

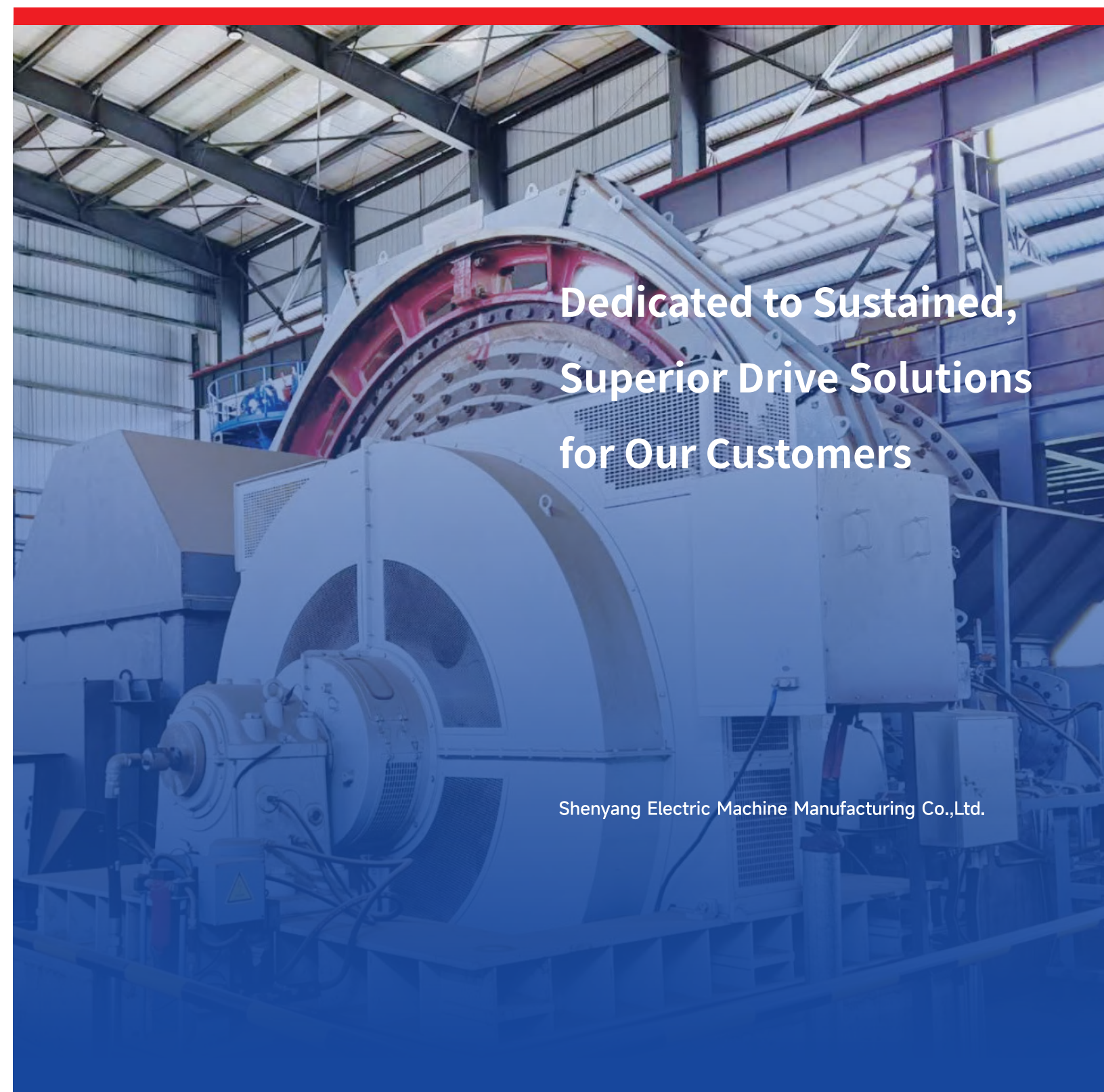


Dedicated to Sustained,  
Superior Drive Solutions  
for Our Customers

Shenyang Electric Machine Manufacturing Co.,Ltd.

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# COMPANY PROFILE

Shenyang Electric Machine Manufacturing Co., Ltd. is a professional manufacturer which specializes in the R&D, production and sales of large and medium sized high/medium/low voltage electric motors and complete sets of equipment.

Dating back to more than 70 years manufacturing history in electric motor, our products are renowned for the features of high stability, durability, energy conservation and environmental protection. We are a national high-tech enterprise as well as “Specialized and Innovative SME”. The company is certified under: ISO 9001, ISO14001 and ISO45001. It holds more than 30 patent technologies and maintains a leading position in our professional fields, especially in high-power motors, high-speed motors, energy-saving motors, variable-frequency & variable-speed motors and heavy-duty load motors, etc. It has successfully replaced a variety of imported motor products and served various large-scale industrial drive projects.

We currently offer over 50 series of motor products, with power ranges from 11KW to 20,000KW and voltage ranges from 380V to 13800V. Our products cover large synchronous motors, large/medium/small asynchronous motors, variable frequency speed control motors, and various customized motors.

It is widely applied in heavy industrial fields such as Mining, Metallurgy, Building materials, Power plants, Water conservancy & Water affairs, Air separation, Oil and gas chemical industry, and Non-ferrous metal smelting. Users are spread across the country and over 40 countries around the world.

Full life-cycle services required are available to satisfy customers, which includes design and R&D, Manufacturing, On-site installation, Commissioning guidance, Operation and Maintenance, Equipment repair, and Technical upgrades, etc.

