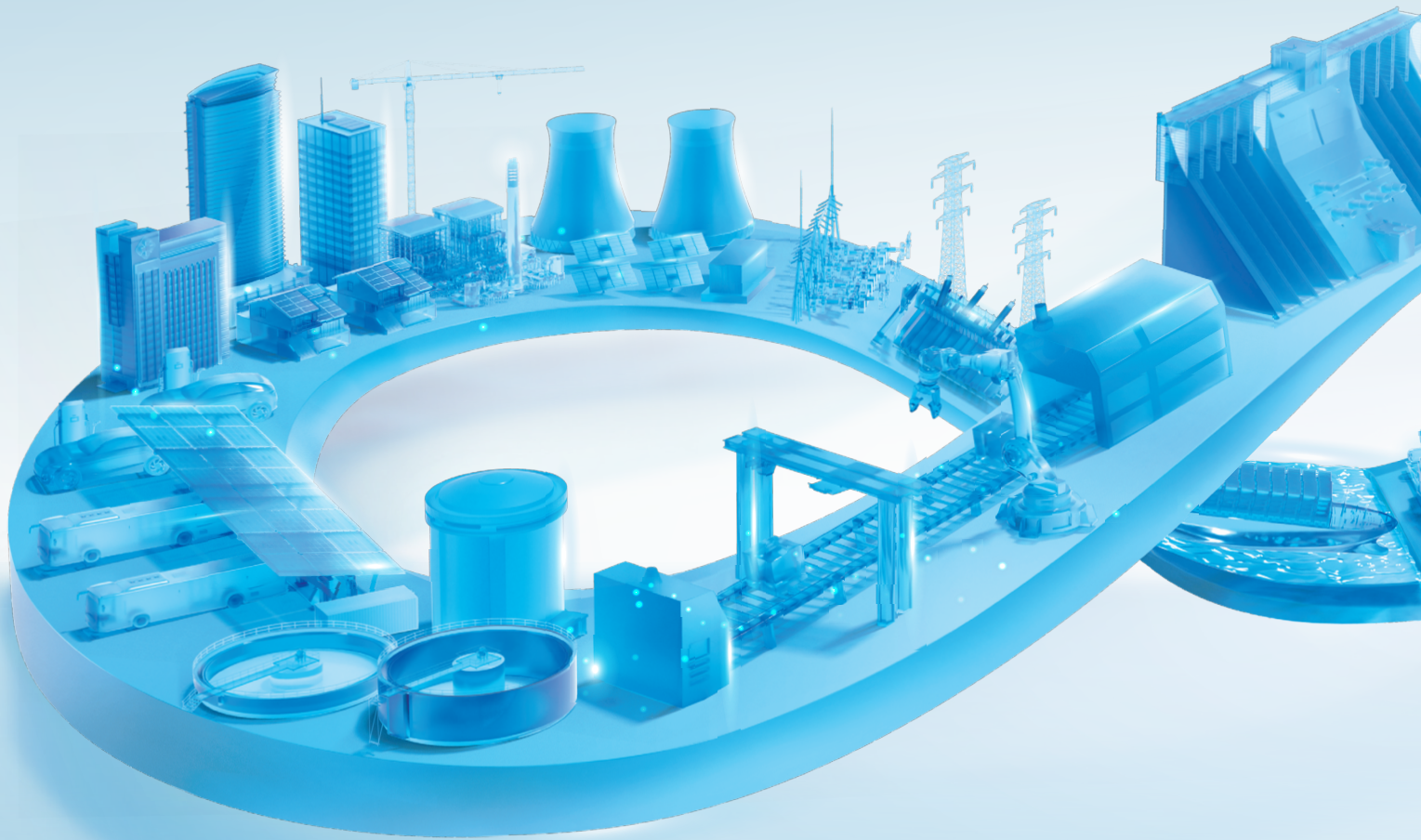


The CHINT logo is displayed in white, bold, sans-serif font on a dark blue rectangular background. The letter 'H' features a small red square above its top bar.

Empower the World

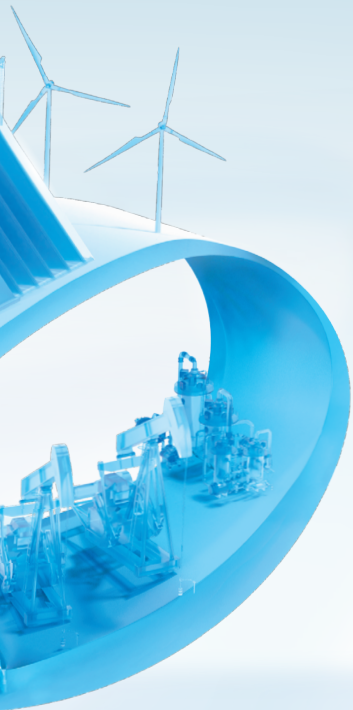
The background image shows a renewable energy facility under a clear blue sky with scattered white clouds. On the left, a large solar panel array is visible. In the center and right, a row of white electrical cabinets sits on a gravel base, with yellow safety bollards in front of them. Several white wind turbines are positioned in the background, their blades extending into the sky.

