



ZEPHYRUS Z

Stay Cool
stay Smart

Kale Environmental Technology (Shanghai) Corporation A Pioneer in Sustainable Ventilation Solutions

Company Background

Founded in 2010 and headquartered in Songjiang, Shanghai, Kale Environmental Technology (Shanghai) Corporation is China's only listed company specializing in the integrated R&D, production, sales, and service of HVLS (High-volume low speed) fans. With a global footprint, KALE FANS is supported by a world-class technical team dedicated to advancing energy-efficient technologies.

Core Competitiveness

Innovation Leadership: KALE FANS has over 15 years' experience in the HVLS sector over 100+ patents and a self-developed, self-produced motor.

Global Recognition: Certified to international standards (CE, CB, UL, SAA, KC), ensuring quality, safety, and environmental compliance.

Unmatched Scale: Operates the world's largest HVLS fan production base, including a 80,000m² facility in Jiaxing, Zhejiang, and a 36,000m² R&D hub in Shanghai, enabling tailored ventilation solutions for diverse industrial needs.

Quality Management System: KALE FANS products are with excellent quality and well-developed QMS.

Mission & Vision

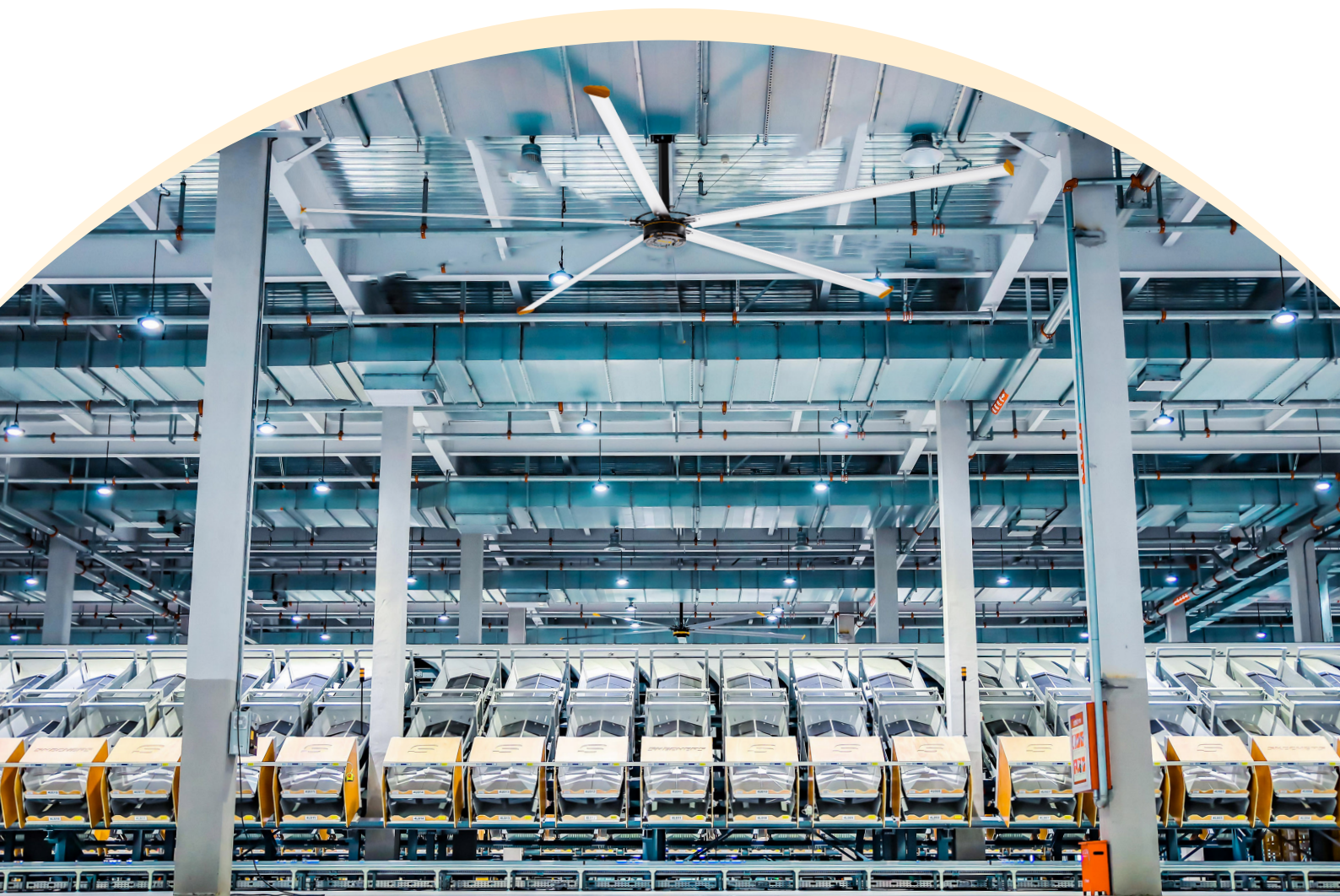
Guided by our vision of 'Using technology to improve the environment and build a sustainable, low-carbon world', we continue to enhance product innovation to provide excellent customer value. KALE FANS is committed to enabling industrial and commercial progress through energy-saving solutions that prioritize sustainability, efficiency and long-term customer success.



