



THE PERMANENT MAGNET FREQUENCY CONVERSION LARGE CEILING FAN



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38dB
ULTRA SILENT
ENERGY SAVING
COMFORT



Natural
wind



Variable
speed



Energy
efficient



Intelligent
control



Time
switch
machine



Super
mute



Five
security

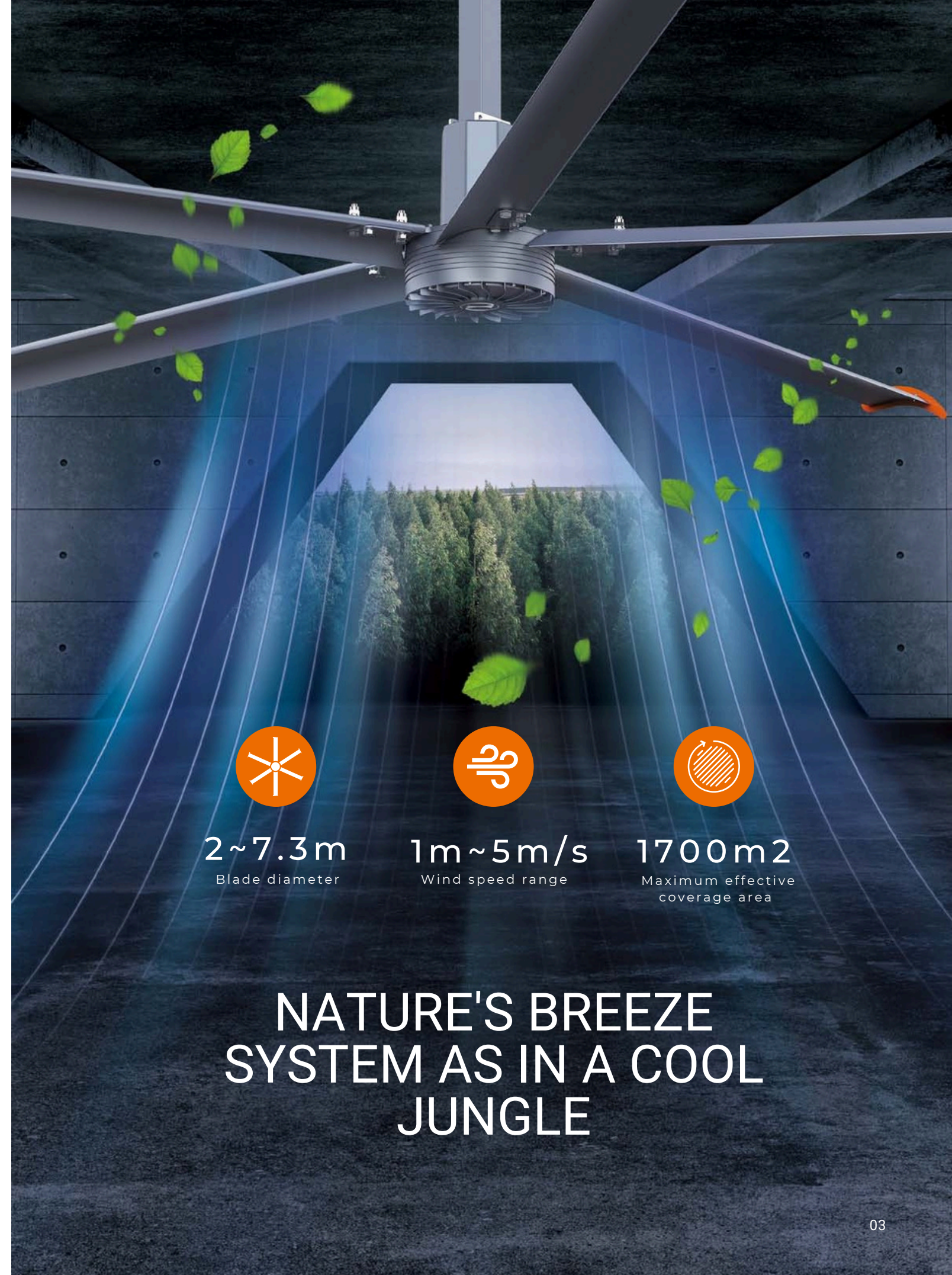
SmartAir large ceiling fans are new products specially developed for improving the comfort of working environment.