CHINT Electric Application Solutions for BESS



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About CHINT



CHINT - A leading global provider of smart energy solutions

Founded in 1984, CHINT Group Co., Ltd. (CHINT) is a global leading smart energy solutions provider. With more than 40 years of industry expertise, CHINT has remained committed to industrial innovation and brand excellence. Our company drives progress through five strategic pillars: industrialization, technological advancement, global expansion, digital transformation, and platform development.

CHINT operates across three core sectors - Green Energy, Intelligent Electrical Solutions, and Smart Low-Carbon Solutions - supported by two key platforms: CHINT Global and Sci-Tech Innovation Incubation. Its extensive business network spans more than 140 countries and regions, powered by a global workforce of over 50,000 employees.

In 2024, CHINT achieved USD 25 billion in revenue and has maintained its position among the Top 500 Chinese Enterprises for over 20 consecutive years. Notably, CHINT Electrics became China's first publicly listed company specializing in low-voltage electrical appliances, reinforcing its industry leadership.

Business Scope



Crystalline Silicon Manufacturing



Household PV



Power System



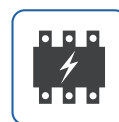
Wire and Cable



Power T&D



Integrated Power Distribution



Low-Voltage Electrical



Meters



Building Electrical

1.0

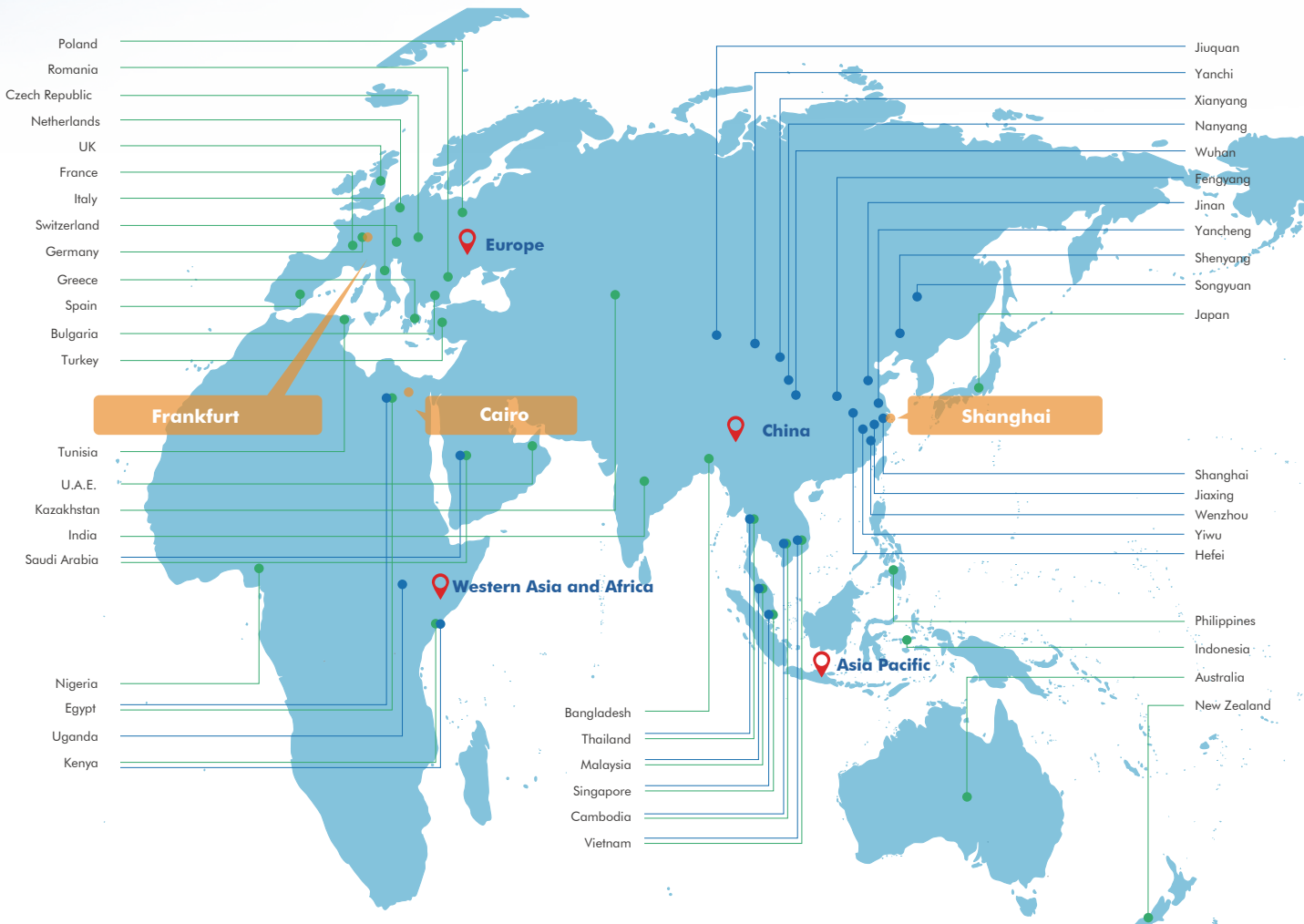
Global Certification

The products have passed the standards in various regions around the world and obtained numerous international certifications.



