





WE ENSURE THE RELIABLE POWER

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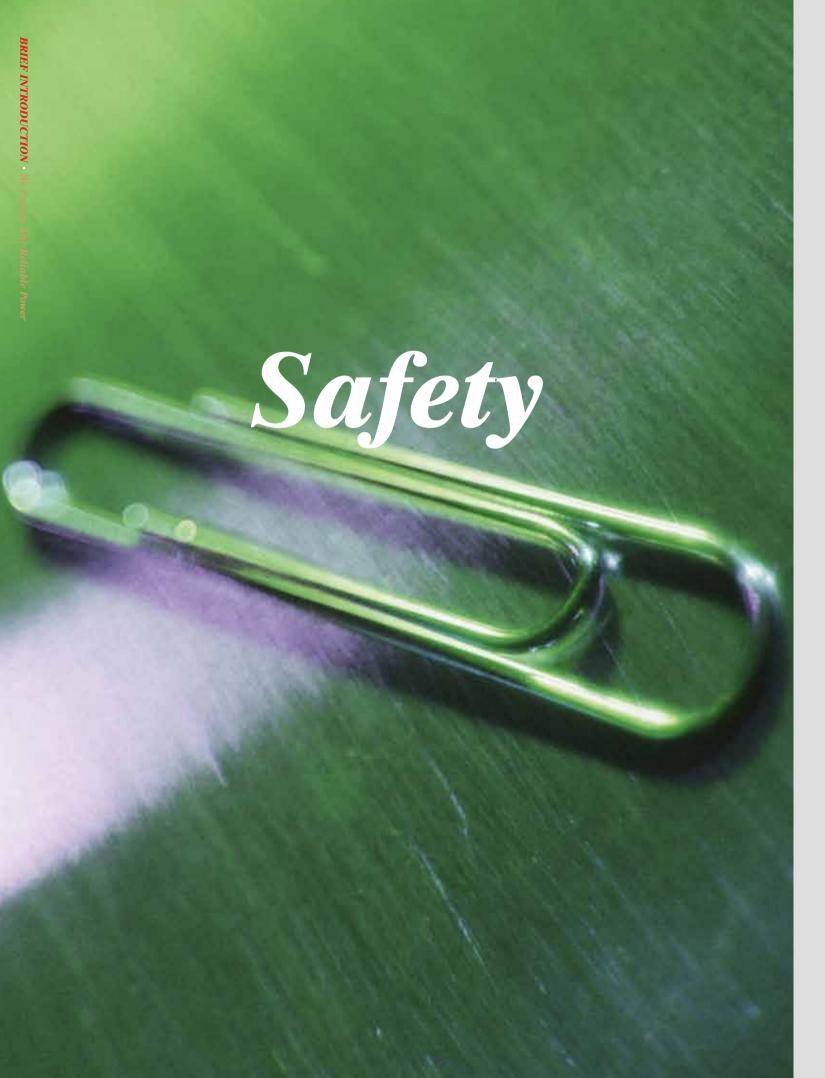
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BRIEF INTRODUCTION



