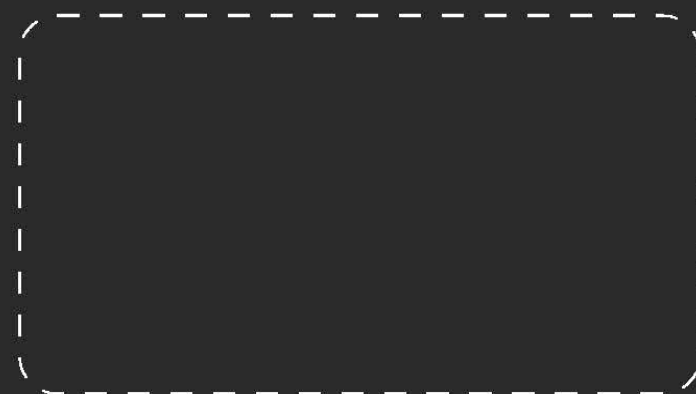


## EURO-P Series

The second revolution of HVLS

# HVLS FAN

### Permanent Magnet Synchronous Motor



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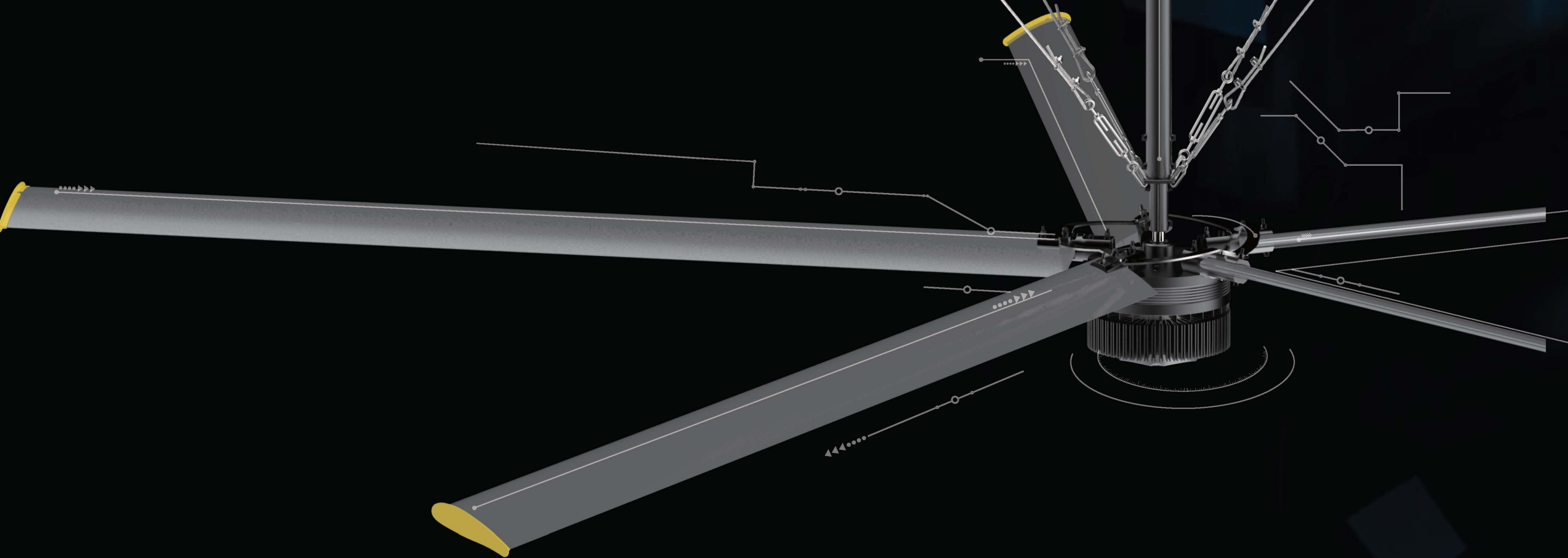
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All the time

There exists a piece of brilliant mind

Expecting to develop such a mega fan >>>>

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It can provide users with pleasant experience in cooling down from the sweat directly and violently.  
You could feel absolutely comfortable and peaceful with such a fan when you focus on your work.  
In addition, it can always run quietly and it is maintenance-free.  
You would be fascinated by its appearance every time you take a quick glance.  
This piece of mind, finally comes into reality with the introduction of EURO-P Now Let' s enjoy it





