



Commitment for HVLS Fans & Breeze Air Tech

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HVLS Fans Leading Brand
Nice Quality & Best Service

Suzhou Optimal Machinery Co.,Ltd.

Who we are

OPTFAN---Since 2007,commitment for High Volume Low Speed Fan & Breeze Air Technology.

As one of few professional manufacturers in the HVLS FANS field with R&D,production, engineering,program consultation,installation,sales and after sale service as one.

13 Years only devoted to HVLS fans, has served more than 5000 customers in domestic market , over 300 of them are the world top 500 enterprises. In overseas market , OPT FAN has exported to Canada , United States, Mexico ,Japan,Australia and other 30 countries .

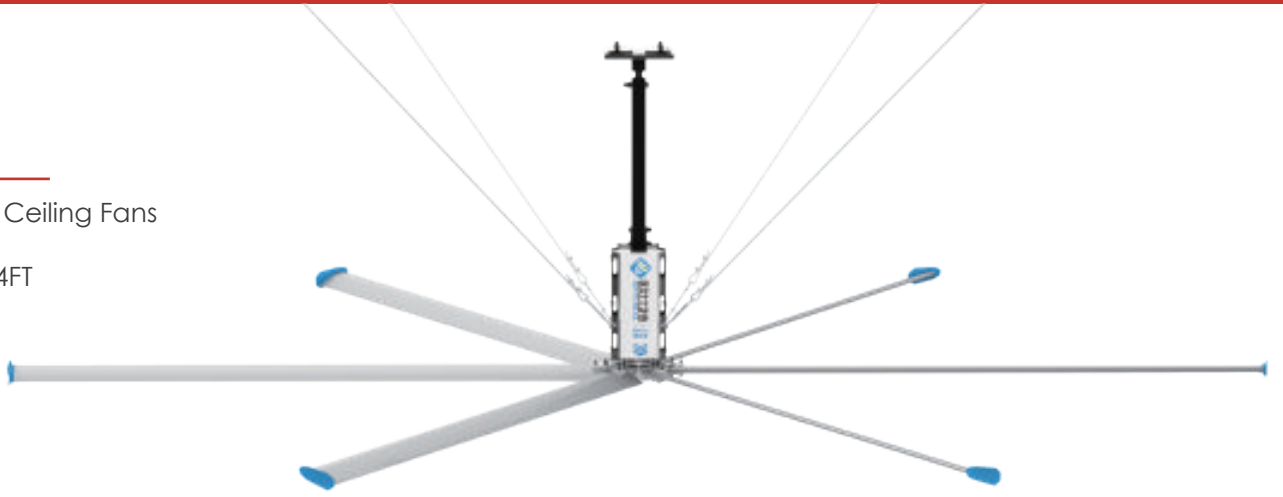
Optfan sincerely hope work together with you to develop the HVLS Fans market .



KQ Series

HVLS Industrial Ceiling Fans

Diameter:12-24FT



Navigator Series

PMSM Direct-drive HVLS Ceiling Fans

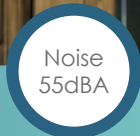
Diameter: 8-14FT

AirWalker Series

HVLS Portable Mobile Fans

Diameter:2.6M





Design

- High energy efficient 6 airfoil blades
- Profili V2 software simulated airfoil blades
- Drastically increase efficiency and air flow
- Create same air movement as 8 or 10 blades with 40% less power
- Fewer blades, less torque, longer fan life
- Danfoss VFD insures the safety and smart control

Mounting & Details

- World class cocaxial helical gear reducer from Nord
- High energy-efficient motor with IE2 standard
- Designed for over 10 times the force and stress the fan generate
- Solid design with 40 years in the most demanding applications worldwide
- Using American AA7075 super-hard aluminium alloy for fan hub



BENEFITS

Perfect ceiling fan for any industrial or commercial place

TECHNICAL SPECIFICATION

Model	Fans Diameter	Motor Power (KW/HP)	Speed (Rpm)	Air volume (CFM)	Max. Coverage (Sqm)	Weight (Kg)	Noise (dBA)
OM-KQ-7E	7.3m/24ft	1.5 /2.0	20-53	476,750	1600	128	51
OM-KQ-6E	6.1m/20ft	1.5 /2.0	20-53	406,120	1380	125	52
OM-KQ-5E	5.5m/18ft	1.5 /2.0	20-64	335,490	1050	116	53
OM-KQ-4E	4.9m/16ft	1.5 /2.0	20-64	278,990	850	111	53
OM-KQ-3E	3.7m/12ft	1.5 /2.0	20-75	215,420	630	102	55

*All the fans were tested by running on maximum speed in expert lab, actual result on sounds

*Weight excluded munting bracket and extension tube, and noises may vary due to different environments and surroundings.