# INDUSTRY OF APPLICATION



Mining



Metallurgy



Construction  
Materials



Coal-Fired  
Power  
Generation



Air separation  
and compression



Combined  
Heat & Power



Energy and  
Chemical  
Industry



Water  
conservancy &  
Water affairs



Nonferrous  
Metal Smelting

CERTIFICATIONS AND APPROVALS



High-tech enterprise



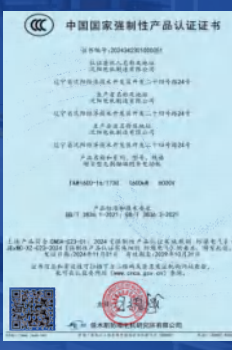
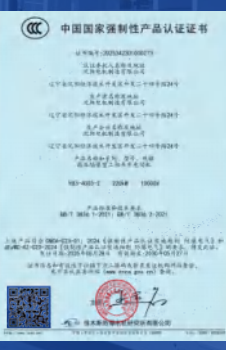
CEEIA, China Electrical Equipment Industrial Association



ISO Certificates



CE Certificates



CCC China Compulsory Product Certification



EAC Certificates

Invention Patents



VFD high-voltage three-phase asynchronous motor

Large high-voltage three-phase synchronous motor

Large low-speed three-phase synchronous motor

High-voltage, high-efficiency medium-sized three-phase asynchronous motor

Large ultra-low speed AC three-phase synchronous motor

Utility Model Patents



**DGAM - HR Subseries Motor**

Application Industries : Power plants / Metallurgy / Mining / Construction materials / Air separation and compression / Water conservancy & water affairs / Energy and chemical industry / Non-Ferrous Metal Smelting  
Applicable Standards : IEC  
Frame Range : H132 — H400  
Power Range : 5.5 kW — 630 kW  
Rated Voltage : 380 V / 660 V  
Applicable Frequency : 50 Hz / 60 Hz  
IP Rating : IP 54 / IP 55  
Mounting Method : IM B3 / IM B5 / IM B35 / IM V1  
Cooling Method : IC 411  
Bearing type : Rolling bearing  
Insulation Class : F / H  
Rotor Type : Squirrel Cage rotor

**DGAM - HR Subseries Motor**

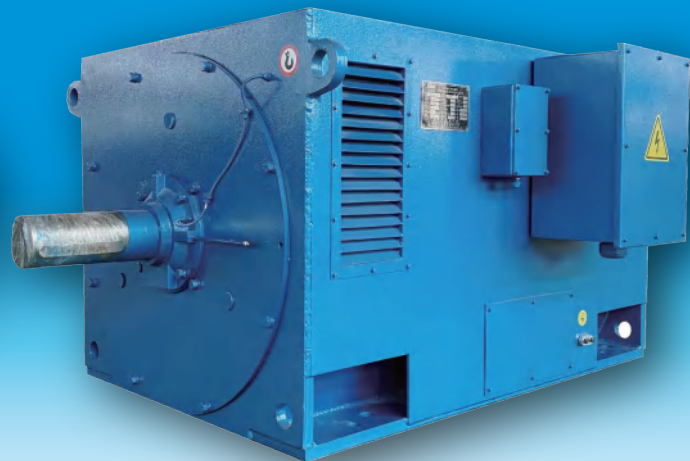
Application Industries : Power plants / Metallurgy / Mining / Construction Materials / Air separation and compression  
Applicable Standards : IEC  
Frame Range : H355 — H630  
Power Range : 185 kW — 3150 kW  
Rated Voltage : 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz  
IP Rating : IP 54 / IP 55  
Mounting Method : IM B3 / IM B35 / IM V1  
Cooling Method : IC 411 / IC 416  
Bearing type : Rolling bearing / Sliding bearing  
Insulation Class : F / H  
Rotor Type : Squirrel Cage rotor

**DGAM - HR VF Subseries Motor**

Application Industries : Power plants / Metallurgy / Mining / Construction Materials / Air separation and compression  
Applicable Standards : IEC  
Frame Range : H132 — H630  
Power Range : 5.5 kW — 3150 kW  
Rated Voltage : 380 V / 3 kV / 6 kV / 10 kV  
Applicable Frequency : 0-100 Hz  
IP Rating : IP 54 / IP 55  
Mounting Method : IM B3 / IM B5 / IM B35 / IM V1  
Cooling Method : IC 411 / IC 416  
Bearing type : Rolling bearing / Sliding bearing  
Insulation Class : F / H  
Rotor Type : Squirrel Cage rotor

**DGAM - BO Subseries Motor**

Application Industries : Power plants / Mining / Air separation and compression  
Applicable Standards : IEC  
Frame Range : H355 — H1120  
Power Range : 185 kW — 10300 kW  
Rated Voltage : 380 V / 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz  
IP Rating : IP 23  
Mounting Method : IM B3 / IM B35  
Cooling Method : IC 01 / IC 06  
Bearing type : Rolling bearing / Sliding bearing  
Insulation Class : F / H  
Rotor Type : Squirrel Cage rotor





### DGAM - BA Subseries Motor

Application Industries : Power plants / Metallurgy / Mining / Construction Materials / Air separation and compression / Water conservancy & water affairs / Energy and chemical industry / Non-Ferrous Metal Smelting  
Applicable Standards : IEC  
Frame Range : H355 — H1120  
Power Range : 185 kW — 20000 kW  
Rated Voltage : 380 V / 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz  
IP Rating : IP 54 / IP 55  
Mounting Method : IM B3  
Cooling Method : IC 611 / IC 616  
Bearing type : Rolling bearing / Sliding bearing  
Insulation Class : F / H  
Rotor Type : Squirrel Cage rotor

### DGAM - BW Subseries Motor

Application Industries : Power plants / Metallurgy / Air separation and compression / Energy and chemical industry / Non-Ferrous Metal Smelting  
Applicable Standards : IEC  
Frame Range : H355 — H1120  
Power Range : 185 kW — 20000 kW  
Rated Voltage : 380 V / 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz  
IP Rating : IP 54 / IP 55  
Mounting Method : IM B3  
Cooling Method : IC 81W / IC 86W  
Bearing type : Rolling bearing / Sliding bearing  
Insulation Class : F / H  
Rotor Type : Squirrel Cage rotor