## EURO-P

Power system  
is upgraded now

EURO-P



# PMSM

Permanent Magnet Synchronous Motor

## ◆ The advantages of Permanent Magnet Synchronous Motor

PMSM is an electromagnetic device that is produced by a permanent magnet as a medium for the conversion of mechanical energy and electromagnetic energy to each other. In addition, PMSM Permanent magnet synchronous brushless direct drive motor has the characteristics of high control accuracy, high torque density, good torque balance, low noise, small volume, high efficiency, high power factor, low temperature rise and so on.



- ◆ The adjustable speed range of KALE fans is bigger. Currently, the industrial fans in the market are usually with the diameter of 7.3M blade type and the speed range is usually 20-50 RPM. However, EURO-P series based on PMSM power output system and powerful control technology can have the stepless speed range extended to 5-57RPM, which can provide a wider adjustment range of comfort for the client.
- ◆ The efficiency of motor drive is increased by 13.6%. The power factor of PMSM is high, so that compared with asynchronous motor, the current of PMSM is smaller, and the stator copper consumption of the corresponding motor is smaller and the efficiency is higher. The motor efficiency of the common asynchronous motor in the market is 78%, the efficiency of the PMSM motor of EURO-P is 86%, and the transmission efficiency of the whole motor is raised by 13.6%.

# Control system

## Advantages in technology



### ◆ Control system protection level IP66 Design of bending seal

The control box of the sealed design greatly enhances the service life of electrical components. The features of dustproof and waterproof meet the outdoor conditions, which can adapt to the rainy humid environment. In addition to this, the overall operation of the system and the feature of debugging without unpacking contribute to preventing misuse of electric shock risk. Furthermore, relative to the control system of the common market, EURO-P tends to have longer service life and it is safer and more reliable.

### ◆ Anti-electromagnetic interference Design

The EMI suppression algorithm is designed to effectively suppress the conducted electromagnetic interference (Conducted EMI) and radiated electromagnetic interference (Radiated EMI). As a result, it is possible to use a wider environment to make users more comfortable. It can be used normally in bad environment (such as high voltage fluctuation of power grid) and climate conditions.

### ◆ Vectorial control of position free sinusoidal wave

The electronic commutation has replaced the traditional mechanical commutation, which reduces the iron consumption and mechanical loss of the motor. As a result, it has better energy saving effects and lower noises. It changes the direction of current in the phase windings synchronously by magnetic pole position synchronously, making the operation more reliable.

Additionally, it can achieve the self-control frequency operation and it will not damage the rotating shaft of the motor. As a result, it helps to improve the service life of the motor. Furthermore, volume and weight can be smaller, lighter and more beautiful.

### ◆ Voltage single-phase 220V

The power supply is convenient (both 380V & 220V are applicable), and the electrical components are generally capable of withstanding voltage grade. 220V is a lower voltage. Compared with 380V voltage condition, it has more stability, slower aging, longer service life and higher working safety.

# EURO-P

Strong technical advantages

◆ **Amazing! Maximum torque 260N.m, air volume increases 30%**



More powerful

EURO-P adopts the latest PMSM technology and unique external rotor torque design. Compared with the traditional asynchronous motor, this product can eliminate the friction energy consumption of gear reducer. Maximum torque reaches 260N.m, while a greater advantage is that it can output more stable air flow, making the EURO-P full volume reached 888000m<sup>3</sup>/h, which beyond the common market volume of more than 30% products. Once launched, it can be highly evaluated.

Maximum torque 260N.m



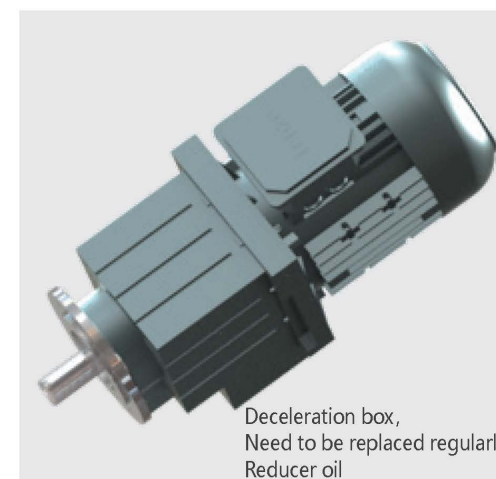
Totally free of maintenance

Different from gear technology products using regular replacement of lubricating oil in gearbox (need regular climbing demolition job) in the current market, EURO-P series PMSM motor, based on the principle of electromagnetic induction, double bearing transmission, completely sealed, truly free maintenance.

