与众不同
Distinctive

2026

中联传输公司介绍

Introduction to Zhonglian Transmission Company

Prepared by: Marketing Department, Zhonglian Transmission

中联传输（北京）科技技术有限公司

ZhongLian Transmission (Beijing) Technology Co., Ltd.

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PART 1 企业简介

Company Introduction

企业简介

About Us

Distinctive

ZhongLian Transmission (Beijing) Technology Co., Ltd.

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Distinctive

Zhonglian Transmission (Beijing) Technology Co., Ltd. is a technology-oriented company specializing in the design, R&D, manufacturing, and customized services of precision conductive slip rings.

Adhering to the spirit of craftsmanship, the company has been deeply engaged in the field of slip ring development and manufacturing for many years. It remains committed to research in professional domains such as precision machining, friction and wear, electrical contact materials, liquid metals, optoelectronic coupling, and wireless transmission.

Zhonglian has established several dedicated laboratories, including a mechanical and electrochemical coating lab for metallic materials, a slip ring friction pair compatibility lab, and an electromagnetic interference and data transmission lab, all driving the company's rapid growth through quality and innovation.

We provide high-quality slip ring equipment, technical services, and customized solutions for a wide range of applications and technical requirements.

Continuously striving for excellence, we create value for our customers and work tirelessly toward our shared vision. We maintain close collaboration with partners, clients, research institutions, and industry experts, upholding the values of "Innovation, Collaboration, Mission, Excellence, and Win-Win."

Zhonglian advocates a differentiated approach, emphasizing cultural, technological, marketing, intellectual, and cooperativeinnovation. We look forward to mutual learning, mutual support, shared success, and achieving brilliance together with our partners.

发展历程

THIS TEMPLATE DESIGNED FOR FEI ER SHE JI

2016年

2016年9月14日，中联传输成立于北京市房山区，专注于风电领域技术研发，是国内最早研发、设计和制造风电变桨滑环的企业之一。
Zhonglian Transmission was founded on September 14, 2016, in Fangshan District, Beijing. The company focuses on technological research and development in the wind power sector and is one of the earliest enterprises in China to engage in the R&D, design, and manufacturing of pitch slip rings for wind turbines.

2019年

2019年通过ISO 9001质量管理体系认证，并取得4项风电设备相关行政许可。
In 2019, the company obtained ISO 9001 Quality Management System certification and acquired four administrative licenses related to wind power equipment.

2020年

成功研制出液态金属滑环，公司具有多种滑环技术类型，可满足不同客户需求。不断技术突破，公司进入快速发展阶段。
The company successfully developed liquid metal slip rings and now offers a wide range of slip ring technologies to meet diverse customer needs. With continuous technological breakthroughs, the company has entered a phase of rapid development.

2023年

业务扩张，研制出新产品，碳刷、集电环、液压滑环、编码器、风速风向仪等，开始全国范围内进行市场推广。
With business expansion, the company has developed new products including carbon brushes, collector rings, hydraulic slip rings, encoders, and wind speed and direction sensors. Nationwide marketing and promotion efforts have been launched to reach a broader market.

2025年

中联传输作为国内歌美飒、维斯塔斯备品配件成熟供应商。
战略方向：加速布局海外风电市场
Zhonglian Transmission is a well-established spare parts supplier for wind turbines of Siemens Gamesa and Vestas in China.
Strategic Direction: Accelerating expansion into the global wind power market.

PART 2 产品介绍

Product Introduction

产品介绍
Product Introduction

滑 环 Slip Ring

变桨滑环/集电环/液压滑环/光纤滑环

Pitch Slip Ring/Collector Ring/ Hydraulic Slip Ring/Fiber Optic Slip Ring

滑环由定子和转子两个主要部分组成，也就是说的环片和电刷，环片和电刷旋转接触并保持一定的压力，传输电压、电流及数据等信号，不同类型的滑环传输不同类型的介质。

编码器 Encoder

重载增量型编码器/增量型/绝对值

Heavy-duty Incremental Encoder / Incremental Type / Absolute Type

中联传输编码器有脉冲输出、数字单圈或多圈信号输出、模拟量输出、双编码器输出等，适用于变桨电机、发电机、滑环、偏航电机等。

调节比例阀 Proportional Valve

适用于液压变桨：Vestas、Gamesa、Siemens、Acciona、明阳、上海电气等风机。

碳刷 Carbon Brush

风电主碳刷/风电接地碳刷/风电防雷碳刷

Main Carbon Brush for Wind Turbines / Grounding Carbon Brush for Wind Turbines / Lightning Protection Carbon Brush for Wind Turbines

中联传输生产：人造石墨、金属石墨 、天然石墨、树脂石墨、金属浸渍石墨、硬碳和碳石墨等石墨制品。

油缸及密封件 Hydraulic Cylinder and Sealing Components

液压油缸主要由缸筒、活塞、活塞杆、密封件和连接件等组成，通过高压油液推动活塞，从而实现线性运动。

传感器 Sensor

风速风向仪/速度传感器/位置传感器/桨叶传感器

Anemometer and Wind Vane/Speed Sensor/Position Sensor/Blade Sensor

中联传输拥有多种传感器产品，满足风机不同位置需求。

ZL36经济型风电变桨滑环

ZL36 Economy Model Wind Turbine Pitch Slip Ring

中联传输ZL36经济型风电变桨滑环采用独特的结构设计与科学的摩擦副匹配，生产机型可涵盖国内外98%以上风机机型，可实现与各类机型和电气无缝对接安袭，满足广大用户不同层次的需求。

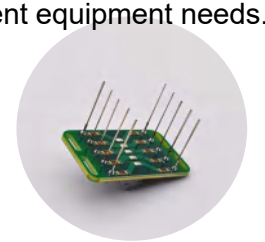
技术上使用中联“U”槽银合金镀层环体和银合金刷丝束作为摩擦副匹配。中联传输风电滑环具备高可靠、轻便化、模块化、现场可维修等多个特点，中联传输可以根据不同的设备需求定制各种非标的风电变桨滑环。

The Zhonglian Transmission ZL36 Economy Model Wind Turbine Pitch Slip Ring features a unique structural design and scientifically matched friction pairs. This model covers over 98% of domestic and foreign wind turbine types and can seamlessly interface with various turbine models and electrical systems, meeting diverse user requirements at different levels.

