



IGAWARA CORPORATION PTE LTD

井河原私人有限公司

TRANSFORMERS AND SWITCHGEAR DIVISION



QUALITY POLICY

We deliver bias-free customer satisfaction through the effective implementation of **ISO 9001** and **AS9120** Compliant quality systems

We shall:



Never compromise and put profit above the quality management system.



Conduct stringent check on the reliability of customers and vendors.



Only engage in businesses where long term relations with customers and vendors are sustainable for the mutual benefits of all parties.



Adhered to customer requirements and specifications to achieve total customer satisfaction.

Service with a Difference

- Delivering service that consistently exceeds expectations
- Providing comprehensive, end-to-end power solutions
- Ensuring reliable performance for critical operations
- Driven by expert engineering and strict quality control
- Manufactured in compliance with global ISO standards
- One trusted partner from concept to completion
- Proven track record across international projects
- Extensive experience in global trade and logistics
- Delivering value through cost efficiency and reliability
- Rapid response with solutions tailored to your needs



SWITCHGEAR OVERVIEW

Overview

We provide advanced switchgear solutions from Shenglong Electric Group Co., Ltd., a leading player in smart grid and intelligent energy systems.

The portfolio covers low, medium, and high voltage switchgear, designed to ensure safe, reliable, and efficient power distribution across utilities, industrial facilities, commercial buildings, infrastructure, and renewable energy applications.

Engineered with modular design, high short-circuit withstand capability, and intelligent protection features, these systems deliver stable performance under demanding operating conditions.

All solutions comply with international standards such as IEC and CE, and are supported by strong engineering capabilities, ensuring quality, reliability, and seamless system integration.

With proven deployment in over 50 countries—including large-scale projects such as the Baihetan Hydropower Project (16GW), one of the world's largest hydropower developments—these solutions offer a reliable foundation for modern power distribution.



Applications & Industries

A. Power & Utility Infrastructure

- Power Generation Plants
- Grid, Transmission & Distribution
- Water & Utility Infrastructure

B. Renewable & Clean Energy

- Solar, Wind & Hybrid Systems
- Energy Storage Systems (ESS)
- Smart Grid Integration

C. Critical Infrastructure

- Airports & Aviation
- Metro, Rail & Transportation
- Government & Public Institutions
- Hospitals & Healthcare
- Colleges & Universities

D. Data & Commercial Infrastructure

- Data Centers & ICT Facilities
- Smart City Projects
- Large Commercial Complexes

E. Industrial & Process Industries

- Petrochemical & Refinery Plants
- Manufacturing & Process Industries
- Mining & Metallurgy
- Energy-Intensive Industrial Facilities
- Industrial Investment Platforms

Key Features

Delivering safer, smarter, and more efficient power distribution with reduced operational cost and improved system reliability.

A. Safer & More Stable Operation

- Improve operation stability
- Reduce operation failure rate
- Shorten fault recovery time

B. Higher Intelligence & Efficiency

- More intelligent and efficient performance
- 7×24-hour centralized monitoring
- 100% accurate data collection
- Improve energy utilization efficiency

C. Lower Cost & Maintenance Effort

- Lower operating and maintenance costs
- Reduce equipment maintenance cost
- Low labor cost input

D. Enhanced Performance

- Improve overall equipment efficiency
- Ensure long-term stable operation
- Optimize system-level performance

SWITCHGEAR PRODUCT PORTFOLIO

Comprehensive Switchgear Portfolio for Low to High Voltage Applications

1. Power Equipment

Low, medium, and high voltage switchgear and distribution equipment ensuring safe and reliable power supply.

- Low Voltage Switchgear: MNS / MNS-L, GCS / GCK, GGD, MCC
- Medium & High Voltage Switchgear: KYN61-40.5, KYN28-12 / 24, GG-1A, RMU
- Licensed Systems: ABB / Siemens / Schneider

2. Intelligent Switchgear

Smart technologies integrated into switchgear for real-time monitoring, protection, and automated operation.

- iPanel Medium Voltage Intelligent Switchgear
- iPanel Low Voltage Intelligent Switchgear
- AI-iPanel Smart Distribution System
- Intelligent Circuit Breakers
- Smart Monitoring & Protection Devices

3. Digital Energy Platform (iDrip)

A system-level platform that connects all equipment data, enabling energy visibility, analytics, and AI-driven optimization.

- iDrip Energy Management Platform
- Energy Monitoring & Visualization
- Smart Analytics & Reporting
- AI-driven Energy Optimization
- Remote Operation & Maintenance (O&M)



SWITCHGEAR TECH ADVANTAGES

Overview

Shenglong switchgear is a high-performance power distribution product designed to ensure safe, reliable, and stable operation across low, medium, and high voltage applications. Built with robust engineering and modular design, it delivers excellent electrical performance, operational safety, and flexibility for various industrial and infrastructure projects.

On this solid hardware foundation, Shenglong integrates intelligent technologies such as iPanel for real-time monitoring, automated protection, and smart operation. Together with the iDrip digital platform, the system extends from physical equipment to full energy visibility and data-driven optimization, enabling a smarter and more efficient power management solution.

Technical Parameter Comparison

TECHNICAL PARAMTERS	iPanel-M	UniGear ZS1 (ABB)	NXAirS LP (Siemens)	MVnex (Schneider)	Assembled (KYN28A)
Rated Voltage (kV)	7.2 – 12 kV	7.2 – 12 kV	7.2 – 12 kV	7.2 – 12 kV	7.2 – 12 kV
Rated Current (A)	630 – 4000 A	630 – 4000 A	630 – 4000 A	630 – 4000 A	630 – 4000 A
Breaking Current (kA)	≤50 kA	≤50 kA	≤40 kA	≤40 kA	≤40 kA
Rated Short-time Withstand Current	≤50 kA/4s	≤50 kA/4s	≤40 kA/4s	≤40 kA/4s	≤40 kA/4s
Internal Arc / Internal Combustion Arc	≤50 kA/1s	≤50 kA/1s	≤40 kA/1s	≤40 kA/1s	≤40 kA/1s
Spacing (mm)	150 / 210 / 275	150 / 210 / 275	150 / 210 / 275	150 / 210 / 275	210 / 275
Protection Level	IP4X / IP41	IP4X	IP4X	IP4X	IP4X

Our Switchgear – Two World’s First Breakthroughs

1. AI-Driven Intelligent Switchgear (iPanel)

The world’s first switchgear that can “talk, think, and manage itself.”

It integrates voice control, real-time data, edge computing, and AI algorithms into one system.

- Natural language control for intuitive operation
- Autonomous fault detection, diagnosis, and self-learning
- Predictive maintenance based on real-time data
- Optimized load distribution for higher efficiency
- Early warning system for improved safety
- Reduced downtime and manual intervention

2. Metaverse Digital Twin Platform (iDrip)

The world’s first AI-enabled digital twin platform for integrated energy and facility management. It connects 20+ systems including power distribution, HVAC, fire protection, security, and facility management into one unified platform.

- Real-time 3D visualization of entire systems
- Centralized monitoring and control
- Data-driven operation optimization
- Up to 70% reduction in O&M cost
- Around 15% energy saving
- Supports smart cities, factories, and green buildings

FEATURED SWITCHGEAR PROJECTS

A. Power & Utility Infrastructure

1. Power Generation Plants

Project	Country	Type
Xiangfan Garbage Incineration Power Plant	China	Biomass
Ningguo Times 2023 12GWh Power Battery Factory 110KV Substation PC General	China	Industrial power
Baihetan Hydropower Station on Jinsha River	China	Hydropower
Hunan Changtanhe Hydropower Station	China	Hydropower
Jiadaohe Hydropower Station	China	Hydropower
Jinsha River Guanyinyan Hydropower Station	China	Hydropower
China General Nuclear Power Corporation Yangjiang Nuclear Power Project	China	Nuclear
Guangxi Fangchenggang Nuclear Power Project	China	Nuclear
Qinshan nuclear power plant	China	Nuclear
Taishan Nuclear Power Plant Project	China	Nuclear
Bulian Power Plant	China	Thermal
Datang International Power Generation Co., Ltd. Zhangjiakou Power Plant	China	Thermal
Datong No. 2 Power Plant, GD Power Development	China	Thermal
Ezhou Power Plant	China	Thermal
Gemeng International Shanxi Hope Power Generation Co., Ltd.	China	Thermal
Hanchuan Power Plant	China	Thermal
Henan Huaneng Qinbei Power Plant	China	Thermal
Huaneng Beijing Thermal Power Co., Ltd.	China	Thermal
Huaneng Huaiyin Second Power Generation Co., Ltd.	China	Thermal
Huaneng Shanggan Power Plant	China	Thermal
Huaneng Yingcheng Thermal Power Co., Ltd.	China	Thermal
International Huaneng Shandong Xindian Power Plant	China	Thermal
Tianjin Binhai Energy Development Co., Ltd.	China	Thermal
Xiangfan Power Plant, China Huadian Corporation	China	Thermal
Yongji Puzhou Power Plant	China	Thermal
Tongwei Tianmen 100MW fish-light integrated photovoltaic power generation	China	Solar
Shanghai Shenzhou New Energy & Development Co., Ltd.	China	Solar / New Energy
Kaleta Hydropower Station Project, Guinea	Guinea	Hydropower
100MW Photovoltaic Project in Karawang Industrial Park, West Java, Indonesia	Indonesia	Solar
Nam Ou River Cascade II Hydropower Station Project, Laos	Laos	Hydropower
Pakistan CLP Hubb 2x660MW coal power plant project	Pakistan	Thermal
Pakistan Jhampir United Energy Wind Power Plant	Pakistan	Wind
UAE Pre-heat Power Generation	UAE	Thermal