Free of maintenance



No deceleration box  
No need to be replaced regularly



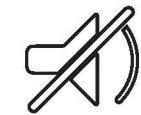
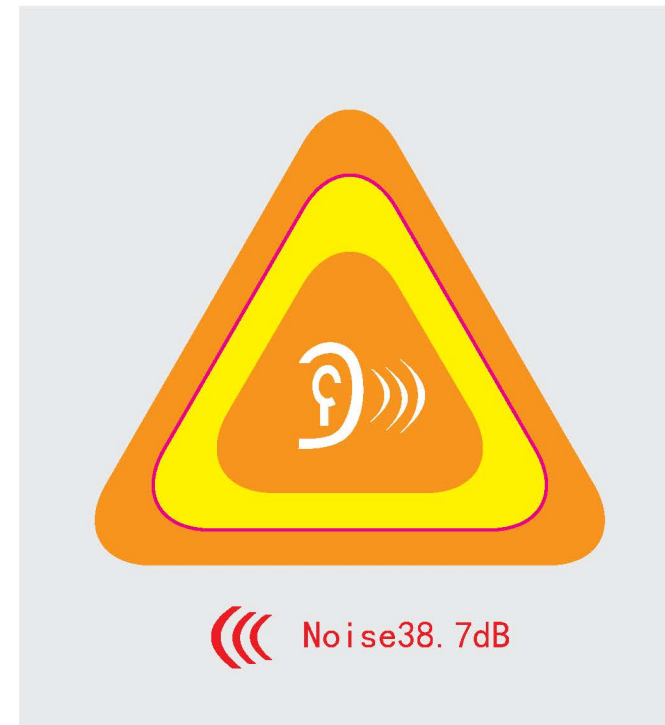
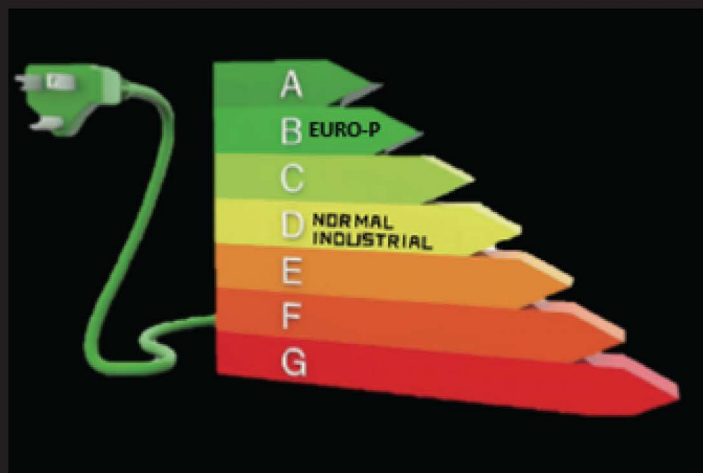
Deceleration box,  
Need to be replaced regularly  
Reducer oil





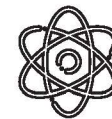
### High efficiency

Parameters of permanent magnet motor, especially the power factor is not affected by the number of poles in the motor, so as to facilitate the design of multi electrode motor (such as 100 above), so the traditional need by the reducer to drive the load motor, can make direct use of direct drive permanent magnet synchronous motor drive system. Thus, it can eliminate the need for speed box and improve the transmission efficiency.