Self-designed variable frequency speed control, high efficiency and energy saving permanent magnet external rotor motor drive. It has the advantages of low noise, small volume, light weight, compact structure and beautiful appearance.

NATURAL THREE-DIMENSIONAL AIR SUPPLY ENHANCE HUMAN COMFORT

SmartAir large ceiling fan of permanent magnet type variable frequency big ceiling fans unique wing design, straight blade diameter from 2 ~ 7.3 m, adopting the principle of aerodynamics and advanced technology manufacturing blades wing, formed by strong air agitation ability of circulation flow field, produce like the breeze system of nature, the body will feel three-dimensional wind from all directions, increased sweat evaporation area, increase your comfort level.

At the same time avoid the use of traditional high-speed fan in the direction of the wind all year round, causing a variety of human health problems, greatly improve the comfort of the environment. SmartAir ceiling fans can be combined with the actual needs of different occasions to adjust the wind volume, the wind speed in the range of 1m-5m /s can be arbitrarily adjusted. In the open space, an industrial energy-saving fan can cover a maximum area of 1700m².



2~7.3m
Blade diameter



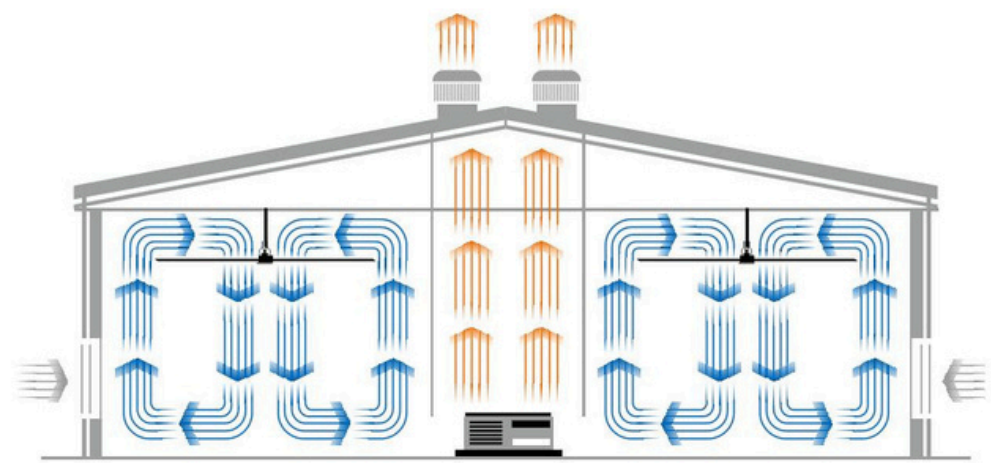
1m~5m/s
Wind speed range



1700m²
Maximum effective
coverage area

NATURE'S BREEZE SYSTEM AS IN A COOL JUNGLE

WORKING PRINCIPLE



Whether using natural ventilation or mechanical heating or cooling, we can help. Companies around the world have integrated our products into their facilities to improve comfort, safety and productivity while reducing costs.

BENEFITS/FUNCTIONS & APPLICATION CONDITION

Comparison Contents	(7300mm) D24 SmartAir ceiling fans	Industrial floor fan
Unit fan power	1.1kW	0.3kW
Area covered / unit fan (m2)	≥ 1500m2	30m2
Cover 1400m2 required fan quantity	1	≥45
Cover 1400m2 required fan power	1.1kW	13.5kW
Total power consumption per year (150days/per year,10 hr./per day)	1650kW	20250kW
Service life / unit fan	≥20 / Years	≤2/ Years
	Excellent	Poor

NUMBER OF LEAVES SPECIFICATION

According to different environmental requirements, we can provide fan products with five fan blades and six fan blades with two different specifications, which can customize the most suitable solutions according to the actual application environment requirements of users.