FEATURED SWITCHGEAR PROJECTS

A. Power & Utility Infrastructure

2. Grid, Transmission & Water Infrastructure

Project	Country	Type
Guangzhou Nansha Mingzhu Bay Starting Area No.3 and No.4 Energy Stations	China	District energy
Sino-Singapore Tianjin Eco-City Public Housing Storage Power Station Installation	China	Energy storage / grid
Ningde New Energy	China	Energy storage
Ningguo Times 2023 12GWh Power Battery Factory 110KV Substation PC General	China	Industrial substation
Guangzhou Pearl River New City core district central cooling project	China	District cooling
Baoding Heating Co., Ltd.	China	District heating
Central China Grid Company Limited	China	Electrical grid
Central China Power Group	China	Electrical grid
China Southern Power Grid	China	Electrical grid
Chongqing Power Grid Construction Co., Ltd.	China	Electrical grid
North China Grid Company Limited	China	Electrical grid
State Grid Corporation of China	China	Electrical grid
State Grid Hubei Electric Power Company	China	Electrical grid
Wuhan Power Supply Company	China	Electrical grid
Tibet Hydropower Project (Under Construction)	China	Hydropower
South-to-North Water Diversion Project	China	National Water Diversion
Guangxi Oushennuo 110KV substation	China	Transmission substation
Hubei Province Ultra-high-voltage (UHV) Bureau	China	Transmission grid
Hunan Zhuzhou Substation	China	Transmission substation
Jinan Aixu 220KV Substation	China	Transmission substation
Jingmen Shuanghe Substation	China	Transmission substation
Jingzhou Nengyao 220KV substation	China	Transmission substation
Xingye Liugang 110KV substation	China	Transmission substation
National Nuclear Power Research and Innovation Base	China	Nuclear R&D
Shanghai Sinopec Project	China	Oil/gas transmission
Natural Gas Transmission from Sichuan to East China, Wuhan Control Center	China	Gas transmission
South-to-North Water Diversion Auxiliary Project	China	Water diversion infrastructure
South-to-North Water Diversion Xihe Raw Water Project	China	Raw water transmission
Hunan Zaoshi Water Conservancy Project	China	Water conservancy
Daoxianghu Regenerated Water Works in Haidian District, Beijing	China	Water reclamation
Sewage Treatment Plant in New District, Luoyang City	China	Wastewater treatment
Tianjin Hydraulic Engineering Co., Ltd.	China	Water infrastructure
Wuhan Water Group	China	Water distribution
Yangtze River Water Industry Investment Management Co., Ltd.	China	Water utility
Kamoya City Electric Supply, Congo	Congo	Electrical grid
Greece 400kV Grid Project	Greece	High-Voltage Transmission Grid
Guinea Conakry City Grid Upgrade & Prepaid Meter Project	Guinea	Electrical grid / metering
Laos Dongtai Potassium Ore Certification Project	Laos	Industrial utility
Resort (Thailand) Co., Ltd. Intelligent Factory Project 115KV Substation	Thailand	Industrial substation

FEATURED SWITCHGEAR PROJECTS

A. Power & Utility Infrastructure

Project Highlight – Baihetan Hydropower Station (16GW)

Baihetan Hydropower Station is one of the largest and most advanced hydropower projects in the world, with an installed capacity of 16GW. It features ultra-large underground powerhouse caverns excavated in complex geological conditions, requiring advanced rock support, deep excavation stability control, and high-precision civil engineering techniques.

The project adopts state-of-the-art hydro-turbine generator units designed for ultra-high efficiency and grid stability under variable water flow conditions. It integrates long-distance ultra-high voltage (UHV) power transmission technology to deliver clean energy from western China to eastern load centers.

The construction involved extreme engineering challenges including deep valley terrain, high water pressure environments, and seismic considerations, representing a milestone in modern hydropower engineering.



Project Highlight – Greece 400kV High-Voltage Power Grid Project

The Greece 400kV High-Voltage Power Grid Project involves the development and upgrade of a critical national transmission backbone network operating at ultra-high voltage levels. The project integrates advanced GIS (Gas-Insulated Switchgear) substations, high-capacity overhead transmission lines, and digitalized grid monitoring systems.

It requires precise electromagnetic field control, system stability coordination, and cross-regional power flow management to ensure reliable long-distance electricity transmission across varied terrain and urban interfaces.

The project incorporates modern grid automation technologies, including SCADA-based control systems and real-time condition monitoring, significantly enhancing operational efficiency, fault detection capability, and grid resilience under high-load conditions.



FEATURED SWITCHGEAR PROJECTS

B. Renewable Energy & Clean Energy

Project	Country	Type
Puding 600MWp PV Base Project – Section III Electrical, Cable & Commissioning	China	Solar
Manasi 1GW PV Power Station Project (Cooperation Agreement)	China	Solar
Kurdistan 125MWp PV Project – Equipment Supply	Iraq	Solar
Jiuwanxi 100MW PV Project – Section IV Civil & Installation	China	Solar
Jiuwanxi 100MW PV Project – Box Transformer Procurement	China	Solar
Jingneng High-speed Railway North Station 100MW Distributed Rooftop PV (15MWp EPC)	China	Solar
Huaneng Huanggang Phase I 100MW Rooftop Distributed PV	China	Solar
Xiachuan 100MW Agri-PV – Booster Station & Transmission Line EPC	China	Solar
Shaanxi Huadian Yichuan 150MW Agri-PV	China	Solar
Jinghui Xiaochang Jidian 200MW Agri-PV – 8th Bid Section	China	Solar
Huadian Jianli 150MW Fishery-Solar PV – Phase I Sections G&H	China	Solar
Yangxin Jingneng Paishi Town 50MW Fishery-Solar PV – 110kV Transmission Line	China	Solar
Changzhi PV Leadership Base Pingshun 250MWp – 35kV Collection Line Section 5	China	Solar
Changzhi PV Leadership Base Pingshun 250MWp – 35kV Line Adjustment	China	Solar
Guoneng Wenshan Heishan 188.77MWp PV – Collector Line EPC	China	Solar
Karawang 100MWp PV Project (Indonesia) – 20kV Box Transformer Supply	Indonesia	Solar
Jiangxi Songhu 200MW Fishery-PV – PV Area Cable Supply	China	Solar
Tongwei Tianmen Chenhu Phase I 100MW Fishery-PV – 220kV Substation	China	Solar
Tongwei Tianmen 100MW Fish-Light Integrated Photovoltaic Power Generation	China	Solar
Wulanbuhe 1 Million kW PV Pilot Project – Bid Section 4	China	Solar
Jingneng Danjiangkou Haoping Town 98MW Agri-PV	China	Solar
Sanxia Fumin Chijiu 100MW PV – 35kV Overhead Line	China	Solar
Changyuan Qujialing Luohansi 70MW Agri-PV – Substation	China	Solar
PowerChina Xishui 160MW Fishery-PV – 220kV Substation & Collector Lines	China	Solar
Hainan Huadian Lingshui 59.9MW Distributed PV – 10kV Switchgear	China	Solar
Hainan Huadian Lingshui 59.9MW Distributed PV – Prefabricated Cabin & Secondary Equipment	China	Solar
Dayao Dapingdi Phase II 100MW PV – Substation Electrical Installation	China	Solar
Wuhan DR Laser Phase II 2MW Distributed PV System	China	Solar
Qinhuangdao Shengtong 100MW PV EPC – Cable Tray	China	Solar
Sinopec Jiangxi Petroleum 2022 Phase II PV Installation EPC	China	Solar
Anlu Xundian Town 80MWp Agri-PV – 110kV Substation Installation	China	Solar
Anlu Fushui Town 60MWp Agri-PV (Phase II)	China	Solar
Anlu Shenshui Town 30MWp Agri-PV (Phase II)	China	Solar
Anlu Muzi Township 80MWp Agri-PV (Phase II)	China	Solar
Anlu Muzi Township 30MWp Agri-PV (Phase II)	China	Solar
Huaneng Zaoyang Xinshi 300MW Ground PV – Grid Performance Testing	China	Solar
Anlu Muzi Township 80+30MWp Agri-PV – Grid Test & Simulation Modeling	China	Solar
100MW Photovoltaic Project in Karawang Industrial Park, West Java, Indonesia	Indonesia	Solar
Baihetan Hydropower Station	China	Hydro
Guanyinyan Hydropower Station	China	Hydro
Changtanhe Hydropower Station	China	Hydro
Jiadaohe Hydropower Station	China	Hydro
Nam Ou River Cascade II Hydropower Project	Laos	Hydro
Kaleta Hydropower Station	Guinea	Hydro
Jiangsu Huadian Guanyun 200MW/400MWh Energy Storage – Grid Testing	China	Energy Storage
Sino-Singapore Tianjin Eco-City Storage Power Station	China	Energy Storage
Guangzhou Nansha Mingzhu Bay Energy Stations (No.3 & No.4)	China	Smart Grid
Jinkai New Energy – New Energy Project Portfolio	China	Renewable Energy
Hami Intelligent Computing Center	China	Green Power + Data Center
BYD Xiangyang Fudi Battery Base	China	Battery Manufacturing
Shanghai Shenzhou New Energy Development Co., Ltd.	China	Renewable Energy
Ningde New Energy	China	Battery Manufacturing
National Nuclear Power Research and Innovation Base	China	Nuclear Energy
Tianjin Binhai Energy Development Co., Ltd.	China	Integrated Energy