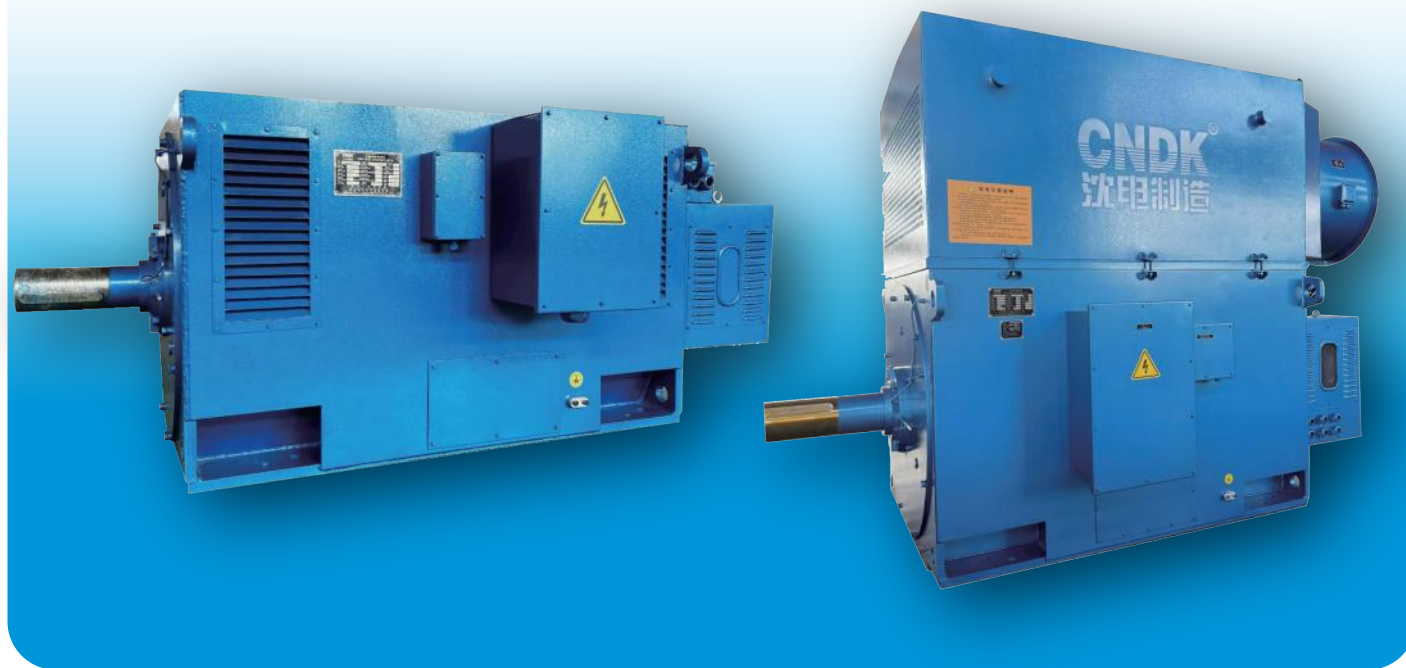
### DGAM - BA VF / BW VF Subseries Motor

Application Industries : Power plants / Metallurgy / Mining / Construction Materials / Air separation and compression / Water conservancy & water affairs / Energy and chemical industry / Non-Ferrous Metal Smelting  
Applicable Standards : IEC  
Frame Range : H355 — H1120  
Power Range : 185 kW — 20000 kW  
Rated Voltage : 380 V / 3 kV / 6 kV / 10 kV  
Applicable Frequency : 0-100 Hz  
IP Rating : IP 54 / IP 55  
Mounting Method : IM B3  
Cooling Method : IC 616 / IC 666 / IC 81W / IC 86W  
Bearing type : Rolling bearing / Sliding bearing  
Insulation Class : F / H  
Rotor Type : Squirrel Cage rotor

### DGAM - BA V / BW V Subseries Motor

Application Industries : Power plants / Metallurgy / Mining / Water conservancy & water affairs  
Applicable Standards : IEC  
Frame Range : H355 — H800 /  $\Phi 1180$  —  $\Phi 2150$   
Power Range : 185 kW — 5000 kW  
Rated Voltage : 380 V / 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz  
IP Rating : IP 54 / IP 55  
Mounting Method : IM V1  
Cooling Method : IC 611 / IC 616 / IC 81W / IC 86W  
Bearing type : Rolling bearing / Thrust bearing / Sliding bearing  
Insulation Class : F / H  
Rotor Type : Squirrel Cage rotor





### DGAM - WO Subseries Motor

Application Industries : Metallurgy / Mining / Construction Materials / Non-Ferrous Metal Smelting  
Applicable Standards : IEC  
Frame Range : H355 — H1120  
Power Range : 185 kW — 20000 kW  
Rated Voltage : 380 V / 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz  
IP Rating : IP 23  
Mounting Method : IM B3  
Cooling Method : IC 01 / IC 06  
Bearing type : Rolling bearing / Sliding bearing  
Insulation Class : F / H  
Rotor Type : Wound Rotor