5

FAN BLADE

Five-bladed fan

6

FAN BLADE

Six-bladed fan

ONE PIECE INNOVATIVE DESIGN EASIER INSTALLATION



Direct drive
motor system



Intelligent
control



Airfoil
blade



Energy
saving
tail



The new self-developed external rotor motor with large torque and permanent magnet synchronization replaces the traditional motor + gearbox reducer, achieving a high degree of integration and improving reliability and transmission efficiency. At the same time, the permanent magnet synchronous external rotor motor is adopted, with its own IMU configuration, to achieve the ESC active control strategy + coordinated regenerative braking strategy, driven by the motor directly; Any torque recovery or auxiliary braking within the peak torque can be satisfied. Aluminum alloy material is adopted in many parts to realize lightweight design.

SMART CONTROL SYSTEM

A control system: IP54 protection grade, no fear of external oil, dust, moisture interference, VVC control technology is simple to debug, high adaptability.

• B control system: fully enclosed design, IP66 protection grade, dust proof, waterproof, moisture-proof, high temperature resistant indoor and outdoor use in harsh environments.

• The system is positionless positive spin wave vector control, anti-electromagnetic interference, anti-radiation, small size, light weight and exquisite appearance.

• System function is simple, 4 keys operation is easy to understand (start, stop, acceleration, deceleration).

• The system comes with over-voltage, under-voltage, loss of voltage regulation, current, phase loss, overload, collision, overheating, lightning strike, abnormal and other protection.

• Customizable intelligent control methods: WLAN, Bluetooth, 4G, time, PID, centralized control.



Support mobile phone
intelligent control

STREAMLINED FAN BLADE + ENERGY SAVING

Fan blade:

It is made of high-strength aluminum-magnesium alloy for aviation by extrusion and stretching, and the wing is internally stiffened, which has the advantages of high strength, good toughness, light weight, long service life and safe use. The surface of the fan leaf is treated with T5+surface bright oxidation, which enhances the corrosion resistance and oxidation resistance of the fan leaf and can cope with special environmental operations.

Tail:

When the fan blade is running, the air will generate vortex at the end of the aerofoil fan blade. The tail wing can eliminate this part of energy loss, stabilize the fan operation, and make the air flow more consistent with the aerodynamic principle



FIVE LEVELS OF SECURITY LONG WARRANTY RUNNING SMOOTHLY

- 3

Years

Permanent magnet motor warranty period of 3 Years
- 18

Month

Controller warranty period of 18 Month



FIVE LEVELS OF SECURITY GUARENTEE



Fan blade bracket integration, to eliminate any accidental falling off and breaking of parts, to ensure the safety and reliability of the entire structure of the machine.



Anti-disengagement plate broken shaft protection structure and anti-bracket breakage protection design to ensure the long-term use of ceiling fans safety.



Aviation with highstrength aluminummagnesium alloy tensile blade, internal reinforcement structure, high strength, good toughness, light weight, long life, to ensure blade safety.



Wire rope traction device ensures motor stability and does not shake; it also prevents the whole machine from accidentally falling.



Automatic power off protection, to ensure that the blade accidental touch, timely safety shutdown.