1 Outstanding coverage without draft, fully encompassing air circulation.

2 Super energy saving, cut the HVAC and air condition cost up to 30% or replace them.

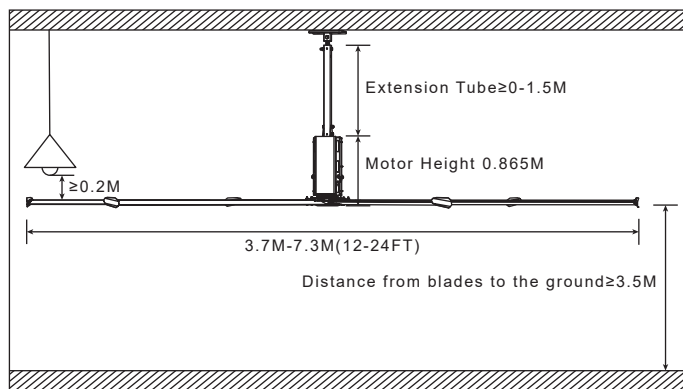
3 Efficient cooling effect makes people feel 5-7°C cooling, improve staff productivity.

4 During the winter, HVLS FAN mix the hot air produced by the heaters with the cold air, reducing 30% heating costs.

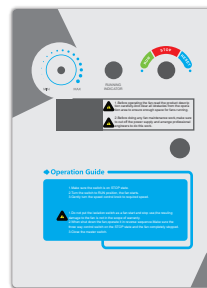
5 Consistent ventilation keep wet and moist area dryer and prevent hot air condensation.

6 Warranty (whole fan unit 3 years, fan blades and hub for lifetime).

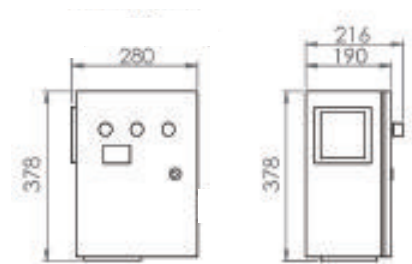
FAN DIMENSION



Controller box



Smart Control



APPLICATION

- Public
- Commercial
- Industrial
- Much more





Move 4-5 Times Air Flow
than Standard Ceiling Fan

8-14FT PMSM Direct Drive Ceiling Fans



Design

- PMSM Gearless Direct Drive < 39dBA
- Fan size from 8-14ft
- High performance: energy saving
- Save up to 30% energy bill
- Summer cooling & ventilation
- Ultra-efficient Aluminum Aerofoils blades and Robust construction

Mounting & Details

- Designed with user's comfort and safety in mind
- Blends well into different construction profiles
- Safety cables secures the fan to the mounting structure
- Fans are tested and simulated for best performance
- Double pivot adjustable mounting hardware



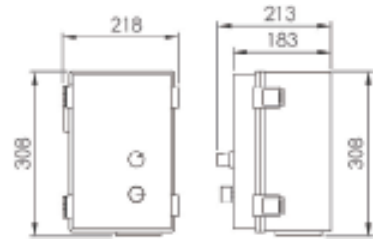
BENEFITS

Perfect ceiling fan for any residential or commercial space.