### DGAM - WA / WW Subseries Motor

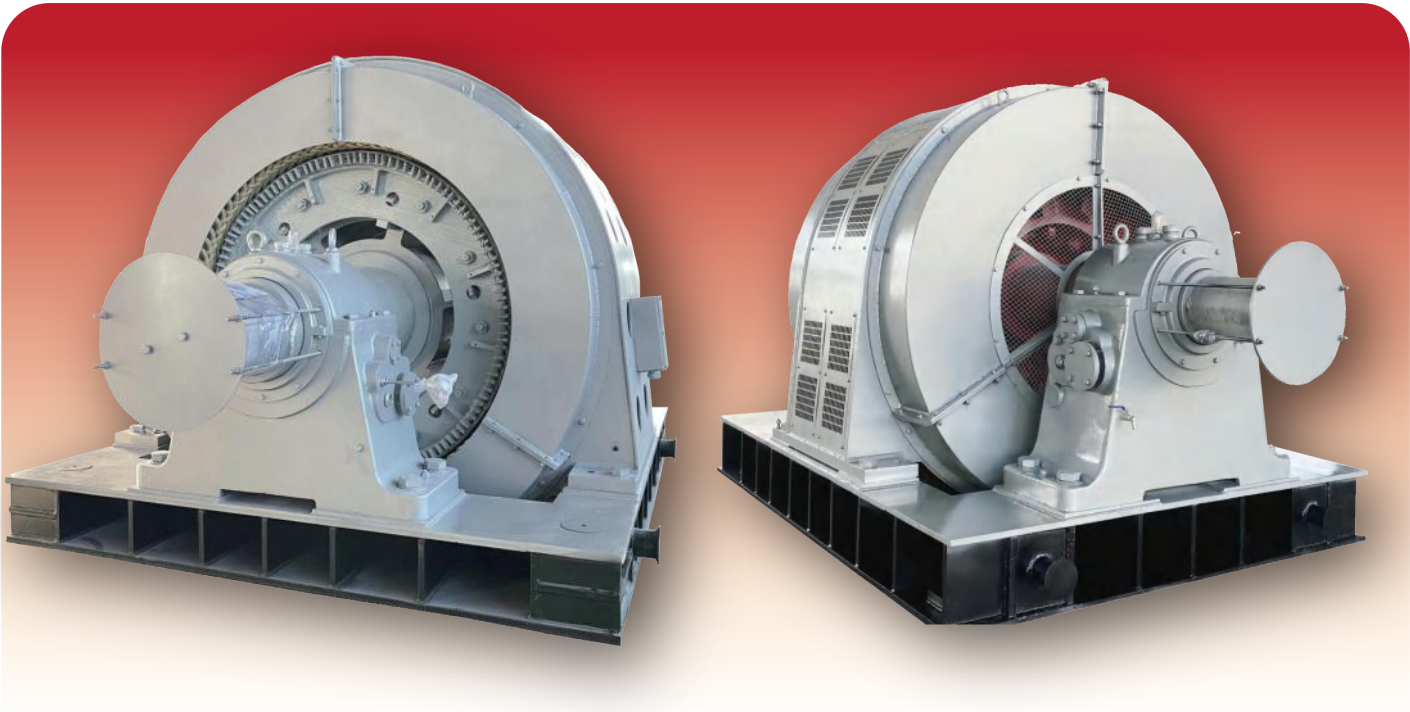
Application Industries : Metallurgy / Mining / Construction Materials  
Applicable Standards : IEC  
Frame Range : H355 — H1120  
Power Range : 185 kW—20000 kW  
Rated Voltage : 380 V / 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz  
IP Rating : IP 54 / IP 55  
Mounting Method : IM B3  
Cooling Method : IC 611 / IC 616 / IC 81W / IC 86W  
Bearing type : Rolling bearing / Sliding bearing  
Insulation Class : F / H  
Rotor Type : Wound Rotor

### DGAM - WA PB / WW PB Subseries Motor

Application Industries : Mining / Construction Materials / Metallurgy / Non-Ferrous Metal Smelting  
Applicable Standards : IEC  
Frame Range :  $\Phi 990$  —  $\Phi 2600$   
Power Range : 500 kW — 8000 kW  
Rated Voltage : 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz  
IP Rating : IP 00 / IP 20 / IP 21 / IP 23 / IP 44  
Mounting Method : IM 7211 / IM 7311 / IM 7321  
Cooling Method : IC 01 / IC 97W  
Bearing type : Pedestal Sliding Bearing  
Insulation Class : F / H  
Rotor Type : Wound Rotor

### DGSM - B / B VF Subseries Motor

Application Industries : Metallurgy / Mining / Water conservancy / Energy and Chemical Industry  
Applicable Standards : IEC  
Frame Range :  $\Phi 990$  —  $\Phi 2900$   
Power Range : 200 kW — 15000 kW  
Rated Voltage : 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz / 0-55 Hz  
Power Factor : 0.9 (Leading)  
IP Rating : IP 00 / IP 21 / IP 23 / IP 44 / IP 54  
Mounting Method : IM 7211 / IM 7311  
Cooling Method : IC 01 / IC 37 / IC 86W / IC 97W  
Bearing type : Pedestal Sliding Bearing  
Insulation Class : F / H  
Excitation Method : Separate Static Thyristor Excitation





### DGSM - BL / BL VF Subseries Motor

Application Industries : Metallurgy / Mining / Water conservancy / Energy and Chemical Industry  
Applicable Standards : IEC  
Frame Range :  $\Phi 990$  —  $\Phi 2900$   
Power Range : 200 kW — 15000 kW  
Rated Voltage : 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz / 0-55 Hz  
Power Factor : 0.9 (Leading)  
IP Rating : IP 00 / IP 21 / IP 23 / IP 44 / IP 54  
Mounting Method : IM 7211 / IM 7311  
Cooling Method : IC 01 / IC 37 / IC 86W / IC 97W  
Bearing type : Pedestal Sliding Bearing  
Insulation Class : F / H  
Excitation Method : Brushless Excitation

### DGSM - B M / B M VF Subseries Motor

Application Industries : Mining / Construction Materials  
Applicable Standards : IEC  
Frame Range :  $\Phi 990$  —  $\Phi 4250$   
Power Range : 250 kW — 8000 kW  
Rated Voltage : 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz / 0-55 Hz  
Power Factor : 0.9 (Leading)  
IP Rating : IP 00 / IP 20 / IP 21 / IP 23 / IP44 / IP54  
Mounting Method : IM 7211 / IM 7311  
Cooling Method : IC 01 / IC 37 / IC 86W / IC 97W  
Bearing type : Pedestal Sliding Bearing  
Insulation Class : F / H  
Excitation Method : Separate Static Thyristor Excitation