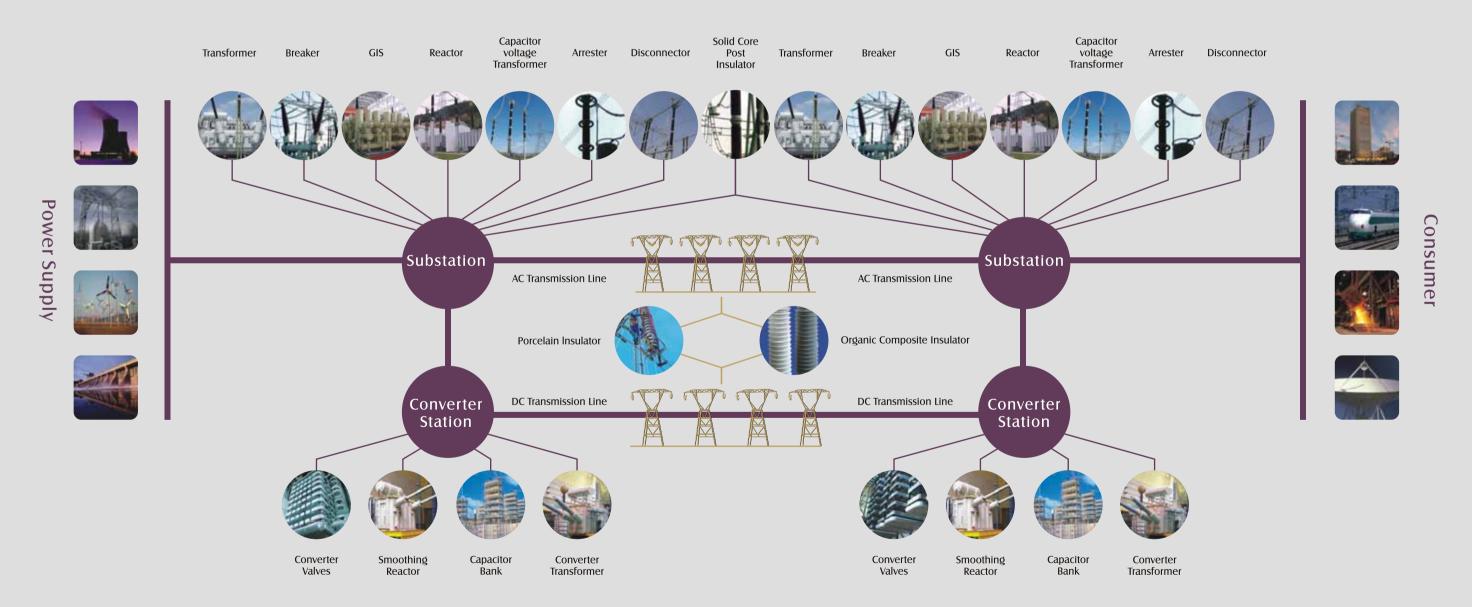
Established in 1986, Xi'an Electric Engineering Co., Ltd. ("Xi'an Electric" for short) is an enterprise owned by China XD Group, engaging in international trade and project contracts. While our strengths lie in the manufacture of high and ultra-high voltage transmission and distribution equipment and the contracting of large-scale turn-key projects, we also provide professional international trading services. We, up to now, have established sales agencies and trading companies in Hong Kong, Malaysia, Thailand, the Philippines, India, Indonesia, Vietnam, Uzbekistan and Egypt respectively.

As one of China's biggest power transmission and distribution engineering contractors, we offer a comprehensive line of products and services: complete sets of high voltage AC/DC transmission and distribution equipment; complete turn-key projects, from civil construction, design, engineering, equipment supply, installation, testing, commissioning to excellent after-sales service for substations and transmission lines. Xi'an Electric offers effective and customized solutions and designs to suit the individual needs of our clients in electrical system, telecommunications, electric railway transport, metallurgical and architectural sectors.

Products and technologies with "XD" as the trade mark have been exported to over 40 countries and regions, such as Germany, U.S., Singapore and Hong Kong, and are winning accolades in Southeast Asia, South Asia and even as far as Middle East and Africa.