1.0

Global Footprints



- Global Subsidiaries
- Manufacturing Bases
- R&D Centers



4

Global R&D Centers

40+

Global Subsidiaries

30+

Global Manufacturing
Bases

20+

Global Logistics Centers

Business Covering

140+

Countries and Regions

2,300+

Global Distributors

1.0

Global Capacity

Power T&D Shanghai Factory **China**

Main Products: Power transformer, GIS, MV and LV switchgear, HGIS, HV circuit breaker, disconnecter, surge arrester, insulator, cut-out fuse



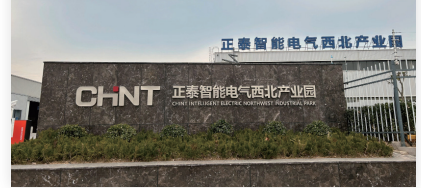
Power T&D Jiaxing Factory **China**

Main Products: MV and LV switchgear, C-GIS, MV circuit breaker, prefabricated substation



Power T&D Xianyang Factory **China**

Main Products: Power quality equipment, CT&PT, busbar, cable



Power T&D Shandong Factory **China**

Main Products: Power cable of 500kV and below power cable, solar cable, civil wire, ABC cable, low voltage flexible fire-resistant cable, special cable



Wenzhou Low-voltage Intelligent Factory **China**

Main Products: Low-voltage components



Haining Solar Factory **China**

Main Products: PV module, PV cell



CHINT ATC **Saudi Arabia**

Main Products: RMU and intelligent power T&D products of 33kV and below



CHINT-AJLAN & Bros **Saudi Arabia**

Main Products: Low-voltage components



SchneiTec CHINT **Cambodia**

Main Products: MV equipment including 22kV distribution transformer, switchgear, smart RMU, capacitor bank



CHINT - EGEMAC **Egypt**

Main Products: Full series of low-voltage switchgear



Sunlight **Singapore & Malaysia**

Main Products: Low-voltage switchgears



Sunlight **Vietnam**

Main Products: MSB, MCC, SDB, DB, CU, fire pump panel, weatherproof panel, string combine box, solar switchboard



Smart Meter Factory **Uganda**

Main Products: Smart meters



Solar Factory **Thailand**

Main Products: PV module, PV cell



Smart Meter Factory **Kenya**

Main Products: Smart meters



1.0

Green Development



Takes action in the "Energy Revolution"
Helping achieve the "Carbon Neutrality" goals

Annual average green power generation

55+ billion kWh

Annual average coal savings

16+ million tons

Annual average carbon emission reduction

42+ million tons

The First in the Industry

Obtained **3** certifications from the MIIT of China



ESG

Ecovadis Silver



Joining the UNGC



Two honors in UNGC 2021 Best Practices



Carbon Neutrality

CHINT is taking actions

Obtained the First Carbon Footprint Certification



Carbon Footprint Certification in China's low-voltage electrical appliance industry



Carbon Footprint Certification for 110kV and 220kV transformers

2.0

Market Demand and Key Trends



Overview

Energy Storage Systems (ESS) are revolutionizing global power infrastructure, enabling renewable energy integration, grid stability, and cost optimization. CHINT is at the forefront with its full-stack, high-efficiency solutions tailored for both utility-scale and C&I applications.

Why CHINT

- ▶ Full-Stack Control: From cell production (LFP/NMC) to grid-code compliant systems.
- ▶ Proven Scale: 12GWh deployed (3rd largest globally per BNEF 2024).
- ▶ Future-Proof: AI + hardware co-design for next-gen storage markets.

Key Trends (2024-2025)



Technology Innovation

Utility: DC-coupled solar+storage (7% higher ROI) | 100MWh Na-ion pilot (2025)
C&I: VPP aggregation (500MW+ live) | Thermal storage synergy (25% peak demand reduction).



Policy Advantage

US (IRA): \$35/kWh incentive for 100% US-made systems
EU (GBP): Grid-forming inverters meet 30ms response mandates.



Emerging Business Models

Storage-as-a-Service (SaaS): Zero-CapEx leasing for C&I customers.
Virtual Transmission: Storage replacing congested power lines.



Sustainable Growth

>95% battery recycling rate | 12GWh global capacity (50% local content by 2025).

3.0

Utility Scale Power Storage Solution



Overview

CHINT delivers a one-stop solution for utility-scale battery energy storage systems (BESS), combining reliable components with smart system integration. Our offering includes low-voltage switchgear, transformers, fabricated substations, as well as core components for single products - all engineered for high efficiency, durability, and seamless deployment.