### DGSM - BL M / BL M VF Subseries Motor

Application Industries : Mining / Construction Materials  
Applicable Standards : IEC  
Frame Range :  $\Phi 990$  —  $\Phi 4250$   
Power Range : 250 kW—8000 kW  
Rated Voltage : 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz / 0-55 Hz  
Power Factor : 0.9 (Leading)  
IP Rating : IP 00 / IP 20 / IP 21 / IP 23 / IP44 / IP54  
Mounting Method : IM 7211 / IM 7311  
Cooling Method : IC 01 / IC 37 / IC 86W / IC97W  
Bearing type : Pedestal Sliding Bearing  
Insulation Class : F / H  
Excitation Method : Brushless Excitation

### DGSM - B V / BL V Subseries Motor

Application Industries : Water conservancy / Energy and Chemical Industry  
Applicable Standards : IEC  
Frame Range :  $\Phi 990$  —  $\Phi 2600$   
Power Range : 200 kW — 15000 kW  
Rated Voltage : 3 kV / 6 kV / 10 kV  
Applicable Frequency : 50 Hz / 60 Hz / 0-55 Hz  
Power Factor : 0.9 (Leading)  
IP Rating : IP 00 / IP 21 / IP 23 / IP 44 / IP 54  
Mounting Method : IM V1  
Cooling Method : IC 01 / IC 86W  
Bearing type : Pedestal Sliding Bearing  
Insulation Class : F / H  
Excitation Method : Separate Static Thyristor Excitation / Brushless Excitation



# ENGINEERING AND QUALITY

## Technical Idea

Over 70 years of technological expertise



### “Compact integrated design”

Maximum transmission capability  
in a compact space

01



### “IEC 60034”

International Electrotechnical  
Commission Standards (IEC  
Standards)

02



### “Reliable”

Estimated design life  $\geq 30$  years,  
no worry in harsh operating  
conditions.

03



### “Standardised design of components & parts”

Reduce maintenance costs

04

## Technical Features



### New technology: Compact High-Power Density Design

Adopting an innovative compact design, it significantly enhances power density and meets the demands of modern industry for efficient space utilisation.



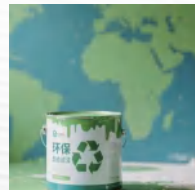
### High efficiency - High efficiency and energy saving in line with international standards

Compliant with the IEC 60034 energy efficiency standards, it significantly enhances efficiency, helping enterprises reduce energy consumption costs and move towards a green world.



### Stability- Super stability and long service life

The VPI( vacuum pressure impregnation) process is equipped with an H-Class insulation and has a design life up to 30 years, ensuring that the equipment remains stable and reliable under harsh operating conditions.



### Energy saving and environmental safety

Energy Conservation and Environmental Protection - Promote sustainable development by using eco-friendly materials  
Use of environmentally friendly insulating varnishes to minimise environmental impact.  
By using environmentally friendly insulating varnishes, it minimizes environmental impact and demonstrates a firm commitment to sustainable development.

## Eco-friendly Insulating Varnish for Vacuum Impregnation T1168-H

### Excellent Environmental Performance

- Low volatile organic compounds (VOCs) with extremely low VOC emission ( $\leq 2\%$ ), which reduces environmental pollution and health hazards to operating personnel.

### Superior Insulation Performance

- High insulation resistance: Improves the safety and reliability of electrical equipment.
- Excellent voltage withstand capability: Insulation breakdown and similar faults are unlikely to occur.

### Excellent Impregnation Performance

- Low viscosity and high permeability to ensure reliable insulation effect.
- Uniform curing improves the overall quality of the insulation layer.

### Excellent Mechanical Properties

- High hardness: Prevents mechanical damage.
- Strong adhesion: Maintains a good bonding state during long-term service.

### Outstanding Environmental Resistance Performance

- Design temperature: 200°C (Class C); Guaranteed temperature: 180°C (Class H).
- Excellent moisture resistance.
- Superior corrosion resistance

● VPI Vacuum Pressure Impregnation Equipment



● Super-large volume of 98 m<sup>3</sup>

It can accommodate a single motor stator with power up to 20000 kW, and is also capable of processing multiple motor stators simultaneously.

● Enhanced Insulation Performance

Full impregnation under high pressure significantly improves insulation strength and heat resistance, reduces leakage current risk, and extends the service life of the motor.

● Improved Mechanical Strength

The impregnated insulation structure becomes more compact, which enhances the mechanical stability of the motor and enables better resistance to vibration and shock during operation.

● Enhanced Heat Dissipation Performance

Sufficient impregnation improves thermal conductivity and facilitates rapid heat dissipation during motor operation.

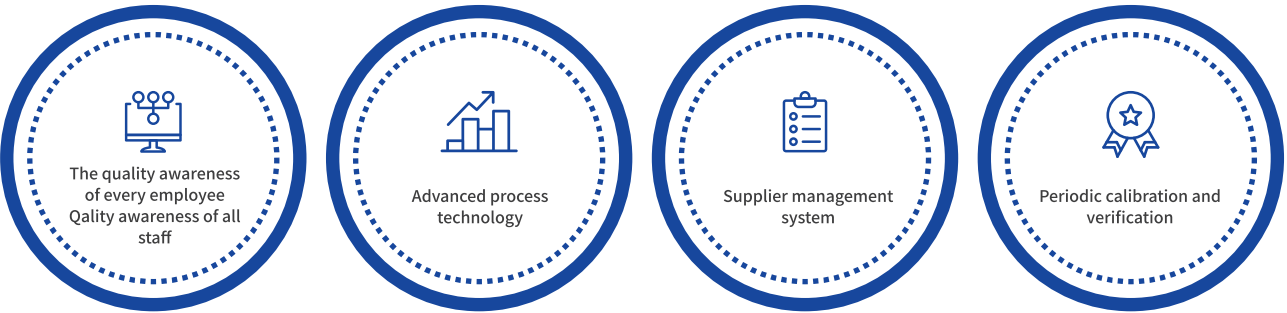
● High-precision Control

Adopting advanced visualized electrical components to precisely control vacuum degree and pressure value, it reduces bubbles and voids, effectively removes air and moisture from insulation materials, and thereby improves insulation quality.