FEATURED SWITCHGEAR PROJECTS

B. Renewable Energy & Clean Energy

Project Highlights:

Hami Intelligent Computing Center

– AI-Driven Green Power Infrastructure for High-Density Computing

This project delivers ultra-reliable and high-efficiency power supply for large-scale computing workloads. Shenglong iPanel enables real-time energy optimization, intelligent load balancing, and modular power distribution, ensuring stable operation under high-density computing demands.

Guangzhou Nansha Mingzhu Bay Energy Stations

– Multi-Energy Integrated Smart Grid Control Hub

This project integrates power distribution, cooling, and auxiliary systems into a unified intelligent platform. iPanel enables cross-system coordination and centralized energy management, significantly improving operational efficiency and system synergy across complex energy networks.

Sino-Singapore Tianjin Eco-City Storage Power Station

– Low-Carbon Smart Energy Storage Ecosystem

Designed for sustainable urban development, this project applies advanced energy storage coordination and intelligent distribution management. iPanel supports dynamic energy balancing, peak shaving, and renewable energy integration, enhancing grid stability and reducing carbon emissions.



FEATURED SWITCHGEAR PROJECTS

C. Critical Infrastructure

1. Airports & Aviation

Project	Country	Type
Beijing Daxing International Airport	China	International Airport
Beijing Capital International Airport	China	International Airport
Shenzhen Airport	China	International Airport
Kunming Changshui International Airport	China	International Airport
Shanghai Pudong International Airport	China	International Airport
Wuhan Tianhe International Airport	China	International Airport
Ordos Airport	China	Regional Airport
Urumqi Airport	China	International Airport
Haikou Meilan International Airport	China	International Airport
Shangrao Sanqingshan Airport	China	Regional Airport
Shennongjia Airport	China	Regional Airport
Xiangyang Airport	China	Regional Airport
Enshi Airport	China	Regional Airport
Lancang Airport	China	Regional Airport
Alar Talimu Airport	China	Regional Airport
Beijing Xijiao Airport	China	Military / Special Use Airport
China Southern Airlines Beijing New Airport Project	China	Airline Hub / Airport Development
Wuhan Yangluo Airport	China	Aviation Logistics Airport Facility
Hunan Leiyang Military Airport	China	Military Airport
Angola Airport (Lola Airport)	Angola	International Airport
Angola New International Airport	Angola	International Airport
Songea Airport	Tanzania	Regional Airport
Maputo Airport	Mozambique	International Airport
Hambantota International Airport	Sri Lanka	International Airport
Guyana Capital Airport Expansion Project	Guyana	Airport Expansion / Civil Aviation



FEATURED SWITCHGEAR PROJECTS

C. Critical Infrastructure

Project Highlight

Hainan Meilan International Airport

Smart & Efficient Power Management System

Shenglong iPanel and iDrip deliver a fully digital and intelligent power management solution for one of China's key international airports, ensuring safe, stable, and 24/7 uninterrupted operation of critical infrastructure.

The system integrates 7 substations, 6 generator rooms, and over 330 sets of iPanel intelligent switchgear, forming a highly reliable and redundant power distribution network.

Together with the iDrip smart energy platform, the system enables:

- Real-time power monitoring and visualization
- Intelligent fault detection and early warning
- Centralized energy optimization control
- High-reliability operation for continuous airport demand

This integrated solution significantly enhances operational safety, efficiency, and energy management capability across the airport.

Key Engineering Value

- AI-driven intelligent power distribution (iPanel)
- Modular and scalable switchgear architecture
- Seamless integration with digital energy platform (iDrip)
- High redundancy for critical airport loads
- Enhanced automation and system reliability

Cost & Performance Advantage

- Comparable performance to global leading brands
- Lower total investment cost
- Faster installation and commissioning
- Reduced lifecycle operation & maintenance cost



FEATURED SWITCHGEAR PROJECTS

C. Critical Infrastructure

2. Metro / Rail / Transport

Project	Country	Type
Guyana Capital Airport Expansion Project	Guyana	Airport Transport Infrastructure
Maputo Airport	Mozambique	Airport Transport Infrastructure
Yanqing–Chongli Expressway (Beijing–Chongli Expressway)	China	Expressway Transport Infrastructure
Beijing–Shanghai High-speed Railway	China	High-speed Rail
Wuhan–Guangzhou Passenger Dedicated Line	China	High-speed Rail
Wuhan–Yichang High-speed Railway	China	High-speed Rail
Côte d'Ivoire Achi Highway Project	Côte d'Ivoire	Highway
Pearl River Delta Intercity Railway Project	China	Intercity Rail
Wuhan–Huangshi Intercity Railway	China	Intercity Rail
Wuhan–Xiaogan Intercity Railway	China	Intercity Rail
Beijing S1 Maglev Line (Western Section)	China	Maglev Rail
Beijing Rail Transit Project	China	Metro
Chongqing Rail Transit	China	Metro
Dalian Line 202 Rail Project	China	Metro
Guangzhou Metro	China	Metro
Kunming Rail Transit	China	Metro
Nanchang Metro	China	Metro
Shanghai Metro	China	Metro
Shenzhen Metro	China	Metro
Tianjin Rail Transit	China	Metro
Urumqi Metro	China	Metro
Wuhan Metro Olympic Sports Center Station	China	Metro
Zhengzhou Metro	China	Metro
Tangshan Port Group (Port of Tangshan)	China	Port & Transport Infrastructure
Kenya Lamu Port Project	Kenya	Port Transport Infrastructure
Mombasa Port Berth No.19 & Yard Project	Kenya	Port Transport Infrastructure
Nacala Port	Mozambique	Port Transport Infrastructure
Colombo South Container Terminal	Sri Lanka	Port Transport Infrastructure
Hambantota Port Container Terminal	Sri Lanka	Port Transport Infrastructure
Chongqing–Guiyang Railway	China	Railway
Chongqing–Huaihua Railway	China	Railway
Jilin–Tumen–Hunchun Passenger Railway	China	Railway
Qinghai–Tibet Railway	China	Railway
Yiwan Railway	China	Railway
Guangzhou South Railway Station	China	Transport Hub
Putian Railway Station	China	Transport Hub
Tianjin Transport Hub Station Project	China	Transport Hub
7th CISM Military World Games Transport Infrastructure	China	Transport Infrastructure

FEATURED SWITCHGEAR PROJECTS

C. Critical Infrastructure

2. Metro / Rail / Transport



Project Highlight

Tangshan Port Group

iDrip Digital Twin Intelligent Control Platform

The iDrip platform enables unified digital management of multi-energy systems, integrating electricity, water, fuel, gas, and renewable energy into one intelligent control architecture for real-time visibility and optimization. It improves overall energy efficiency and reduces consumption by approximately 10%, while supporting low-carbon and sustainable port development.

Through AI-driven monitoring, early warning, and fault diagnosis, the platform covers key port systems including power distribution, HVAC, lighting, water supply, drainage, elevators, and communications. Centralized control, remote operation, and intelligent analytics significantly reduce manual intervention, improve operational responsiveness, and enhance system reliability, lowering O&M costs by around 60%.

Built on IoT, AI, big data, BIM, and digital twin technologies, iDrip creates a high-fidelity virtual replica of port operations, enabling full visualization of assets, energy flow, equipment status, and operational processes. It supports predictive maintenance, scenario simulation, energy optimization, and lifecycle asset management, improving safety, transparency, and operational efficiency.

The platform also enhances emergency response capability and risk prevention through real-time simulation and data-driven decision support, enabling more resilient and intelligent port operations.