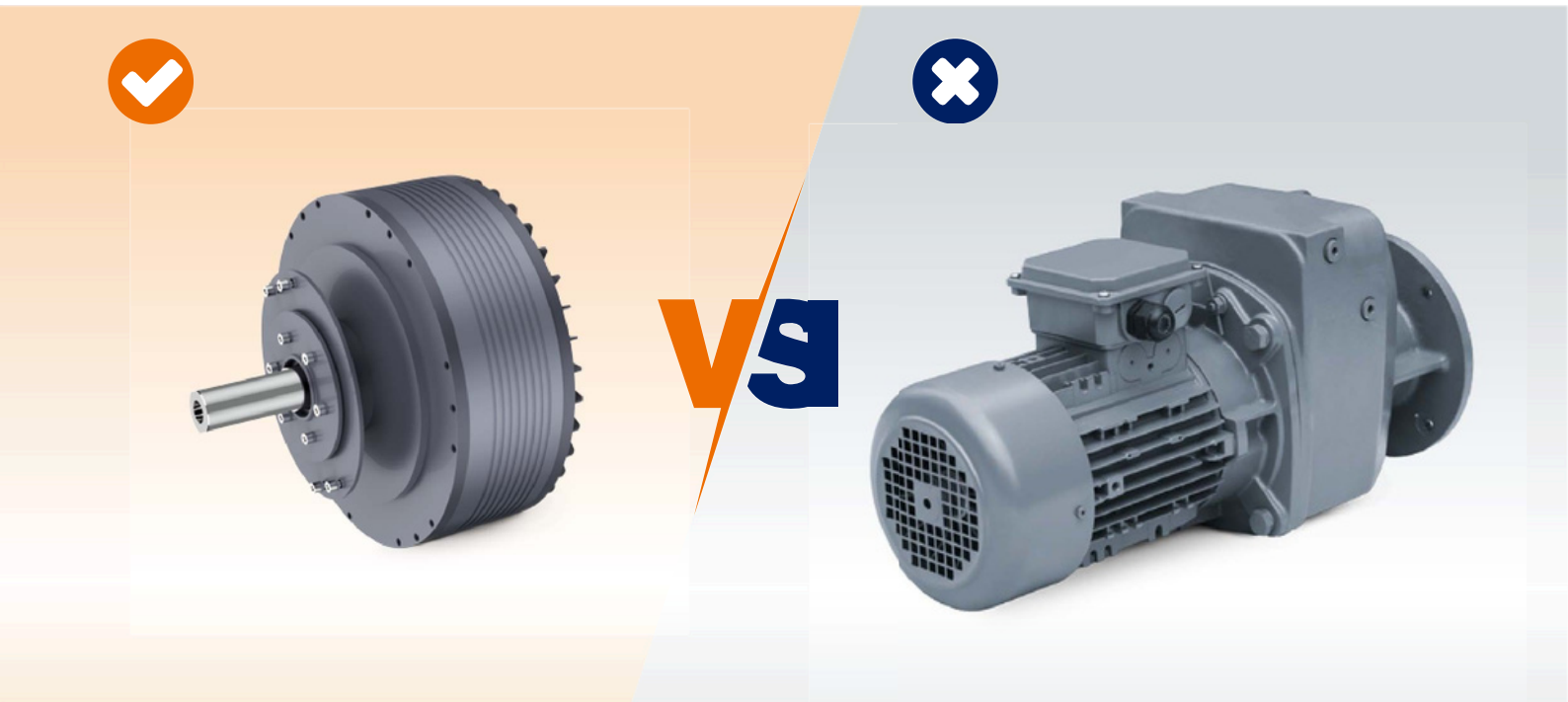
STRENGTH TABLE OF KEY PARTS

Motor Torque			Axis					Connection board				
	Max. torque (N·m)	Speed (r/min)		Tensile strength (kg)		Max. torque (N·m)			Tensile strength (kg)		Max. torque (N·m)	
0.37	< 40	100	Fixed shaft	> 5000(	> 100 Times)	2400(> 60 Times)		3m	1700(> 150 Times)	850(> 20 Times)		
0.75	< 100	80	Fixed shaft	> 5000(	> 100 Times)	2300(> 23 Times)		5m	1700(> 60 Times)	850(> 8 Times)		
1.1	< 260	55	Fixed shaft	> 5000(	> 100 Times)	2750(> 10 Times)		7.3m	4000(> 80 Times)	1400(> 4.6 Times)		
1.5	< 300	60	Fixed shaft	> 5000(	> 100 Times)	2650(> 8 Times)		7.3m	4000(> 80 Times)	1400(> 4 Times)		