ZEPHYRUS Z



Zephyrus Z fan combines nature and technology to provide rapid cooling and a sense of natural comfort, even on the hottest summer days. With its striking design and outstanding performance, it has more applicable places and higher cost efficiency.



KEY FEATURES

Large Coverage Area

The coverage of one 7.3m Zephyrus Z fan is equivalent to 50 units 0.75m powerful small fans.



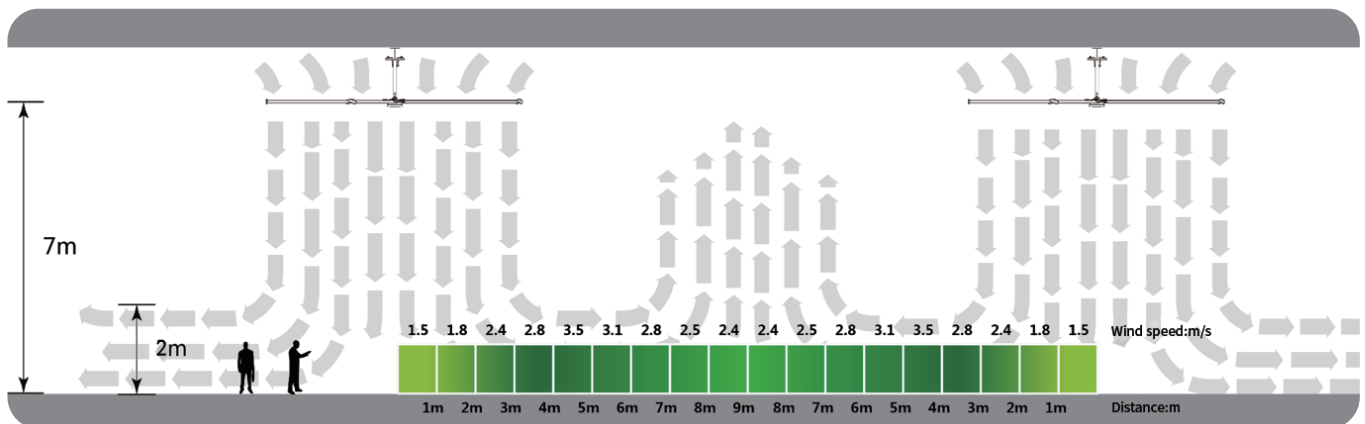
Energy Saving



Achieving considerable energy savings compared to traditional fans, this solution is specifically designed for seamless integration into HVAC systems, boosting overall cooling efficiency.

Comfortable Natural Wind

A large volume of three-dimensional natural wind is more comfortable and healthier than mechanical wind.



Kale Standard Controller



- IP54 Water-proof & Dust-proof
- Self-design by KALE FANS, especially designed for HVLS controller
- Terminals for BMS/Fire alarm
- 1-on-1 control

KEY FEATURES



Advanced PMSM Technology

Patented internal rotor structure

Zephyrus Z fan uses the industry's unique internal rotor PMSM(permanent magnet synchronous motor). This optimises the electromagnetic parameters and structural dimensions of the motor, making it smaller and lighter.



