CHINT ELECTRIC

Transmission & Distribution Product Portfolio

www.chint.com

CHINT **GROUP**

As a core business segment, CHINT Electric focuses on power transmission and distribution, integrated distribution, low-voltage apparatus, instrumentation, and cables—continuously advancing toward system-level and digitalized solutions. Leveraging IoT and digital technologies, it has evolved into a comprehensive solutions provider covering intelligent distribution, energy management, and smart O&M.

Driven by electrification, digitalization, and intelligent manufacturing, CHINT Electric has established a fully integrated value chain spanning generation, transmission, transformation, distribution, storage, and consumption. Its solutions are widely applied across power utility, power generation & new energy, data centers, industrial manufacturing, renewable energy, and infrastructure, delivering safer, more efficient, and smarter energy management.

With a presence in over 140 countries and regions, CHINT Electric continues to empower global partners with reliable, scalable, and sustainable energy solutions, contributing to a greener future.

25.91
Billion USD
Annual Revenue

30.82
Billion USD
Total Assets

2.2 +
Billion USD
Total Annual Profit and Tax

40,000 +
Global Employees

500,000
Employment Opportunities
Driven By Industrial Chains

140 +
Business Coverage in
Countries and Regions

70% +
Localization Rate of CHINT
International Employees

12,000 +
Total Patented
Technologies

2023-2026
Four Consecutive Years as
China Top Employer

Data updated as of 31 December 2025

GLOBAL R&D **LOCALIZATION**

Think Globally, Collaborate Locally

24+
Global Research Institutes

700+
Industry and International Standards Formulation

12,000+
Accumulated Authorized Patents

4%-12%
Annual R&D Investment Obtained from the Percentage of Sales

CHINT Intelligent Electrical Laboratory Center

- Encompasses the National, European and American standards
- Improve the autonomous R&D capabilities and accelerate new products development
- Develop and elevate the system testing for customer application scenarios

Asia Pacific Innovation Lab, Singapore

- Showcasing comprehensive and cutting-edge solutions for various industries. Innovate and co-create solutions together with the international partners to achieve business and environmental goals
- Remote Factory Acceptance Testing can be achieved in the Lab, to ensure product qualities and international standards are applied

NOARK Global R&D Center

- Establish global R&D centers in Asia Pacific, Europe and North America regions
- Integrate "Industry-Academia-Research" model, utilize the global innovative resources and attract the top industry technical talents
- Advanced simulation platform and R&D process manufacturing center to meet customers' personalization and customization needs globally

GLOBAL LOGISTICS **LOCALIZATION**

Penetrate Locally, Escalate Globally

80%+
Increase of
On-time Delivery Rate

50%+
Increase of
Global Project Coverage

<60 天
Shorten the Average
Delivery Cycle

20+
Global Logistics
Centers

North America	USA | Mexico | Canada
Asia Pacific	India | Vietnam | Indonesia | Malaysia | Thailand | China (Shanghai, Wenzhou)
Latin America	Brazil | Ecuador
West Asia and Africa	Egypt | Kenya | Dubai | Nigeria
Europe	Spain | Italy | Czech Republic | Türkiye | Kazakhstan | Romania | Netherlands | Germany

Dubai Global Logistics Center

Brazil Global Logistics Center

CHINT Global Intelligent Fulfillment Center (Wenzhou)

GLOBAL FOOTPRINT

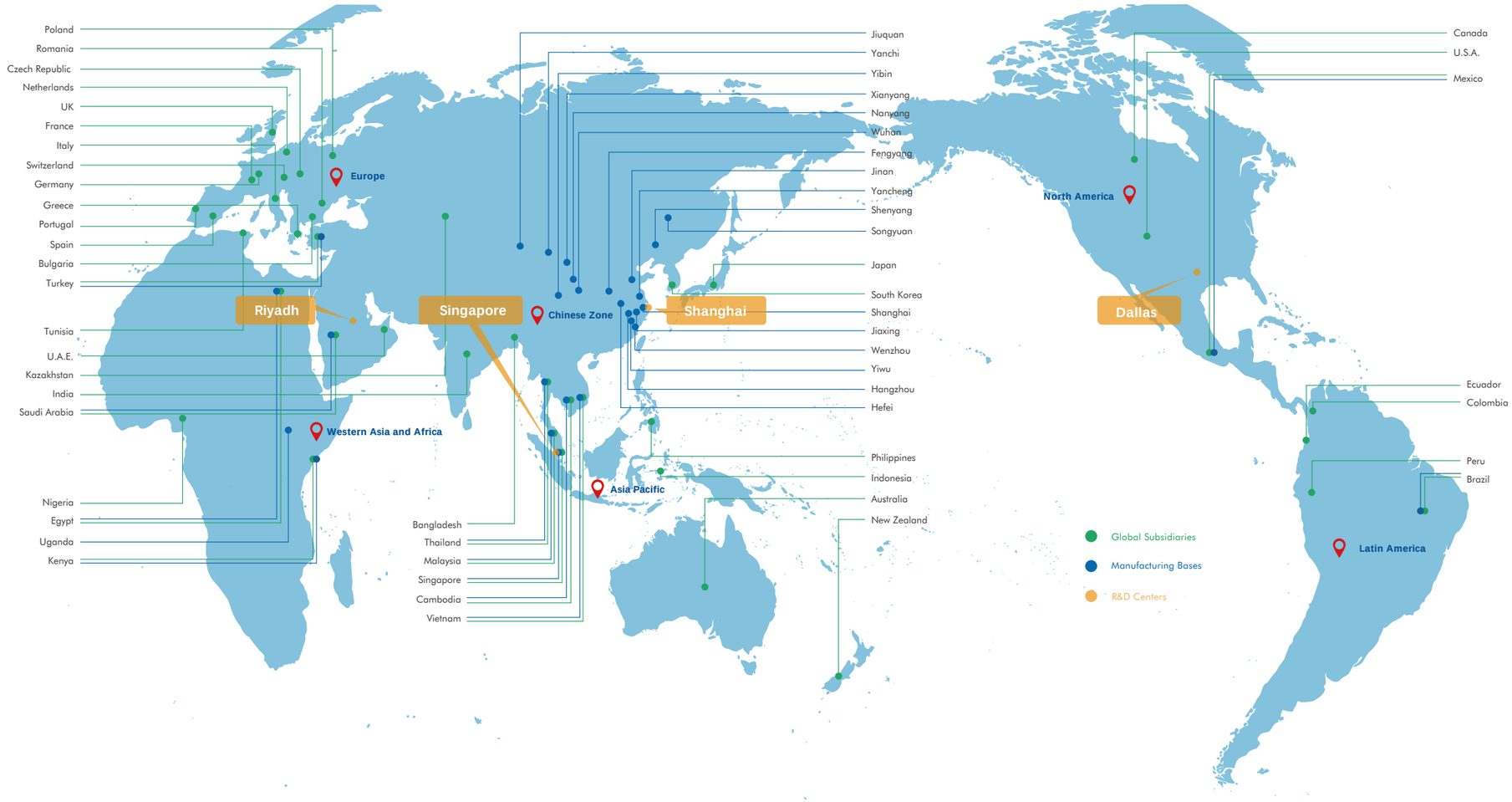
140+
Business Covering Countries and Regions

40+
Global Subsidiaries

30+
Global Manufacturing Bases

2,300+
Global Distributors

70%
Localization Rate of Global Employees



CHINT-AJLAN & Bros Factory Saudi Arabia

CHINT ATC Factory Saudi Arabia

CHINT – EGEMAC Factory Egypt

Sunlight Singapore & Malaysia

Sunlight Vietnam

SchneiTec CHINT Factory Cambodia

Metering Production Base Mexico

Metering Production Base Kenya

Metering Production Base Uganda

Metering Production Base Brazil

Transmission and Distribution (Shanghai) Industrial Base — Songjiang, Shanghai

Ultra-high Capacity Power Transformer Manufacturing Base — Wuhan, Hubei

Smart Electrical South China Innovation Industrial Park — Guangdong (Under Construction)

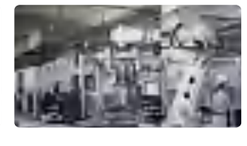
East China Smart Distribution Industrial Base — Jiaxing, Zhejiang

Northwest Manufacturing Base — Xianyang, Shanxi

Smart Electrical North China Innovation Industrial Park — Inner Mongolia (Under Construction)

Power Automation Manufacturing Base — Ji'nan, Shandong

Binhai Industrial Park — Wenzhou, Zhejiang



Low-Voltage Electrical Intelligent Manufacturing Base — Wenzhou, Zhejiang

Metering Industrial Park — Wenzhou, Zhejiang

CHINT Electric Business Overview

CHINT has built a comprehensive power and energy ecosystem spanning UHV equipment, low-voltage components, digital systems, and full-lifecycle services from EPC delivery to intelligent O&M. Covering power generation, transmission, transformation, distribution, storage, and consumption, CHINT empowers industries including power grids, renewable energy, data centers, and infrastructure with safer, more efficient, and smarter energy solutions.

As a core business segment of CHINT Electric, Power T&D provides integrated solutions across primary equipment, secondary systems, and intelligent control technologies. With products covering up to 1000 kV, 150+ series, and 2,000+ specifications, Power T&D delivers reliable power solutions supported by EPC+O&M+Financing (EPC+O+F) full-lifecycle services.