FEATURED SWITCHGEAR PROJECTS

C. Critical Infrastructure

3. Government & Public Institutions

Project	Country	Type
Central Organs of the CPC	China	Central Government Institution
State Organs of the PRC	China	Government Institution
National People's Congress Center	China	Legislative Institution
Supreme People's Procuratorate of the PRC	China	Judicial Institution
Ministry of Public Security of the PRC	China	Government Institution
Ministry of National Defence of the PRC	China	Military Institution
People's Liberation Army of China	China	Military Institution
People's Daily	China	State Media
National Radio and Television Administration (Central TV Tower)	China	State Media
General Administration of Sport of China	China	Government Institution
China Earthquake Administration	China	Government Institution
State Grain Reserve Bureau	China	Government Institution
National Medical Products Administration (NMPA)	China	Regulatory Institution
Ministry of Finance Service Bureau	China	Government Institution
Chinese Academy of Sciences	China	Research Institution
Chinese Academy of Social Sciences	China	Research Institution
Chinese Academy of Agricultural Sciences	China	Research Institution
China Water Resources & Hydropower Research Institute	China	Research Institution
China Ship Research & Design Center	China	Research Institution
National Theatre of China	China	Public Cultural Institution
China Association for Science and Technology Communication Center	China	Public Institution
Beijing Military Region Command	China	Military Institution
Central Military Commission Compound (No.1 Compound)	China	Military Institution
Beijing Municipal Public Security Bureau	China	Government Institution
Shandong Provincial Public Security Department	China	Government Institution
Tianjin Armed Police Training Base	China	Military Institution
Hubei Military Subarea Command	China	Military Institution
People's Bank of China (PBOC)	China	Central Bank
China Unicom	China	State-owned Telecom
China Mobile	China	State-owned Telecom
China Telecom	China	State-owned Telecom
Agricultural Development Bank of China	China	State Financial Institution
Bank of China Headquarters / Branch Network	China	State Financial Institution
Industrial and Commercial Bank of China (ICBC)	China	State Financial Institution
Embassy of the People's Republic of China in Zambia	Zambia	Embassy
Embassy of the People's Republic of China in Belarus	Belarus	Embassy
Embassy of the People's Republic of China in Pakistan	Pakistan	Embassy
Consulate General of China in Karachi	Pakistan	Consulate
Embassy of the People's Republic of China in Trinidad and Tobago	Trinidad and Tobago	Embassy
Zimbabwe National Defence College	Zimbabwe	Military Institution
Tanzania National Defence College	Tanzania	Military Institution
Laos Military Project 1510-Y2	Laos	Military Project
Kyrgyz Republic Officers' Apartment Project	Kyrgyzstan	Government Housing
Tajikistan Officers' Housing Project	Tajikistan	Government Housing
Malawi University of Science and Technology	Malawi	University
Niger Women's College	Niger	Education Institution
Madagascar Rural School Project	Madagascar	Education Aid Project

FEATURED SWITCHGEAR PROJECTS

C. Critical Infrastructure

4. Hospitals & Healthcare

Project	Country	Type
Cancer Hospital, Chinese Academy of Medical Sciences (CAMS)	China	Hospital Infrastructure
Xijing Hospital	China	Hospital Infrastructure
Xuanwu Hospital, Capital Medical University	China	Hospital Infrastructure
Nanjing Drum Tower Hospital	China	Hospital Infrastructure
Wuhan University People's Hospital System	China	Hospital Infrastructure
Renfu International Health City	China	Hospital Infrastructure
Guangzhou United Family Hospital	China	Hospital Infrastructure
Nouakchott University Hospital Project	Mauritania	Hospital Infrastructure
Madagascar Fianarantsoa Rural Hospital Project	Madagascar	Hospital Infrastructure
Zimbabwe Military Medical Facilities Project	Zimbabwe	Hospital Infrastructure
Tanzania Military Medical Facilities Project	Tanzania	Hospital Infrastructure
Sri Lanka Colombo South Medical Facilities	Sri Lanka	Hospital Infrastructure
Peking University Health Science Center	China	Medical Education
Tsinghua University School of Medicine	China	Medical Education
Fudan University Shanghai Medical College	China	Medical Education
Sun Yat-sen University Medical School	China	Medical Education
Wuhan University School of Medicine	China	Medical Education
Huazhong University of Science and Technology Medical School	China	Medical Education
Nanjing University Medical School	China	Medical Education
Chongqing Medical University	China	Medical Education
Malawi University of Science and Technology	Malawi	Medical Education
Cambodia Health Training Institutions	Cambodia	Medical Education
Pakistan Medical Training Facilities	Pakistan	Medical Education
Chinese Academy of Medical Sciences (CAMS)	China	Medical Research
Chinese Academy of Sciences Biomedical Institutes	China	Medical Research
Guangzhou Institute of Biomedicine & Health	China	Medical Research
CAS Institute of Software (Health Informatics)	China	Medical Research
China Institute of Atomic Energy (Radiation Medicine)	China	Medical Research
National Nuclear Medical Safety Base	China	Medical Research
Shenzhen BGI Genomics	China	Biotech Research
iFlytek Healthcare AI Lab	China	AI Medical Research
Tencent Healthcare AI Lab	China	AI Medical Research
Baidu Medical AI Division	China	AI Medical Research
National Medical Products Administration (NMPA)	China	Pharmaceutical Regulation
Center for Drug Evaluation (CDE)	China	Pharmaceutical Regulation
Chinese Pharmacopoeia Commission	China	Pharmaceutical Regulation
Provincial Medical Product Authorities	China	Pharmaceutical Regulation
Clinical Trial Regulatory System	China	Pharmaceutical Regulation
Chengdu Medical City	China	Medical Infrastructure
Hefei Medical Innovation Park	China	Medical Infrastructure
Wuhan Medical Cluster	China	Medical Infrastructure
Beijing Daxing Airport Emergency Medical System	China	Medical Infrastructure
Hainan Aerospace Medical Support Base	China	Medical Infrastructure
National Medical Research Innovation Bases	China	Medical Infrastructure
Sinopharm Group	China	Pharmaceutical Industry
Shanghai Pharmaceuticals	China	Pharmaceutical Industry
CSPC Pharmaceutical Group	China	Pharmaceutical Industry
GE Healthcare China	China	Medical Technology

FEATURED SWITCHGEAR PROJECTS

C. Critical Infrastructure

5. Colleges & Universities

Project	Country	Type
Tsinghua University	China	Colleges & Universities
Peking University	China	Colleges & Universities
Nankai University	China	Colleges & Universities
Tianjin University	China	Colleges & Universities
Nanjing University	China	Colleges & Universities
Sun Yat-sen University	China	Colleges & Universities
University of Science and Technology Beijing	China	Colleges & Universities
Beijing University of Technology	China	Colleges & Universities
Beijing University of Chemical Technology	China	Colleges & Universities
Beijing Jiaotong University	China	Colleges & Universities
Beijing Forestry University	China	Colleges & Universities
Beijing Language and Culture University	China	Colleges & Universities
Beijing University of Posts and Telecommunications	China	Colleges & Universities
Beijing Normal University	China	Colleges & Universities
Beijing University of Chinese Medicine	China	Colleges & Universities
Beijing Sport University	China	Colleges & Universities
Beijing International Studies University	China	Colleges & Universities
Beijing Dance Academy	China	Colleges & Universities
Beijing Future City School	China	Colleges & Universities
Shanghai Conservatory of Music	China	Colleges & Universities
Wuhan University	China	Colleges & Universities
Huazhong University of Science and Technology	China	Colleges & Universities
Huazhong Agricultural University	China	Colleges & Universities
Chongqing University	China	Colleges & Universities
Xidian University	China	Colleges & Universities
Central University of Finance and Economics	China	Colleges & Universities
China Youth University of Political Studies	China	Colleges & Universities
People's Public Security University of China	China	Colleges & Universities
China Agricultural University	China	Colleges & Universities
Civil Aviation University of China	China	Colleges & Universities
Beijing Institute of Technology Xishan Campus Management Service Center	China	Colleges & Universities
Institute of Software, Chinese Academy of Sciences	China	Colleges & Universities
Chinese Academy of Sciences	China	Colleges & Universities
Chinese Academy of Social Sciences	China	Colleges & Universities
Chinese Academy of Agricultural Sciences	China	Colleges & Universities
Chinese Academy of Biological Sciences	China	Colleges & Universities
Malawi University of Science and Technology	Malawi	Colleges & Universities