CONTROL SYSTEM

Multi-function control



COLORS



Wood

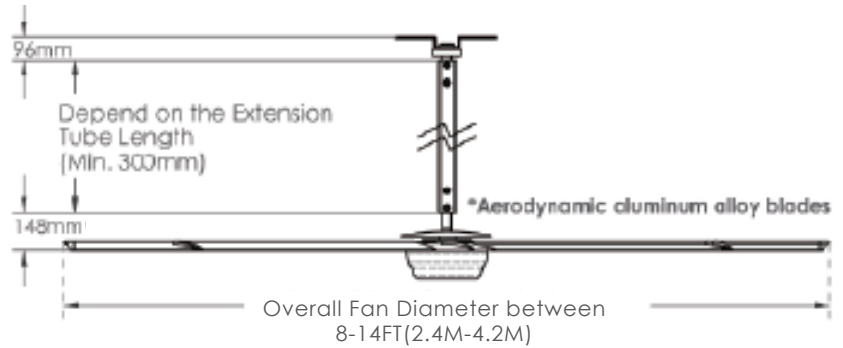


Silver



Black

FAN DIMENSION



- 1** PSMS Gearless DD motor with low cost investment and less power consumption and maintenance than most traditional cooling methods.
- 2** Energy saving for cooling and ventilation Provide eco-friendly solution.
- 3** Assist in the removal of thermal stratification.
- 4** Help reduce humidity and condensation on floors and equipment.
- 5** Substantial energy savings on your air conditioning costs, up to 20% cost saving of your energy bills.
- 6** Warranty (Whole fans 2 years, fan blades lifetime)

Technical Specifications

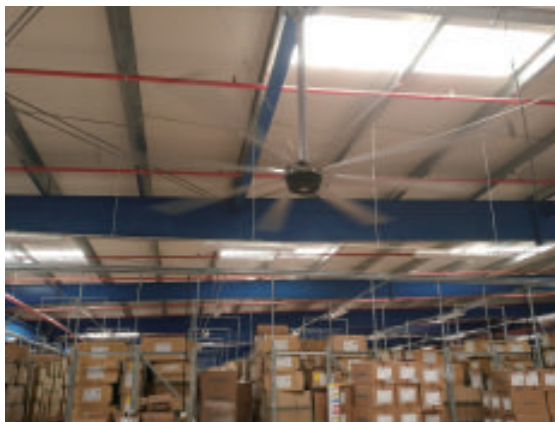
Model	Diameter	Weight	Max speed	Air Volume(CMM)	Input power	Sound at max speed
NV-BLDC8	8 ft (2.4 m)	(31 kg)	120 RPM	1500	200-240 VAC, 1 Φ, 50/60 Hz	< 39 dBA
NV-BLDC10	10 ft (3 m)	(35kg)	100 RPM	2400		
NV-BLDC12	12 ft (3.6 m)	(38 kg)	90 RPM	3100		
NV-BLDC14	14 ft (4.2 m)	(41 kg)	80 RPM	3800		

*Weight does not include mount or extension tube.

*Fans are sound tested at maximum speed in a laboratory environment. Actual results in field conditions may vary due to sound reflecting surfaces and environmental conditions.

APPLICATION

- Public
- Commercial
- Residential



AirWalker Series World Largest HVLS Portable Floor Fan



**Move 2-3 Times Air Flow
than other brands**

2.6M High HVLS portable floor fan



Design

- High efficient 6 blades inspired by aviation airfoil
- Largest fan diameter 8.8ft provides super air flow
- Easy to move ,simple to install
- Less energy cost ,energy saving up to 30% in cooling and heating
- Long service life more than 15 years

Mounting & Details

- World class coaxial helical gear reducer from NORD,IE2 standard
- Danfoss variable speed control ,safety and intelligent
- Slim-line cage exceeds safety standards and protects curious fingers
- American AA7075 aluminium alloy for fan hub with cold forged process,more durable
- Unique winglets and motor design reduce the noise to 48dBA

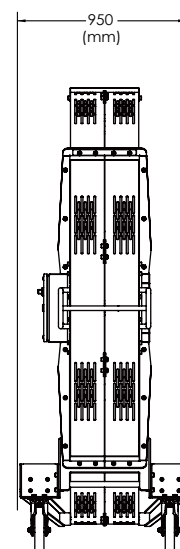
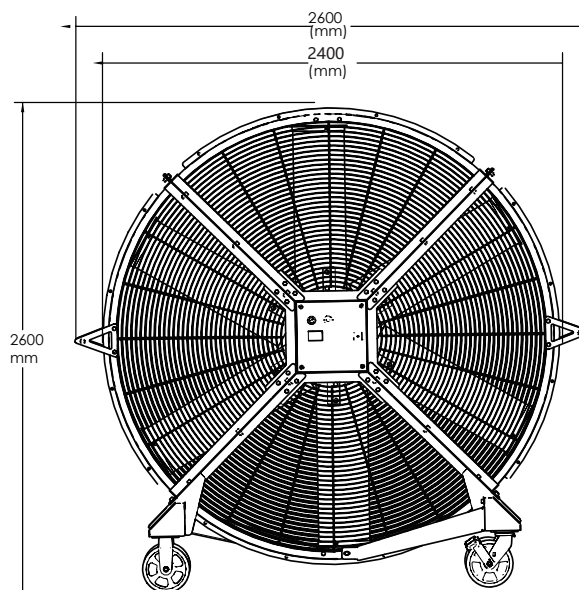