- Low- & Medium-Voltage Electrical
- Power Transmission & Transformation
- Industrial Automation
- Power Automation
- Instrument & Metering
- Wire & Cable
- Power Engineering Services
- Power Electronics

Green Development

CHINT

Driving Industrial Transformation through Energy Transition
Co-Creating a Green Ecosystem through Science-Based Decarbonization

Global O&M Capacity of Renewable Energy Assets	Annual Green Electricity Generation	Annual Carbon Emissions Avoided
80+ GW	79.8+ Billion kWh	66+ million tons

Release "CHINT Electric Carbon Neutrality White Paper" and make a "Zero Carbon Declaration"

- Achieve operational carbon neutrality (including carbon offsetting) by 2028.
- Achieve operational net-zero carbon emissions by 2035.
- Achieve net-zero carbon emissions across the entire value chain by 2050.

Chint has joined the SBTi to drive science-led progress toward net-zero emissions

CHINT Electrics have officially joined the SBTi and set specific emissions reduction targets aligned with the Paris Agreement—covering the full value chain from R&D and manufacturing to operations and supply chain.

SCIENCE BASED TARGETS

We are committed to global sustainable development—creating new value for a safer, greener, more convenient, and more efficient smart energy future

40MVA 150kV and 25MVA 132kV power transformers have obtained EPD certification, verified by Italy's EPD authority and published on its official website.

Carbon footprint certification for 110kV and 220kV transformers.

Carbon footprint certification for ASTRO series modules.

T&D Portfolio

One Portfolio. EveryGrid.

Our comprehensive T&D portfolio spans transmission and distribution networks, integrating both primary equipment and secondary systems. From standardized products to tailored solutions, we enable utilities, power generation, renewable energy and data center customers worldwide with reliable, intelligent and scalable grid infrastructure.

01 Transmission Grid Equipment

- **Power Transformers**
  - Oil-Immersed Power Transformers
  - Natural Ester Oil-immersed Power Transformers
- **Gas-Insulated Switchgears (GIS)**
  - HV Gas Insulated Switchgears
  - 145kV SF6 Free GIS
- **Hybrid Compact Switchgears (HGIS/PASS)**
- **HV Circuit Breaker**
  - Live-Tank Circuit Breakers (LTCB)
  - Dead-Tank Circuit Breakers (DTCB)
- **Disconnector (DS)**
- **Current Transformers**
- **Voltage Transformers**
- **Combined Instrument Transformers**
- **HV Surge Arrester**

02 Distribution Grid Equipment

- MV SF6 Free Gas Insulated Switchgears
- MV Air Insulated Switchgears
- MV SF6 Gas Insulated Switchgears
- Load Break Switchs
- Dry Type Transformers
- Oil-immersed Distribution Transformers
- Pad Mounted Transformer

03 Power Quality &Substation Automation

- Shunt Reactor & Variable Shunt Reactor
- Power Capacitor
- STATCOM
- Substation Automation

04 Tailored Substations Solutions

- Mobile Substation
- Prefabricated Substation
- PCS Integrated Substation
- Prefabricated Power Modules for Data Centers

05 Sales References

- Transmission Grid
- Distribution Grid
- Power Quality & Automation
- Tailored Substations Solutions

01

Transmission Grid Equipment

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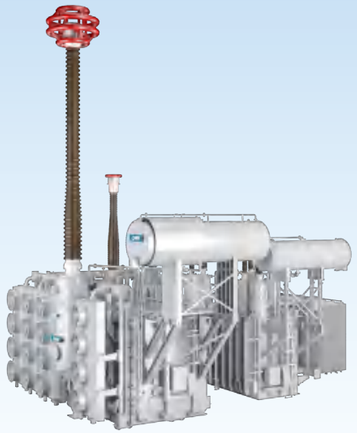
- **Voltage Transformers**
- **Combined Instrument Transformers**
- **HV Surge Arrester**

Oil-Immersed Power Transformers



	1000 kV	400 kV	220kV	132kV
Rated Voltage（kV）up to 1000kV	(1050/ √3)/ (525/ √3)±4×1.25%/110 kV	(420/ √3)/(230/ √3)/15.75 kV	242/22kV	132/12/12kV
Rated Capacity（MVA) up to 1200MVA(three phase) up to 700MVA(single phase)	1000/1000/334 MVA	300/200/100 MVA	780/780MVA	40/40/13.3
Short-Circuit Impedance	"18% / 62% / 40% (H-M / H-L / M-L)"	"12% / 31% / 16% (H-M / H-L / M-L)"	20% (H-L)	20% / 20% / 20% (H-M / H-L / M-L)
Cooling Method	OFAF / ONAN	ONAN / ONAF/OFAF	OFAF	ONAN/ONAF
Vector Group	Ia0i0	YNa0+d5	YNd11	YNyn0+d11
Insulation — HV SI/LI/LIC/AC	1800/2250/2400/1100 kV	1050/1425/1570/630 kV	750/950/1045/395 kV	-/650/715/275 kV
Insulation — MV SI/LI/LIC/AC	1050/1550/1675（1705) /630 kV	550/230 kV	/	125/140/50 kV
Insulation — LV LI/LIC/AC	650/750/275 kV	125/50 kV	170/187/70 kV	125/140/50 kV
Insulation — N LI/AC	325/185 kV	550/230 kV	450/185 kV	650/275 kV
Applicable Standards	IEC, IEEE, GB and other systems.			

Applications

- UHV AC Backbone Transmission
- Cross-Regional Grid Interconnection
- Urban & Industrial Power Distribution
- Renewable Energy Grid Integration

Customer Value

Global Standard Compliance

- Fully compliant with international mainstream standards including IEC, ANSI, IEEE, AS, EN, BS, GB, and more.

Customization

- Fully customized transformers available to meet your individual requirements.
- Short competitive delivery cycle

Superior Equipment Performance

- Economical & efficient design, effectively cut down network loss and operating cost.
- Excellent short-circuit resistance and insulation performance.
- Compact structure, low noise, lightweight body.

Natural Ester Oil-Immersed Power Transformers

	750 kV	500kV	220 kV	132kV
Rated Voltage up to 750kV	(750 / √3) / 35 kV	(525/ √3)/(230/ √3)/66 kV	220 / 20 kV	132/23
Cooling Method	KNAN / KNAF	KNAN/KNAF	KNAN / KNAF	KNAN / KNAF
Insulation Level- HV Winding:SI / LI / AC	1550 / 1950 / 900 kV	1175/1550/680 kV	850/1050 /460 kV	-/650/275kV
Insulation Level-MV Winding	/	LI/AC 950/395 kV	/	/
Insulation Level-HV Neutral:LI / AC	200 / 85 kV	325/140 kV	550/230 kV	150/50 kV
Insulation Level- LV Winding:LI / AC	200 / 85 kV	325/140 kV	125/50 kV	325/140 kV
Energy Efficiency	Tire2	Tire2	Tire2	Tire2
Applicable Standards	IEC, IEEE, GB and other systems.			

Applications

- Environmentally protected areas, such as water source protection zones, fishery-solar complementary power stations, forest-solar complementary power stations, and offshore wind farms.
- Areas with high fire safety requirements, including densely populated zones, underground substations and indoor spaces.
- Areas with heavy overload transformers and drastically fluctuating loads, such as photovoltaic and wind power projects.
- Application scenarios with restrictions on transformer overall dimensions.

Customer Value

Environmentally friendly and highly secure solutions

- High safety level with outstanding fire resistance performance
- Eco-friendly raw materials, low carbon emissions
- Extend service life of internal insulation paper

Excellent Comprehensive Performance

- Excellent high-temperature withstand capability
- Reliable waterproof & moisture-proof performance
- Uniform and reasonable internal electric field distribution

HV Gas Insulated Switchgears

	ZFW21A-145			ZFW34A-252	ZFW34-420		ZFW34-550
Rated Voltage (kV)	72.5	126	145	252	300	420	550
Rated Normal Current (A)	3150	3150	3150	4000	5000	5000	5000/6300
Rated Short-Circuit Breaking Current (kA)	40	40	40	50	63	63	63
Frequency	50/60 Hz						
Applicable Standards	IEC, GB						

Applications

- Power Transmission & Distribution
- Renewable Energy Grid Integration
- Onshore & Offshore Wind Farm Grid Connection
- Large-Scale Power Generation
- Industrial Power Systems
- Long-Distance Power Transmission

Customer Value

Shorter Delivery Lead Time

In-house manufacturing of key components and enclosures enables tighter production control and shorter delivery lead times.

Reliable Gas Sealing

A double-sealing design helps achieve an annual SF_6 leakage rate of less than 0.1%, supporting long-term reliability and environmental performance.

Intelligent GIS Solutions

Digital monitoring and intelligent control enable enhanced operational visibility, safety and efficiency across substations.

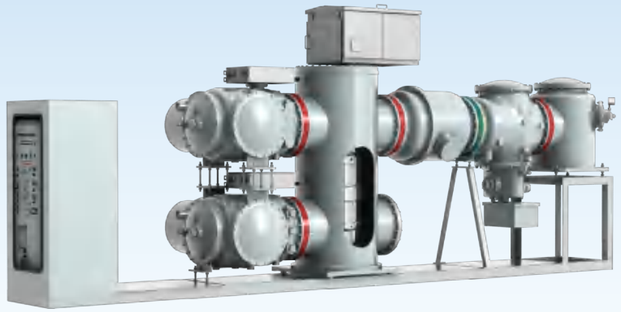
Comprehensive Technical Training

Product and technical training is available for customers' engineering, operations and maintenance teams.

Lifecycle Service Support

Comprehensive support is available throughout the product lifecycle, including maintenance, repair, retrofit, system extension and future bay expansion.