Technically, it uses Zhonglian’s patented “U”-groove silver alloy plated rings and silver alloy brush bundles as the matched friction pair. Zhonglian Transmission’s wind turbine slip rings are characterized by high reliability, lightweight design, modularity, and on-site maintainability. Additionally, Zhonglian Transmission can customize various non-standard wind turbine pitch slip rings to meet different equipment needs.

“U”型银合金镀层环片
"U"-groove silver alloy plated ring

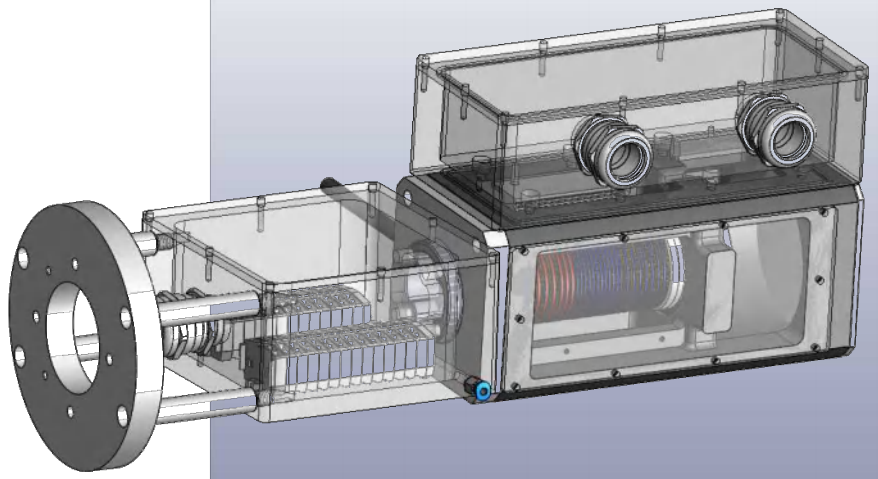
银合金纤维刷丝束
Silver alloy fiber brush bundle



电　刷
Carbon Brush

模　组
Module

Gamesa turbines



分体式结构设计
Split-type structural design

四面可独立拆卸面板
Four independently removable panels

插拔式的连接方式
Plug-in type connection method

转子法兰密封等级IP67
Rotor flange sealing rating: IP67

外壳防护等级IP65
Enclosure protection rating: IP65

符合EMC标准
Compliant with EMC standards

ZL31系列风电变桨滑环

DLW Series Wind Power Pitch Slip Ring

中联传输”ZL”系列风电变桨滑环技术上使用“V”槽金合金镀层**环体**和单丝金合金＋弹性材料**电刷**作为摩擦副匹配。中联传输风电滑环具备高可靠、轻便化、模块化、现场可维修等多个特点，中联传输可以根据不同的设备需求定制各种非标的风电变桨滑环。

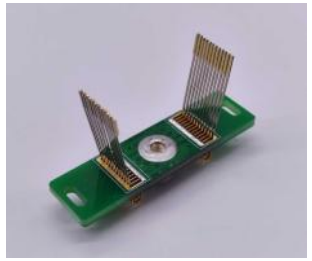
Zhonglian Transmission's “ZL” Series Wind Power Pitch Slip Ring adopts a technical design that uses a “V”-groove gold alloy-coated ring body paired with single-strand gold alloy + elastic material brushes as the friction pair. Zhonglian Transmission’s wind power slip rings are characterized by high reliability, lightweight structure, modularity, and on-site maintainability. Customized non-standard pitch slip rings can be developed to meet the specific equipment requirements of different clients.

“V”型金合金镀层环片

“V”-Groove Gold Alloy-Coated Ring Plate

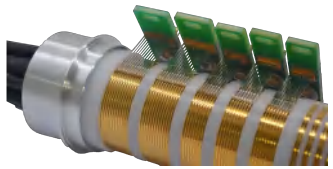
银合金纤维刷丝束

Silver alloy fiber brush bundle



电　刷

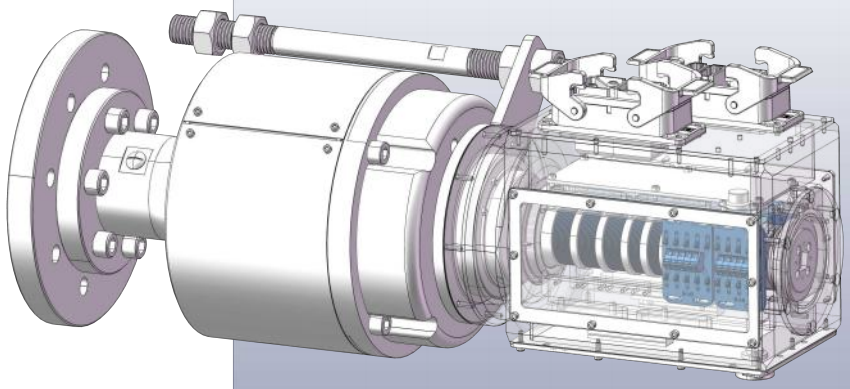
Carbon Brush



模　组

Module

Suzlon turbines



分体式结构设计
Split-type structural design

四面可独立拆卸面板
Four independently removable panels

插拔式的连接方式
Plug-in type connection method

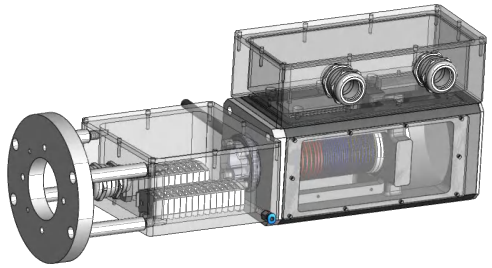
转子法兰密封等级IP67
Rotor flange sealing rating: IP67

外壳防护等级IP65
Enclosure protection rating: IP65

符合EMC标准
Compliant with EMC standards

ZL36经济型风电变桨滑环

ZL36 Economy Model Wind Turbine Pitch Slip Ring



歌美飒机型

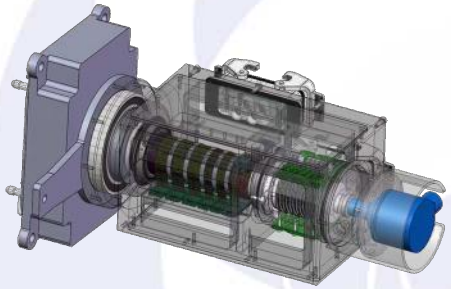
Siemens Gamesa turbine models

适用于机组：

Gamesa 2.0 、2.5MW

Applicable for turbines:

Gamesa 2.0MW and 2.5MW models.