BENEFITS

Largest size , maximum air flow

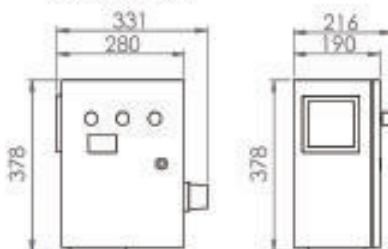
TECHNICAL SPECIFICATION

Model	OM-KT-24
Size(W*H*D)	950x2600x2600(mm)
Max Speed	186RPM
Range of Speed	0.9m/S-7m/s
Air Volume	2280CMM
Motor	Axial flow
Motor Power	1.1KW
Inner Power	380V/220V 1P/3P
Full-load Current	2.15A
Protection Level	IP55 (Motor Drive System)
Noise	48dBA
Weight	216kg



CONTROL SYSTEM

Danfoss VFD



Colors

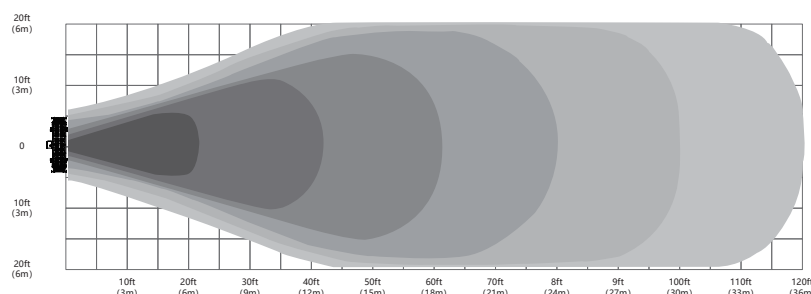


Yellow



Black

Coverage



- 1 Super large coverage up to 40m equals 1.5 basketball court and 0.4 football pitch , only 1.1kw.
- 2 Low energy cost and quick return on investment, save you much money compared to the traditional pedestal fan.
- 3 Perfect ability of drying dehumidification ,remove waste gas and dust.
- 4 Durable design make its service life be more than 15 years, save you more money on facilities.
- 5 Warranty (whole fan unit 3 years ,fan blades and hub for lifetime)



Application

SuperWing

▶ High Performance and Energy Saving



SUPERWING SERIES PMSM GEARLESS MOTOR HVLS FANS



Motor Free
Maintenance



Noise Level
39dBA



Smart Controller

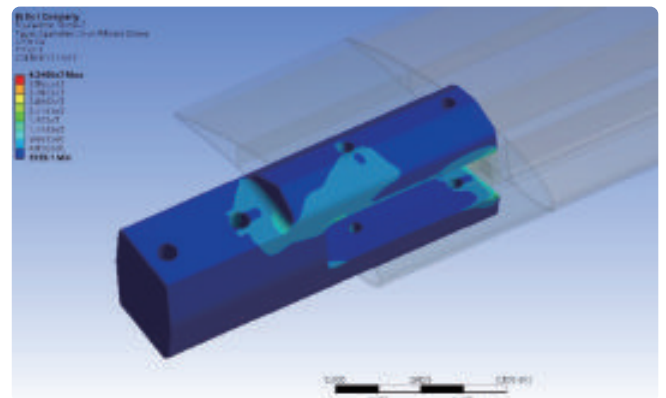


Efficiency IE4



Design

- PMSM gearless direct drive Motor, Maintenance Free
- Fan size from 16-24ft, motor max torque 300N.m
- World's strongest rare earth magnets (NdFeB, Grade N38SH), high electrical efficiency >84%
- High performance: energy saving
- Advanced smart controller provides easy integration to BMS and fire alarm system
- Ultra-efficient Aluminum Aerofoils blades and Robust construction



Construction & Mounting

- Designed with user's comfort and safety in mind
- Static load components with unlimited life design
- Blends well into different construction profiles
- Multiple protections secure the fan to the mounting structure
- Fans are tested and simulated for best performance
- Double pivot adjustable mounting hardware



Human-body Cooling



Natural Air Ventilation



Dehumidification



Large Airflow Coverage

BENEFITS

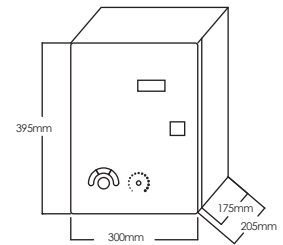
Perfect ceiling fan for any residential or commercial space.