145kV SF6 Free GIS



	ZFW21B-145
Rated Voltage	145kV
Rated Normal Current	3150A
Rated Frequency	50Hz/ 60Hz
Rated Withstand Current	40kA/3s
Rated Peak Current	104kA
Mechanical Endurance	10000 times (CB, DS, ES, FES)
Applicable Standards	IEC, GB

Applications

- Europe: Urban substations, new energy grid connection, strict environmental regulations.
- Asia-Pacific: Urban expansion, industrial parks, rail transit power supply, rapid load growth.
- North America: Aging grid renovation, data centers and new energy access, rising low-carbon demand.

Customer Value

Zero-Carbon & Eco-Friendly

Dry air with GWP=0, no global warming risk, meets the highest environmental protection standards.

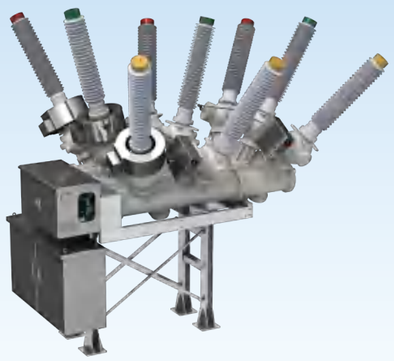
Wide Temperature Adaptability

Vacuum interruption + dry air avoids liquefaction, operates stably at -50℃ without extra heating.

Low Cost Throughout Lifecycle

Eliminates the investment in SF_6 gas recovery and testing equipment, as well as the associated operating procedures. The 145 kV SF_6-free GIS uses dry air as the insulating medium; therefore, no gas treatment is required. Lifecycle operation and maintenance costs are reduced by 10–15%.

Hybrid Compact Switchgears (HGIS/PASS)



	ZHW-145 (H)		
Rated Voltage (kV)	72.5	126	145
Rated Normal Current (A)	3150	3150	3150
Rated Short-Circuit Breaking Current (kA)	40	40	40
Frequency	50/60 Hz		
Applicable Standards	IEC, GB		

Applications

- **Retrofit and Expansion of Existing Substations**
  HGIS is well suited for brownfield substation retrofit and bay extension projects. Compared with outdoor GIS solutions, HGIS can reduce the lateral bay dimension by approximately 1-2 meters, helping customers optimize limited site space.
- **Fast On-site Installation and Commissioning**
  GIS normally requires disassembled transportation and longer on-site assembly and testing. HGIS is delivered with a higher level of factory integration, allowing installation and commissioning to be completed on site within 1-2 days under typical project conditions.
- **Mobile Substation Applications**
  HGIS can be used as the high-voltage switching equipment for mobile substations, supporting compact layout, fast deployment and reliable operation.
- **Harsh Environment Applications**
  HGIS is suitable for demanding operating environments, including low-temperature areas, seismic regions and heavily polluted areas.

Customer Value

Compact Footprint
Saves up to 60% of land area compared with AIS, making it suitable for space-constrained substations, retrofit projects and capacity expansion.

Fast Installation and Commissioning
Fully assembled modules are delivered from the factory, enabling fast on-site erection and commissioning within approximately 16 hours.

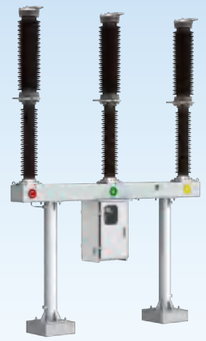
Lower Lifecycle Cost
Reduces construction and lifecycle cost by approximately 20% compared with AIS, helping customers improve total project economy.

Easy Future Extension
Modular and compact design supports easier bay extension and future substation expansion.

Suitable for Mobile Substations
Compact structure and high level of integration make it suitable for mobile substation applications.

Customized Solutions
Project-specific configurations can be provided to meet different grid layouts, operating requirements and customer standards.

Live-Tank Circuit Breakers (LTCB)



	LW36-145		LW43-252
Rated Voltage (kV)	126	145	252
Rated Normal Current (A)	3150/4000	3150/4000	4000
Rated Short-Circuit Breaking Current (kA)	40	40	50
Frequency	50/60 Hz		
Mode of Operation	IPO/TGO		
Applicable Standards	IEC，GB		

Applications

- **Outdoor AIS Substations**
  Widely used in conventional air-insulated substations for line bays, transformer bays, bus coupler bays and sectionalizing bays.
- **Power Transmission and Distribution Networks**
  Applied in high-voltage transmission and sub-transmission networks to switch load current and interrupt short-circuit current.
- **Power Plant Step-up Substations**
  Used at generator step-up substations to connect power plants to transmission grids and provide reliable fault clearing.
- **Renewable Energy Grid Connection**
  Suitable for wind farms, solar power plants and other renewable energy projects requiring outdoor high-voltage switching equipment.
- **Cost-sensitive Projects**
  Preferred in projects where mature technology, easy maintenance, and competitive investment cost are key decision factors.

Customer Value

Localized Manufacturing Capability
Modular design based on a new product structure enables localized manufacturing, helping meet country-specific market requirements for local production.

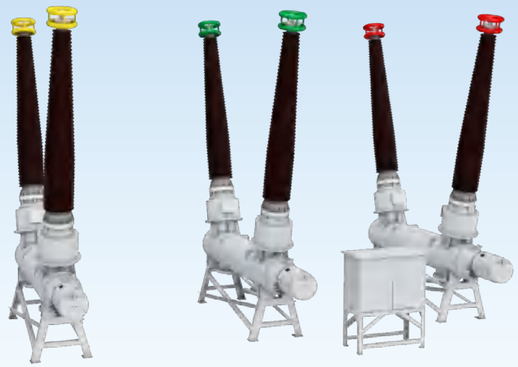
Excellent Gas Tightness
The double-sealing ring design ensures an annual gas leakage rate as low as 0.1%. No gas refilling is required within 25 years under normal operating conditions.

High Protection Level
The mechanism box uses an airbag-type sealing strip, achieving an enclosure protection degree of IP56 for reliable outdoor operation.

Short Delivery Lead Time
The product can be ready for shipment within 60 days after drawing approval, providing a shorter delivery cycle than comparable industry solutions.

Robust and Durable Mechanical Design
The base frame adopts an integrated cast aluminum alloy structure, providing stable mechanical performance and excellent corrosion resistance. The operating mechanism achieves M2-class mechanical endurance with 10,000 operations and supports a service life of up to 30 years.

Dead-Tank Circuit Breakers (DTCB)



	ZHW-145kV(T)		LW76-252kV(T)	LW76-362(T)	LW76-550(T)
Rated Voltage (kV)	72.5	145	252	362kV	550
Rated Normal Current (A)	3150/4000	3150/4000	4000	4000/5000	5000/6300
Rated Short-Circuit Breaking Current (kA)	40/63	40/63	50	50/63	63
Frequency	50/60 Hz				
Applicable Standards	IEC, GB，IEEE				

Applications

- **High-voltage AIS Substations**
  Used in outdoor air-insulated substations for line bays, transformer bays, bus coupler bays, sectionalizing bays and capacitor/reactor switching bays.
- **Regions with High Seismic Requirements**
  The low center of gravity and compact tank structure make dead tank circuit breakers suitable for substations in seismic-prone areas.
- **Cold, Polluted and Harsh Outdoor Environments**
  The grounded tank design and robust enclosure support reliable operation in low-temperature, heavy pollution, coastal, desert and high-altitude environments when properly configured.
- **Projects Requiring Integrated Current Transformers**
  Dead tank circuit breakers can integrate current transformers on both sides of the breaker, simplifying substation layout and reducing external equipment requirements.
- **Utility, Industrial and Renewable Energy Applications**
  Widely used in utility substations, large industrial power systems, power plants, wind farms and solar power plants.

Customer Value

Advanced Self-blast Interruption Technology
The circuit breaker adopts advanced self-blast interruption technology, delivering reliable fault-current interruption with optimized operating energy.

Leakage-proof Integrated Aluminum Enclosure
The integrated aluminum enclosure provides excellent sealing performance, corrosion resistance and long-term structural reliability.

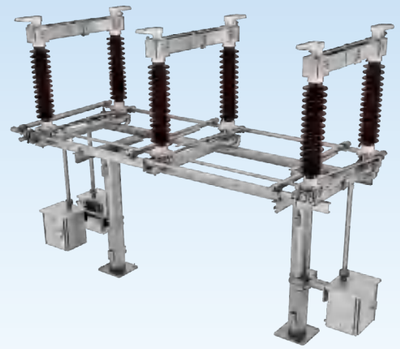
Local Technical Support from Circuit Breaker Specialists
Customers can receive local technical support, consultation and training from experienced circuit breaker specialists throughout the project lifecycle.

Short Delivery Lead Time
The product can be ready for shipment within 90 days after drawing approval, offering a shorter delivery cycle than comparable industry solutions.

Excellent Gas Tightness
The double-sealing ring design ensures an annual gas leakage rate as low as 0.1%. No gas refilling is required within 25 years under normal operating conditions.

Excellent Partial Discharge Performance
The complete bay can achieve partial discharge performance of ≤ 3 pC under 368 kV test voltage, equivalent to 80% × 460 kV.