Connecting rod					Blade holder						
		Tensile strength (kg)		Max. torque (N·m)			Bracket max. pressure (kg)		Blade weight (N·m)		
60	Connecting rod	4000(> 100 Times)		1100(> 25 Times)		3m/0.37		330kg×5		5.5kg×5(> 125 Times)	
60	Connecting rod	4000(> 100 Times)		1100(> 10 Times)		5m/0.75		330kg×5		5.5kg×5(> 50 Times)	
80	Connecting rod	4500(> 80 Times)		1200(> 4.6 Times)		7m/1.1		360kg×6		7.9kg×6(> 46 Times)	
80	Connecting rod	4500(> 80 Times)		1200(> 4 Times)		7m/1.5		360kg×6		7.9kg×6(> 40 Times)	

Expansion bolt strength				Mounting bolts							
		Tensile strength (kg)		Shear strength (kg)			Tensile strength (kg)		Shear strength (kg)		
P-M10		2350×4		588×4(> 75 Times)		M10(8.8)		4500×2		2000×2(> 125 Times)	
P-M10		2350×4		588×4(> 30 Times)		M10(8.8)		4500×2		2000×2(> 50 Times)	
P-M12		2650×6		863×6(> 40 Times)		M12(8.8)		6500×2		3000×2(> 57 Times)	
P-M12		2650×6		863×6(> 40 Times)		M12(8.8)		6500×2		3000×2(> 50 Times)	