- 1** PMSM gearless DD motor with freer maintenance, lower cost investment and less power consumption than most traditional cooling methods.
- 2** Very quiet with noise level less than 39dBA, ideal for sounds concerns environment.
- 3** Assit in the removal of thermal stratification, help reduce humidity and condensation on floors and equipment.
- 4** One unit 24ft fan equal to 50 sets small size fans, up to 92% cost saving of energy bills.
- 5** Substantial energy savings on your air conditioning costs, up to 50% cost saving of energy bills.
- 6** Warranty (Whole fans 2 years, fan blades lifetime).

CONTROL SYSTEM



Multi-function control



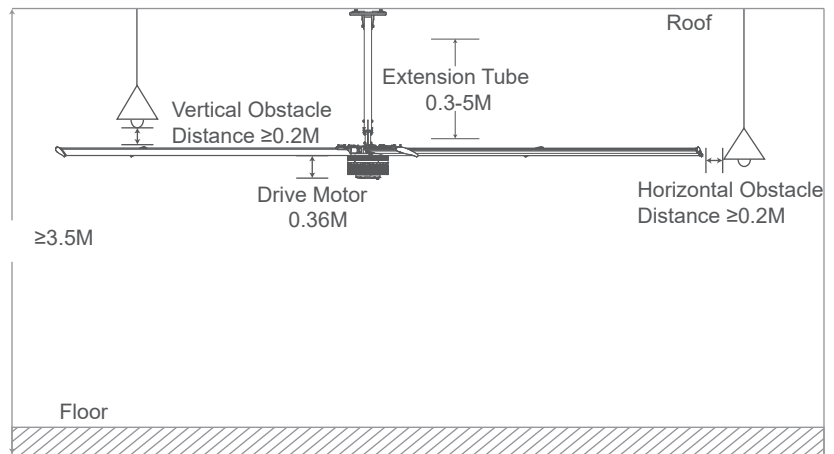
SMART CONTROLLER FEATURES



central control
BMS system
fire alarm system



FAN DIMENSION



Technical Specification

Diameter (FT/M)	Model	Voltage (V)	Current (A)	Speed Range (RPM)	Rated Power (KW)	Air Volume (CMM)	Weight (KG)
16ft(4.9m)	OM-PMSM-16	220 1Φ	3.6	10-75	0.8	11,800	109
18ft(5.5m)	OM-PMSM-18	220 1Φ	4.1	10-65	0.9	12,500	112
20ft(6.1m)	OM-PMSM-20	220 1Φ	3.27	10-60	1.1	13,200	115
24ft(7.3m)	OM-PMSM-24	220 1Φ	4.69	10-55	1.5	15,000	121

*Weight does not include mounting hardware or extension tubes.

APPLICATION

- Agriculture & Dairy
- Warehouse
- Manufacturing
- Public & Commercial area
- Food Court
- Metro Station
- Aviation
- Fitness Center



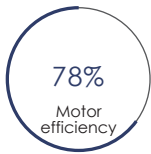
SuperWing Series

PMSM Direct-drive HVLS Ceiling Fans

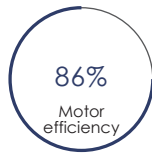
Diameter: 16-24FT



Advantage 1: Motor drive rate is greatly improved

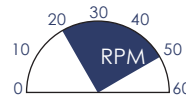


Common asynchronous motor

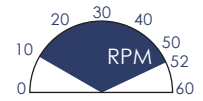


PMSM motor

Advantage 2: Adjustable speed range is larger



other fans



Superwing Series

Advantage 3: Low noise and ultra quiet

The Superwing series uses the latest PMSM technology to reduce noise to 39dBA for the first time, truly low noise. The noise of the asynchronous motor deceleration machine mainly comes from the excitation noise of the motor casing and the friction of the gear of the reducer. The noise standard is usually about 45-50dB.