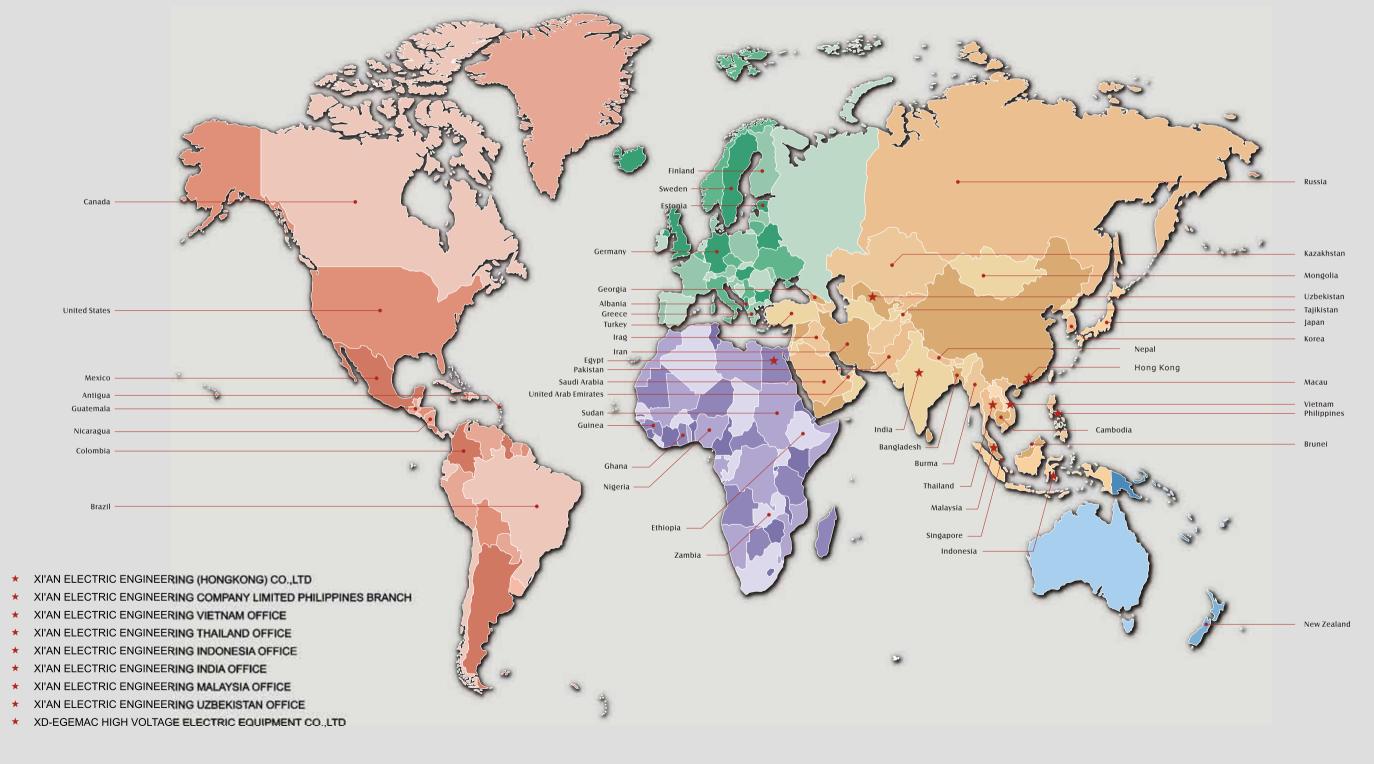
PRODUCTS

As part of the China XD Group, Xi'an Electric's ambition is to contribute to sustainable development in all areas of its business. We offer standardized or customized turnkey solutions and provides a comprehensive range of support services for our customers.





Our products are exported to a number of other countries:







Products

HVAC Transmission and Distribution Products

China XD Group is dedicated in the field of research, application, development and manufacture of high and ultra-high voltage AC transmission and distribution equipment. It has been in close communication, coordination and cooperation with both domestic and international R&D organizations and well-known electrical equipment manufacturers. With more than 50 years' dedication, China XD Group has been evolving into a leading enterprise in the electric field, and now it possesses internationally advanced and updated design technology, well-experienced professional teams, top-ranking equipment in the world, and strict and efficient management system as well as first-class measuring and testing methodology. China XD Group provides a complete range of products with new and innovative technologies and services for the global market of electric transmission and distribution field.