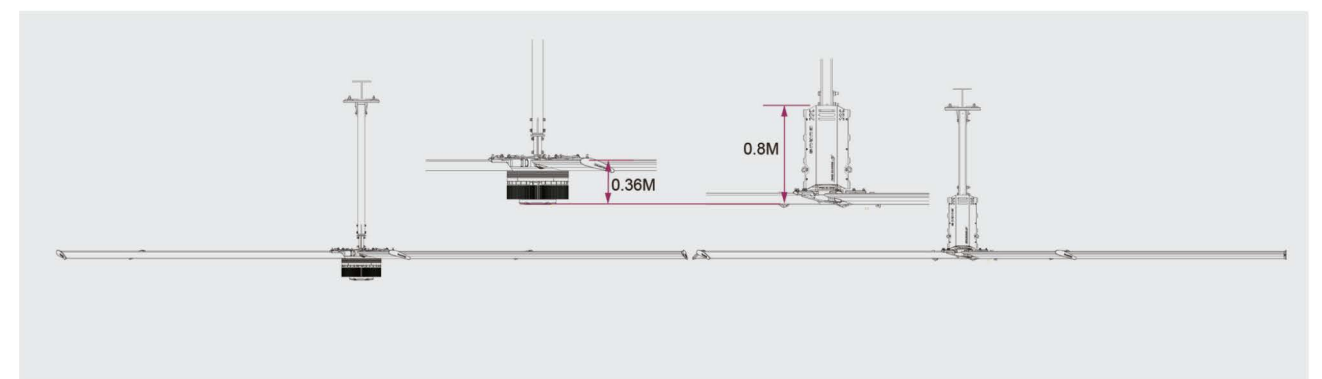
### Fewer noises

The noise level is lower. On the market, the common asynchronous motor decelerator integrated machine noise comes from the excitation noise of the motor shell and the friction of the reducer gear, usually the noise level is above 50dB. The application of the EURO-P series of PMSM motors solved these problems and reduced the noise index of the EURO-P series to 37.8dB. for the first time.



### More ingenious

The EURO-P series has a more compact overall volume and lower installation space requirements. The EURO-P series host height is only 0.36M, and the common product installation space is more than 1.2M while the EURO-P series only needs 0.86M.





**EURO-P stunning appearance !!!**

## EURO-P

This series of product developed by EUROVENTFAN is based on the development of the PMSM (per-manent magnet synchronous motor) model of permanent magnet synchronous motor fan technology. The maximum diameter can be up to 7.3 meters. The product combines aerody-namic technology, transmission dynamics, PWM control technology, mechanical mechanics, simulation technology, communication control, industrial design and other comprehensive dis-ci-plines. It can promote the circulation of air flow in high efficiency, achieve the purpose of low-ering the temperature of personnel, and greatly improve the environmental comfort.

### ◆ The application areas of EURO-P

EURO-P owns a wide range of diverse application areas. The super large air volume and cover-age area will bring comfortable natural breeze and can make the working environment change in positively ways at once. It can not only directly cool the human body, but also bring the whole field ventilation and excellent dehumidification and moisture removal effect.

Industrial application	Workshop / logistics storage warehouse
Sports industry	gym / gymnasium / indoor sports field / training room
Traffic hub	Railway Station / high speed railway station / car station / subway station / terminal
Commercial sites	Exhibition Center / 4S store / major professional product distribution market / large shopping mall and supermarket
Other areas	the front office / Villa / canteen / Museum / large outdoor business lease of the office building...

- ◆ Wind speed 1-4m/s speed regulation ◆ Reduce the temperature at 5-8 degrees centigrade ◆ The wind is comfortable and soft ◆ Can eliminate odors
- ◆ The air volume is up to 88000m³/h ◆ Stenoscopic natural breeze effect ◆ Air circulation in a large environment ◆ Can effectively dilute smoke and dust
- ◆ Dehumidification and dampness