### Quality Control Principles

Building durable and efficient drive motors with a craftsman spirit!

"One-Bag System" quality control closed-loop management, ensuring every part is recorded!

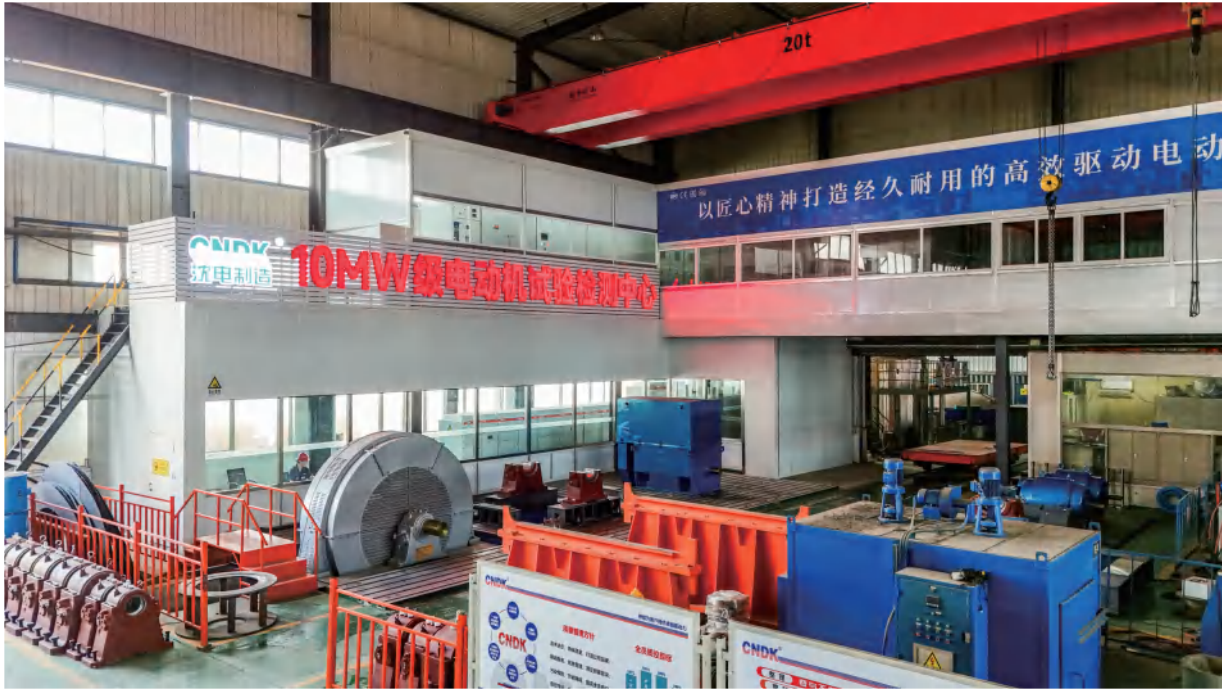


### Q.C Inspection and testing — Four routine inspections and one special inspection.



**Over 400 total inspection items**

### 10MW-class Electric Motor Testing Center



The test station possesses excellent testing capabilities and a comprehensive inspection system, with industry-leading testing processes. Specializing in precision testing for various motors (including three-phase asynchronous, wound rotor, synchronous, and VFD motors, etc.), the station covers 80+ test items. It provides high-standard, end-to-end testing services for HV/MV/LV motors, from R&D verification to final delivery.

MARKETING

Economic and trade cooperation



Promotion and exchange within economic and trade delegations



Corporate Product Promotion



Exchange Meeting on Cooperation and Development



European Trade Exchange

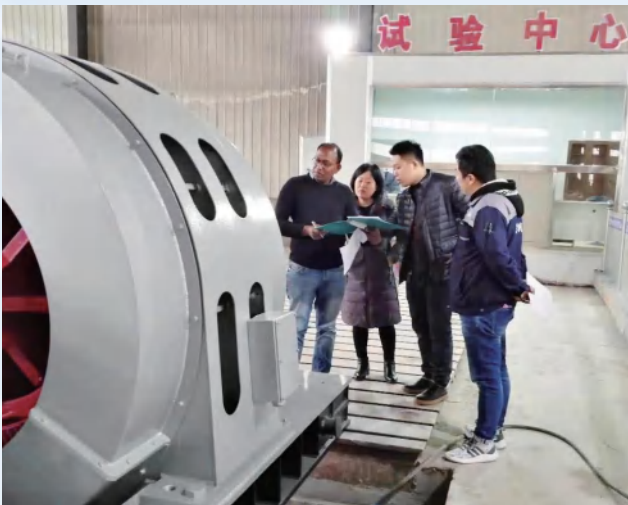
● Organising business negotiations on cooperation  
—— Business Negotiation Meeting with Clients from Multiple European Countries



● Exhibition Exchange



Visits from Global Clients



● Typical Projects



<<  
**Mining industry**  
Large Ball Mill Main  
Motor, Brush  
Excitation, 3000kW



<<  
**Metallurgy Industry**  
Blast Furnace Blower  
Main Motor,  
6300kW/7100kW



>>  
**Mining industry**  
Large Tower Mill Main  
Motor, International  
Brand Replacement,  
1120kW



>>  
**Construction Materials  
Industry**  
Cement Raw Material  
Mill Main Motor,  
Wound Rotor Type,  
4500kW



<<  
**Mining industry**  
Large Ball Mill Main  
Motor, Brushless  
Excitation, 2100kW



<<  
**Combined Heat and  
Power Industry**  
Large Coal-Fired  
Power Plant,  
1x3100kW 1x2900kW  
1x1800kW 2x450kW