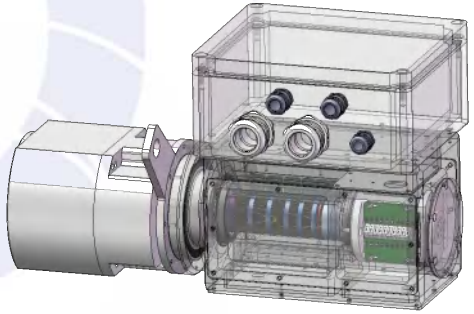
明阳机型

Mingyang turbine models

适用于机组：

明阳1.5、20、3.2、4.0、5.0 ~ 6.5MW.

Applicable for turbines: Mingyang 1.5MW, 2.0MW, 3.2MW, 4.0MW, and 5.0 to 6.5MW models.



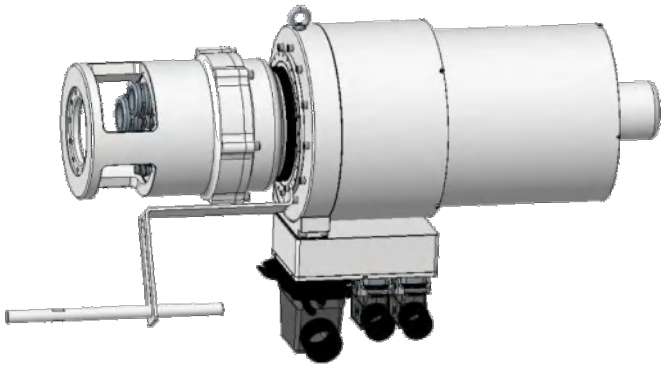
远景能源机型

Envision Energy turbine models

适用于机组： 远景1.5. ~ 6.0 三一1.5、1.8 2.0、2.1 、3.0MW ~ 7.5MW

Applicable for turbines:

Envision Energy 1.5MW to 6.0MW;
Sany 1.5MW, 1.8MW, 2.0MW, 2.1MW, and 3.0MW to 7.5MW models.



运达机型

Windey turbine models

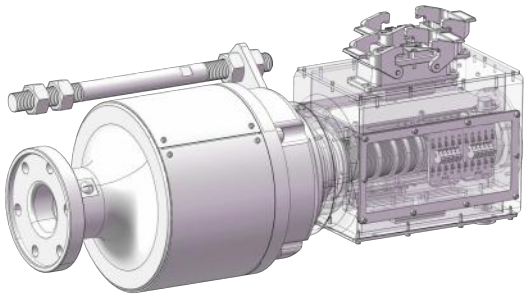
适用于机组：运达2.0、2.5、6.0MW 除冰滑环

Applicable for turbines:

Windey 2.0MW, 2.5MW, and 6.0MW de-icing slip rings.

ZL36经济型风电变桨滑环

ZL36 Economy Model Wind Turbine Pitch Slip Ring

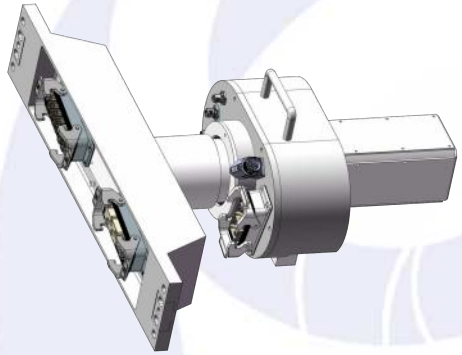


GE机型

GE turbine models

适用于机组：
GE1.5、1.5Se、1.6、1.7、1.85、2.1、2.5、2.85、3.0～10MW

Applicable for turbines:
GE 1.5MW, 1.5Se, 1.6MW, 1.7MW, 1.85MW, 2.1MW, 2.5MW, 2.85MW, and 3.0MW to 10MW models.

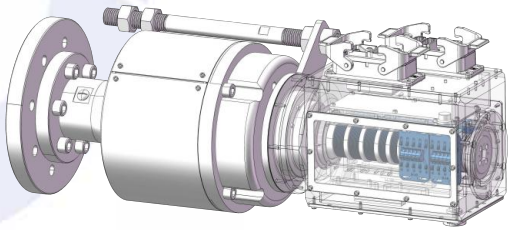


NORDEX机型

Nordex turbine models

适用于机组：
NORDEX 2.5MW

Applicable for turbines:
NORDEX 2.5MW models.

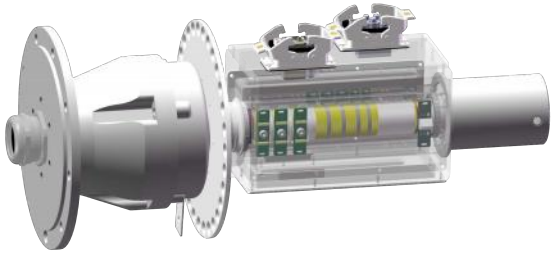


Sulzon机型

Sulzon turbine models

适用于机组：
Sulzon 1.25MW、1.5MW、2.1MW

Applicable for turbines:
Sulzon 1.25MW、1.5MW、2.1MW



湘电机型

Xiangdian turbine models

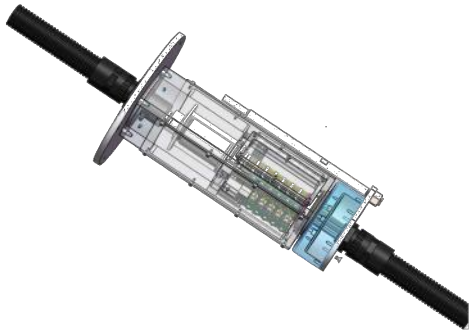
适用于机组：
湘电 2.0MW

Applicable for turbines: Xiangdian 2.0MW models.

★未展示所有机型，如有需要可与我司取得联系。

ZL36经济型风电变桨滑环

ZL36 Economy Model Wind Turbine Pitch Slip Ring

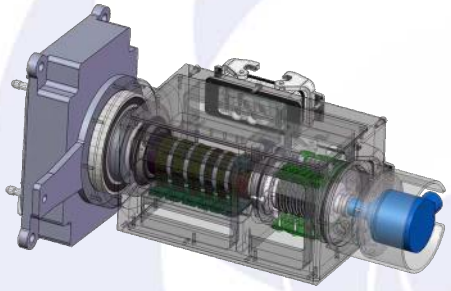


金风机型

Goldwind Turbine Model

适用于机组：金风1.5MW、2.0MW滑环 Vensys系统、SSB系统、Lust系统

Applicable for Turbines:
Goldwind 1.5MW and 2.0MW slip rings, including Vensys system, SSB system, and Lust system.