FEATURED SWITCHGEAR PROJECTS

D. Data & Commercial Infrastructure

1. Data Centers/ICT Facilities

Project	Country	Type
Alibaba Cloud Zhangbei Data Center	China	Data Center
Tencent Global Headquarters (Binhai Building)	China	ICT Headquarters / Data Center
Huawei Hangzhou Base	China	ICT Manufacturing Base
Huawei South Factory	China	ICT Manufacturing Base
Fujian Jinhua IC Project	China	Semiconductor Manufacturing
BOE Technology Group	China	Semiconductor Display
Corning Incorporated	USA	Semiconductor Materials
National Supercomputer Center in Guangzhou	China	High Performance Computing
Zhongguancun Software Park R&D Center	China	Software R&D Park
Zhongguancun Software Square	China	ICT Park
Institute of Software, Chinese Academy of Sciences	China	Research Institute
China Telecom Hubei Branch	China	Telecom Infrastructure
China Telecom Shanghai Branch	China	Telecom Infrastructure
China Unicom Beijing Branch	China	Telecom Infrastructure
China Mobile Guangzhou Command Center	China	Telecom Operations Center
China Mobile Guangdong Southern Base	China	Data Center / ICT Base
China Unicom Cloud Data Hohhot	China	Cloud Data Center
FiberHome Technologies	China	ICT Equipment Manufacturing
Lenovo Wuhan Industrial Base	China	ICT Manufacturing
Baidu Online Network Technology	China	Internet Platform
Alibaba South China Operations Center	China	Cloud Computing Platform
VIP.com Headquarters	China	E-commerce Data Center
Neusoft Corporation	China	Software & IT Services
iSoftStone	China	IT Services
VPark Yizhuang Software Park	China	Software Park
Nanjing Xincheng Internet Industrial Park	China	ICT Industrial Park
Hualong Mobile & Aigo R&D Base	China	ICT R&D Base
Sijiqing Data Center Project	China	Data Center
Taiyuan Data Center Project	China	Data Center
Tianjin Airport Cloud Data Center	China	Cloud Data Center
Langfang Data Center	China	Data Center
National Network & Info Security Center Jiangsu	China	Cybersecurity Center
Asian Infrastructure Investment Bank Headquarters (IT Systems)	China	Financial IT Infrastructure
China Pacific Insurance Wuhan Data Center	China	Financial Data Center
Credit Reference Center, People's Bank of China	China	Financial Data Platform
CICC East China Data Center	China	Financial Data Center
Shenzhen BGI Technology	China	Bioinformatics Data Platform
Fujian Donghu Digital Town	China	Digital Economy Park

FEATURED SWITCHGEAR PROJECTS

D. Data & Commercial Infrastructure

2. Smart City Projects

Project	Country	Type
Suzhou adidas Logistics Park	China	Smart Logistics / Industrial Park
Shanghai Global Airport Logistics Producing-learning Base	China	Smart Logistics Hub
Tsinghua Enlightenment Park	China	Smart Science Park
VPark Yizhuang Software Park	China	Smart Industrial Park
Zhongguancun Software Park R&D Center	China	Smart R&D Campus
Zhongguancun Software Square	China	Smart Commercial Complex
Nanjing Xincheng Science Park Internet Industrial Park	China	Smart Industrial Park
Shichuang Medical Valley Industrial Park	China	Smart Healthcare Industrial Park
Chengdu Medical City	China	Smart Healthcare City
Fujian Donghu Digital Town	China	Digital Smart Town
New China International Exhibition Center	China	Smart Exhibition & Convention Center
Optics Valley Central City Science and Technology Exhibition Center	China	Smart Exhibition Complex
China Association for Science and Technology Communication Center	China	Smart Public Service Facility
Ji'an Convention Center	China	Smart Convention Center
Beijing Daxing International Airport	China	Smart Transportation Hub
Shanghai Pudong International Airport	China	Smart Transportation Hub
Wuhan Tianhe International Airport	China	Smart Transportation Hub
Guangzhou South Railway Station	China	Smart Rail Transport Hub



FEATURED SWITCHGEAR PROJECTS

D. Data & Commercial Infrastructure

3. Large Commercial Complexes

Project	Country	Type
Wanda Center	China	Commercial Complex
Wanda Plaza (Multiple Cities)	China	Commercial Complex
China First Mall	China	Commercial Complex
Yunda Central Plaza	China	Commercial Complex
Hongqiao Libao Square	China	Commercial Complex
Tianjin Red Star International Plaza	China	Commercial Complex
Chongqing Lifan Hongxing International Plaza	China	Commercial Complex
T-Longee Plaza	China	Commercial Complex
Wuhan Plaza	China	Commercial Complex
SOHO China	China	Commercial Real Estate
Beijing SOHO	China	Commercial Real Estate
SKY SOHO	China	Commercial Real Estate
Greenland Group	China	Commercial Real Estate
Powerlong Property	China	Commercial Real Estate
Yuexiu Property	China	Commercial Real Estate
China International Exhibition Center	China	Exhibition and Convention Center
Tangshan International Conference & Exhibition Center	China	Exhibition and Convention Center
Optics Valley Science & Technology Exhibition Center	China	Exhibition and Convention Center
Ji'an Convention Center	China	Exhibition and Convention Center
Macrolink Group	China	Conglomerate
Wanda Group	China	Conglomerate
Beijing International Hotel	China	Hotel
Hua Bei Hotel	China	Hotel
Chaolin International Hotel	China	Hotel
The Palace Museum	China	Cultural Building
Power Station of Art	China	Cultural Building
National Theatre of China	China	Cultural Building
Myanmar Times Square	Myanmar	Commercial Complex
Angola Social Housing Project	Angola	Commercial Real Estate



FEATURED SWITCHGEAR PROJECTS

E. Industrial & Process Industry

Project	Country	Type
Anhui Heli Co., Ltd.	China	Industrial Machinery
Beijing Yiling Pharmaceutical Factory	China	Pharmaceutical Manufacturing
BOE Technology Group	China	Display / Semiconductor Manufacturing
BYD Group	China	New Energy Vehicle / Battery
China Academy of Space Technology	China	Aerospace R&D
China Aerospace Science & Technology Corporation	China	Aerospace / Defense Industry
China First Heavy Industries Engineering	China	Heavy Equipment Manufacturing
China North Industries Group 201 Institute	China	Defense Manufacturing
China Shipbuilding Industry Group	China	Shipbuilding Industry
Chongqing Iron & Steel Group	China	Metallurgy / Steel Industry
Congo MKM Mining Project	Congo	Mining Industry
CSOT (China Star Optoelectronics)	China	Display / Semiconductor Manufacturing
Dongfang Electric (Wuhan) Nuclear Equipment	China	Power Equipment Manufacturing
Dongfeng Honda Automobile	China	Automotive Manufacturing
Dongfeng Special Vehicle	China	Special Vehicle Manufacturing
DPCA (Dongfeng Peugeot Citroën)	China	Automotive Manufacturing
Foxconn Industrial Bases	China	Electronics Manufacturing Cluster
Foxconn Technology Group	China	Electronics Manufacturing
Gezhouba Cement	China	Cement Industry
Great Wall Motors	China	Automotive Manufacturing
Guinea Conakry City Power & Grid Modernization	Guinea	Industrial Power Infrastructure
Huawei Manufacturing Bases (Hangzhou / South Factory)	China	ICT Manufacturing
Huaxin Cement Co., Ltd.	China	Cement / Building Materials
Hubei Sanning Chemical	China	Petrochemical & Chemical
Indonesia Karawang Industrial Park 100MW PV Project	Indonesia	Industrial Energy / Manufacturing Support
Kenya Lamu Port Industrial Development	Kenya	Heavy Industry / Port Engineering
Laos Dongtai Potassium Ore Project	Laos	Mining Industry
Lenovo Wuhan Industrial Base	China	ICT Manufacturing
Pakistan CLP HUBB 2×660MW Coal Power Plant	Pakistan	Energy / Power Generation
Pakistan Soda Ash Plant	Pakistan	Chemical Industry
Qingshan Shipyard	China	Shipbuilding Industry
SANY Group	China	Heavy Industry / Equipment Manufacturing
SDIC Group	China	Industrial Investment & Holding
Shanxi Coking Coal Group	China	Mining / Energy Industry
Shougang Construction Group	China	Steel / Construction Industry
Sri Lanka Hambantota Industrial Port & Terminal	Sri Lanka	Port Industrial Infrastructure
Taiyuan Iron & Steel Group	China	Metallurgy / Steel Industry
Tianjin Zhongwang Aluminium	China	Metal / Aluminium Processing
Vietnam Steel Smelting Expansion Project	Vietnam	Metallurgy Industry
Wuhan Heavy Industry Casting & Forging	China	Heavy Industry Manufacturing
Wuhan Iron & Steel Group	China	Metallurgy / Steel Industry
Wuhan Shipyard	China	Shipbuilding Industry
Wuhan Steel Mining Co., Ltd.	China	Mining Industry
YTO Group Corporation	China	Agricultural Machinery



FEATURED SWITCHGEAR PROJECTS

E. Industrial & Process Industry

Project Highlight

Hubei Sanning Chemical Project

iPanel Intelligent Switchgear Solution

The project applies the iPanel intelligent switchgear system in a high-end chemical plant environment, requiring high safety, reliability, and resistance to harsh conditions such as humidity, dust, and chemical corrosion. The system is built with an industrial-grade, high-protection design to ensure stable long-term operation.

Integrated smart sensing and monitoring enable real-time tracking of electrical parameters and equipment status. With built-in communication and diagnostic functions, the system supports early fault warning and predictive maintenance, improving operational safety and reliability.