Noise standard **≤39** dBA
PMSM motor technology

~~Noise standard **45-50** dBA~~
~~Asynchronous motor gearbox~~

Advantage 4: Powerful motor, Big air volume

The Superwing series adopts the latest PMSM technology, low-speed high-torque drive motor, which can meet any torque recovery or auxiliary braking within the peak torque, eliminating the friction energy consumption of the gear reducer, and the maximum torque reaches 300N.m. The most powerful advantage of the Superwing series is its air volume, which reached 528,675 CFM at full load, surpassing the market's common product air volume by 30%, which has been unanimously recognized by customers and highly evaluated by the market.

300 N.m
Maximum torque

528,675 CFM
Maximum air volume

Advantage 5: Thermal design

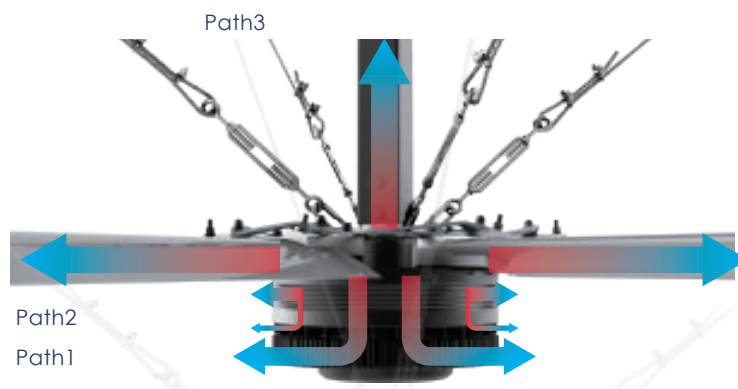
Efficient cooling system (heat dissipation surface area up to 2.16m^2), perfect solution to the contradiction between performance and heat in PMSM technology.

In the heat dissipation system, through the two methods of contact heat dissipation and radiation heat dissipation, the ingenious structural design selects the high-density alloy aluminum material of the high heat conduction system to achieve the perfect heat dissipation effect and ensure the longer life characteristics of the motor.

Path 1: Contact heat dissipation

Path 2: Heat transfer through the radiation to the rotor disk and the connection structure

Path 3: Passing heat through the fixed axial upper structure



Advantage 6: Maintenance free

The Superwing series PMSM motor adopts the principle of electromagnetic induction, double-bearing transmission, completely sealed, and truly maintenance-free. The products commonly used in the market with gear transmission technology need to replace the gearbox lubricating oil regularly, and the professional climbs up and disassembles the work. The cost will add.



Electromagnetic induction



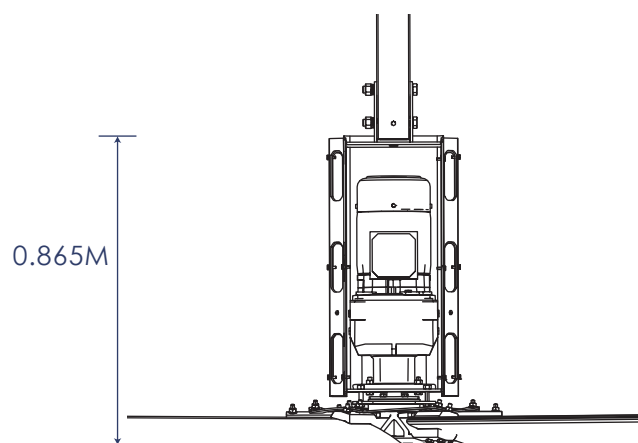
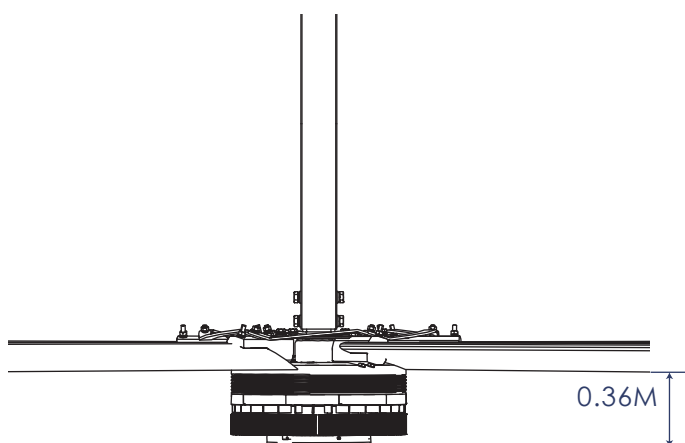
Double bearing