Backed by deep expertise in both power distribution and renewable energy, CHINT helps utilities and developers accelerate project delivery, enhance energy yield, and ensure long-term grid stability. Whether for new builds or hybrid retrofits, our solution empowers clean energy at scale.

Customer Values



High Safety & Reliability

Providing high-quality electrical components such as DC ACB, DC MCCB, AC ACB, and SPD to enhance system safety and stability.



Modular Design

Flexible for different energy storage applications, supporting both string PCS and centralized PCS solutions.



Efficient Operation & Maintenance

Prefabricated substations simplify on-site construction, enabling quick deployment and easy maintenance.



Enhanced Economic Efficiency

Optimized electrical topology reduces system losses and improves the overall return on investment (ROI) for energy storage projects.



Strong Compatibility

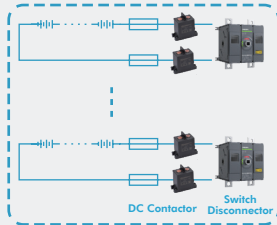
Supports various energy storage battery technologies, meeting diverse project requirements while complying with multiple grid standards.

3.0

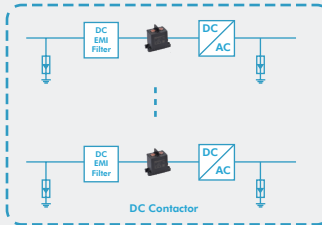
Utility Scale Power Storage Solution

BESS Solutions

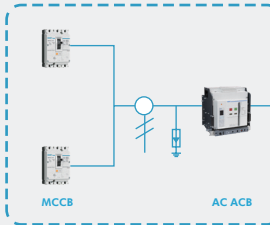
Battery Pack



PCS



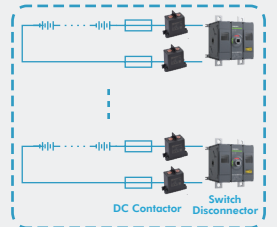
LV Switchgear



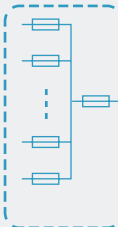
Transformer & MV Switchgear



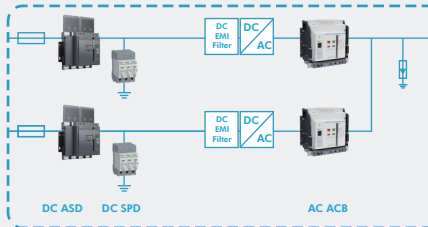
Battery Pack



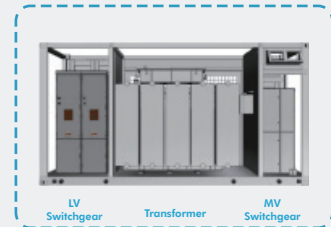
BCP



Centralized PCS



Prefabricated Substation



Application Scenarios



High Voltage Transmission and Transformation



Substation



Low Voltage Distribution

C&I Storage Solution



Overview

Leveraging CHINT's 40+ years of expertise and vertically integrated R&D capabilities, we deliver comprehensive, end-to-end energy storage systems tailored for industrial and commercial applications. Our solution covers both the DC side (battery and PCS) and the AC side (grid connection and load), and delivers a safe, flexible, and highly reliable protection architecture to support a wide range of C&I storage applications.



Enhanced Safety & System Reliability

- ▶ All components meet international safety certifications;
- ▶ Proven performance in harsh environments such as high altitude, high humidity, or extreme temperatures.



One-Stop Electrical Solution

- ▶ Full product portfolio covers the entire low-voltage side of energy storage systems;
- ▶ Simplified procurement and integration - saving customers save time on design, sourcing, and compatibility validation.



Flexible & Scalable Design

- ▶ Rich product configuration options (voltage levels, current ranges, pole numbers, control types);
- ▶ Customizable low-voltage cabinet solutions reduce on-site work and improve installation efficiency.



Reliable Support & Global Service

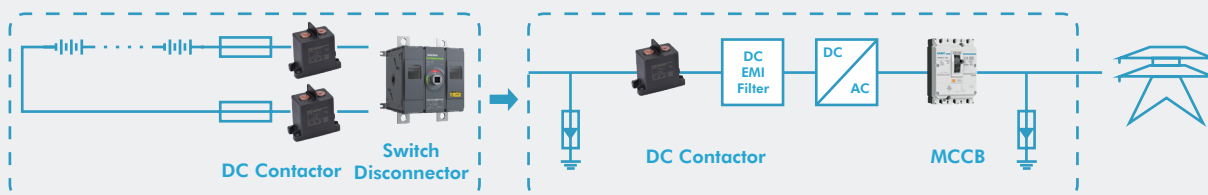
- ▶ Professional technical support team and localized after-sales service network;
- ▶ Ensuring smooth project implementation and long-term system stability.