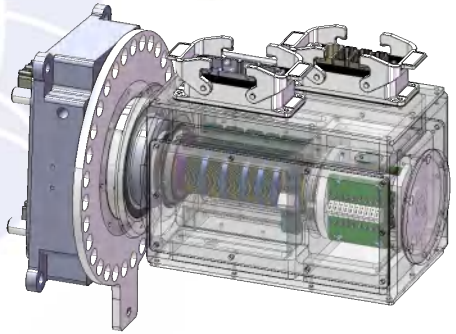


联合动力、上海电气、海装机型

United Power, Shanghai Electric, and CSIC (HAIZHUANG) turbine models.

适用于机组：联合动力、上海电气2.0、2.45、5.0、6.25MW. 海装1.5 ~ 7.5MW

Applicable for Turbines:
United Power and Shanghai Electric 2.0MW, 2.45MW, 5.0MW, and 6.25MW models;
CSIC (Haizhuang) 1.5MW to 7.5MW models.

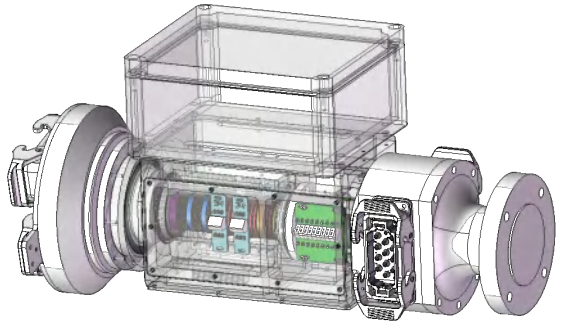


东汽、Repower、Nordex机型

Dongfang Electric, Repower, and Nordex Models

适用于机组：东汽1.5、2.0MW 、 Repower 1.5-2.0MW 、Nordex 1.5MW

Applicable for turbines: Dongfang Turbine
1.5MW and 2.0MW, Repower 1.5MW to 2.0MW, Nordex 1.5MW.



华锐、中车机型

Huarui and CRRC turbine models

适用于机组：华锐1.5、 南车1.5 ~ 1.65MW

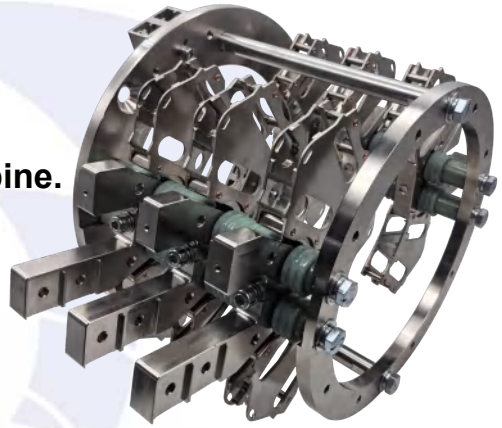
Applicable for turbines:
Huarui 1.5MW, CRRC (China South Locomotive & Rolling Stock) 1.5MW to 1.65MW.

ZLH系列集电环-集电环系统

ZLH Series Slip Ring – Collector Ring System

集电环系统是风力发电机的重要组成部分。

The collector ring system is an important component of a wind turbine.



刷 架
Brush *Holder*

固定安装于滑环室与发电机舱之间的安装板，配有刷盒、限位开关、恒压簧，为碳刷提供安装位置。

The mounting plate fixed between the slip ring chamber and the generator nacelle is equipped with brush holders, limit switches, and constant pressure springs to provide installation positions for the carbon brushes.

碳 刷
Carbon Brush

配合恒压簧安装于刷盒内

Installed inside the brush holder with a constant pressure spring.

集电环
Collector Ring

集电环与转子同轴安装，并与转子电枢链接

The collector ring is coaxially mounted with the rotor and connected to the rotor armature.

ZLH系列集电环-集电环系统

Wind power pitch sliding ring

产品特性 Product Features

- 功率环道采用**二元高锡锡青铜**，具有高硬度，耐磨性好，电导率高、电阻低、温升低、耐腐蚀等特点；

The power rings use a binary high-tin bronze alloy, featuring high hardness, excellent wear resistance, high electrical conductivity, low resistance, low temperature rise, and strong corrosion resistance.

- 接地环采用**马氏体不锈钢**，具有高硬度，耐磨性好，防潮、防盐雾、耐酸碱等防腐蚀特性等特点；

The grounding ring is made of martensitic stainless steel, offering high hardness, good wear resistance, moisture resistance, salt spray resistance, acid and alkali corrosion resistance, and other anti-corrosion properties.

- 预留编码器安装连接轴，可独立拆装；

Reserved installation shaft for encoder connection, allowing independent assembly and disassembly.

- 碳刷采用高纯石墨与银粉结合，自润滑性强、接触电阻低、导电性强；

Carbon brushes combine high-purity graphite with silver powder, providing strong self-lubrication, low contact resistance, and high conductivity.

- 碳刷金属（Ag、Cu）含量比例可选配；

The metal content ratio (Ag, Cu) in the carbon brushes can be customized.

- 导线可选用铜镀银工艺电导性更强；

Conductors can be made with copper coated with silver for enhanced electrical conductivity.

- 银基碳刷与铜基环体组合科学摩擦副匹配的组合；

Scientific friction pair matching with silver-based carbon brushes and copper-based rings.

- 耐电压强度高，可到达12000V以上，不产生闪络现象；

High voltage withstand capability, exceeding 12,000V without flashover.

- 可广泛使用于各种温差、湿热、高腐蚀性等严酷的环境；

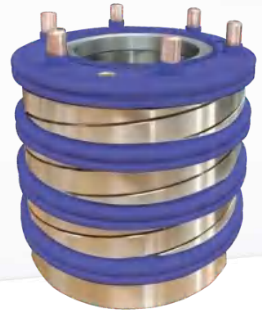
Widely applicable in harsh environments with large temperature variations, high humidity, and strong corrosiveness.

Vestsa 2.0MW 专供

适用机组：

Vestas:753937/753917、V80 、V90、V100、V110、V120、MK5-10D

型号：ZLH180-VS20-X1~6



Vestsa 2.0MW 专供

适用机组：适用于：

Vestas:753895/753265、V52、V80、MK3-5、0.85MW、2.0MW

型号：ZLH180-VS20-X1~6

- 适应高低温性能强，可达-45℃~125℃的严酷环境中持续运行；

Strong adaptability to extreme temperatures, capable of continuous operation in severe environments ranging from -45°C to 125°C.