• System Voltage: 10kV~1000kV

• Scope:

Power and Special Transformers, Dry-Type Distribution Transformers, Reactors SF₆ Gas Circuit Breakers (GCB), SF₆ Gas Insulated Switchgears (GIS), Disconnectors, Voltage Transformers, Current Transformers

Zinc Oxide Surge Arresters

Shunt, Series, Coupling, Equalizing, Filter Capacitors; Capacity Voltage Transformers HV Porcelain Insulators, Organic Composite Insulator, Bushings, Fuses HV & LV Switchboards, Power Distribution Equipments

GIS







01: 1100kV HGIS at Jingmen Power Substation, China

02: 800kV GIS in test

03: 800kV GIS at Lanzhou Substation, China









- 01: 550kV HGIS at Shenzhen ± 800 kV Yunguang HVDC Converter Substation, China
- 02: 330kV Dead Tank Circuit Breaker at Hancheng Substation, China
- 03: 363kV GIS at Shaanxi Weinan Power Substation, China







- 01: 252kV GIS at Shanghai Wanrong Power Station, China
- 02: 252kV GIS for Pakistan project
- 03: 252kV Compact GIS











- 01: 132kV GIS in Mai Po Substation, Hongkong
- 02: 132kV GIS in Yiu Wing Street Substation, Hongkong
- 03: 126kV Compact GIS at Changzhou Substation, China
- 04: 72.5kV GIS for Singapore Power Grid

GCB





- 01: Commissioning of 800kV Dead Tank Circuit Breaker
- 02: 800kV Dead Tank Circuit Breaker in test

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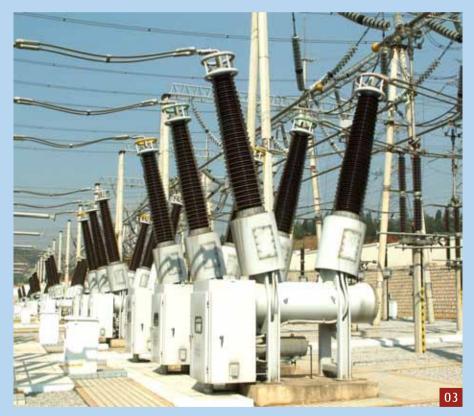




- 01: 550kV Dead Tank Circuit Breaker
- 02: 550kV Single-break Circuit Breaker at Xianning Substation, China
- 03: 550kV Live Tank Circuit Breaker at Banqiao Substation, China







- 01: 363kV Dead Tank Circuit Breaker at Guanting Substation, China
- 02: 363kV Live Tank Circuit Breaker for Datang power plant, China
- 03: 252kV Dead Tank Circuit Breaker at Qidian Substation, China







- 01: 252kV Live Tank Circuit Breaker under installation
- 02: Commissioning of 252kV Live Tank Circuit Breaker





- 01: 126kV Live Tank Circuit Breaker for Baitong project in Qinghai, China
- 02: 126kV Dead Tank Circuit Breaker at Jiaojiawan Substation, China



Compact Switchgear Assemblies









01&02: 110kV Compact Switchgear Assemblies03&04: 220kV Compact Switchgear Assemblies

Transformer / Reactor







- 01: 240MVar/1000kV Shunt Reactor
- 02: 610MVA/1700kV Testing Transformer
- 03: 800MVA/500kV Power Transformer











- 01: 40MVA/1000kV Power Transformer
- 02: 700MVA/750kV Single-phase Auto-transformer
- 03: 140MVar/750kV Shunt Reactor
- 04: 500MVA/750kV Single-phase Auto-transformer







- 01: 100MVar/750kV Shunt Reactor
- 02: 250MVA/500kV Auto-transformer
- 03: 400MVA/500kV Power Transformer in Jungar Banner ,Inner Mongolia









- 01: 12.6MVA/72.5kV Rectifier Transformer in Canada
- 02: 60MVar/500kV Shunt Reactor for Fuzhou Power Bureau, China
- 03: 160MVA/420kV Generator Transformer in Baghdad,Iraq