4.0

C&I Storage Solution



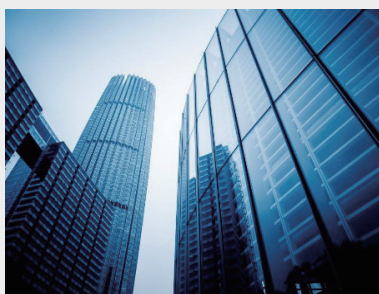
C&I Battery Energy storage System



Application Scenarios



Factory



Commercial office building



Storage center

4.0

Featured Products



Oil-immersed up to 35kV



Feature: Iron core is made of high quality silicon steel.

Advantage: Provides good magnetic conductivity and low loss.

Benefit: By reducing energy loss, reduces power waste, also reduces long-term operating costs for users.



Feature: Mineral oil transformer.

Advantage: The technology is mature and the cost is economical.

Benefit: Provides a reliable option for projects with limited budgets while maintaining high performance standards.



Feature: Natural ester transformer.

Advantage: Good biodegradability, high flash point, excellent electrical performance.

Benefit: Enhanced safety and environmental performance, especially where fire protection requirements are stringent or environmental protection needs to be considered, providing a safer and more environmentally friendly option.



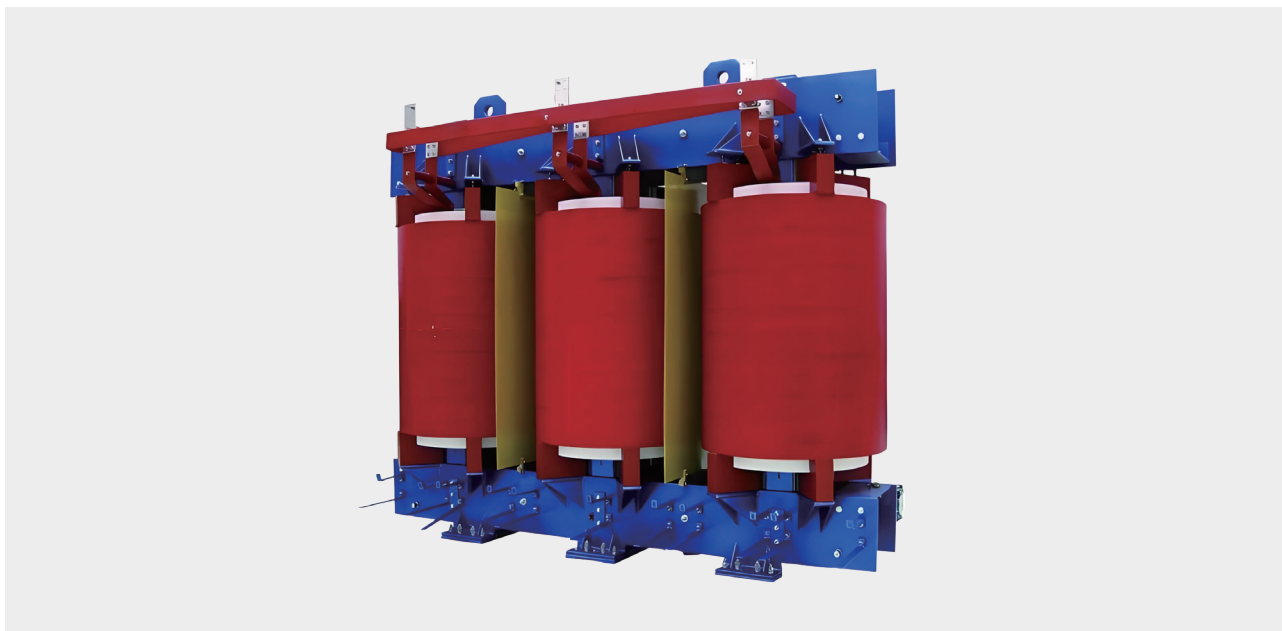
Feature: Fully enclosed corrugated tank structure design.

Advantage: Fully sealed structure, maintenance free, small size.

Benefit: Reduced maintenance costs, small footprint, suitable for application with limited space.

4.0

Featured Products



Dry-type Power Transformer up to 35kV



Feature: High mechanical strength and strong short-circuit resistance.
Advantage: Ensures transformer stability and durability even under extreme conditions.
Benefit: To provide users with long-term reliable service, reduce the failure rate.



Feature: Low loss and low noise design.
Advantage: Improves energy efficiency while providing a quiet operating environment.
Benefit: Helps users reduce operating costs and improve working conditions, especially in noise-sensitive areas.