- 表面采用材料特殊处理技术，系统对碳粉及灰尘自排斥；

Special surface treatment technology repels carbon dust and other particles from the system.

- 高电流强度，根据客户不同需要进行个性化设计。

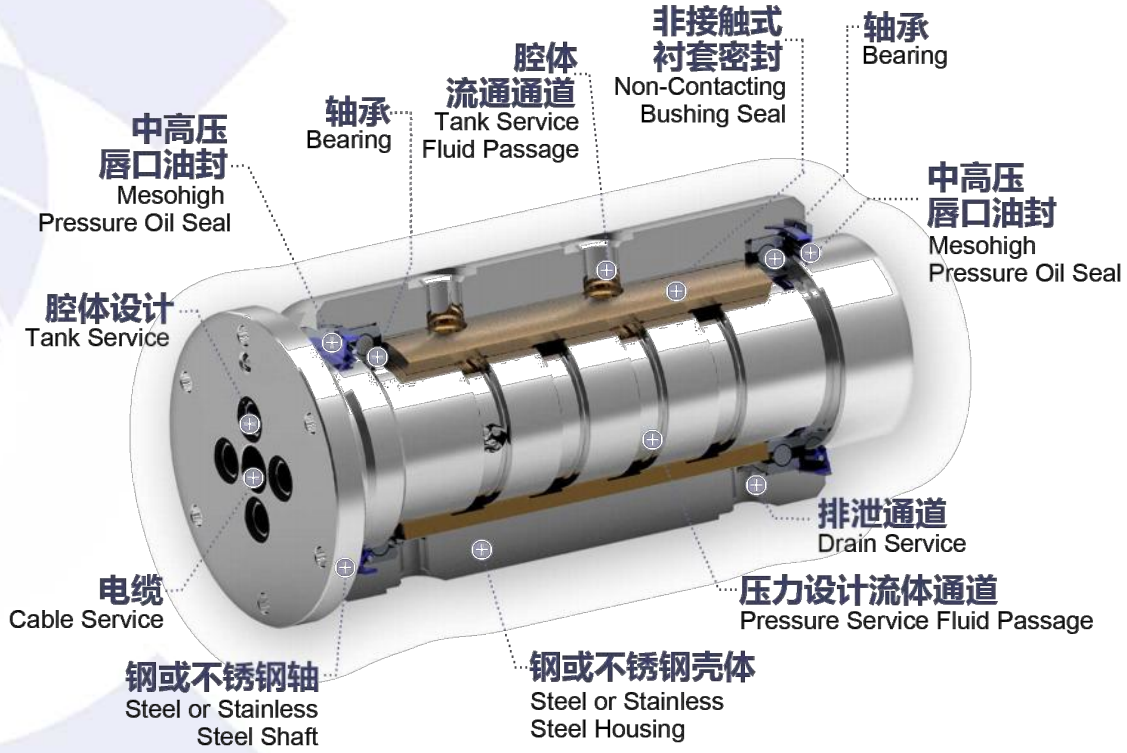
High current carrying capacity, with personalized designs available according to customer requirements.

ZLY系列风电液压滑环

ZLY Series Wind Power Hydraulic Slip Rings

中联传输 ZLY 系列风电液压变桨滑环采用非接触式间隙密封技术，在原有的结构设计基础上增加了双轴承、中高压唇口油封以及排泄通道，提升了产品性能和可靠性，有效的解决客户在使用过程中的渗油、漏油等问题。减少维护成本、提高液压滑环的使用寿命，使风机运行的更加稳定、高效。

The ZLY series wind power hydraulic pitch slip rings from Zhonglian Transmission adopt non-contact gap sealing technology. Based on the original structural design, they incorporate dual bearings, medium- and high-pressure lip seals, and drainage channels, enhancing product performance and reliability. This effectively addresses issues such as oil seepage and leakage during operation, reduces maintenance costs, extends the service life of the hydraulic slip rings, and ensures more stable and efficient wind turbine operation.



ZLY系列风电液压滑环

ZLY Series Wind Power Hydraulic Slip Rings

ZLY-VS-20

Applicable to the turbine:
Vestas2.0MW
Part No:130482

ZLY-VS-20-100-J

Applicable to the turbine:
Vestas 2.0MW
Part No:130483 2911857

ZLY-GMS-20

Applicable to the turbine:
Gamesa 2.0MW
GP number:GP11857.P300519

ZLY-AXN-15

Applicable to the turbine:
Acciona 1.5MW

ZLY-MY-30-65

Applicable to the turbine:
MingYang 3.0-6.5MW

ZLY-JF-750

Applicable to the turbine:
Goldwind 750KW

ZLY-SH-125

Applicable to the turbine:
Shanghai Electric 1.25MW

光纤滑环

Fiber Optic Slip Ring

光纤旋转连接器又称光滑环，光纤旋转接头，光铰链等。采用光纤为数据传输媒体，其作用是解决相对的旋转部件间光信号的传输问题，即在一端转转而另一端静止的状态下保证光信号的不间断传输。按照通道数四芯光纤旋转连接器可分为单通道、双通道和多通道，按照所使用的光纤可分为单模和多模两种。与传统的电连接器相比，光纤旋转连接器有以下优点：

1、使用光进行信号传输，无电磁泄漏，密封性好，抗电磁干扰。

2、无接触传输，无磨损，寿命长，可达1000万转。无摩擦，可在易燃易爆的环境中使用。

3、传输带宽远远大于电连接器，与波分复用器配合使用，更可以成倍提高带宽。

Fiber optic rotary connectors, also known as fiber optic slip rings, fiber optic rotary joints, and optical hinges, use optical fibers as the data transmission medium. Their purpose is to solve the problem of transmitting optical signals between relatively rotating components—ensuring uninterrupted optical signal transmission when one end rotates while the other end remains stationary.

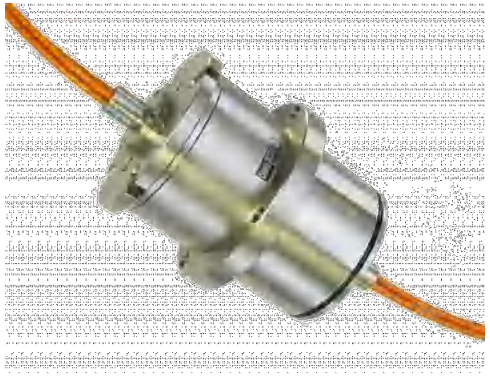
According to the number of channels, four-core fiber optic rotary connectors can be classified into single-channel, dual-channel, and multi-channel types. Based on the type of optical fiber used, they can be divided into single-mode and multi-mode versions.