Disconnector (DS)



		40.5 kV	72.5 kV	126 kV	145 kV	245kV
GW4	**Horizontal-Center Break**	✓	✓	✓	✓	✓
GW5	**Horizontal-Center Break**	✓	✓	✓	-	-
GW6	**Vertical-Pantograph**	-	-	✓	-	-
GW7	**Horizontal-Double Breaker**	-	-	-	✓	✓
GW22	**Vertical-Semi-pantograph**	-	-	✓	-	✓
GW23	**Horizontal-Telescopic**	-	-	-	-	✓
JW10	**Vertical**	✓	✓	✓	✓	✓
ZBJX-110	**Transformer Neutral Point Over -Voltage Protection Device**	✓	✓	✓	-	-
Frequency		50/60 Hz				
Applicable standards		IEC, GB				

Applications

- **High-voltage AIS Substations**
  Used in outdoor air-insulated substations to provide visible isolation for line bays, transformer bays, busbar sections, bus couplers and bypass circuits.
- **Busbar Sectionalizing and Transfer Schemes**
  Applied in single-busbar, double-busbar, bypass busbar and bus-transfer arrangements to support flexible switching, isolation and system operation.
- **Line and Transformer Bays**
  Installed on the line side or busbar side of circuit breakers, transformers and reactors to isolate equipment from the energized system during planned maintenance.
- **Earthing and Safety Interlocking Applications**
  Can be configured with earthing switches and mechanical/electrical interlocks to support safe grounding and prevent incorrect operation.

Customer Value

Fully Sealed Bearing Structure
The bearing system adopts a fully sealed design and is filled with lubricating grease. The combined thrust and radial bearing structure carries both the vertical load of the porcelain insulator and upper conductive parts, as well as the horizontal force, enabling flexible rotation and preventing jamming.

GW7 Disconnector Reliable Fork-type Turnover Mechanism
The conductive arm adopts a fork-type turnover mechanism to achieve smooth conductor rotation. An internal turnover spring prevents premature arm movement, while the spring locking function in the closed position ensures reliable contact stability during operation.

Corrosion-resistant and Non-shunting Contact Spring
The contact finger spring is made of stainless steel and equipped with insulating spacers, preventing corrosion and avoiding current shunting through the spring.

Short Delivery Lead Time
The product can be ready for shipment within 45 days after drawing approval, providing a shorter delivery cycle than comparable industry solutions.

Current Transformers

	LVB/LVQB	LB
Primary Voltage	Up to 245kV	Up to 245kV
Rated Primary Current	Up to 8000A	Up to 2000A
Rated Frequency	50/60HZ	50/60HZ
Accuracy Class	0.1, 0.2S; 0.2; 0.5S; 0.5; 5P; 10P; PX..	
Standard	IEC, GB	

Applications

- Power Transmission and Distribution
- Renewable Energy
- Power Plants
- Industrial Applications

Customer Value

Certificate
- Passed type tests as per IEC standards.

Short lead time
- Ready for shipment 45 days after drawing approved.

Proven Performence
- Supply to more than 40 countries and stable operation.

Service
- Globalized after-sales service system, provides rapid and timely service response.

Voltage Transformers

	TYD	JDCF/JDX/JDQXF
Primary Voltage	Up to 245kV	Up to 245kV
Rated Frequency	50/60HZ	50/60HZ
Accuracy Class	0.2/0.5/3P	
Standard	IEC, GB	

Applications

- Power Transmission and Distribution
- Renewable Energy
- Power Plants
- Industrial Applications

Customer Value

Certificate
- Passed type tests as per IEC standards.

Short lead time
- Ready for shipment 45 days after drawing approved.

Proven Performence
- Supply to more than 40 countries and stable operation.

Service
- Globalized after-sales service system, provides rapid and timely service response.

Combined Instrument Transformers

	JLD
Rated Primary Voltage	72.5kV
Rated Primary Current	50~2500
Rated Frequency	50/60HZ
Accuracy Class	CT: 0.1; 0.2; 0.5; 0.2S; 0.5S; 5P; 10P PT: 0.2; 0.5; 3P
Standard	IEC, GB

Applications

- Power transmission and distribution
- Renewable Energy
- Power plants
- Industrial applications

Customer Value

Certificate
Passed the type tests as per IEC standards.

Short Lead Time
Ready for shipment 60 days after drawing approved.

High Insulation Performance
The capacitive type insulation offers excellent insulation performance and strong anti-shock capability.

Service
Globalized after-sales service system, provides rapid and timely service responseHV Instrument Transformer.

No Ferromagnetic Resonance risk
The voltage transformer has an open magnetic circuit structure, which will not cause resonance with other equipment in the system.

HV Surge Arresters

	750kV	500kV	220kV	110kV
Parameter	Y20 -648/1491	Y20W-468	Y10W-168	Y10W-132
Ur (kV rms)	648kV	468kV	168kV	132kV
Uc (kV rms)	498kV	374kV	134kV	106kV
Maximum Lightning Impulse Residual Voltage 10kA (kV)	1491kV	1166kV	437kV	312kV
Repetitive Charge Transfer Rating, Q rs ©	5.2C	3.6C	1.6C	1.6C
Creepage Distance (mm)	27280	18900	7812	4500
Standard	IEC 60099-4			

Applications

- Ambient temperature: -40℃ ~ +40℃ .
- Altitude: no more than 2000m.
- Frequency: no more than 62 Hz, no less than 48 Hz.
- Maximum wind velocity: no more than 35m/s.
- Earthquake intensity: areas below 7 degree.
- Power frequency voltage applied between terminals of surge arrester shall not exceed continuous operating .

Customer Value

High Protection Performance
Our self-developed and improved metal-oxide resistor discs feature excellent non-linear (V-I) characteristics, favourable steep-wave response, high current-withstanding capacity and superior anti-aging performance, greatly enhancing the protection capability and reliability of surge arresters.

Flexible Housing Solutions
Silicone rubber and porcelain housings are available to meet different environmental and installation requirements.

Long-term Reliability
Advanced sealing structure and optimized thermal design ensure stable operation and extended service life.

Enhanced Safety
Reliable pressure relief system improves operational safety under abnormal conditions.

02

Distribution Grid Equipment

- MV SF6 Free Gas Insulated Switchgears
- MV Air Insulated Switchgears
- MV SF6 Gas Insulated Switchgears
- Load Break Switchs
- Dry Type Transformers
- Oil-immersed Distribution Transformers
- Pad Mounted Transformer

MV Indoor SF6 Free Gas Insulated Switchgears

	NGH7-12	NGH7-24	NGH7-24 2.0	NGH-12(Z)	NGH-24(Z)	NGH-40.5(Z)
Type of Switch	CB	CB, LBS	CB, LBS, LBS+Fuse	CB	CB	CB
Rated Voltage (kV)	12	24	24	12	24	40.5
Rated Current (A)	630	630	630	1250~3150	1250	1250~2500
Rated Frequency (Hz)	50	50/60	50/60	50	50/60	50
Withstand Voltage (kV)	42/75	65/125	50/125	42/75	65/125	95/185
Short Time Current (kA/s)	20/4	21/3	21/3	31.5, 40/4	25/4	31.5/4
Peak Withstand Current (kA)	50	54.6	54.6	80, 100	65	80
IAC (kA/s)	AFLR 20/0.5	AFL 21/1	AFLR 21/1	AFLR 31.5, 40/1	AFLR 25/1	AFLR 31.5/1
Rated / Min. Gas Pressure(MPa, Rel.)	0.02 / 0	0.05 / 0.03	0.08 / 0.06	0.02 / 0	0.05 / 0.025	0.05 / 0.02
Altitude (m)	≤ 4500	≤ 3000	≤ 1500	≤ 4500	≤ 4500	≤ 4500
Dimension (mm, W*D*H)	420*850*2000	450/400*845*1635 (without LV box)	420/400*780*1400 (without LV box)	600*1400*2400 /800*1700*2400	600*1230*2250	800/1000*2263*2550
Applicable Standards	IEC, GB					

Applications

- Power distribution
- Renewable energy
- Infrastructure
- Data center
- Industrial electricity

Customer Value

Eco-Friendly

Dry air fully replaces SF6 with GWP=0. Eliminates greenhouse gas emissions and removes environmental compliance risks, supporting your carbon neutrality goals.

Highly Reliable

Optimized insulation design ensures stable switching and insulation performance even at gas leakage conditions at rated voltage.

Convenient & Flexible

Modular compartment construction enables plugand-play onsite assembly with no gas handling required, speeding up installation and allowing easy future expansion.

Safe

Comprehensive mechanical interlocking design effectively avoids the adverse impact on the system caused by misoperation.

Maintenance Free

All active and switching parts are fully sealed and insulated, no maintenance cycle needed, saving maintenance time and cost.

MV Indoor Air Insulated Switchgears

	KYN28A-12(Z)	KYN28A-17.5(Z)	KYN28A-24(Z)	KYN61-40.5(Z)
Rated Voltage (kV)	12	17.5	24	40.5
Rated Current (A)	630~5000	1250~3150	1250~4000	1250~4000
Rated Frequency (Hz)	50	50/60	50	50/60
Withstand Voltage (kV)	42/75	38/95	65/125	95/185
Short Time Current (kA/s)	20~50/4	31.5~40/3	31.5~40/4	25~40/4
Peak Withstand Current (kA)	50~125	82~104	80~100	63~100
IAC (kA/s)	AFLR 31.5, 40/1	AFLR 31.5/1	AFLR 31.5/1	AFLR 31.5/1
CB Endurance	E2-M2-C2	E2-M2-C2	E2-M2-C2	E2-M2-C2
LSC Category	LSC 2B	LSC 2B	LSC 2B	LSC 2B
IP Degree (Enclosure / Partition)	IP4X / IP2X	IP4X / IP2X	IP4X / IP2X	IP4X / IP2X
Applicable Standards	IEC, GB			

Applications

- Power Distribution
- Renewable Energy
- Infrastructure
- Data Center
- Industrial Electricity

Customer Value

Convenient & Flexible

Multiple configurations for selection and flexible customization. Standardized modular design features universal mounting interfaces for free combination and simple installation.