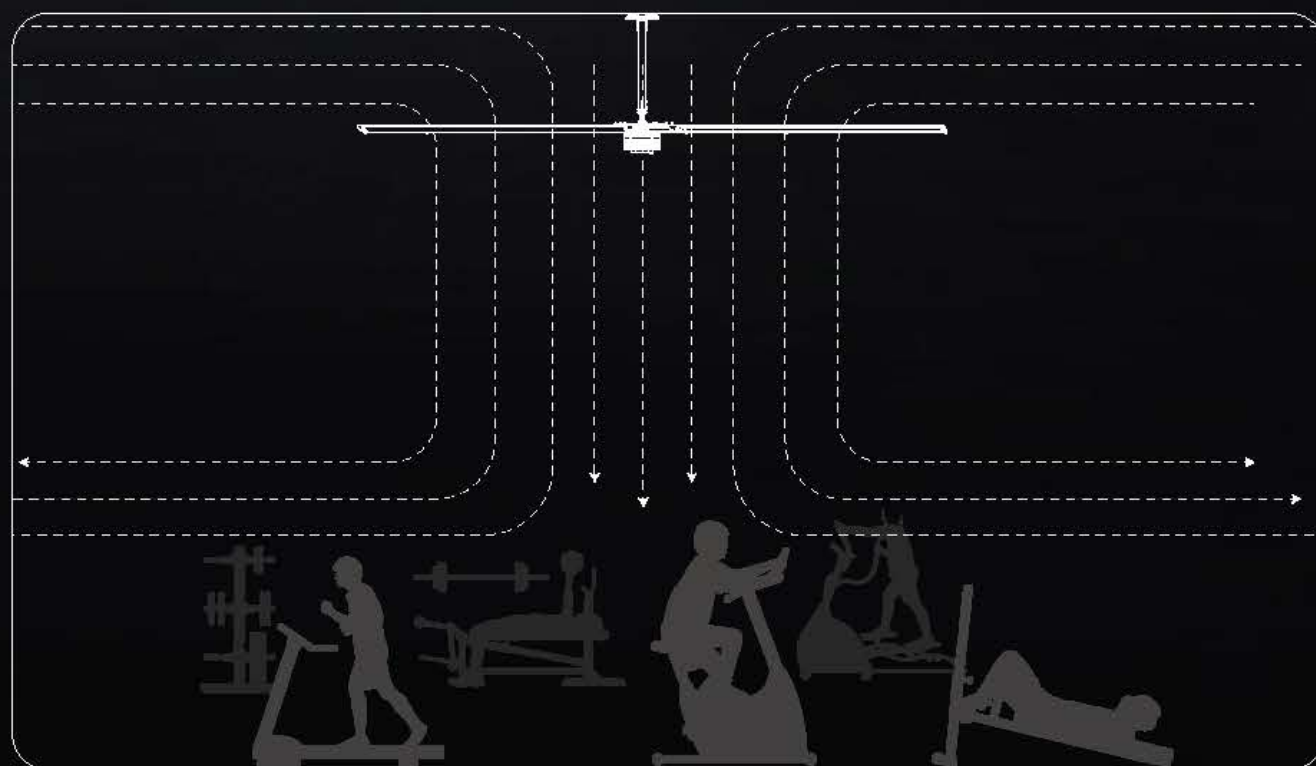




## ◆ Introduction of EURO-P functions

### 01 Body cooling

The natural breeze from EUEOVENT fans in the human body can promote the evaporation of the sweat to cool down the heat. As a result, the body temperature can be effectively cooled down. Usually, this temperature can reach 4-7 degrees centigrade. The natural wind blowing EROVENT fans is more comfortable because on the one hand, the body of a full range of three-dimensional blowing let the body to reach the maximum evaporation area, another reason is that human has accumulated on the natural wind experience in nature, once the wind speed changes the natural breeze, the body will naturally feel cool and comfortable.