Compared with traditional electrical connectors, fiber optic rotary connectors offer the following advantages:

1.Optical signal transmission, with no electromagnetic leakage, excellent sealing, and strong resistance to electromagnetic interference.

2.Non-contact transmission, meaning no wear and extremely long service life—up to 10 million rotations. With no friction, they can be used in flammable or explosive environments.

3.Much higher transmission bandwidth than electrical connectors. When used together with wavelength-division multiplexers, the bandwidth can be increased multiple times.



ZLG-X1.1

ZLG-X1.23

ZLG-X1.3

ZLF系列电碳—风力发电应用

ZLF Series Carbon Brushes — Wind Power Applications

金属石墨碳刷/Metal-graphite carbon brush

由天然石墨或人造石墨粉末与热固树脂、铜粉或银粉、特殊粘合剂混合或其他金属粉末混合，模压制成块、在惰性气体的保护下经适当的温度烧结。

Formed by mixing natural graphite or artificial graphite powder with thermosetting resins, copper or silver powders, special binders, or other metal powders, the material is molded into blocks and sintered at appropriate temperatures under the protection of an inert gas.

- **银基碳刷材料/Silver-based carbon brush material**
- **铜基碳刷材料/Copper-based carbon brush material**
- **复合碳刷材料/Composite carbon brush material**

应用行业/Application industries

航空航天、风力发电、医疗、铁路、火电、水电、港口和海运、轮船、冶金、采矿、电动汽车、城市轨道交通、家电等。

Aerospace, wind power, medical, railway, thermal power, hydropower, ports and maritime, ships, metallurgy, mining, electric vehicles, urban rail transit, home appliances, etc.

ZLF系列电碳—风力发电主碳刷

ZLF Series Carbon Brushes — Main Carbon Brushes for Wind Power Applications

Vestas 专供主碳刷

Part No:
753962
Applicable unit:
Vestas 2.0MW
Our model:
ZLF.V01 21*18*80(2)

Vestas 专供主碳刷

Part No:
753246
Applicable unit:
Vestas 2.0MW
Our model:
ZLF.V05 42*16*44

风电主碳刷

Applicable unit:
上电、东汽、湘电、哈电、联合动力、南车、中车、明阳、GE、华锐、远景、北重、三一
Our model:
ZLFZ.T.1.01 20*40*100

Gamesa 专供主碳刷

GP number: GP052263、GP266259
CANT13
Applicable unit:
Gamesa-G8X
Our model: ZLFZ.A.1.11G 20*40*49

Gamesa 专供主碳刷

GP number: GP052263-1
CANT04
Applicable unit:
Gamesa-G8X
Our model: ZLFZ.A.1.12G 20*40*42

ZLF系列电碳—风力发电接地碳刷

ZLF Series Carbon Brushes — Grounding Carbon Brushes for Wind Power Applications

Vestas 专供接地碳刷

Part No:
753946
Applicable unit:
Vestas 2.0MW
Our model:
ZLF.V60 10x16x97

Vestas 专供接地碳刷

Part No:
753366 E1716
Applicable unit:
Vestas 2.0MW
Our model:
ZLF.V806.35*12.7*22/16

风电接地碳刷

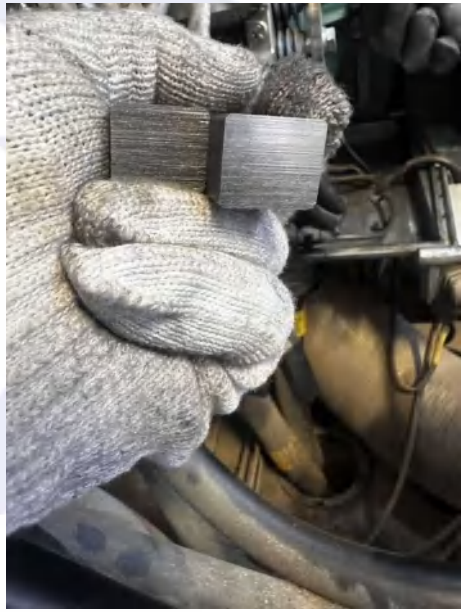
Applicable unit:
上电、东汽、湘电、哈电、联合动力、南车、中车、明阳、GE、华锐、远景、北重、三一、天元、永济
Our model:
ZLFD.FH.1.53 8*20*64

风电接地碳刷

Applicable unit:
上电、东汽、湘电、哈电、联合动力、南车、中车、明阳、GE、华锐、远景、北重、三一、天元、永济
Our model:
ZLFD.FH.1.54 12.5*25*64

ZLF系列电碳—风力发电防雷碳刷

ZLF Series Carbon Brushes — Lightning Protection Carbon Brushes for Wind Power Applications



风电防雷碳刷

Applicable unit:

上电、东汽、湘电、哈电、
联合动力、南车、中车、
明阳、GE、华锐、远景、
北重、三一

Our model:

ZLFL.C.1.82 25*32*60

编码器
Encoder

重载增量型编码器/增量型/绝对值

中联传输编码器有脉冲输出、数字单圈或多圈信号输出、模拟量输出、双编码器输出等，适用于变桨电机、发电机、滑环、偏航电机等。

- 锥型空心轴、 盲孔直轴可选
- 输出形式：TTL、 HTL、 HCHTL、RS422
- 脉冲输出、数字信号输出、模拟输出、双编码器输出
- 轴绝缘材料选用PEEK或不锈钢
- 适用于变桨电机、发电机、滑环、偏航电机

Heavy-duty incremental encoder/Incremental encoder/Absolute encoder

Zhonglian Transmission encoders feature pulse output, digital single-turn or multi-turn signal output, analog output, and dual-encoder output, making them suitable for pitch motors, generators, slip rings, yaw motors, and more.