Intelligent

Multiple intelligent functions such as wireless temperature measurement, mechanical characteristic diagnosis, online PD monitoring, electrical lifespan tracking, online video surveillance, etc. are available as options.

Safe & Reliable

LSC-2B PM-class switchgear adopts high-grade arc-resistant design, comprehensive safety protection and complete mechanical interlocks to protect personnel safety and prevent adverse impacts on the system caused by misoperation.

MV Indoor SF6 Gas Insulated Switchgears

	NG7-12	NG7-17.5	NG7-24	NG7-40.5	NG7-12(Z)	NG7-27,5(Z)	NG7-40.5(Z)
Type of switch	CB, LBS, LBS+Fuse	CB, LBS	CB, LBS, LBS+Fuse	CB, LBS	CB	CB	CB
Rated voltage (kV)	12	17.5	24	40.5	12	1*27.5 / 2*27.5	40.5
Rated current (A)	630	400	630	630 / 1250	1250~3150	1250 - 1P 2500 - 1P or 2P	1250~4000
Rated frequency (Hz)	50	60	50/60	50/60	50	50	50
Withstand voltage (kV)	42/75	38/95	65/125	95/185	42/75	95/200	95/185
Short time current (kA/s)	25/4	21/1	20/4	25~31.5/4	25~40/4	31.5/4	31.5~40/4
Peak withstand current (kA)	63	54.6	52	65~80	63~100	80	80~100
IAC (kA/s)	AFLR 25/1	AFLR 21/1	AFLR 20/1	AFLR 25/1	AFLR 31.5/1	AFLR 31.5/1	AFLR 31.5/1
Rated / Min. gas pressure(MPa, Rel.)	0.04 / 0.02	0.04 / 0.02	0.04 / 0.02	0.04 / 0.02	0.03 / 0	0.03 / 0	0.04 / 0.01
Altitude (m)	≤ 4500	≤ 4500	≤ 4500	≤ 4500	≤ 4500	≤ 4500	≤ 4500
IP degree (Gas tank / Enclosure / Outdoor)	IP67 / IP4X / IP54	IP67 / IP4X / IP54	IP67 / IP4X / IP54	IP67 / IP4X / IP54	IP67 / IP4X	IP67 / IP4X	IP67 / IP4X
Applicable Standards	IEC,IEEE, GB						

Applications

- Power distribution
- Renewable energy
- Infrastructure
- Data center
- Industrial electricity

Customer Value

Safe & Reliable

Comprehensive mechanical interlocking design effectively avoids the adverse impact on the system caused by misoperation.

Maintenance Free

All active and switching parts are fully sealed and insulated, no maintenance cycle needed, saving maintenance time and cost.

Convenient & Flexible

Modular compartment construction enables plugand-play onsite assembly with no gas handling required, speeding up installation and allowing easy future expansion.

Harsh-environment Resistant

Optional Zn-Ni alloy components and premium coating improve salt spray resistance. IP54 enclosure is available for outdoor deployment.

Load Break Switch

	Technical Data
Rated Voltage	Up to 38kV
Rated Current	400/600A
Rated Frequency	60Hz
Short-Time Withstand Current (rms)	21kA/1sec
Rated Active Load Breaking Current	400/600A
Short-Time Making Current (Peak)	41.6kA
Power Frequency Withstand Voltage Dry Test (Phase-to-Phase/Phase-to-Ground)	50kV
Power Frequency Withstand Voltage Dry Test (Break)	50kV
Impulse Withstand Voltage (1.2×50 μs) Phase-to-Ground	110kV
Impulse Withstand Voltage (1.2×50 μs) Break-to-Break	110kV
Arc Extinguishing/Insulating Medium	SF6 Gas
Protection Rating IP	IP54
Mechanical Stability Operations	5000times
Gas Leakage Rate/Year	0.5%

Applications

- Power Distribution
- Renewable Energy
- Industrial Electricity

Customer Value

Lower Total Cost of Ownership

~50% cheaper than VCB + relay scheme; simple pole-mount cuts construction cost; virtually maintenance-free (SF6 sealed, <0.5% annual leakage, 5,000 mechanical ops).

Triple-Mode Operation

Manual (no DC supply needed) + motorized + remote SCADA; spring-stored mechanism delivers fast operation (<1s).

Visible Safety Isolation

Multiple intelligent functions such as wireless temperature measurement, mechanical characteristic diagnosis, online PD monitoring, electrical lifespan tracking, online video surveillance, etc. are available as options.

Smart-Grid Ready

RTU with full waveform recording + multi-protocol (IEC 101/104/61850/Modbus/DNP3.0); supports local FA, centralized FA, intelligent distributed FA; wired/wireless remote monitoring.

Remote Terminal Unit (RTU)

		RTU
Power Supply	Rated auxiliary voltage	24 Vdc
	Rated insulation voltage	500 V
	Operating temperature	– 40 ° C to +70 ° C
AC Analog Inputs	Measurement	3-phase voltage & current, direct CT/VT sampling
	Voltage input	3-phase (PA, PB, PC)
	Current input	3-phase (IA1, IB1, IC1), 225 mV secondary
	System frequency	50 / 60 Hz
Digital I/O	Digital inputs (DI)	Up to 48 channels (2 × 24 ch, modular, expandable)
	Rated DI voltage	< 27 Vdc
	Digital outputs (DO)	4 relay contacts
	Rated DO voltage	< 27 Vdc
Communication	Ethernet	2 × RJ45 (shielded), self-healing ring topology
	Serial	1 × RS-232 + 1 × RS-485
	Protocols	IEC 61850 (MMS / GOOSE), IEC 60870-5-104, Modbus RTU / TCP

		RTU
Insulation & Safety	Impulse voltage withstand	5 kV (power & I/O) / 1 kV (communication ports)
	Dielectric withstand	2 kVac (relay outputs) / 0.5 kVac (other circuits)
	Insulation resistance	> 550 MΩ @ 500 Vdc
	Overvoltage category	II
	Pollution degree	2
	Insulation type	Basic / Functional
EMC	Emission class	Class A
	Immunity location	HV substation zone
	Immunity signal connection	Telecommunication
Enclosure & Mechanical	IP rating	IP4X (front) / IP2X (rear)
	Mechanical class	Class 1
	Dimensions (approx.)	308 × 105 × 183 mm (W × H × D)
Certification	Type test standard	IEC 61850-3:2013 (all items PASS)
	Test laboratory	KEMA Labs, Arnhem, The Netherlands
	Certificate No.	103696201-25 / 109728801-26

Applications

- Ring Main Unit (RMU) Automation
- Distribution Automation (DA) For Recloser and LBS
- Industrial Power Distribution
- Smart Grid & DER Integration

Customer Value

Dual KEMA-Certified to IEC 61850-3:2013

Independently type-tested by KEMA Labs (Arnhem, Netherlands) across two hardware configurations, with full pass on EMC immunity (Class A, HV substation zone), product safety, climatic, mechanical, and enclosure protection requirements.

Harsh-Environment Resilience

Wide operating temperature range (– 40° C to +70° C), IP4X enclosure protection, and mechanical class 1 certification (vibration, shock, bump, and seismic tested) — purpose-built for outdoor cabinets and pole-mounted installations.

Compact & Flexible Integration

Modular I/O design with AC analog inputs (CT/VT), digital inputs and outputs, dual Ethernet ports, and RS485/RS232 serial interfaces-enabling direct RMU retrofit and new-build deployment with minimal wiring effort.

Reliable Redundant Communication

Dual Ethernet ports for self-healing ring topology, multi-protocol support (IEC 61850 MMS/GOOSE, IEC 60870-5-104, Modbus), and EMC-immune circuitry ensuring stable data transmission in high-interference substation environments.

Dry type transformer

	SC (L) B
Rated Power	Up to 20MVA
Rated HV Side voltage	Up to 35kV
Rated LV Side Voltage	Customized as per requirement
Rated Frequency	50/60HZ
Type of Insulation	Epoxy Resin
No-load Loss and Load Loss	Customized as per requirement
Winding Material	Copper/ ALuminium Optional
Acceccories	Thermometer, Fans, Enclosure
Standard	IEC, IEEE, GB

Applications

- Power transmission and distribution
- Renewable Energy
- Power plants
- Industrial applications

Customer Value

Low loss and low noise

Optimal design ensuring the transformer core structure has sufficient mechanical strength and effectively reduces stray losses. High-strength binding straps ensure the clamping force of the iron core and reduce noise.

Certificates

Passed type tests as per IEC standards.

Short lead time

Ready for shipment 35 days after drawing approved.

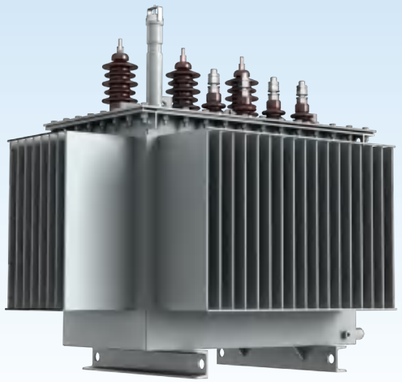
Proven performence

Supply to more than 40 countries and stable operation.

High insulation performance, and Strong anti-short-circuit capability

Using software to calculate and simulate the transformer wave process, optimizes the insulation structure, adjusts the capacitance parameters in each area reasonably to achieve the best coordination, and ensures that the transformer can withstand lightning impulse voltage and other overvoltage.