Super protection

Zephyrus Z fan has a patented sealing structure that provides IP65 protection against dust, water and corrosion.

The double bearing support and full sealing design prevent lubricant ageing and enable operation in high-temperature, high-humidity and other harsh conditions.



Maintenance free & low maintenance cost

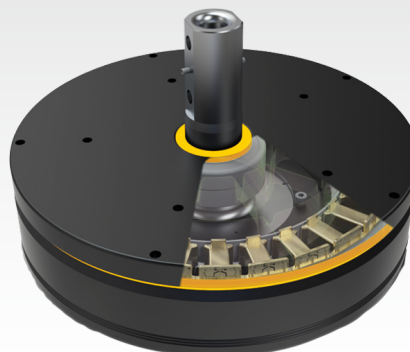
No gearbox, no exposed transmission parts, eliminating gear oil replacement, parts wear and maintenance, reducing the risk of working at height and labor costs.



Big torque

NdFeB Rare-Earth magnets, copper wire with 99.99% purity grade.

The maximum torque of the Zephyrus Z motor is 200 N·m.



Fan Blade

- With multiple size configuration Zephyrus Z fan can be applied both in big open spaces and narrow spaces.
- KALE FANS blades have a new fixing structure with built-in safety parts. The two-set reinforcement design provides better rigidity and multi-dimensional security.

1. Airfoil blade

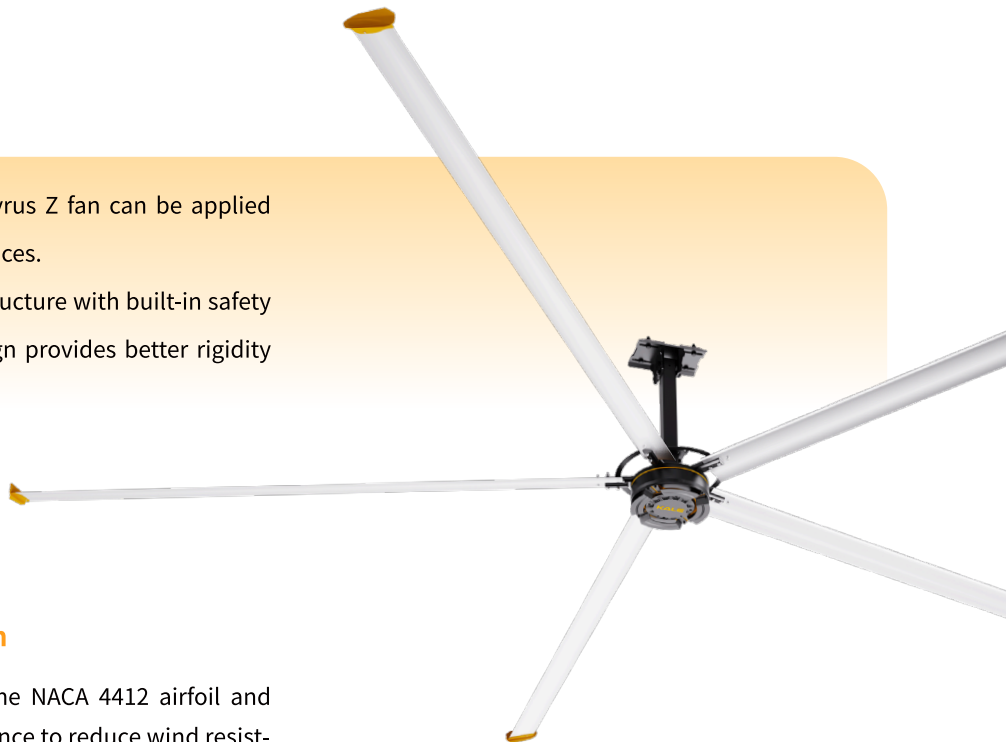
High-efficient fan blade design

KALE FANS airfoil blade inspired by the NACA 4412 airfoil and offers excellent aerodynamic performance to reduce wind resistance during fan operation.

Long service time & corrosion-resistant

The fan blade is made from a high-strength magnesium-aluminium alloy (6063-T6).

The electrostatic spraying process used on the fan blade's surface makes it corrosion-resistant, enabling its use in harsh conditions.



2. External connector & internal safety part system

Super strong load-bearing

KALE FANS thickened external connector with internal safety part withstands 300KG weight.