Disconnector







01: 1100kV UHV Disconnector 02&03: 800kV HV Disconnector







01: 550kV HV Disconnector02: 363kV HV Disconnector

Current Transformer







01: 500 kV SF₆ Current Transformer02: 500 kV DC Current Transformer

03: 330kV Current Transformer



Capacity Voltage Transformer / Arrester/Insulator/Earth Switch









01: 1000kV Capacity Voltage Transformer

02: 750kV Capacity Voltage Transformer, 750kV Arrester

03&04: 500kV Capacity Voltage Transformer









01: 1000kV Zinc Oxide Surge Arrester

02: 500kV Arrester

03: 1100kV Outdoor Solid Core Post Insulator

04: 550kV Outdoor Solid Core Post Insulator







01: 1100kV Earth Switch under installation

02: 1100kV Earth Switch

Products

HVDC Transmission Products

HVDC transmission has an overwhelming advantage over HVAC transmission for long distance transmission. The technology of HVDC transmission has been widely applied and rapidly developed in China in the Three Gorges Hydro-Power Project. Since the 1980s, CHINA XD GROUP has been involved in all of the Twenty-one(21) HVDC transmission projects in China through introducing technologies from abroad and manufacturing the equipment for them. CHINA XD GROUP now has very good manufacturing technology of DC transmission equipment and has become the leader of this field in China. Recently, in the Three Gorges project and West to East Electricity Transmission project in China, it successfully produced thyristor valves, $\pm 500 \mathrm{kV}$ and $\pm 800 \mathrm{kV}$ converter transformers and smoothing reactors with the performance of international standard for sections from Three Gorges to Changzhou, Three-Gorges to Guangdong, and Guizhou to Guangdong, Yunnan to Guangzhou, and Xiangjiaba to Shanghai.

• Voltage Level: $\pm 50kV \sim \pm 800kV$

• Scope:

System Research, Design, DC System Simulating

Thyristor Valves

Converter Transformer, Smoothing Reactor

Filter, Shunt Capacitor; Filter Reactor, Control and Protection for Filter

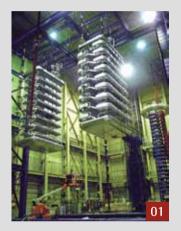
DC Zinc Oxide Surge Arresters, Polymeric Post Insulator

HV DC Bushings for Converter Transformer and Smoothing Reactor

DC Current Transducer, DC Voltage Transducer

DC Switchgear











- 01: Thyristor converter valves for Zhengping converter station in $\pm 500 \text{kV}$ Three Gorges-Changzhou HVDC transmission project
- 02: Converting Valves operating on site for $\pm 800 \mathrm{kV}$ Yunnan-Guangdong UHV DC Transmission Project
- 03: Converter transformer for Lingbao converter station
- 04: Converter transformer in Shengsi DC transmission project







- 01: 120MVar/330kV Smoothing Reactor
- 02: Shunt Capacitor Bank
- 03: 401.2MVA 660kV Converter Transformer at Ningdong Converter Station



Medium and Low Voltage Switchgear Assembly

China XD Group has also been dedicated in the field of medium and low voltage switchgear assembly. The products are standardized, miniaturized, durable, and reliable and can be specialized in complete series. The voltage level of the products covers from 0.38kV to 126kV, the range of current level is 160A-6300A and of that the rated short-circuit breaking current is 2.5kA-80kA. By continuous technical improvement and introducing advanced production equipment from home and abroad, XD now possesses the first-class technologies and equipments and leading testing capabilities.

By November, 2011, the cumulative production of XD's vacuum interrupter reached 3,250,000 pieces. The yearly output and sales volume of vacuum interrupter exceeded 400,000 pieces in 2010.