Oil-immersed Distribution Transformers



	S (L)
Rated Power	Up to 10MVA
Rated HV Side voltage	Up to 35kV
Rated LV Side Voltage	Customized as per requirement
Rated Frequency	50/60HZ
Type of Insulation fluid	Mineral oil/ Natural ester optional
No-load Loss and Load Loss	Customized as per requirement
Winding Material	Copper/ ALuminium Optional
Acceccories	Buchholz relay, thermometer, Pressure relief valve, oil level indicator, Tap changer
Standard	IEC, IEEE, GB

Applications

- Power transmission and distribution
- Renewable Energy
- Power plants
- Industrial applications

Customer Value

Low no load loss and low noise
The iron core is tightly assembled and the joints are precise, with a highly integrated structure, significantly reducing no-load loss and noise.

Certificates
Passed type tests as per IEC standards.

Short lead time
Ready for shipment 35 days after drawing approved.

Proven performence
Supply to more than 60 countries and stable operation.

Pad Mounted Transformer

	ZGS
Rated Power (KVA)	Could be customized, typical value are as follows: 150, 225, 300, 500, 750, 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000, 3750, 5000
Frequency	60Hz or 50Hz
Insulation oil	Mineral Oil or Natural Ester
Temp Rise	55° C, 65° C, could be customized
Voltages	Available in Δ or Y configuration
	Up to 34.5kV, Voltage ratio could be customized as per customer requirement
HV Bushing Config	Loop feed or radial feed

Applications

- Power distribution
- Renewable Energy
- Industrial applications
- Data Center

Customer Value

Certificates
UL certificate covers the mainstream voltage levels and rated power.

Safe design
Dead-front designs, more safer as live parts are not exposed, making them ideal for residential and commercial areas.

Flexible Configurations
Pad mounted transformers voltage ratio can be customized as per customer requirement, applicable to different power distribution systems.

Integrated Protection Systems
To ensure safe operation, pad mounted transformers are equipped with built-in protection like double fuse protection, pressure relief valves.

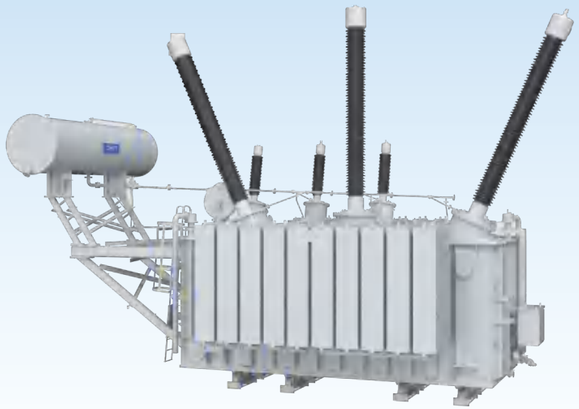
Tamper-proof enclosures and high Corrosion-resistant performance
Tamper-proof enclosures with lockable doors to prevent unauthorized access. Corrosion-resistant coatings extend the service life of the transformer, ensuring reliable service in outdoor environment.

03

Power Quality & Substation

- **Automation**
  - Shunt Reactor & Variable Shunt Reactor
  - Power Capacitor
  - STATCOM
  - Substation Automation

Shunt Reactor & Variable Shunt Reactor



	500kV	420kV	225kV
Rated Power	120Mvar	200Mvar	30Mvar
Rated Voltage	500kV	420kV	225kV
power Ration	24~120Mvar	100~200Mvar	10~30Mvar
Cooling Method	ONAN / ONAF	ONAN	ONAN / ONAF
Energy Efficiency	Tire 2	Tire 2	Tire 2
Corrosion Class	C5H	C4H	C4H
Insulation Level HV：Um/SI/LI/LIC/AC	550/1175/1550/1675/680 kV	440/1175/1425/1570/630 kV	245/850/1050/1155/460kV
Applicable Standards	IEC, IEEE, GB and other systems.		

Applications

- Loads supplied via long-distance overhead transmission lines or underground cables feature drastic fluctuation.
- Large-scale wind farms and solar power plants with volatile power load variations.
- For hybrid energy systems during summer peak load periods with obvious day-night load gaps, reactive power compensation can significantly boost grid operation efficiency.
- Distributed generation networks (solar, wind, etc.) often operate below full rated output, which leads to increased reactive power flow caused by fluctuating reactive power generation and consumption.

Customer Value

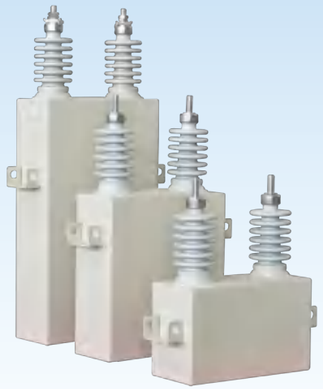
Wide Product Range
Up to 1000 kV / 250 Mvar.

Broad Adjustable Mvar Output
30–100% adjustable.

All-Weather Adaptability
-50 ℃ to +55 ℃ , C5VH anti-corrosion.

Low Noise & Low Loss
15–20 dB quieter, 10%+ lower loss.

Power Capacitor



BAM		TBB		TBB(F)		TBB(C)	
Rated voltage: 1~24kV	Rated Capacity: 20-800kvar	Rated voltage: 6~230kV	Maximum capacity of single group: 120Mvar	Rated voltage: 6~35kV	Maximum capacity of single group: 60Mvar	Rated voltage: 6~35kV	Maximum capacity of single group: 60Mvar
Maximum allowable overvoltage: 1.1Un	Maximum allowable overcurrent: 1.35In	Switching function: automatic/ manual	Installation location: indoor/ outdoor	Switching function: automatic/ manual	Installation location: indoor	Switching function: automatic/ manual	Installation location: outdoor
Capacitance tolerance: -3%~5%	Discharge characteristics: Drop from √2Un to below 50V within 10min after power failure	Simple installation method, low construction difficulty		Protection level: IP4X	Maximum number of groups: 8 groups	Altitude: 4000m	Maximum number of groups: 6 groups
		Optional 0.1%~13% reactance rate configuration series reactor		Cabinet structure, simple installation, low construction difficulty		Special container installation, certified by classification society, convenient for hoisting and transportation	
Standard: IEC 60871							

Applications

- Transmission Networks
- Distribution Networks
- Solar Power
- Wind Power
- Oil & Gas, Mining

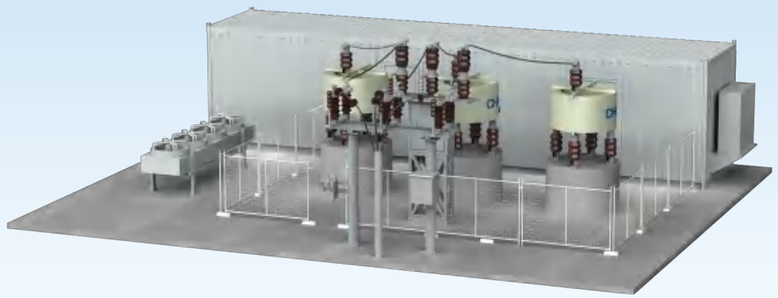
Customer Value

High Operational Reliability, Life Cycle ≥ 30 Years
Oil leakage rate <0.01 ‰ , ultrasonic welding process ensures no abnormal overheating inside the capacitor unit, vacuum-treated insulating oil provides insulation performance exceeding IEC standards by over 10%.

Intelligent
Comprehensive substation automation system, meeting the demands of unattended operation. The intelligent controller automatically manages capacitor banks, ensuring power factor ≥ 0.95.

Large-Capacity Reduces Equipment Investment
Modular capacitor bank design with a wide range of voltage and capacity combinations for capacitor units, allowing rapid configuration for large-capacity compensation needs, thereby reducing primary equipment investment.

STATCOM



ZTSVG	
Rated Capacity	±0.5Mvar~±90Mvar
Rated Operating Voltage	Direct hanging type:3kV~35kV(The direct mounted step-up type is based on the voltage on the high-voltage side of the transformer)
Rated Frequency	50/60Hz
Overload Capacity	withstand the load exceeding 1.2 times the rated load for 1 minute
Adjustment Method	changing continuously within the range from the rated inductive reactive power to the rated capacitive reactive power
Compensation Mode	constant reactive power of installation or test point, constant poweer factor of test point, constant voltage of test point, etc
Response Time	≤ 10ms
Total Harmonic Distortion (THD) of Output Current	≤ 2% In
Average Loss	≤ 1%
Communication Interface	Ethernet、RS485、CAN,etc
Communication Protocol	MODBUS、IEC103/104、61850,etc
Protection Function	System protection and device protection
Multi Machine Parallel Connection	Support
Switching Capacitors	Support

Applications

- Distribution Networks
- Solar Power
- Wind Power
- Oil & Gas, Mining

Customer Value

Ultimate Reliability, Online Worry-Free

N-1 redundancy, dual power & dual control; ≥ 99.9% availability, MTBF ≥ 25,000h, unplanned downtime per year <1.