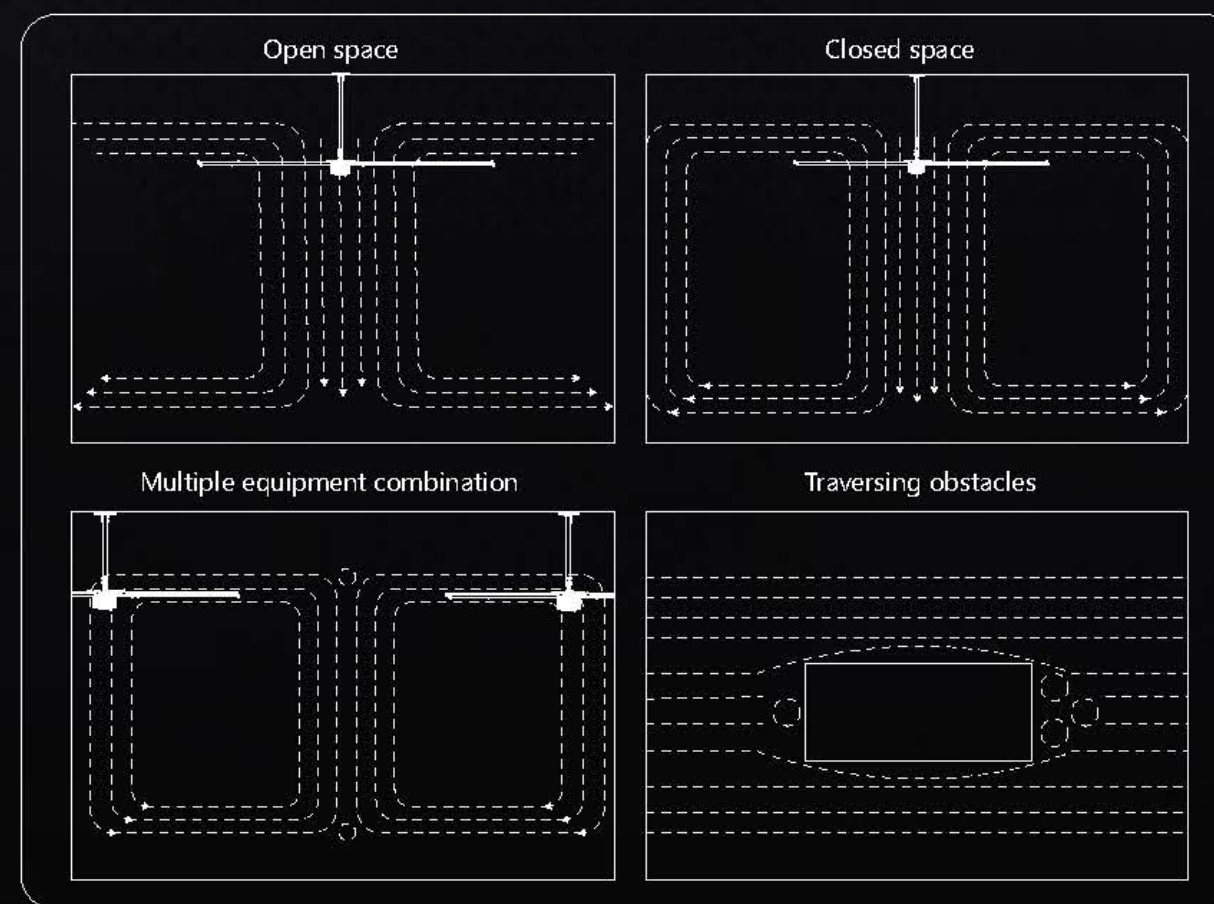


### 02 dehumidification and dampness

Euro-P promotes the whole space air mixing, and can eliminate the smoke and moisture with good dispersion and absorption, so as to improve indoor air quality and obtain a healthy, dry and safe working environment. In addition, it can avoid the noises produced by other ventilation schemes and the decay of wet air.

### 03 natural ventilation

In the large and wide enclosed space, the ventilation plan is greatly limited. The roof negative pressure fan doesn't play any role in the air in every corner and the ground, and this is precisely the location of personnel and equipment. With the industrial energy saving fan scheme, the problem can be solved. The industrial energy saving fan can effectively enhance the orderly movement of the air flow field in the space, and will promote the whole space air mixing, cooperate with the roof fan, improve the air quality, and get a healthy, comfortable and safe working environment.