XD's medium and low voltage switchgears have been widely applied in power distribution and transmission system of electric power, metallurgy, petroleum, chemistry, mining, railway, broadcast, communication industries. The products are not only sold well in domestic market but also exported to Europe, America, Southeast Asia and other countries and regions.

• Voltage Level: 0.38kV ~ 126kV Current Range: 160A~6300A

• Scope:

Vacuum Interrupter
Solid-sealed Polar Pole
Railway Electrical Apparatus
Electro-vacuum Ceramics
Glass products



- 01: Vacuum Interrupter
- 02: Indoor High Voltage Vacuum Circuit Breaker
- 03: Metal-clad Enclosed Switchgear
- 04: Low Voltage Withdrawable Switchgear





PROJECTS

Xian Electric owns an excellent engineering contracting team, which is engaged in Survey, Design, Supply, Installation, Erection, Testing, Commissioning and civil works.

For years, Xian Electric has successfully supplied transmission and distribution equipment to Hong Kong, Taiwan, Singapore, Nepal, Bangladesh, Thailand, Malaysia, the Philippines, Indonesia, Pakistan, India, America, Colombia, Brazil, Russia, Germany, Turkey, South Africa, etc. Xian Electric has also clinched more than a hundred turnkey substation projects, and we have obtained fantastic results in projects in which funds are loaned by the World Bank, Asian Development Bank and other international financial organizations. At the same time, we have also participated actively in China's electric power construction projects. In recent years, we have also furnished 500kV AC/DC substation equipments for the China Three Gorges project and the China "West to East Electricity Transmission" project.

Xian Electric has been a turnkey project contractor for DC/AC substations up to 550kV, and is capable of providing electrical solutions for our customers. Besides ensuring our equipment of high quality and reliability, we establish and optimize both the quality control and internal management system in place, and also seek to achieve complete customer satisfaction in all areas including safety, health, environment, project risk control, etc.



Hong Kong

Xian Electric Engineering (Hong Kong) Company Limited

Xian Electric Engineering (Hong Kong) Company Limited, registered in June 2002, is a wholly owned subsidiary of Xian Electric Engineering Company Limited. Majorly for market development, project implementation and related business operations in Hong Kong and Macao.

Currently, our major client is CLP Power Hong Kong Limited. Since our subsidiary was established, we have provided CLP nearly 100 sets of 132kV transformers /shunt reactors, and more than 300 bays of 132kV GIS / 145kV RMU. During the long-term coorperation with CLP, the application of our new tech materials to satisfy our clients, increasingly improving products quality, and timely field service have been highly evaluated.





01: 132kV GIS at Junk Bay Road

02: 132kV 50MVA Transformer at Lai Cheung Road







- 01: Project Kick-off Workshop
- 02: 132/11kV 50MVA Power Transformer under Factory Acceptance Test at Sham Mong Road
- 03: SFZ10-50MVA 132kV Power Transformer with high impedence for CLP







01、02&03: View of CLP New Hoi Shing substation

Macao



01: 66kV GIS for Nape Subastation, in test



Malaysia

Malaysia is a highly important market for Xian Electrifc. We established our office in 1995. For decades, we are committed to offering the most advanced products and services to our clients.







- 01: 275kV GIS at Jalan Pudu Ulu S/S
- 02: View of Jalan Pudu Ulu S/S in Kuala Lumpur
- 03: OSFPSZ-240MVA 275kV Powe Transformer at Jalan Galloway S/S

Singapore











- 01&02: Supply and installation of 400kV switchgear, ancillary equipment and accessories for Paya Lebar 400kV Substation
- 03&04: Supply and installation of 230kV switchgear, ancillary equipment and accessories for Tuas A Substation
- 05: Supply and installation of 72.5kV switchgear, ancillary equipment and accessories for Kim Chun Substation



The Philippines

Turn key project for Mandaue S/S, Mactan S/S, Banilad S/S expansion in Philippines.