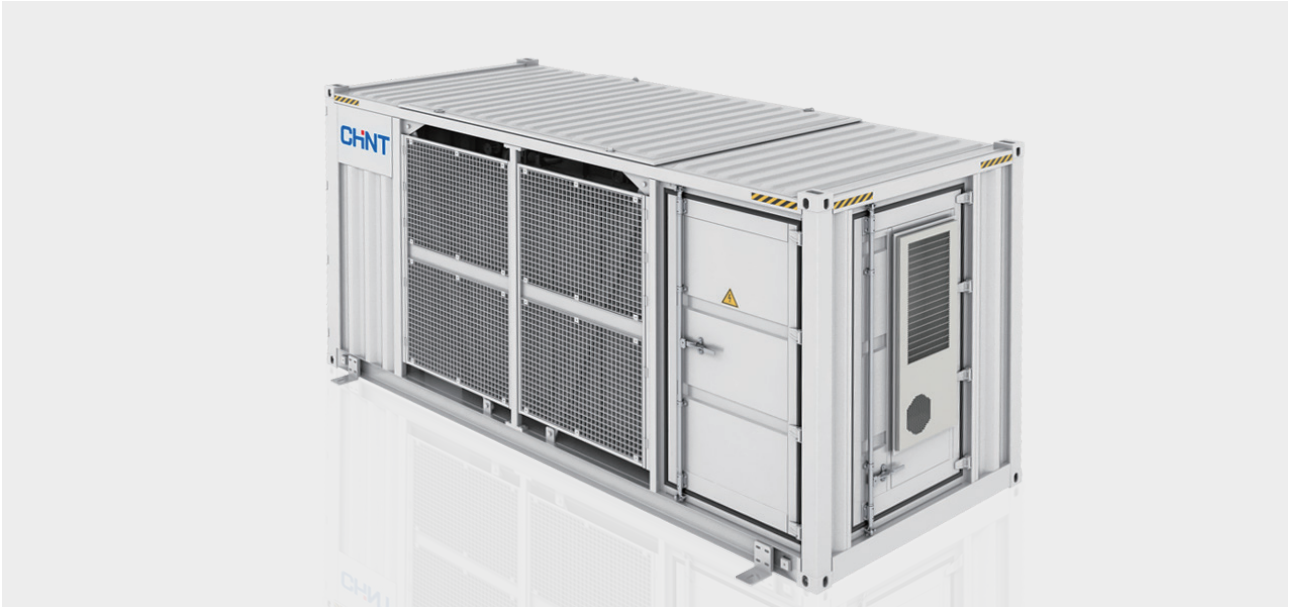


Feature: good heat dissipation performance and strong overload capability, the capacity can be increased when forced air cooling.
Advantage: Normal operation is guaranteed even under high temperature or load exceeding the rated value.
Benefit: Enhanced transformer adaptability and flexibility to provide additional power support in emergency situations to meet temporarily increased power demand.



Feature: Materials and technologies with excellent fire resistance.
Advantage: Significantly reduces the risk of fire.
Benefit: To provide users with higher safety standards, especially in environments with stringent fire protection requirements.

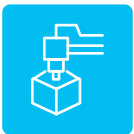
Featured Products



Prefabricated Substation

CHINT prefabricated substation is an integrated power distribution system which is designed and manufactured according to IEC 62271-202, combines switchgears, transformer, monitoring units and fire protection facilities, etc. All main components are CHINT brand. In the photovoltaic applications, it boosts the low voltage output from the inverter into medium voltage and connect to the grids.

CHINT provides turn-key solution from pre-design to installation guidance.



Feature: Medium-voltage up to 40.5kV, low-voltage up to 1.14kV, and capacity up to 11.15MVA. Dual or triple-winding transformer and multiple structural models.

Advantage: Flexible customization.

Benefit: Cater to diverse needs.



Feature: Working temperature range -40°C to $+55^{\circ}\text{C}$, enclosure corrosion resistance rated C5, protection level up to IP55.

Advantage: Protected from harsh environments.

Benefit: Adapt to extreme conditions.



Feature: Own brand main components pass third party type tests, with stable and reliable supply chain, ready for delivery 2-3 months after drawing approval.

Advantage: Excellent quality control, fast and stable delivery.

Benefit: Safe and reliable, fast and efficient.

Featured Products



NGH-40.5(Z) C-GIS

NGH-40.5(Z) (Cubicle type Gas Insulated Switchgear) offers an eco-friendly solution for electrical distribution. It features a compact design, ideal for space-limited installations, and replaces traditional SF₆ gas with a more environmentally friendly insulating medium, reducing greenhouse gas emissions. Constructed from high-quality materials, the C-GIS ensures durability and minimal maintenance. It supports remote monitoring and control, enhancing operational efficiency.

CHINT's commitment to sustainability is reflected in this innovative product, which delivers reliable performance while significantly lowering the environmental impact of power systems



Feature: Use dry air as an insulating medium.

Advantage: Save space, environment-friendly.

Benefit: Helping customers achieve green energy management goals.



Feature: The use of high-quality materials, optimization of electromagnetic field.

Advantage: When the pressure in the gas box drops to the same level as the outside, the switchgear can operate normally.

Benefit: Safe and reliable.

4.0

Featured Products



NGC5 (Low Voltage Switchgear)

- Certificates: TUV/CE
- Rating current up to 6300A
- Icw up to 100kA/1s
- Up to IP43
- 50/60Hz



Feature: Special ventilation channel design.

Advantage: Achieve excellent natural ventilation system.

Benefit: Reduce temperature rise and ensure safety.



Feature: Modular design of drawer units.

Advantage: Rapid maintenance and expansion.