With over 1,000 units deployed, the solution demonstrates strong scalability and stable performance in large-scale industrial use, enabling centralized monitoring, reduced manual inspection, and lower maintenance costs.



SDIC Office Park

iDrip Integrated Smart Energy & O&M Management System

The iDrip system integrates multiple building subsystems—including power distribution, HVAC, cooling and heating, ventilation, water supply, lighting, elevators, and facility services—into a unified intelligent management platform, enabling centralized monitoring and coordinated control.

Using self-learning and adaptive optimization algorithms, the system automatically adjusts operations based on occupancy, environmental conditions, and equipment load to maintain optimal comfort while improving energy efficiency.

In addition, iDrip enables intelligent O&M through real-time analytics, fault prediction, and automated decision support, reducing manual intervention, lowering operational costs, and supporting smart, low-carbon building management.



SWITCHGEAR OVERSEAS PROJECTS

Project	Country	Type
10,000 Residential Project in Libya	Libya	Housing
Angola Lobito Container Terminal, Dry Wharf, and Ore Terminal	Angola	Port / Terminal
Angola Lobito Road and Yard Project	Angola	Port Logistics / Infrastructure
Angola New International Airport	Angola	Airport
Angola Social Housing Project	Angola	Housing
Burma Tyre Plant	Myanmar	Industrial Manufacturing
Cambodia Kratie Agro-Technical School	Cambodia	Education
China Consulate General Karachi	Pakistan	Diplomatic Building
China Embassy in Belarus	Belarus	Diplomatic Building
China Embassy in Pakistan	Pakistan	Diplomatic Building
Congo Greensands Mining Project	DR Congo	Mining
Congo Kamoya City Power Supply Project	DR Congo	Power Infrastructure
Congo MKM Mining Project	DR Congo	Mining
Congo-Brazzaville Djoué Radio Project	Congo (Brazzaville)	Broadcasting / Infrastructure
Congo-Brazzaville Vocational and Technical School	Congo (Brazzaville)	Education
Côte d'Ivoire Achi Highway Project	Côte d'Ivoire	Road Infrastructure
Embassy of China in Zambia	Zambia	Diplomatic Building
Guinea Conakry City Power Grid & Smart Meter Project	Guinea	Power Grid / Smart City
Guinea Kaleta Hydropower Station	Guinea	Hydropower
Guyana Airport Expansion Project	Guyana	Airport
Indonesia Karawang 100MW PV Project	Indonesia	Solar Power
Kenya Lamu Port Project	Kenya	Port
Kenya Mombasa Port Berth 19 Project	Kenya	Port
Kyrgyz Republic Officers' Apartment	Kyrgyzstan	Residential / Government Housing
Laos Dongtai Potassium Ore Certification Project	Laos	Mining / Mineral Verification
Laos Military Project 1510-Y2	Laos	Military Infrastructure
Laos Nam Ou Hydropower Station (Phase II)	Laos	Hydropower
Madagascar Rural School Project	Madagascar	Education
Malawi University of Science and Technology	Malawi	Education / University
Mauritania University Hospital Aid Project	Mauritania	Healthcare / Hospital
Mauritius Road Project (Trade Development Zone)	Mauritius	Infrastructure / Road
Mozambique Maputo Airport	Mozambique	Airport
Mozambique Nacala Port	Mozambique	Port
Myanmar Times Square	Myanmar	Commercial / Real Estate
Niger Women's College	Niger	Education
N-SUKALA SA Sugar Project	Mali	Industrial / Agro-industry
Pakistan HUB 2x660MW Coal Power Plant	Pakistan	Thermal Power
Pakistan Jhampir Wind Power Plant	Pakistan	Renewable Energy (Wind Power)
Pakistan Soda Ash Plant	Pakistan	Chemical Industry
Saudi Arabia AMTP Project	Saudi Arabia	Industrial / Petrochemical
Saudi Arabia Oil Storage Facilities Project	Saudi Arabia	Oil & Gas Storage
Sri Lanka Colombo South Container Terminal	Sri Lanka	Port
Sri Lanka Hambantota Airport	Sri Lanka	Airport
Sri Lanka Hambantota Port Terminal	Sri Lanka	Port
Sudan Newport Container Terminal	Sudan	Port
Tajikistan Officers' Housing Project	Tajikistan	Residential / Government Housing
Tanzania Military Expert Group Living Quarters Project	Tanzania	Military Housing
Tanzania National Defense College Project	Tanzania	Government / Defense Education
Thailand Intelligent Factory 115kV Substation Project	Thailand	Industrial Power Infrastructure
Trinidad and Tobago Chinese Embassy	Trinidad and Tobago	Diplomatic Building
Vietnam Steel Expansion Project	Vietnam	Industrial / Metallurgy
Zimbabwe National Defense College	Zimbabwe	Defense Education

TRANSFORMERS OVERVIEW

Overview

The transformer portfolio spans urban distribution to ultra-high voltage transmission systems, with proven capability in 500kV-class applications (100–600MVA). It delivers high efficiency, reliability, and long-term stable operation, fully compliant with IEC and IEEE standards and certified under CNAS/CMA testing systems.

Widely applied in global power generation, transmission, and infrastructure development, it supports modern grid expansion and energy-intensive industrial applications across multiple regions.

Within this framework, Sanbian Sci-Tech Co., Ltd.'s solutions have been used in power infrastructure projects in the United States, including Supply main transformers for the Elon Musk AI Supercomputer Center power station in Memphis, USA, as well as Greece power grid modernization projects, including deployment of 450 kVA transformer solutions for distribution-level reinforcement.

Main Product Lines

Product Category	Details
Power Transformers	Oil-immersed power transformers up to 500kV
Traction Transformers	Railway traction transformers up to 220kV
Distribution Transformers	Low-loss oil-immersed transformers up to 35kV and below
Dry-Type Transformers	Resin-insulated, H-class impregnated, amorphous alloy transformers
Renewable Energy Transformers	Pad-mounted transformers for wind power, solar PV, and energy storage systems
Special Transformers	Anti-corrosion petrochemical, underground, and self-protected transformers, etc.
Complete Equipment Solutions	Compact substations, ring main units (RMU), switchgear, cable distribution boxes, etc.

Application Fields

High-end power transformers are widely deployed across global critical infrastructure and emerging energy systems, covering the following key sectors:

- **Ultra-High Voltage Transmission Systems (500kV+)**
Backbone grids, inter-regional transmission, major power hubs
- **Urban Power Transmission & Distribution Networks**
110kV / 220kV substations and urban grid expansion projects
- **Power Generation & Renewable Energy Systems**
Thermal, hydro, wind, solar, and energy storage
- **Industrial & Petrochemical Sector**
Large industrial zones, refineries, metallurgy, and chemical facilities
- **Rail & Metro Transportation Systems**
High-speed rail power supply and metro traction systems
- **Data Centers & Digital Infrastructure**
Data centers, cloud hubs, and critical ICT systems
- **Public Critical Infrastructure**
Healthcare, airports, exhibition venues & commercial complexes



TRANSFORMER PRODUCT PORTFOLIO

DISTRIBUTION TRANSFORMER (10kV–35kV)

Overview

The 10kV–35kV distribution system provides a reliable and efficient power supply solution, serving as the key link between substations and end users in modern electrical networks.

It includes oil-immersed transformers, amorphous alloy energy-saving transformers, dry-type transformers, prefabricated substations, underground substations, and low-voltage switchgear systems, offering flexible solutions for urban grids, industrial facilities, commercial buildings, and renewable energy projects.

Designed for high efficiency and low loss, the system ensures strong thermal and mechanical stability, long service life, and low maintenance requirements under various operating conditions.

Overall, it supports safe, stable, and sustainable electricity distribution for modern smart grid development.