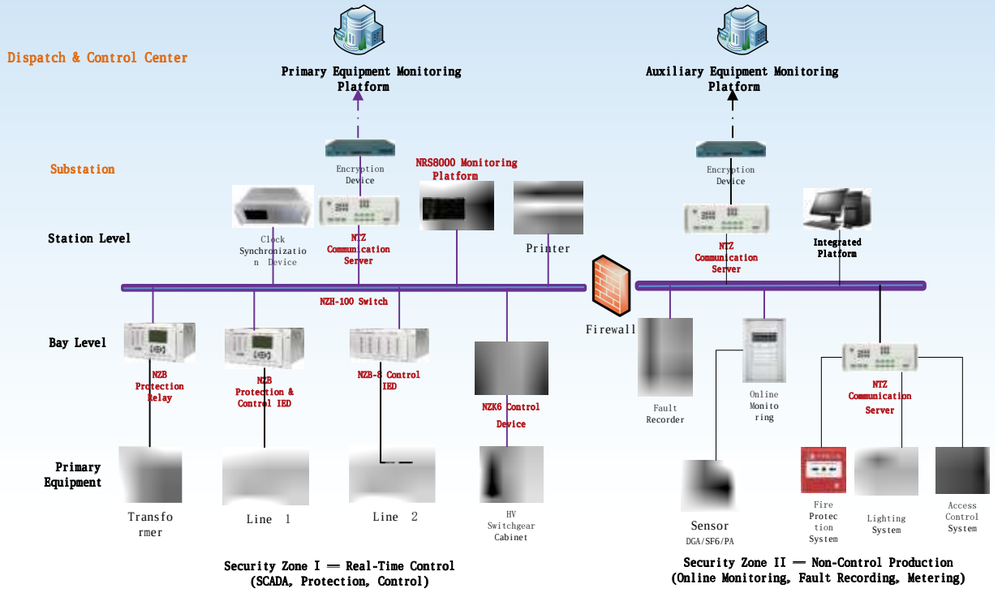
Full-Scene Adaptability, Effective protection

Triple proof coating, gel injection sealing, IP56; 1000h salt spray test, withstands high humidity, condensation and salt fog.

Multi-Function, Precise Compensation

Reactive power + harmonic filtering (up to 11th order); efficiency ≥ 97%, PF ≥ 0.98, response ≤ 10ms.

Substation Automation



Applications

- Power Grid Substations
- Industrial & Mining Enterprises
- New Energy Integration
- Energy Storage Systems
- Infrastructure & Critical Facilities

Customer Value

Comprehensive & Integrated Solution

200+ automation products covering 10kV–220kV in a single portfolio. IEC 61850 compliant with multi-protocol support (IEC 60870-5-104/103/102/101, Modbus, CDT), enabling seamless integration with multi-vendor and legacy equipment.

High Reliability & Advanced Intelligence

Dual-machine redundancy with automatic hot standby, EMC Level 4 immunity, and fanless industrial design rated for – 40° C to +75° C. Advanced features include one-key sequence control, VQC, integrated five-prevention interlock, and intelligent fault analysis.

Proven Global Track Record

10,000+ units deployed across 10+ countries and 2 continents, with landmark projects in Africa, Southeast Asia, and nationwide in China.

Cybersecurity & Low TCO

Role-based access control, safety-zone isolation, and encrypted communication for substation cybersecurity compliance. Modular architecture with batch configuration tools and one-key backup & restore minimizes lifecycle costs.

04

Tailored Substations Solutions

- Mobile Substation
- Prefabricated Substation
- PCS Integrated Substation
- Prefabricated Power Modules for Data Centers

Mobile Substation

Mobile Substation are Available for the Following Rated Voltage and Power Levels							
High-voltage (primary) side							
Rated Voltage		kV	36	72.5	145	170	245
Rated Frequency		Hz	50，60				
Power frequency withstand voltage	**up to**	kV	70	140	275	325	460
BIL	**up to**	kV	170	325	650	750	1050
Power Transformer							
Rated Power		MVA	35	35	63	120	120
Medium Voltage (Secondary) Side							
Rated Voltage		kV	7.2	12	17.5	24	36
Rated Frequency		Hz	50，60				
Power frequency withstand voltage		kV	20	28	38	50	70
BIL		kV	75	75	95	125	170

Applications

- Power maintenance, power grid reconstruction
- Mining smelting, petroleum and petrochemical
- Temporary infrastructure, new industrial park
- Natural disater, artificial damage
- Key areas, major event

Customer Value

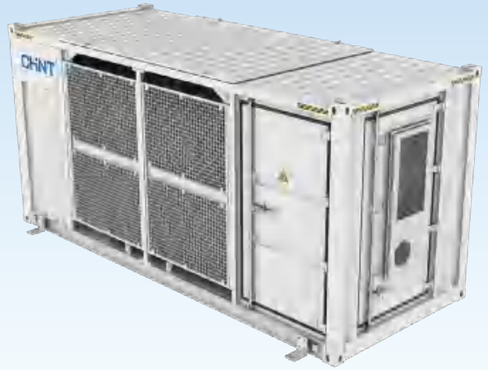
Save
· Cost Saving;
· Time Saving;
· Land Saving.

Fast
· No need for construction approval;
· Less preparation work before the operation, can be quickly put into operation.

Flexible
· Flexible, maximum mobility and flexibility, anytime/anywhere;
· The car can quickly reach the site;
· Easy to dismantle, easy to expand, easy to move.

Convenience
· Convenient maintenance and repair;
· Perfect service of global branch.

Prefabricated Substation



	YBM(D)		
	Container Type	SKID Type	Kiosk Type
Rated Capacity (kVA)	1250~18000	1250~18000	100~3150
Rated Voltage (kV)	10-66kV	10-66kV	10-40.5kV
Rated Frequency (Hz)	50/60	50/60	50/60
Ambient Temperature °	-40° ~+55°	-40° ~+55°	-40° ~+55°
Altitude（m）	4000	4000	4000
Protection Level	IP54, Superior to IEC	IP54, Superior to IEC	IP54, Superior to IEC
Anti-Corrosion Level	C5H/C5-H	C5H/C5-H	C5H/C5-H
Enclosure Material	Weathering steel plate	Cold rolled steel sheet	Cold rolled steel sheet
		Stainless steel plate	Stainless steel plate
			Steel Plate + Decorative Imitation Wood
Sound Level	Superior to IEC 5dB	Superior to IEC 5dB	Superior to IEC 5dB
Appearance Color	RAL7035	RAL7035	RAL7035
Application Scenario	Industrial enterprises, energy collection industry, new energy industry	Industrial enterprises, energy collection industry, new energy industry	Residential areas, scenic spots, industrial enterprises, etc.
Implementation Standards	IEC 62271-202	IEC 62271-202	IEC 62271-202

Applications

- Solar Power
- Wind Power
- Energy Storage
- Distribution Networks
- Oil & Gas, AIDC, Mining

Customer Value

Super Large Capacity Saves Costs
7% savings on equipment, 20% reduction in land use, lower O&M costs across the entire lifecycle.

High Reliability, Life cycle ≥ 25 Years
Enclosure level within 5K, ensuring uniform heat distribution inside without abnormal hot spots. The enclosure anti corrosion max C5-H, IP54, Anti-collision level IK10, seismic resistance above Grade 8.

Fast Delivery to Meet Rapid Grid Connection Needs
Core components such as transformer, RMU, and LV switchgear are Chint brands, ensuring a stable supply chain. Lead time is 3-6 months, meeting the need for rapid grid connection and early revenue generation.

PCS Integrated Substation

YBM	
Capacity	13.8MW
Container Type	40HQ
High and low voltage side voltage	33/0.69/0.69kV
Enclosure Level	5
Enclosure Protection Level	IP54
Transformer Capacity	13800kVA
Operating Frequency	50/60Hz
PCS Model	8×1725kVA, 4x3450kVA
Maximum Efficiency	99%
DC Voltage Operating Range	1000~1500V
Maximum Input Current	4X3827A (DC)
DC Input Channels	4
Rated AC Output Power	13800kW

Applications

- BESS and Renewable Energy Plant

Customer Value

Excellent Adaptability

Product adapts to extreme environment The insulation safety factor is above 5, and the composite protection of "galvanizing + multi-layer coating" structure, thickness ≥ 200μm. Equipped with dehumidification device, suitable for high condensation environment.

Smart & High Efficiency

Three-level topology, supports black start and off-grid V/F operation. Maximum efficiency of 99%, full-load charge/discharge switching completed within 30ms. Significantly reduces system losses and provides rapid response to grid dispatch.

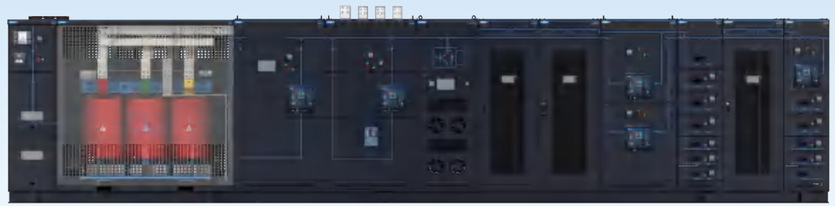
Eco-Friendly

Steel structure with integrated oil pool, switchgear can be filled with clean air, transformer with natural ester, low magnetostriction and low loss silicon steel sheets. Avoid oil leakage, no pollution, low noise.

High Compatibility

Voltage combination diversity caters to diverse application scenarios. High-voltage scope: 12~40.5kV, dual or triple-winding structure ensures output voltage 0.4~1.14 kV. Flexible Interface matches different PCS brands.