Benefit: Reduce maintenance and upgrade cost.



Feature: Flexibly matched with intelligent components.

Advantage: Achieve remote operation and maintenance.

Benefit: Intelligent operation and maintenance, improve power safety, reduce customer operation and maintenance costs.

Featured Products



Overview

Ex9ASD-DC series Air Switch Disconnecter is mainly used on the DC side of systems (Battery cabinet or PCS), where it performs connection, load breaking, and isolation of DC distribution circuits.

Safe and worry-free



High safety

High short-circuit making capacity, withstanding DC-23A for over 10 cycles while, meeting DC-PV2 critical load current test requirements, achieving full current, non-polarity and reliable arc extinguishing.



Wide temperature range

Super environmental adaptability, reliable operation from -45°C~ 70°C



Long life

DC750V electrical endurance ≥ 5000 times
DC1500V electrical endurance ≥ 3000 times



High insulation

Insulation voltage rating up to 1600V

Stable and durable



High altitude

Suitable for use in areas with an altitude of 5000m



Broad environmental applicability

Meet the requirements for use in harsh environments such as salt spray, heat and humidity, and vibration



Various utilization categories

Categories include DC-22A, DC-23A, DC-PV2



Complete accessories

Configurable with up to 12 open and 12 closed auxiliary contacts to accommodate diverse customer requirements.

Reliable operation



High protection degree

IP30 protection degree



Low temperature rise

Compliant with IEC 60947-3, optional configurations are available to further reduce.



High short circuit withstand capability

DC1500V short-term withstand current up to 45kA/1s



Easy installation

Flexible and diverse wiring methods meet the needs of customers in the new energy industry and effectively improve operation and maintenance efficiency.

Key Offerings

Ex9ASD DC Series Air Switch Disconnecter



- Frame current: 2500A, 4000A
- Rated voltage: DC750V(3P), DC1000V(4P), DC1500V(4P)

Enhanced Safety: Insulation voltage up to 1600V

Wide Application: Utilization category includes DC-22A, DC-23A, DC-PV2

Long Electrical Durability: DC750V: 5000 times, DC1500V: 3000 times



Ex9A HU Series Air Circuit Breaker



- Frame current: 2500A, 4000A
- Rated voltage: AC 800V, 1000V, 1150V
- Number of poles: 3P, 4P

High Breaking Capacity: Options includes 55kA, 65kA, 85kA, 100kA, 120kA, 135kA and 150kA.

High Reliability: The highly reliable Ex9A is tested and verified under extreme conditions.

Powerful Functions: The smart controller support LSIG protection, all parameters measurement and other advanced functions.



Ex9I(Z) HV Series Switch Disconnecter



- Frame size: AC Ex9I-HV: 250A,630A, DC Ex9IZ HV: 320A,630A;
- Rated voltage: Ex9I-HV: AC380/690V, AC800V, AC1000/1140V, Ex9IZ-HV: DC1000V, DC1500V;
- Number of poles: 2P, 4P, 6P

Higher Voltage: The maximum voltage can reach 1500VDC, 1140VAC, reducing line loss in PV systems.

Reliable stability Rated short-time withstand current is up to 10kA/1s for 630A.

Wide Application: Suitable for applications in scenarios where reverse current and overload may occur.



5.0

Key Offerings

Ex9MD HV Series Moulded Case Circuit Breaker



- Frame current: 630A
- Rated voltage: DC1500V
- Number of poles: 2P

Compact Design: The product width is only 98mm, effectively saving space in combiner boxes.

Safe and reliable: Short-circuit breaking capacity up to 15kA, enabling arc-less interruption of DC fault current with zero flashover risk.

CE TUV

Ex9M HV Series Moulded Case Circuit Breaker



- Frame current: 250A, 400A, 630A
- Rated voltage: AC 800V, 1000V, 1150V
- Number of poles: 3P

Specialized Design: Maximum operational voltage reaches AC1150V with insulation voltage up to AC1250V.

High Breaking Capacity: The ultimate short-circuit breaking capacity reaches 50kA@AC800V, covering most protection requirement in PV systems.

CE TUV

Ex9UEP Series DC SPD



- Max. continuous operational voltage UCPV: 500 - 1500V DC
- Nominal discharge current I_n : 20 kA (8/20 μ s) per path
- Maximum discharge current I_{max} : 40 kA (8/20 μ s)
- Impulse discharge current I_{imp} : 6.25 kA (10/350 μ s)

Wide Application: Designed and tested according PV I+II and II class standards per EN 61643-31.

User Friendly: Front-panel status indicator helps users to know the status of device while remote signaling port provides remote indication and alarm. Plug-in module design make it convenient to replace modules without device disconnection.

CE TUV

Key Offerings

Ex9IR Series Switch Disconnect



- Rated voltage: DC1500V
- Rated current: 13A-125A
- Utilization category: DC-PV1, DC-PV2

Outstanding Performance: The double-breaking technique enhances making/breaking capacity of the product and improves isolation reliability in DC high-voltage applications. Modular Design: Increasing or decreasing load circuits is optional, saving installation space.