Double protection

- 1.The external connector is made of aviation hard aluminum 7075-T6, with a tensile strength of 595 MPa.
- 2.Safety internal connector: wear-resistant & silent.

Millions of times tested

KALE FANS blade system stands more than a million times of overload fatigue experiments, overcomes the problem of long-term operation metal fatigue and brings you a long-lasting and stable excellent experience.



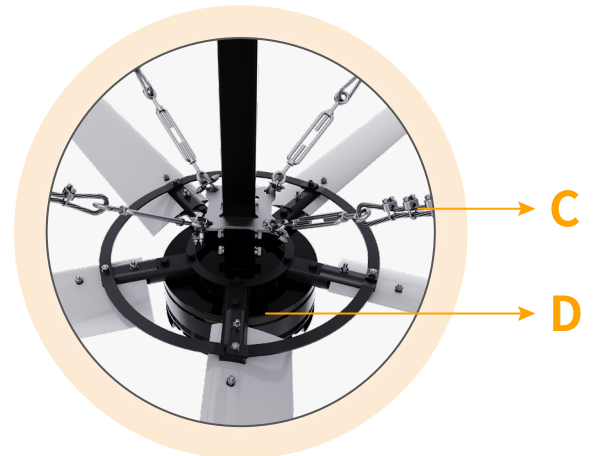
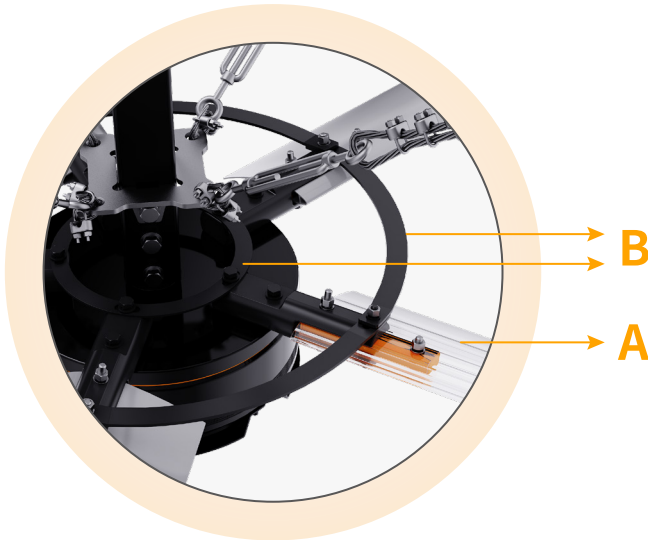


A Fan Blade Connector System

- 7075-T6 High strength Aviation magnesium aluminum alloy external connector
- Internal Safety Bar with Plastic Cover (6063 aluminum alloy & PA66 Plastic)
- Grade 10.9 fasteners
- Teflon layer reduce the conflict between blade and connector and relating noise