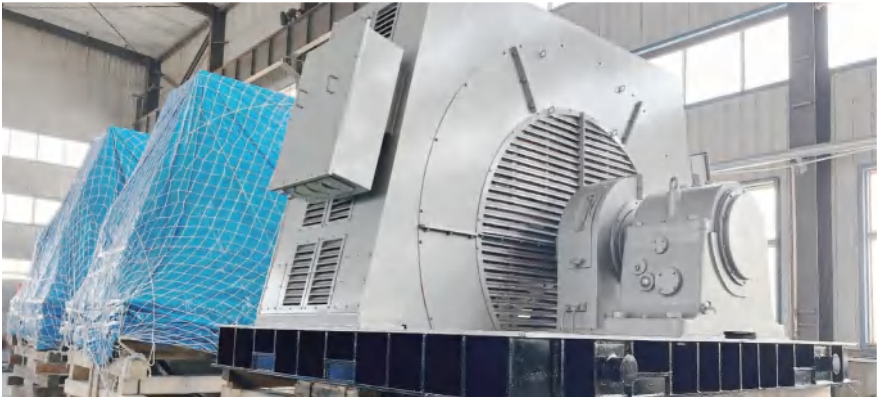


>>  
**Mining industry**  
Large Ball Mill Main  
Motor, Brushless  
Excitation, Variable  
Frequency Speed  
Control (AC-DC-AC)



>>  
**Water Conservancy &  
Water Affairs Industry**  
Water Conservancy  
Industry, Large  
Drainage Pump Main  
Motor, 7x450kW





**Air Separation and  
Compression Industry**

Large Compressor  
Main Motor, Brush  
Excitation, 5600kW



**Energy and Chemical  
Industry**

Drilling Platform Unit  
Main Motor,  
8x1000kW



**Non-ferrous Metal  
Smelting Industry**

Alumina Smelting  
Project, 3x1600kW  
3x1400kW 3x500kW  
2x750kW



**Scientific Research  
Industry**

Large Aircraft Rotor  
Test Wind Tunnel Main  
Drive Motor, 4000kW



**International Product Applications**

CNDK has successfully broken into the international market and captured significant share by leveraging a combined strategy of technological breakthroughs, precise adaptation, and high cost-effectiveness. It has now become the preferred alternative for numerous international brands.

European order



Synchronous Motor, IEC, 600 rpm, 1250 kW

Central Asian order



Wound Rotor Motor, IEC, 1000 rpm, 4316 kW

South American order



Synchronous Motor, IEC, 600 rpm, 1250 kW

Central Asian order



Synchronous Motor, IEC, 1000 rpm, 2500 kW

Southeast Asian order



Synchronous Motor, IEC, 166.7 rpm, 1000 kW

European order



Asynchronous Motor, IEC, 3000 rpm, 3000 kW

● International Product Applications

It has now successfully replaced multiple international brand series, ensuring full compliance with original dimensions and performance.



IEC / 1000rpm / 1600 kW



IEC / 600rpm / 1000 kW



IEC / 187.5rpm / 2000 kW



IEC / 1000rpm / 800 kW



IEC / 187.5rpm / 90 kW



IEC / 250rpm / 630 kW



IEC / 750rpm / 1000 kW



IEC / 600rpm / 400 kW



IEC / 1000rpm / 900 kW



IEC / 500rpm / 400kW



CUSTOMER  
SUPPORT

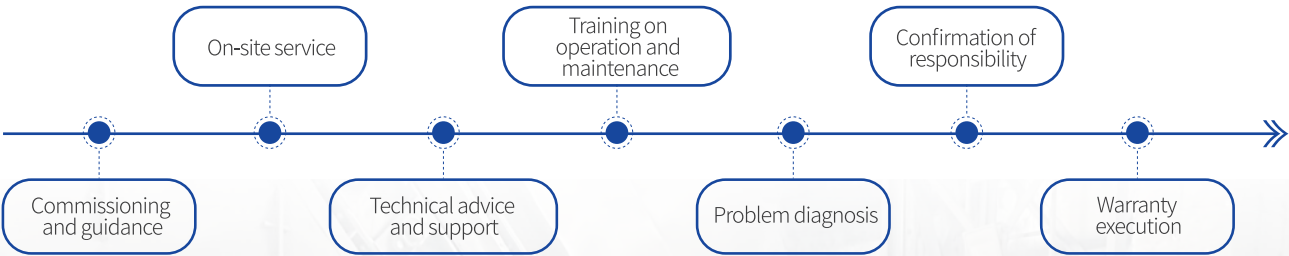
CNDK

Problem-Solving First

Our philosophy is simple: focus on solutions, not on unproductive debates. Your urgent issue is our priority. When we adopt your problem as our own, we unlock powerful opportunities to improve together."

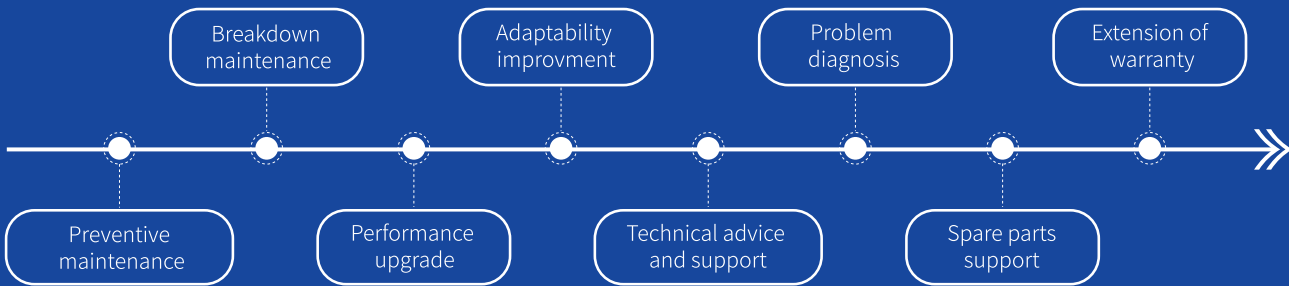
Services Covered Under Warranty

Full product cycle worry-free guarantee Full coverage of core rights and interests



Service out of warranty

Long-Term Partnership Program · Full Life-Cycle Support



Customer satisfaction survey

Our company strictly follows the requirements of the ISO 9001 quality management system in the process of providing after-sales service. We have established a comprehensive service management system and after-sales service archive, covering stages such as personnel dispatch, on-site service provision, service completion, telephone surveys and satisfaction surveys.