Prefabricated Power Modules for Data Centers



NIPower DC7000					
1	**Rated Working Voltage (Ue)**	400V	7	**Enclosure Protection Degree**	IP3X, IP4X, IP5X (Made per customer requirements)
2	**Rated Insulation Voltage (Ui)**	1000V (incoming cabinet, feeder cabinet); 800V (control cabinet)	8	**UPS Input Power Factor**	≥ 0.99
3	**Rated Frequency (fn)**	50Hz / 60Hz	9	**UPS Input Current Harmonic Component**	< 3%
4	**Rated Current of Main Busbar (InA)**	6300A ~ 1600A	10	**System Efficiency**	≥ 96.5%
5	**Rated Short-Time Withstand Current of Main Busbar (Icw)**	100kA / 1s	11	**Output Power Factor**	Equal to 1.0
6	**Rated Short-Time Withstand Current of Control Cabinet Busbar (Icw)**	65kA / 1s	12	**Transformer Capacity**	3150kVA ~ 800kVA; Voltage Ratio: 10 / 0.4kV

Applications

The maximum configuration of the NIPower DC7000 Integrated Power Module comprises a transformer local medium-voltage switchgear panel, transformer, low-voltage switchgear, UPS, UPS input/output panels, and feeder panels, integrated into a single product. The unit has a standardized structure, with cubicles interconnected by copper busbars and prefabricated in the factory for integrated transportation and installation.

Customer Value

25% Smaller Footprint

Modular design and high-density component integration reduce the power-system footprint by approximately 25%.

30% Faster Deployment

Prefabrication and engineering simplification reduce delivery complexity and shorten deployment time by 30%.

Safe, Predictive Operation

End-to-end visualized management and predictive maintenance ensure safe system operation.

Live Decoupling UPS

The UPS supports live decoupling.

Smart Plug-in Connectors

Intelligent drawer-type plug-in connectors provide six-point temperature monitoring and telemetering, telesignalling, and telecontrol functions.

Proprietary Monitoring & Control System

Equipped with an monitoring and control system.

05

Sales References

- Transmission Grid
- Distribution Grid
- Power Quality & Automation
- Tailored Substations Solutions

Transmission Grid

Serbia | EMS 400kV 200MVAr Variable Shunt Reactor (VSR) Project

Uzbekistan | 500kV 167MVA Auto Transformer for TIES 1700 MW Talimarjan TPP

Serbia | EMS 400kV 400MVA Autotransformer Project

Montenegro | CGES 400kV Power Transformer Project

Serbia | EMS Traditional Transmission Grid Upgrade Project

Greece | Greek Power Transmission Company 400kV 280MVA Autotransformer Project

Romania | CB+DS Supplying Project

US | 362kV Dead Tank Circuit Breaker

Transmission Grid

Mexico | PLATAFORMA PARK Project 245kV GIS

Mexico | SE CENTRO BANCO 1 Project 145kV GIS

USA | 525kV 525MVA Autotransformer Project

USA | WAPA Archer Substation 230kV 200MVA Autotransformer Project

Mexico | PEMEX 115kV Power Transformer Project

Philippines | 300MVA Power Transformer for NGCP Concepcion 230kV Substation

Transmission Grid

Asia Pacific

India | KALAWAD 220kV GIS Project

Asia Pacific

Cambodia | EDC 230kV Power Transformer Project

Asia Pacific

Philippines | Solar Power Plant step-up Substation Project 145kV Live Tank Circuit Breaker

Asia Pacific

Australia | 132kV 130MVA/120MVA/60MVA Natural Easter Transformer Project

Asia Pacific

Nepal | NEA 220kV Transformers Project

West Asia & Africa

Tunisia | 225kV Power Transformer Supply for STEG Grid Expansion

Transmission Grid

West Asia & Africa

Senegal | SENELEC 225/30kV Power Transformer and 225/30kV Variable Shunt Reactor Project

West Asia & Africa

Kuwait | PAHW/T/1150-2018/2019 project 145kV GIS

West Asia & Africa

Congo | SNEL 120KV GIS Substation EPC Project

West Asia & Africa

Kuwait | PAHW Mutlaa Substation EPC Project

Latin America

Brazil | TSEA Anglo Gold 145kV GIS project

Latin America

Chile, Peru, Colombia, Mexico | EGP Cooperation Projects Worldwide

Transmission Grid

Honduras | ENEE 230kV Substation and Line Expansion EPC Project

Uruguay | UTE 170kV Power Transformer Project

Brazil | CEMIG 145kV HGIS Mobile Substation Project

Brazil | EMAE 145kV GIS Project

Brazil | TESA 138kV Surge Arrester Project

China | State Grid Zhoushan Luojia 500kV Substation Project

Transmission Grid

China | State Grid Jiangsu Taohua Port 500 kV switch station new construction project

China | State Grid Henan Xinxiang Yuanyangcheng East 110 kV power transmission and transformation project 145kV GIS

China | 550kV Yongquan substation 145kV GIS

China | State Grid Anhui 500kV Yongqiao Substation 500kV Interval Expansion Project

China | State Grid Jiuquan Huahai 330kV Substation Project

China | State Grid Nanchong 500kV Substation Project

Transmission Grid

China | State Grid Jiande 500kV Substation Project

China | Inner Mongolia Power 500kV Substation Project

China | Xinyu Iron & Steel 110kV & 220kV Substation Project

China | State Grid Hengyang 500kV Substation Project

China | State Grid Xiangjian 500kV Substation Project

China | State Grid Taohuagang 500 kV Substation Project

China | State Grid Xianxing 500kV Substation Project

China | Inner Mongolia Power Changcheng 500 kV Substation Project

Distribution Grid

Cyprus | EAC Cable Procurement Project

Netherlands | Alliander Amstelveen 72.5kV GIS Project

Philippines | 69kV Dead Tank Circuit Breaker Project

Philippines | National Power Corporation Mogpog Substation

Philippines | DMCI 69kV Narra Palawan Switchyard Project

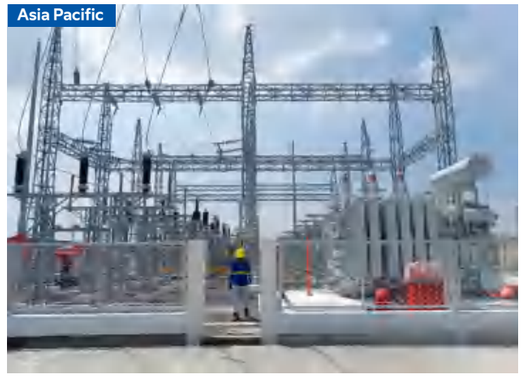
Philippines | VMC Interconnection Substation

Distribution Grid

Asia Pacific

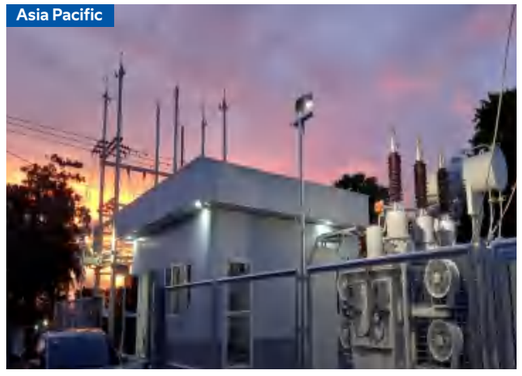
Philippines | PELCO II 69kV Mabiga Substation

Asia Pacific



Philippines | PELCO II 69kV Sta. Barbara Substation

Asia Pacific



Philippines | ORMECO 10MVA 69kV Naujan Substation

West Asia & Africa

Saudi Arabia | Saudi Arabia's Smart Distribution Network Project

West Asia & Africa

Saudi Arabia | SEC 17.5kV Smart RMU Project

West Asia & Africa

Malawi | DCA International Airport Distribution Grid Upgrade EPC Project

Distribution Grid

West Asia & Africa

Egypt | 10th of Ramadan City Rail Transit Power Distribution Project

Latin America

Puerto Rico | 15kV, 25kV Composite Line Post Insulators Project

China

China | Hohhot Airport Substation Project

China

China | Beijing-Zhangjiakou High-Speed Railway 10 kV Power Distribution Substation Project

China

China | Zhejiang Petrochemical 40 Mtpa Refining & Petrochemical Integration Project

China

China | Huajin Fine Chemical and Raw Material Engineering Project

China

China | Hangzhou Metro Huanglong Substation Project

China

China | Baiyin Group Baiyin Furnace Innovation Project

Power Quality & Automation

Mexico | ZUMA Amistad, Magdalena, Dolores Station 34.5kV Power Quality Equipment Project

Philippines | NGCP Compostela (CEBU) Substation

Philippines | Visayas Voltage Improvement Project

Afghanistan | Afghan National Grid Power System Upgrade Project

Serbia | 400kV Variable Shunt Reactor (VSR) Project

Turkmenistan | 500kV Variable Shunt Reactor (VSR) Project

Tailored Substations Solutions

UK | Huaneng 99.8MW/98MWh Minety BESS Project

UK | BYD 159MW BESS Project

UK | 11-33kV Skids for Trina BESS project

UK | Nur-Bukhara PV Solar Project with Battery Energy Storage System (BESS)

Australia | GreenGold 1074 Copper Coast Solar Farm

Philippines | Manila Data Center Project

Philippines | San Rafael Taft East Samar Solar Farm Project

Vietnam | Gia Lai 100MW wind power project

Tailored Substations Solutions

Saudi Arabia | ACWA Power Layla 91MW Solar Project

Saudi Arabia | Jinko Tabarjal 400MW Solar Project

Saudi Arabia | PIF2 Al Shuaibah Solar PV Project

Chile | ENGIE Lomas de Taltal Wind Power Project

Guatemala | TRELEC 69kV Mobile Substation Project

China | Jinfeng Changli Renewable Energy EPC Project

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