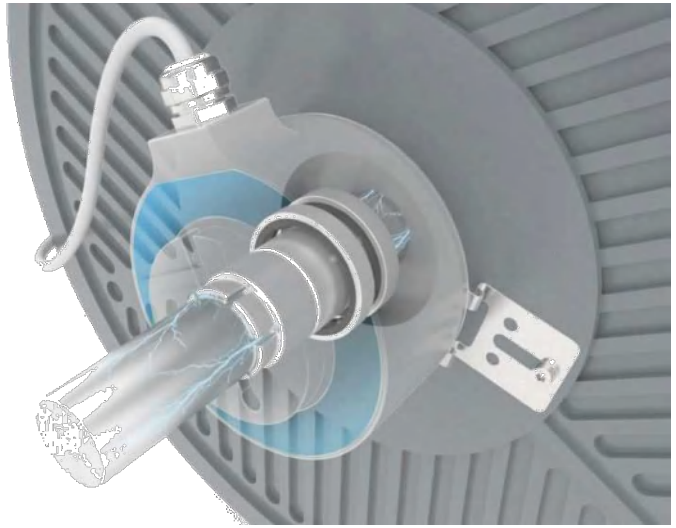
Shaft options: Tapered hollow shaft or blind straight shaft

Output types: TTL, HTL, HCHTL, RS422

Available outputs: Pulse output, digital signal output, analog output, dual-encoder output

Shaft insulation materials: PEEK or stainless steel

Applications: Pitch motors, generators, slip rings, yaw motors



重载增量型编码器

Heavy-duty Incremental Encoder

重载增量型编码器

Model： BZ100L-TB-ZK-H16-2024B-**1
Part No.GP332328/GP280192
适用于Gamesa、东汽、上汽、华仪、联合动力、湘电、安迅能等机组

重载增量型编码器

Model： BZ100L-TB-ZK-H16-2024B-**1
Part No.GP332328/GP280192
适用于Gamesa、东汽、上汽、华仪、联合动力、湘电、安迅能等机组

重载增量型编码器

Model： BZ100L-TB-ZK-H16-2024B-GMS1-X5
Part No.GP332328/GP280192
适用于Gamesa、东汽、上汽、华仪、联合动力、湘电、安迅能等机组

重载增量型编码器

Model： BZ105B-TB-ZK-V17-2048E-AS10-CS
适用于ALSTOM 2.75MW

重载增量型编码器

Model： BZ100L-TB-ZK-V17-2500B-**2
适用于华锐、东汽、明阳、GE、远景、明阳、联合动力等机组

重载增量型编码器

Model： BZ130C-TB-H25-3072-E-SH125
适用于上海电气 1.25MW

重载增量型编码器

Heavy-duty Incremental Encoder

重载增量型编码器

Model： BZ100B-TB-V17-2048B-SY20

适用于三一2.0MW

重载增量型编码器

Model：BZ100L-TB-ZK-V17-2048B-5**

重载增量型编码器

Model： BZ115C-TB-H-11-2048-E-GM85

适用于Gamesa850KW

重载增量型编码器

Model： BZ100B-TB-V17-2048E-SH345

适用于上海电气3.45MW

重载增量型编码器

Model： BZ105B-TB-ZK-V17-2048B-**10

Part No.GP50300

适用于Gamesa 2.0MW、GE1.5MW

增量型编码器

Incremental Encoder

增量型旋转编码器

Model： Bi74C-TB-ZK24-1024D
适用于Vestas850KW
Vestas Part No. 753343

OEM编码器

Model： Bi90C-TB-ZK35-1024-B
Vestas Part No. 753983、753824

增量型编码器

Model： Bi58C-TB-ZK-1410-1024-B-NJ
适用于南京风电1.5MW

增量型编码器

Model： Bi58C-TB-H-6-2048B-MY20
适用于明阳2.0MW

增量中空编码器

Model： Bi100C-TB-ZK35-1024-B

增量型滑环编码器

Model： Bi58C-TB-X-10-256-B

增量型滑环编码器

Model： Bi115C-TB-10-2048-0.25M-S2

油缸及密封件

Hydraulic Cylinder and Sealing Components

液压油缸，顾名思义，是利用液压油作为工作介质，将液压能转换为机械能的一种装置。其工作原理基于帕斯卡定律，即在一个封闭的液体容器中，施加在液体上的压力会均匀传递到液体的每一个部分。液压油缸主要由缸筒、活塞、活塞杆、密封件和连接件等组成，通过高压油液推动活塞，从而实现线性运动。

中联传输液压油缸及密封件，适用于风电变桨、工程机械、挖掘机、起重机、压力机和注塑机等行业。

A hydraulic cylinder, as the name suggests, is a device that uses hydraulic oil as the working medium to convert hydraulic energy into mechanical energy. Its working principle is based on Pascal's law, which states that in a closed liquid container, the pressure applied to the liquid is transmitted uniformly to every part of the liquid. A hydraulic cylinder mainly consists of a cylinder barrel, piston, piston rod, seals, and connecting components. The piston is driven by high-pressure hydraulic oil to achieve linear motion. ZhongLian Transmission hydraulic cylinders and seals are suitable for industries such as wind turbine pitch systems, construction machinery, excavators, cranes, presses, and injection molding machines.

技 术 数 据				
机　　型	Gamesa GP251847/GP062758	Gamesa	Vestas 29023077	Siemens
孔径尺寸	⌀140 mm	⌀140 mm	⌀125 mm	⌀125 mm
杆 尺 寸	⌀90 mm	⌀90 mm	⌀80 mm	⌀70 mm
行　　程	760 mm	760 mm	760 mm	350 mm
收缩长度	1406 mm	1056 mm	1300 mm	688 mm
延长长度	2166 mm	/	2060 mm	1038 mm
重　　量	200 Kg	/	140 Kg	57 Kg
推介润滑油	矿物油VG32-46	矿物油VG32-46	矿物油VG32-46	矿物VG32-46
设计压力	30 MPa			
工作压力	25 MPa			
测试压力	37 MPa			

型号： Gamesa G8X

型号： Siemens

型号： Vestas V82

调节比例阀

Proportional Directional Valves with Feedback

产品特性 Product Features

- 直动式比例方向阀，用于控制流量大小和方向切换
  Direct-acting proportional directional valve used to control flow rate and direction switching.
- 比例电磁铁为螺纹安装，电磁铁线圈可更换
  The proportional solenoid is threaded for installation, and the solenoid coil is replaceable.
- 阀芯弹簧对中
  Spool spring-centered.
- 电气位置反馈
  Electrical position feedback.
- 对于ZLV3型：不带集成式放大器，可选放大器：ZL-XXF3-6-30（6 通径）/ ZL-XXF3-10-30（10 通径）（需单独购买）
  For ZLV3 type: without integrated amplifier. Optional amplifier: ZL-XXF3-6-30 (for size 6) / ZL-XXF3-10-30 (for size 10) (sold separately).
- 对于 ZLV4 型：带集成式放大器
  For ZLV4 type: with integrated amplifier.
- 适用于液压变桨：Vestas 、Gamesa、Acciona、明阳、上海电气等风机
  Suitable for hydraulic pitch systems of wind turbines such as Vestas, Gamesa，Acciona, Mingyang, and Shanghai Electric.