# STRATEGIC DEVELOPMENT

## Full Life Cycle Service

Full-lifecycle solutions ranging from conceptual design to intelligent maintenance.

CNDK provides vertically integrated services covering the entire life cycle of electric motors. Through a four-dimensional coordination model of ‘design-manufacturing-operation-development,’ we help customers achieve:



## Expand Our Share of the Global Metal Mining Market

By 2025, CNDK's market share has been increased to 33% for large low-speed synchronous motor segment in the global metal mining industry, it ranks among the top in this industry.

The company established robust, long-term strategic partnerships with 87 grinding mill manufacturers worldwide, forming a formidable industrial synergy and delivery network. Its products serve over 1,700 end-users with project experience and reputation steadily accumulating. The client portfolio encompasses major mining conglomerates and regional industry leaders.



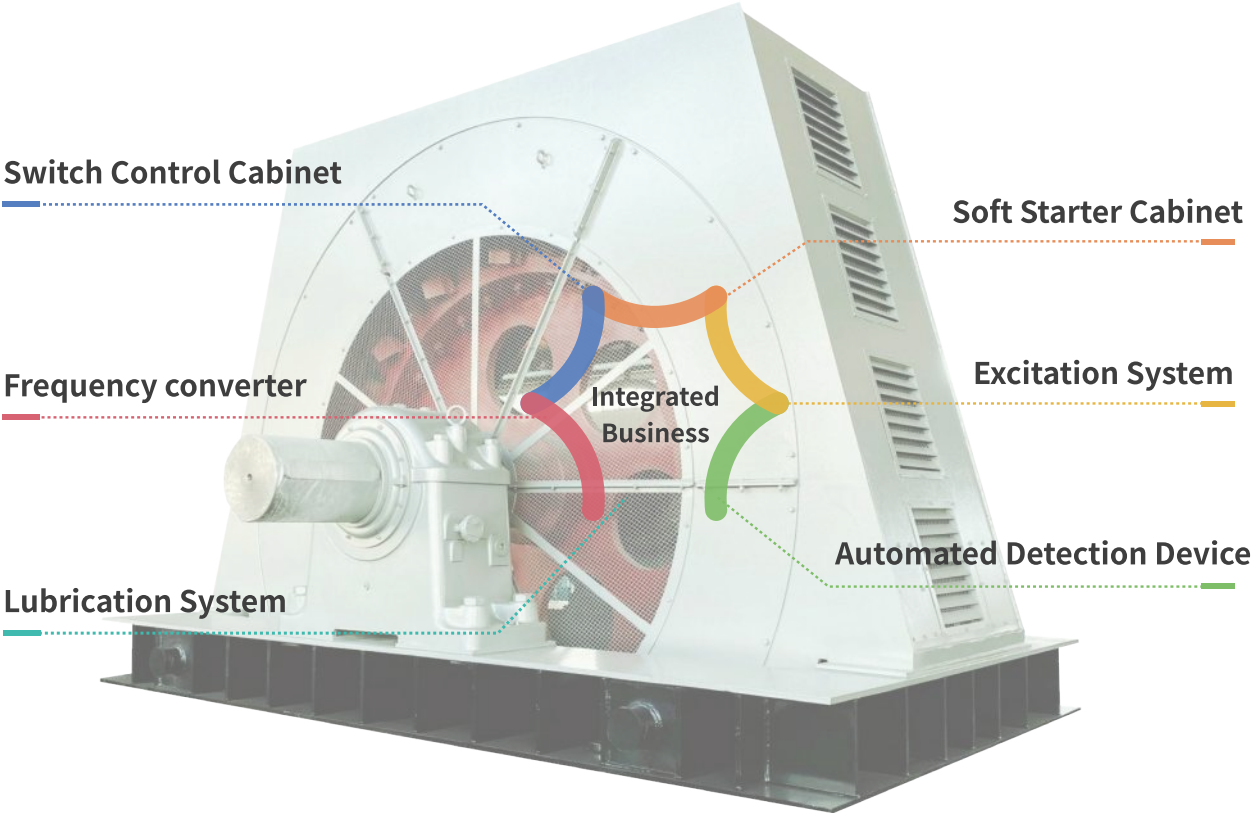
## Market Branding Contruction

Every motor produced by CNDK carries a profound heritage of precision engineering and an innovative spirit. Today, our products serve the globally prominent mining industry and has been exported to over 40 countries and regions including Europe, South America, Asia, etc. Competing on the same international stage as established giants in the motor industry, CNDK has been re-recognized and respected within the industry for its durable quality and multiple intellectual property rights.



## Overall Supply Solution for Motor Systems

Our company has completed the upgrading of traditional industries and successfully developed integrated electrical drive system solutions. It can solve a series of systematic demands for users, such as motor selection, matching of electrical control equipment, and automation integration, achieving a perfect combination of process and system.



## VISION FOR THE FUTURE

### Built on technology, driven by innovation

Upholding sustainable development, we embed eco-friendly practices across our entire design, manufacturing, and service lifecycle. By advancing high-efficiency technologies and aligning with the national "Dual Carbon" goals, we empower our partners' green transition and fulfill our duties as a leading national high-tech and SRDI enterprise.

Moving forward, Shenyang Electric Machine Manufacturing Co., Ltd. remains dedicated to crafting quality with ingenuity and pioneering growth through innovation. We are committed to driving industrial advancement with a reliable "heart of power," empowering a brighter future for all.