Product Type Classification

Product Type	Core Structure	Key Features
Wound Core Transformer (10kV)	Three-phase three-dimensional triangular wound core	Low loss, low noise, low no-load current
Oil-Immersed Transformer (10–35kV)	Grain-oriented silicon steel laminated core	High short-circuit withstand capability, stable operation
Amorphous Alloy Transformer (10/20kV)	Amorphous alloy core	Ultra-low loss (about 1/4 of conventional types), high energy efficiency

Distribution Transformers Catalogue

- 10kV Roll Core Type Distribution Transformer
 - Three-phase roll core structure
 - Low no-load loss and low noise
 - High energy efficiency design
- 10kV Oil-immersed Distribution Transformer
 - Grain-oriented silicon steel core
 - High short-circuit withstand capability
 - Suitable for urban and industrial distribution networks
- 20kV Oil-immersed Distribution Transformer
 - Medium-voltage distribution solution
 - Reduced line loss and extended supply radius
 - Applicable to regional distribution systems
- 35kV Oil-immersed Distribution Transformer
 - High-voltage distribution application
 - Strong short-circuit withstand capability
 - High reliability for distribution and industrial use
- 10kV Amorphous Alloy Core Distribution Transformer
 - Amorphous alloy core with ultra-low loss
 - Low no-load loss (energy-saving)
 - Environmentally friendly and high-efficiency design
- 20kV Amorphous Alloy Core Distribution Transformer
 - Medium-voltage energy-saving upgrade solution
 - For urban & renewable use
 - High efficiency and low operating cost

Main Application Areas

- Urban & Rural Power Distribution
 - Urban residential electricity networks
 - Rural electrification systems
 - Community substations & feeders
- Industrial Power Systems
 - Manufacturing plants
 - Steel, cement, chemical industries
 - Industrial parks and production lines
- Commercial & Infrastructure Buildings
 - Shopping malls
 - Office buildings
 - Hotels, hospitals, airports
- Transportation & Public Utilities
 - Metro and railway traction substations
 - Highway service areas
 - Ports and logistics hubs
- Renewable Energy Integration
 - Photovoltaic (PV) power plants
 - Wind farms (onshore & offshore)
 - Energy storage systems (ESS)
- Utility & Grid Substations
 - 10–35kV primary substations
 - Regional grid nodes
 - RMUs & switching stations

TRANSFORMER PRODUCT PORTFOLIO

POWER TRANSFORMER (35kV-500kV)

Overview

The 35kV–500kV power transformer system provides a reliable high-voltage transmission solution, forming the backbone between generation and grid networks. It enables efficient, safe, and continuous bulk power transfer over long distances.

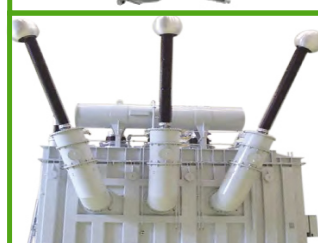
The range includes oil-immersed transformers, autotransformers, two- and three-winding units, and on-load/off-load tap changers up to 500kV, widely used in national grids, inter-regional links, power plants, and renewable energy projects.

With advanced electromagnetic and thermal design, it delivers low losses, strong short-circuit capability, and stable operation. Robust insulation and precision manufacturing ensure long service life and low maintenance.

Overall, it supports efficient large-scale transmission and secure cross-regional power exchange.

Product Range

Voltage	Product Type	Description
35kV	Oil-immersed Power Transformer	Medium-voltage distribution and industrial power systems
110kV	Oil-immersed Power Transformer	Regional grid substations and transmission networks
220kV	Oil-immersed Power Transformer	High-voltage transmission and grid interconnection
330kV	Regulating Power Transformer	Extra-high voltage transmission with voltage regulation capability
500kV	Regulating Power Transformer	Ultra-high voltage backbone grid and national transmission system



Key Technical Highlights

1. Advanced Design Technology

- International-level electromagnetic, insulation, and short-circuit simulation design
- 3D multi-physics field analysis (electromagnetic, thermal, electric stress)
- Dynamic short-circuit strength calculation for high-reliability performance

2. Structural Optimization

- Core: Fully mitered step-lap core with multi-step circular design
- Winding: High-strength hard paper cylinder with external bracing structure
- No-core-bolt design to eliminate mechanical displacement risk
- Lead system: Cold-welded + bolted connection structure
- Optimized rounding design to reduce partial discharge risk

3. Manufacturing Technology

- Automatic core cutting with dual-H adhesive curing process
- CNC-controlled winding tension system
- Phase-assembly and integrated pre-assembly technology
- Fully automated vapor-phase drying process

4. Digital Manufacturing System

- ISO 9001 quality management system
- ERP + PDM full lifecycle digital management
- End-to-end traceability of manufacturing data

TRANSFORMER PRODUCT PORTFOLIO

NEW ENERGY TRANSFORMER

Overview

Forming the key interface between renewable energy sources and power grids, the New Energy Transformer system serves as the key interface between renewable sources and the grid, enabling efficient, stable, and reliable power conversion and transmission from solar and wind plants.

The range includes PV combined transformers, onshore/offshore wind transformers, and 35kV compact substations, widely used in solar farms, wind parks, and energy storage systems.

With advanced electromagnetic and thermal design, it offers low losses, high efficiency, and strong short-circuit capability. Robust insulation and corrosion-resistant construction ensure long service life in harsh environments.

Product Portfolio

Category	Product	Application
Integrated Substation	Combined Transformer Substation	Compact power distribution & transformation unit
Transformer	Combined Transformer	Integrated transformer solution
Underground Solution	Underground Combined Transformer	Underground installation for urban areas
Underground Substation	Underground Combined Transformer Substation	Fully enclosed underground substation system
Solar Energy	Integrated Photovoltaic Combined Transformer	Solar farm grid connection
Solar Energy	35kV Photovoltaic Power Generation Combined Transformer	Utility-scale PV power plants
Wind Energy	35kV Combined Transformer for Wind Power Generation	Onshore wind farms
Wind Energy	35kV Offshore Wind Power Transformer	Offshore wind applications
Wind Energy (Special Type)	35kV Dry-Type Transformer for Offshore Wind Power Generation	High humidity / marine environment
Technical Standard	Transformer Ordering Technical Conditions	Design & procurement specification

Key Technical Highlights

1. Integrated Modular Design

- Integrated transformer & control system
- Prefabricated and containerized structure
- Faster installation, lower civil cost
- Flexible expansion and system compatibility

2. High Efficiency & Low Loss Design

- Optimized electromagnetic simulation design
- Low no-load and load losses
- High energy efficiency performance
- Cold-welded + bolted structure
- Reduced lifecycle operating cost



Applications

1. Power Distribution

- Urban & rural networks
- Industrial & commercial facilities
- Temporary & emergency supply
- Underground / space-limited installations

2. Solar Power (PV)

- Utility-scale solar plants
- Grid connection & step-up
- Containerized PV substations
- Solar + storage systems

3. Wind Power

- Onshore & offshore wind farms
- Grid connection in harsh environments
- High humidity / low temperature areas

4. Offshore & Infrastructure

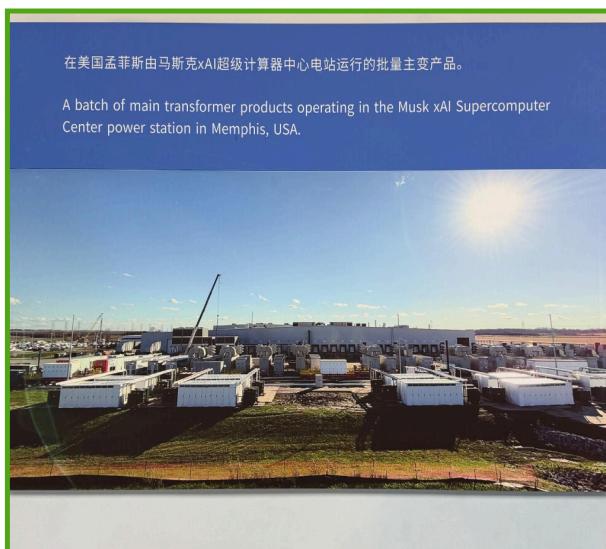
- Offshore & marine energy systems
- Urban underground substations (CBD)
- Rail & metro systems
- Smart city & critical power supply

TRANSFORMER TECH ADVANTAGES

Technical Advantages of Sanbian Sci-Tech Co., Ltd. Power Transformer Solutions

Proven Transformer Solutions Supporting AI Infrastructure and Power Grid Modernization Across the United States and Europe

- **U.S. AI Infrastructure Applications**
Deployed in Memphis AI power systems, supporting stable high-density computing loads.
- **European Grid Modernization Projects**
Applied in Greece distribution upgrades (450 kVA solutions), improving grid stability.
- **Cross-Region Engineering Reliability**
Proven performance in both U.S. and Europe, adaptable to different technical standards.
- **Wide Load Range Capability**
Covers AI supercomputers to distribution networks, supporting high and medium voltage.
- **Advanced Thermal & Overload Performance**
Enhanced heat dissipation and overload tolerance ensure stable AI computing operation.
- **Smart Grid Compatibility**
Designed for seamless integration with digital substations and smart grid systems.