型号： ZLV4-T-10-E1-75-2X-D24-C7-V1-N-C

型号： ZLV4-J-10-E1-50-2X-D24-C7/1N*

Gamesa Vestas

传感器
Sensor

Zhonglian Transmission offers a wide range of sensor products to meet the requirements of different positions within the wind turbine.

超声波风速计
Ultrasonic Anemometer
Model： ZL-CSB-TY01

加热风速计
Heated Anemometer
Model： ZL-FS-JR01

风向标
Heated Wind Vane
Model： ZL-FX-JR01

Model： Bi5-30M70-P1-V1

Model： Bi10-30M40-P1-V1

Application Case Video
Bi5-30M70-P1-V1

传感器
Sensor

Zhonglian Transmission offers a wide range of sensor products to meet the requirements of different positions within the wind turbine.

Model： BE22-30M65-P1-V1

Model： Bi5-18M40-P1-V1

Model： Bi10-30M80-P1-DL

Model： Bi10-30M50-P1
Part No.114241、114257

Model： BJ-P1
Part No.114931

Model： ZLN-S2X1-M0800-F-S16
Part.No193895

PART 3 技术与服务

Technology and Services

售前技术咨询

Pre-sales Technical Consultation

专业备件方案，助力风能项目长期成功！

凭借对风电售后市场的深厚洞察及与顶尖合作伙伴的紧密协作，我们精心打造个性化的备件解决方案，旨在确保风机始终保持高效、持久且经济的运行状态。我们致力于缩短客户停机时间，提升风机性能至新高度，携手客户共同推动风能运营的可持续发展。

在此，您将发现一系列风机备件最优采购选择，极具竞争力的价格与超快的交付速度。

我们承诺，为您提供的不仅是产品，更是全面的服务与支持，助力您的风能项目迈向更加辉煌的未来。

Professional Spare Parts Solutions for Long-Term Wind Energy Success

With deep insights into the wind power aftermarket and close collaboration with leading partners, we provide tailored spare parts solutions designed to keep your wind turbines operating efficiently, reliably, and cost-effectively. Our mission is to minimize downtime, enhance turbine performance, and work hand-in-hand with our clients to drive the sustainable development of wind energy operations.

Here, you will find an optimized selection of wind turbine spare parts, offering highly competitive pricing and rapid delivery.

We are committed to delivering not just products, but comprehensive service and support, empowering your wind energy projects to achieve even greater success.

研发

Research and Development

在风力能源领域，研发是推动技术革新与进步的关键力量！

我们深知，只有不断创新与优化，才能在激烈的市场竞争中脱颖而出，为客户创造更大的价值。

因此，我们投入大量资源于研发领域，致力于开发出更高效、更可靠、更环保的风机备件及解决方案。我们的研发团队具备深厚的理论基础与实践经验，能够精准把握市场需求与技术趋势，不断推陈出新。

通过持续的研发投入与创新实践，这些产品不仅提高了风机的运行效率与稳定性，还大大降低了客户的运维成本。

未来，我们将继续加大研发力度，不断拓展产品线与技术领域，为客户提供更加全面、更加专业的服务与支持。我们坚信，通过不懈的努力与创新，我们能够为风能行业的发展贡献更多的力量，与客户携手共创更加美好的明天。

In the field of wind energy, research and development is the key driving force behind technological innovation and progress!

We understand that only through continuous innovation and optimization can we stand out in a highly competitive market and create greater value for our clients.

Therefore, we invest substantial resources in research and development, focusing on creating more efficient, reliable, and environmentally friendly wind turbine spare parts and solutions. Our R&D team combines solid theoretical knowledge with extensive practical experience, enabling them to accurately anticipate market demands and technological trends while continuously introducing new innovations.

Through ongoing R&D efforts and innovative practices, these products not only enhance the operational efficiency and stability of wind turbines but also significantly reduce clients' operation and maintenance costs.

Looking ahead, we will continue to strengthen our R&D capabilities, expand our product lines and technological expertise, and provide clients with even more comprehensive and professional services and support. We firmly believe that through persistent effort and innovation, we can contribute further to the development of the wind energy industry and work hand-in-hand with our clients to create a brighter future.

售后服务

After-sales Service

不断追求风机高效运行与可持续发展的道路，我们深知售后服务的重要性。

我们不仅提供个性化的备件解决方案，更致力于构建卓越的售后服务体系，确保您的需求得到及时、专业的响应。

我们的售后服务团队由经验丰富的技术人员组成，他们具备深厚的专业知识与技能，能够迅速解决您在使用过程中遇到的各种问题。无论是设备故障、性能优化还是备件更换，我们都将竭诚为您提供全方位的支持与服务。

此外，我们还提供定期的设备检查与维护服务，帮助您及时发现并解决潜在问题，确保风机始终保持最佳运行状态。我们的目标是，通过卓越的售后服务，为您的风能项目提供持续、稳定、高效的动力支持。

选择我们，就是选择了一个值得信赖的合作伙伴，让您的风能项目在售后服务的坚实保障下，迈向更加辉煌的未来。

In our continuous pursuit of efficient and sustainable wind turbine operations, we fully recognize the importance of after-sales service.

We not only provide tailored spare parts solutions but also dedicate ourselves to building an outstanding after-sales service system, ensuring your needs are met promptly and professionally.

Our after-sales team consists of highly experienced technicians with deep expertise and skills, capable of quickly resolving any issues you may encounter during operation. Whether it’s equipment faults, performance optimization, or spare parts replacement, we are committed to delivering comprehensive support and services.

In addition, we offer regular equipment inspections and maintenance services to help you identify and address potential issues in a timely manner, ensuring your wind turbines always operate at their optimal performance. Our goal is to provide continuous, stable, and efficient support for your wind energy projects through exceptional after-sales service.

Choosing us means choosing a trusted partner, enabling your wind energy projects to move toward an even brighter future under the solid guarantee of professional after-sales support.

2025

感谢您的观看指导

Thank you for your viewing and guidance.

Prepared by: Zhonglian Transmission Marketing Department