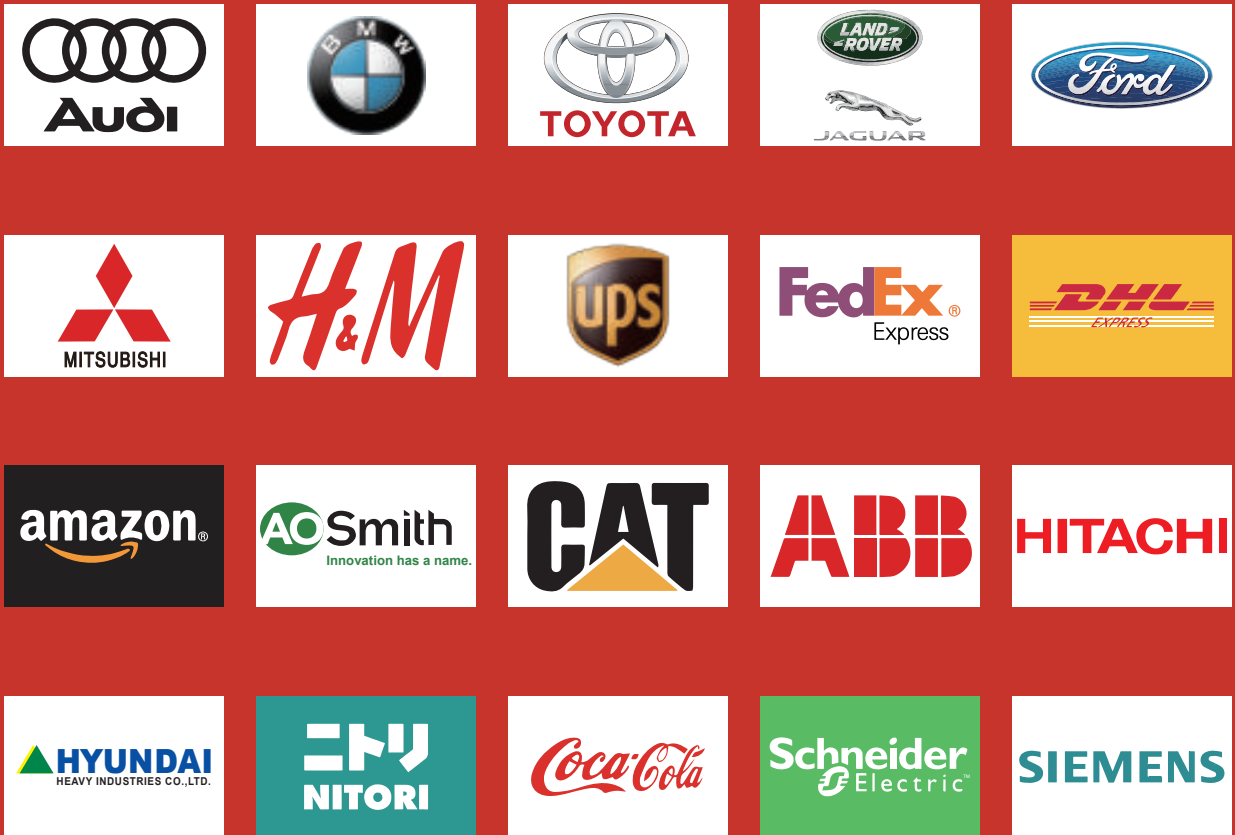
Completely sealed

Advantage 7: The motor is small and exquisite

The Superwing series mainframe is small and exquisite, the height of the main unit is only 0.36M , which greatly reduces the installation space requirements. Only 0.8M can install a "super wing" series fan. The common industrial fan host on the market is large, and the installation space needs to be more than 1.2M , which limits its installation.



Cooperative partners



OPTFANI



Application

Food courts
 Shopping Malls
 Discotheques
 Sports Halls
 Multipurpose Halls
 Athletic Stadiums
 Community Centers

Exhibition Halls
 Schools
 Places of Worships
 Warehouses/ Workshops
 Manufacturing Facilities
 Airports
 Military Facilities


Aircraft Hangars
 Hotel Foyers
 MRT Stations
 Bus Interchanges
 Large Tents
 Gymnasiums
 Country Clubs


Restaurants
 Wineries
 Agriculture/ Dairy
 Pet Care Centers
 Temporary Shelters
 Distribution Centers
 Defence Shelters



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