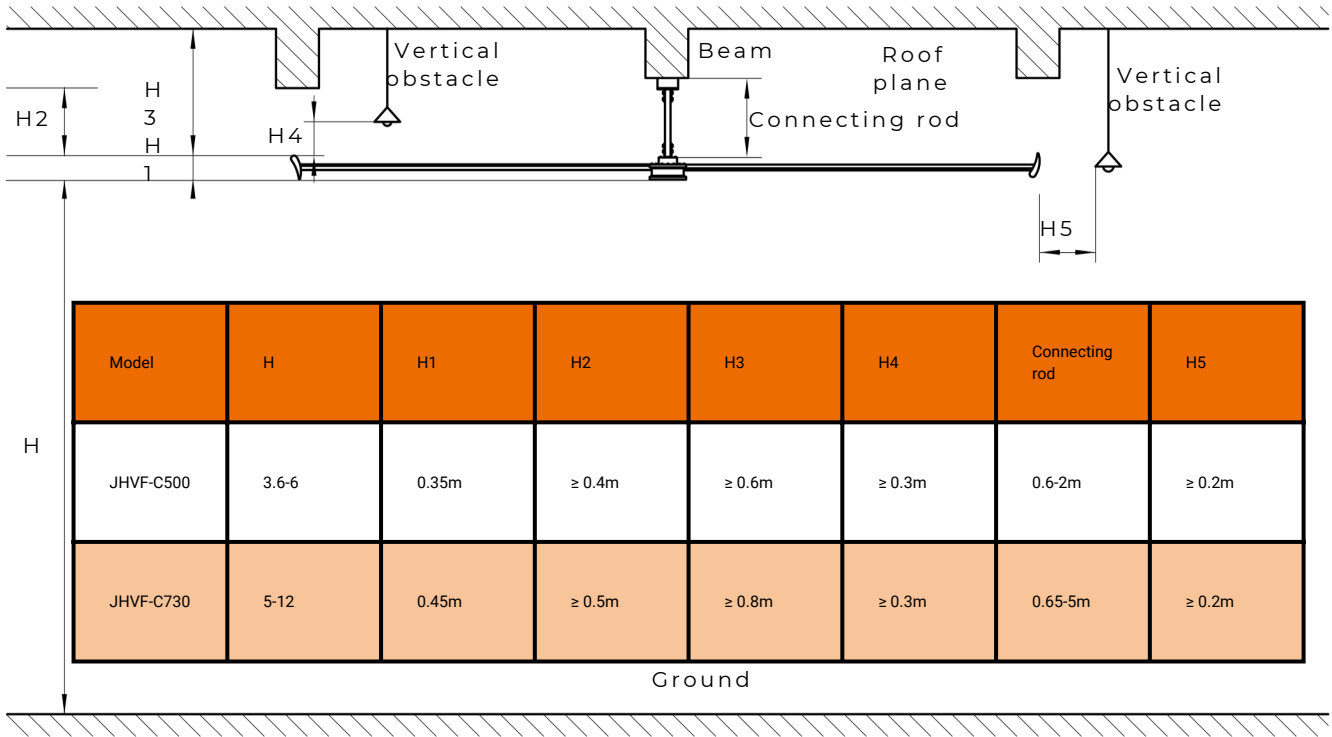
PERMANENT MAGNET MOTOR CEILING FAN VS GEAR BOX VARIABLE SPEED CEILING FAN



- Permanent magnet synchronous high temperature resistant outer rotor motor, super energy efficient.
 - Small size, light weight and simple structure
 - Low noise
 - Motor built-in overheat protection
 - Frequency modulation width (0~50HZ)
 - Direct drive motor maintenance free
 - No running hazard
- The use of asynchronous ordinary motor + gear box consumes a lot of energy.
 - Large and heavy
 - Loud noise
 - Complex structure
 - FM narrow (25~50HZ)
 - Need frequent daily maintenance (change seals, add gearbox oil)
 - There are hidden dangers such as gearbox leakage

Model	JHVF-C500	JHVF-C750	JHVF-C750
Diameter (m)	5	7.3	7.3
Diameter (ft)	16	24	24
Power (kW)	0.75	1.1	1.5
Horsepower (HP)	1	1.5	2
Voltage (V)	220-240/380-460	220-240/380-460	220-240/380-460
Frequency (Hz)	50/60	50/60	50/60
Air volume (m³/min)	10000	13000	15500
Rotating speed (rpm)	80	55	60
Number of leaves (Pcs)	5	6	6
Noise (dB)	38	38	38
Motor weight (kg)	22	36	42
Ceiling fan weight (kg)	62	107	113
Effective area (m²)	300	700	850
Coverage area (m²)	500	1500	1700

INSTALLATION DATA



HANGING APPLICATION CASE

LARGE LOGISTICS WAREHOUSE AND DISTRIBUTION CENTER

Improve air quality, dehumidification and cooling, prevent storage from corrosion and decay, and improve working environment.



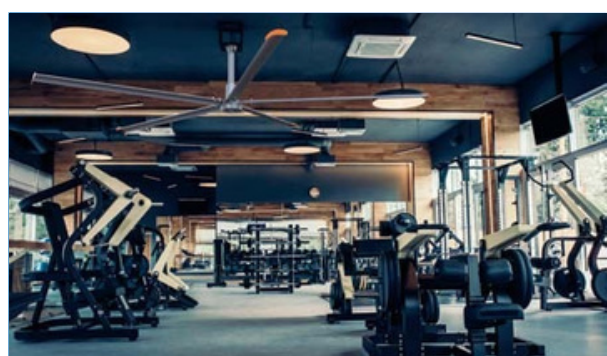
SUPER-LARGE PLANT

Permanent magnet large ceiling fan is used in the workshop of machining, automobile repair, aircraft assembly, shipbuilding and other industries, which can create flow wind in large space, improve environmental comfort, and improve labor efficiency of employees



LARGE-SCALE PUBLIC PLACES

Permanent magnet large ceiling fan is used in stadium, railway station, airport and other places with large flow of people, which can promote air flow, dispel odor and create comfortable public environment.



COMMERCIAL AREA

Permanent magnet large ceiling fan is used in fitness hall, playground, food stall and other business places. Slow and steady breeze can make people happy, creating a comfortable environment for leisure and shopping, stimulating potential purchasing power and consumption



ANIMAL HUSBANDRY

Permanent magnet large ceiling fan is used in dairy farms, feedlots, hatcheries, etc. Can create a good ventilation environment, improve air quality, damp and damp, dispel odor, reduce the incidence of disease of livestock, improve poultry, eggs, milk, meat production, quality.