TRANSFORMER PROJECTS

10kV–35kV Distribution & Industrial

Project	Country	Model	Type
Mengsong 600MW Wind Power Project	Laos	ZGS11-Z.F-5000/35	Pad-mounted Transformer
Weda Bay Industrial Park	Indonesia	S11-3150/35	Industrial Transformer
Morning Dawn Metal Project (60,000 t/yr)	Indonesia	S13 Series	Industrial Transformer System
Data Center Project	Malaysia	S-600/33	Power Distribution Transformer
Terra Solar 1050MW PV Project	Philippines	TC6800KT	PV Booster Transformer
Rooftop Solar Project	Sri Lanka	S-M-250/33	Distribution Transformer
Gicumbi Substation (110kV access)	Rwanda	S-160/30	Distribution Transformer
Dhaka 11kV Distribution Network	Bangladesh	S-250/11	Distribution Transformer
Mining & Wet Plant Project	Congo (DRC)	SCB11-1600/10	Industrial Transformer
DASA Uranium Mine	Niger	S-2000/11	Mining Power Transformer
National Power Projects	Sierra Leone	S-1250/10	Distribution Transformer
xAI Supercomputing Data Center Project (Elon Musk)	USA	Customized	Power Distribution Transformer

35kV–132kV Sub-Transmission & Utility

Project	Country	Model	Type
GTOG Substation Projects	Bangladesh	SFZ11-75000/132	Substation Transformer
Industrial Silicon Project	Laos	SCB12 Series	Industrial Power Transformer
TYUP Hydropower Project	Kyrgyzstan	S11 Series	Hydropower Transformer
Kainji Hydropower Station	Nigeria	SCB-800/11	Generation Transformer
KONE Mining Project	Côte d'Ivoire	SFZ-85000/225	Mining Transformer
SMGP Geothermal Project	Indonesia	SF11-25000/70	Geothermal Transformer
Air Separation Plant	Mexico	S18 Series	Industrial Transformer
SUA PAN Substation	Botswana	SZ-10000/132	Grid Transformer
Lapang GIS Substation	Nepal	ODFSZ-33330/220	GIS Transformer

132kV–220kV High Voltage Transmission Projects

Project	Country	Model	Type
220kV Substation Project	Rwanda	S11-40000/220	High Voltage Transformer
SESSD LOT-1 EPC Substation	Zambia	SFZ-31500/132	Grid Transformer
De Aar Solar Center Project	South Africa	SFZ-120000/132	Renewable Integration Transformer
Water Supply Power Project	Pakistan	SCB14 Series	Utility Transformer
THOMAS 220kV Project	Congo (DRC)	SZ11-31500/220	Transmission Transformer
220kV GIS Substation	Nepal	S11 Series	GIS Transformer
Flampouro Power Plant	Greece	SFZ-50000/150	Grid Connection Transformer

220kV–500kV Ultra High Voltage Transmission

Project	Country	Model	Type
EU Power Grid Rehabilitation Project	Ukraine	OSFSZ-250000/330	Ultra High Voltage Transformer
GTOG National Substation Program	Bangladesh	SFZ11-120000/132	UHV Transformer
World Bank Power Program	Nigeria	SFZ-125000/132	Grid Expansion Transformer
Lusaka Transmission Upgrade	Zambia	OSFSZ-250000/330	UHV Transformer
Solar Energy Hub	South Africa	SFPSZ22-250000/220	UHV Transformer
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GLOBAL OFFICES 全球办事处

IGAWARA CORPORATION PTE LTD

SINGAPORE HEAD QUARTERS

No.1 Gateway Drive, #11-11/15, Westgate Tower,
Singapore 608531

Tel : +65-65661191
Fax : +65-65661194
Email : sales@igawara.com.sg
Website : www.igawara.com.sg

新加坡总部

No.1 Gateway Drive, #11-11/15, Westgate Tower,
Singapore 608531

电话 : +65-65661191
传真 : +65-65661194
电邮 : sales@igawara.com.sg
网址 : www.igawara.com.sg

CHINA - DALIAN

No. 123 Changjiang Road, Zhongshan District,
Room 1335, Changjiang Plaza, Office Building,
Dalian 116001, China

Tel : +86-411-82529668
Fax : +86-411-82529118
Email : jocelyn@igawara.com.sg
Website : www.igawara.com.sg

中国 - 大连

辽宁省大连市中山区长江路123号,
长江广场写字间1335室, 邮编: 116001

电话 : +86-411-82529668
传真 : +86-411-82529118
电邮 : jocelyn@igawara.com.sg
网址 : www.igawara.com.sg

CHINA - SHANGHAI

Room 6C, Floor 6, Shanghai Industrial Investment Building,
No.18 North Caoxi Road, Xuhui District,
Shanghai 200030, China

Tel : +86-21-64478578
Fax : +86-21-64478579
Email : jocelyn@igawara.com.sg
Website : www.igawara.com.sg

中国 - 上海

上海市徐汇区漕溪北路18号,
上海实业投资大厦6楼6C室, 邮编: 200030

电话 : +86-21-64478578
传真 : +86-21-64478579
电邮 : jocelyn@igawara.com.sg
网址 : www.igawara.com.sg

PHILIPPINES - MANILA

Unit 1716 Cityland 10 Tower 1,
156 HV Dela Costa Street Salcedo Village,
Makati City 1200, Philippines

Tel : +63-2-8942675 / +63-2-8942680
Fax : +63-2-8942687
Email : leo@igawara.com.sg
Website : www.igawara.com.sg

菲律宾 - 马尼拉

Unit 1716, Cityland 10 Tower 1,
156 HV Dela Costa Street, Salcedo Village,
Makati City 1200, Philippines

电话 : +63-2-8942675 / +63-2-8942680
传真 : +63-2-8942687
电邮 : leo@igawara.com.sg
网址 : www.igawara.com.sg

INDONESIA - JAKARTA

Antam Office Park, Tower B 6th Floor
Jl. Letjend TB. Simatupang No. 1
Jakarta Selatan, Indonesia 12530

Tel : +62 29634901-04
Email : sales@igawara.com.sg
Website : www.igawara.com.sg

印尼 - 雅加达

Antam Office Park, Tower B 6th Floor
Jl. Letjend TB. Simatupang No. 1
Jakarta Selatan, Indonesia 12530

电话 : +62 29634901-04
电邮 : sales@igawara.com.sg
网址 : www.igawara.com.sg

MIDDLE EAST - UAE

P.O. Box 1425 Ras Al Khaimah, United Arab Emirates

Tel : +971-554488245
Email : kumar@igawara.com.sg
Website : www.igawara.com.sg

中东 - 阿联酋

P.O. Box 1425 Ras Al Khaimah, United Arab Emirates

电话 : +971-554488245
电邮 : kumar@igawara.com.sg
网址 : www.igawara.com.sg

SUBSIDIARIES

IIST (SHANGHAI) LTD

Room 307, Block 2, 3601 Dongfang Road, Pudong New Area,
Shanghai 200125, China 200030, China
Tel : +86-21-64478578
Fax : +86-21-64478579
Email : sales@igawara.com.sg
Website : www.igawara.com.sg

IGAWARA INDIA PVT LTD

Rasim Crescent, Ground Floor, New No 18, Old No 13,
Zackariya Colony 1st Street, Choolaimedu,
Chennai – 600094.
Tel : +91-99400 38817
Email : kumar@igawara.com.sg
Website : www.igawara.com.sg

IGAWARA GOLD FORTUNE PTE LTD

No.1 Gateway Drive, #11-11/15,
Westgate Tower, Singapore 608531
Tel : +65-65661191
Fax : +65-65661194
Email : sales@igawara.com.sg
Website : www.igawara.com.sg

FISTEC SDN BHD

23, Jalan Sulam Taman Sentosa Johor Bahru,
Johor, Malaysia 80150
Malaysia
Tel : +607-3349924
Fax : +607-3348161
Email : sales@igawara.com.sg
Website : www.igawara.com.sg

PT KUNMING GOLD FORTUNE

Antam Office Park, Tower B 6th Floor
Jl. Letjend TB. Simatupang No. 1
Jakarta Selatan, Indonesia 12530
Tel : +62 29634901-04
Email : sales@igawara.com.sg
Website : www.igawara.com.sg

子公司

爱谛贸易(上海)有限公司

上海市浦东新区东方路3601号2号楼307室
邮编200125
电话 : +86-21-64478578
传真 : +86-21-64478579
电邮 : sales@igawara.com.sg
网址 : www.igawara.com.sg

井河原印度私人有限公司

Rasim Crescent, Ground Floor, New No 18, Old No 13,
Zackariya Colony 1st Street, Choolaimedu,
Chennai – 600094.
电话 : +91-99400 38817
电邮 : kumar@igawara.com.sg
网址 : www.igawara.com.sg

井河原金运矿业私人有限公司

No.1 Gateway Drive, #11-11/15,
Westgate Tower, Singapore 608531
电话 : +65-65661191
传真 : +65-65661194
电邮 : sales@igawara.com.sg
网址 : www.igawara.com.sg

FISTEC 有限公司

23, Jalan Sulam Taman Sentosa Johor Bahru,
Johor, Malaysia 80150
Malaysia
电话 : +607-3349924
传真 : +607-3348161
电邮 : sales@igawara.com.sg
网址 : www.igawara.com.sg

PT 昆明金运矿业私人有限公司

Antam Office Park, Tower B 6th Floor
Jl. Letjend TB. Simatupang No. 1
Jakarta Selatan, Indonesia 12530
电话 : +62 29634901-04
电邮 : sales@igawara.com.sg
网址 : www.igawara.com.sg

OUR BUSINESS COVERAGE 我们的业务范围



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Singapore Headquarters

Igawara Corporation Pte Ltd

No.1 Gateway Drive, #11-11/15 Westgate Tower, Singapore 608531

Tel : +65 6566 1191

Fax : +65 6566 2554

Website: www.igawara.com.sg