B Two Sets Blade Retainer

- Blade retainer *5 pieces
- Safety ring connects the 5 fan blades into one unit



C Steel Guy Wire System

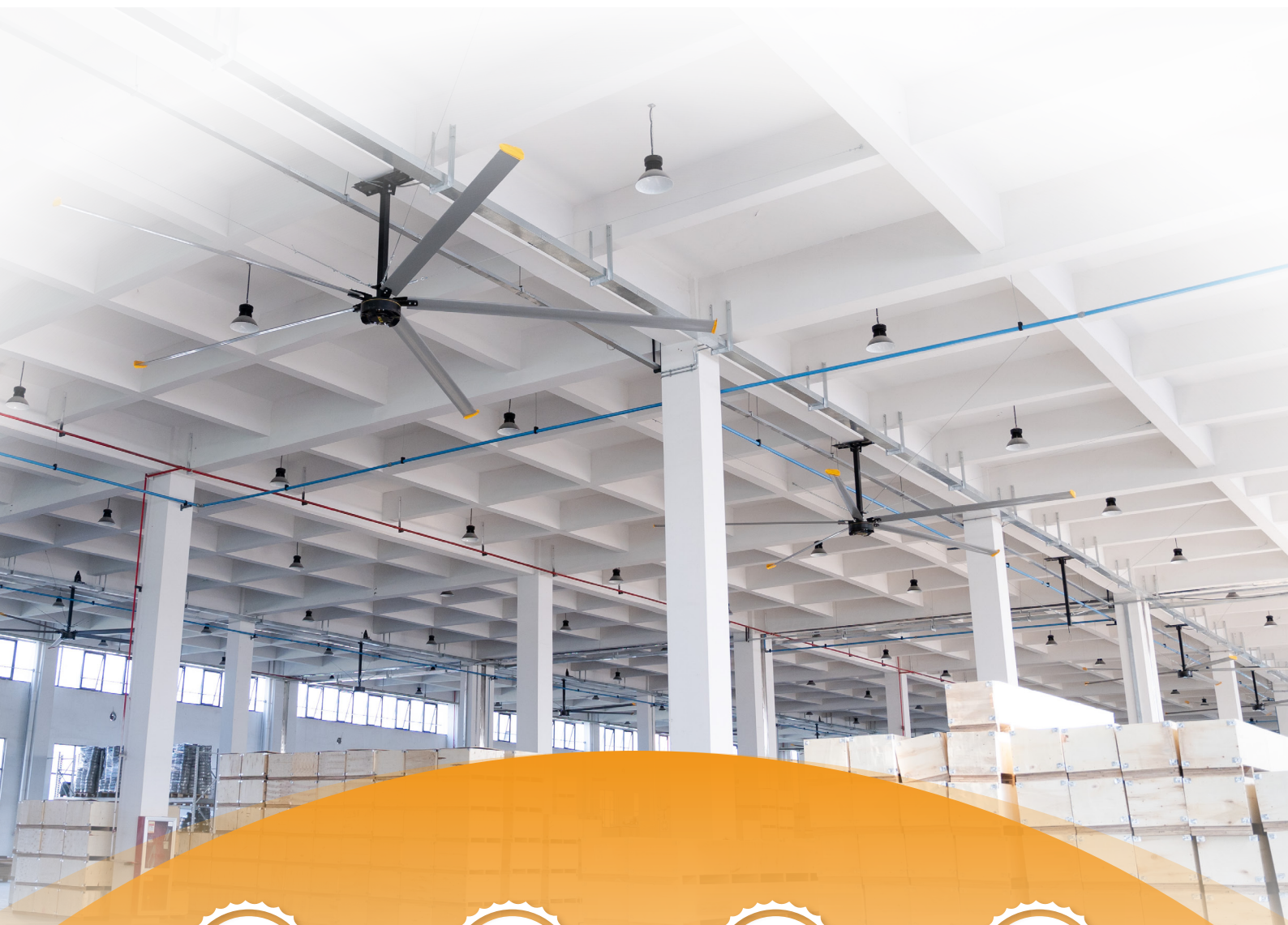
- 4 sets of steel guy wires & 1 set steel safety rope (over 1 tons force limit) are used to connect the motor to the building structure firmly, provide an extra safe for the fan.
- 3 pairs of buckles at both ends of steel guy wire for secure fastening.

D Motor Anti-fall System

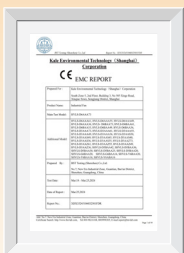
- 6 groups of grade 8.8 solid fasteners ensure the firm connection between motor and primary suspension system.
- 1 integrated shaft hub ensures that even in extreme cases, no part inside the motor will fall out.

TECHNICAL PARAMETERS AND CERTIFICATIONS

Model	Size	Air volume	Max speed	Fan weight	Power	Full load current
HVLS-D3AAZ73	24ft(7.3m)	13600m ³ /min	54RPM	100kg	1.3kW	4.8A/220V
HVLS-D3AAZ61	20ft(6.1m)	12200m ³ /min	64RPM	96kg	1.2kW	3.8A/220V



CE Marking
(EU Compliance)



KC Certification
(Korea Safety)



SAA Certification
(Standards Association of Australia)



CB Scheme Certificate
(International Safety)



APPLICATIONS

● **Industrial:**

Warehouses, Manufacturing plants, Logistics centers

● **Commercial:**

Shopping malls, Airports
Church, School

● **Agricultural:**

Livestock barns, Greenhouses,
Equestrian arenas





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