Ex9C Series Contactor



- Rated voltage: 1000V, max.
- Rated current: 06A-1450A
- Frequency: 50/60Hz

Wide Application: The rated working voltage is up to 1000V, and the rated working current is up to 1450A under the AC-1/1000V utilization category.

Excellent Reliability: The dust-proof design greatly improves the reliability of the contacts.

Easy Wiring: The coil can be wired on either top or bottom side.

Strong Extensibility: The built-in auxiliary contacts that can be 2NO+2NC, meeting the design requirements of various circuits.



Ex9JPV Series On-board Relay



- Rated working current: 75A~200A
- Maximum switching voltage: 320VAC~800VAC
- Mechanical durability: 1 million cycles

Safety & Reliability: The product has strong breaking capacity, and the contact is not easy to melt or weld during equipment emergency stop.

Excellent Performance: Low temperature rise of the product, and reliable long-term operation under current load

Easy Installation: Easy welding process for pin with consistent quality.



5.0

Key Offerings

Power Transformer



- Rated power: Up to 1000MVA
 - Rated voltage: Up to 1000kV
- Standard:** IEC, IEEE, AS, BS, etc.
- Wide Application:** Export to more than 120 countries and regions.
- Certification:** KEMA, CESI, ASTA, KERI, VEIKI-VNL.



Shunt Reactor



- Rated power: Up to 250MVA
 - Rated voltage: Up to 750kV
- Standard:** IEC, IEEE, AS, BS, etc.
- Wide Application:** Export to more than 120 countries and regions.
- Certification:** KEMA.

Variable Shunt Reactor



- Rated power: Up to 250MVA
 - Rated voltage: Up to 750kV
- Standard:** IEC, IEEE, AS, BS, etc.
- Wide Application:** Export to more than 120 countries and regions.
- Certification:** KEMA.



Mobile Substation



- Rated power: Up to 120MVA
 - Rated voltage: Up to 245kV
- Standard:** IEC, IEEE, AS, BS, etc.
- Wide Application:** Export to Italy, Brazil, Honduras, etc.

5.0

Complete Portfolio

LV Components



Ex9ASD DC Series Air Switch Disconnecter



Ex9A HU Series ACB



Ex9(Z) HV Series Switch Disconnecter



Ex9MD HV Series MCCB



Ex9M HV Series MCCB



Ex9JPV Series On-board Relay



Ex9IR Series Switch Disconnecter



Ex9C Series Contactor



Ex9UEP Series DC SPD

Power Transformers



750kV Oil-immersed Transformer



500kV Oil-immersed Transformer



420kV/330kV Oil-immersed Transformer



220kV Oil-immersed Transformer



110kV Oil-immersed Transformer



69kV Oil-immersed Transformer

6.0

Sales References



UK | Minety 99.8MW/98MWh BESS Project



UK | 159MW BESS Project



Spain | Maetel 5.6MW Solar Power Plant



Italy | CARTON PACK S.p.a. 2MW Rooftop Solar Plant



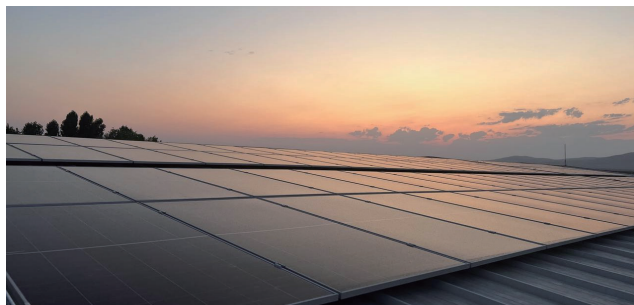
Slovenia | 6MW Ground PV EPC Project



Greece | Terna Wind Farm 150kV Power Transformer Project



Greece | HEDNO 150kV Transformer Framework Project



Azerbaijan | Winery 450kW Rooftop Project

6.0

Sales References



Norway | 2MW Rooftop Project



Uzbekistan | Nur-Bukhara PV Solar Project



Mexico | Villanueva III Solar Power Plant



Mexico | Amistad I-IV Station, Magdalena Station and Dolores Station Power Quality Project



Greece | METON New Energy Power Station Transformer Project



UK | 11-33kV Skids for Trina BESS Project



UK | Feeder Road, Maldon, Tayor Road etc. BESS Projects



Mexico | Puerto Penasc 158MW+12MW/24MWh BESS Project

6.0

Sales References



Mexico | Reynosa Wind Power Station 400kV 225MVA Power Transformer Project



Kazakhstan | Shokpar 109MW Wind Farm



Australia | 1074 Copper Coast Highway 5.9MW Ground Solar Power Plant



Philippines | Cayanga Bugallon 75MW Solar Power Plant



Cambodia | 1.8MW Ground PV EPC Project



Japan | 500kW/2MWh BESS Project



Australia | CSE Hazelwood BESS Project



Australia | Nevertie Solar Power Plant

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