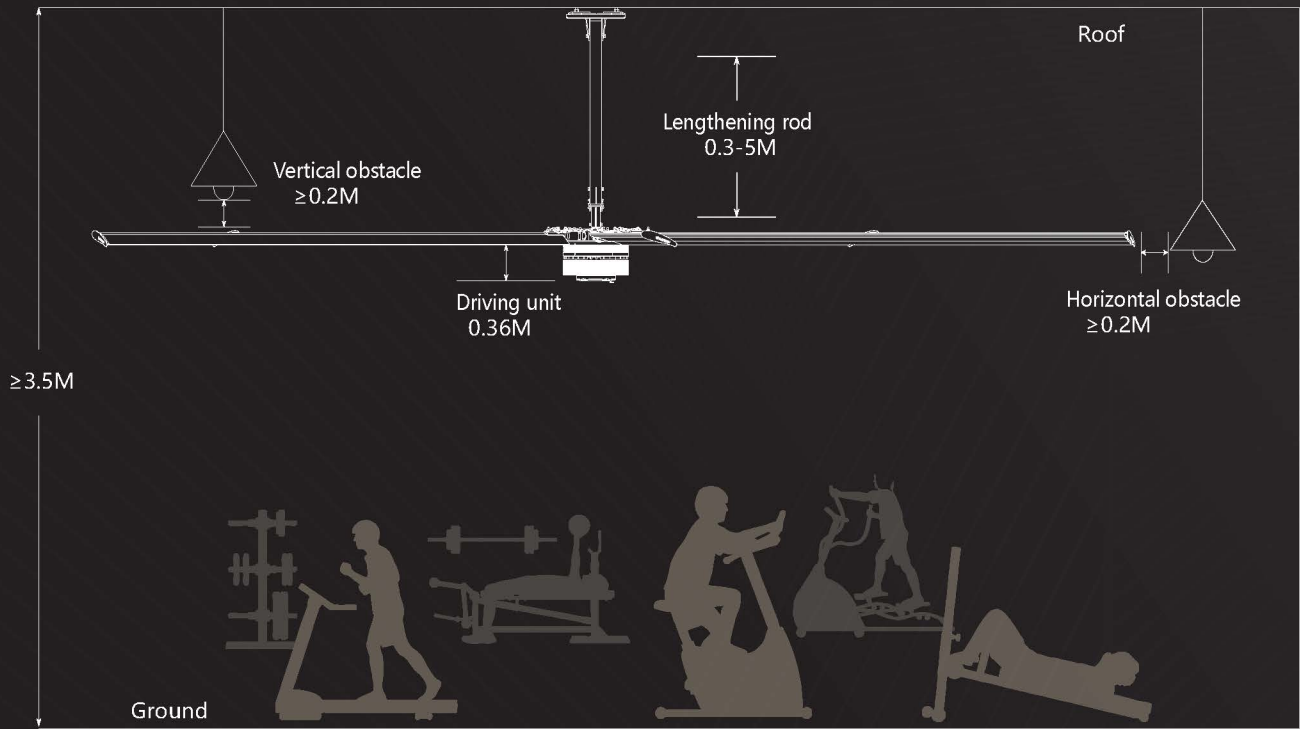
# EURO-P

## ◆ Installation conditions and product parameters

### 🔑 Installation conditions

EUROVENT FANS has a number of engineers who have rich experience in electrical, mechanical and architectural areas. In view of the different structural stress analysis, we can provide the most reasonable instal-lation plan; for all kinds of buildings, we have the installation conditions for installation construction. We know that installation is essentially important. Therefore, in the process of operation, there are strict opera-tional rules and installation standards. Our professional technology and high requirements will eliminate all your doubts.

- ◆ Installation scheme is customised;
- ◆ Lift truck installation is well equipped;
- ◆ Level, height, balance debugging, rich experience;
- ◆ Balance test and run smoothly;
- ◆ The fastener has the torque standard to achieve the best fastener;
- ◆ Installation process is brief and easy to learn ;
- ◆ The integrated test of wind speed can be done after installation if needed.



### ◆ Euro-P series of product parameters

Technical specifications	18ft(5.5m)	20ft(6.1m)	24ft(7.3m)
Model	Euro P-55	Euro P-61	Euro P-73
Full load	10800m³/min	12300m³/min	14800m³/min
Speed range	5-70RPM	5-62RPM	5-57RPM
Weight of fan' s main structure	113kg	120kg	135kg
Maximum motor power	1.8Kw	1.8Kw	1.8Kw
Full load current	8Amps/220V	8Amps/220V	8Amps/220V

Note: 1, Weight calculation: the weight of the product does not include the control box, the top connection component and so on. 2, Size: the above product size is standard, other specifications and sizes can be customized. 3, Noise: sound level meter distance motor 1m, electromagnetic noise 40dB (A) below. 4, packing: standard wooden box packing. 5. Input power supply: single phase 220V optional