- 01: Mactan S/S
- 02: Banilad S/S
- 03: President Madam Arroyo at the switch-on ceremony
- 04: Mactan steel pole
- 05: Mactan 138/69 13.8 kV transformer
- 06: Mandaue 69kV GIS

Cebu-Negros Interconnection Uprating Project(CNIUP) in Philippines









- 01: Amlan substation 50MVA / 138kV Power Transformer
- 02: Stringing in progress
- 03: Steel tower -Cebu-Negros 138kV Transimission line
- 04: Suba substation 69kV switch yard

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- 01: Suba substation 138kV switch yard
- 02: 138kV Power transformer
- 03: 138kV Power shunt reactor
- 04: View of Suba Substation

Turn Key Project for Naga-Tayabas 500kV transmission line





- 01: 500kV Tower under construction
- 02: View of NAGA-TAYABAS 500kV transmission line

Turn Key Project for Leyte-Bohol Inteconnection Project : 138kV and 69kV substation and 138kV Transmission line, 112 km in Philippines







- 03: Arroyo at the switch-on ceremony
- 04: 0309 138kV UBAY Substation
- 05: Xian Electric signing the contract on the Leyte-Bohol Interconnection Project with TRANSCO



Nepal

Turn-Key Projects in Nepal







- 01: View of 132kV Anarmani S/S
- 02: 132kV Power Transformer at Lahan S/S
- 03: View of 132kV Lahan S/S

Thailand & Columbia

Projects for GIS Indoor Substations in Thailand and Colombia



- 01: 72.5kV GIS for SuansomS/S, Thailand
- 02: 145kV GIS for San Rafael Reservoir, Colombia

Germany



03: SFPFZ-250MVA/410kV Power Transformer for VEAG Group, Germany



Projects In China

Three Gorges Projects in China

- 550kV GIS for Three Gorges project
- ± 500kV HVDC Transmission Project, Three Gorges to Guangdong

West to East Electricity Transmission Project in China

- $\odot \pm 500 \mathrm{kV} \ \mathrm{HVDC} \ \mathrm{Transmission} \ \mathrm{Project}, \ \mathrm{Guizhou} \ \mathrm{to} \ \mathrm{Guangdong}$
- ± 500kV HVDC Transmission Project, Three Gorges to Shanghai
- ±800kV UHVDC Transmission Project, Yunnan to Guangzhou
- ±800kV UHVDC Transmission Project, Xiangjiaba to Shanghai

Other Major Projects in China

- Jin Dong nan to Jingmen 1000kV UHVDC Pilot Demonstration Project
- Northwest 750kV Pilot Demonstration Project
- Lingbao Back to Back HVDC Interconnection Project, Northwest to Central Region
- Tianshengqiao Hydro Power Project
- Shenzhen Yantian Port Power Supply System (Phase I&II)
- Railway Electrification Projects, Zhengzhou to Wuhan, Dalian to Qinhuangdao
- Participating in all 18 HVDC Transmission projects in China, including Gezhouba to Shanghai HVDC
 Transmission line





- 01: Converter transformer in hoist for Three Gorges to Changzhou HVDC transmission project
- **02:** Smoothing reactor for Three Gorges to Changzhou HVDC transmission project











- **01:** 500kV converter transformer for Three Gorges to Changzhou transmission project, passing over Yellow River Bridge
- **02:** 24.41MVA/500kV Converter Transformer at Suidong power substation in Guangdong
- 03: Converter transformer in test for Three Gorges-Changzhou HVDC Transmission Project
- 04: Converter transformer during commissioning and operation at Lingbao converter station
- 05: Smoothing reactor in test



QUALITY ASSURANCE



Focus





Xian Electric has been awarded the International Certification for ISO9001:2000 Quality System Accreditation, and has set up a management system for safety, health, environment and risk. The company is determined to win the trust of international and domestic consumers by providing quality products and excellent services. Win over the global consumer with superlative service and uphold the XD brand name with quality products are the principles we practice diligently and consistently.





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