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HONGFA

HONGFA Electric

ISO9001 ISO14001 ISO45001

Introduction to Hongfa

Hongfa Co., Ltd. (Stock Code: SH 600885) was established in 1984. The company adheres to the corporate spirit of "continuous progress, never satisfied," and has built a comprehensive and well-supported industrial system. Currently, Hongfa has established three major regional R&D and production center. Hongfa's products cover a wide range of categories, including relays, medium and low voltage apparatus, medium and low voltage switchgears, capacitors, precision components, and automation equipment. These products are widely applied in industries such as heavy industry, energy, transportation, telecommunications industry, household appliances, and medical fields.

Xiamen Hongfa Electric Co., Ltd.** is a subsidiary of Hongfa, specializing in the manufacturing of medium and low voltage power distribution switchgear, medium voltage vacuum circuit breakers, intelligent switchgear, charging piles, and other products for industries such as industrial, power generation & grid, infrastructure, and construction.

The main products include KYN28A-12 switchgear, XGW-12 outdoor ring main unit box, XGN-12(SF6) ring main unit, HXGN-12 environmentally friendly gas-insulated ring main unit; HFEV-12 indoor medium voltage vacuum circuit breaker, MNS2.0, MDmax-ST, MNS.Blokse, GCK, GCS, GGD low voltage switchgear; GL, XL series power distribution cabinets; GZDW series DC power supplies; DBX metering equipment; JP integrated distribution boxes; PDX distribution equipment; PZ30 distribution boxes; fire electrical control devices; DPF column head cabinets; charging piles, and various non-standard control cabinets. All products produced by the company have passed national testing center inspections and meet the requirements of the Switchgear Distribution Equipment Product Model Management Regulations, with all holding product model certificates. The entire set of medium voltage switchgear has passed the type test by the Xi'an High Voltage Research Institute, and the complete low voltage switchgear has passed the CCC quality certification and self-declaration by the National Quality Certification Center.

R&D system

The company's technical staff has many years of product design experience. The R&D system is complete, cooperating with well-known domestic research institutions and universities, continuously innovating and leading industry development.

Production system

An ERP enterprise resource planning system is used, based on scientific management information technology and advanced switch manufacturing technology, to achieve multi-variety and high-quality product production in large-scale manufacturing.

Quality assurance system

The company has a comprehensive quality assurance system and internal control standards that meet national standards. Hongfa is customer-oriented, based on ISO9001, ISO14001, ISO45001, as well as excellence performance evaluation criteria, establishing an integrated management system with Hongfa's distinctive features.

- The quality system spans the entire process from raw material procurement to after-sales service, including market research, product development, material procurement, process design, production manufacturing, inspection, testing, installation and transportation, delivery and usage, after-sales service, and quality review.
- Quality Policy: Customer First, Systematic Management, People-Oriented, Continuous Improvement.
- Regular internal quality audits are conducted to identify issues, propose corrective and preventive measures, and follow up on evaluations.

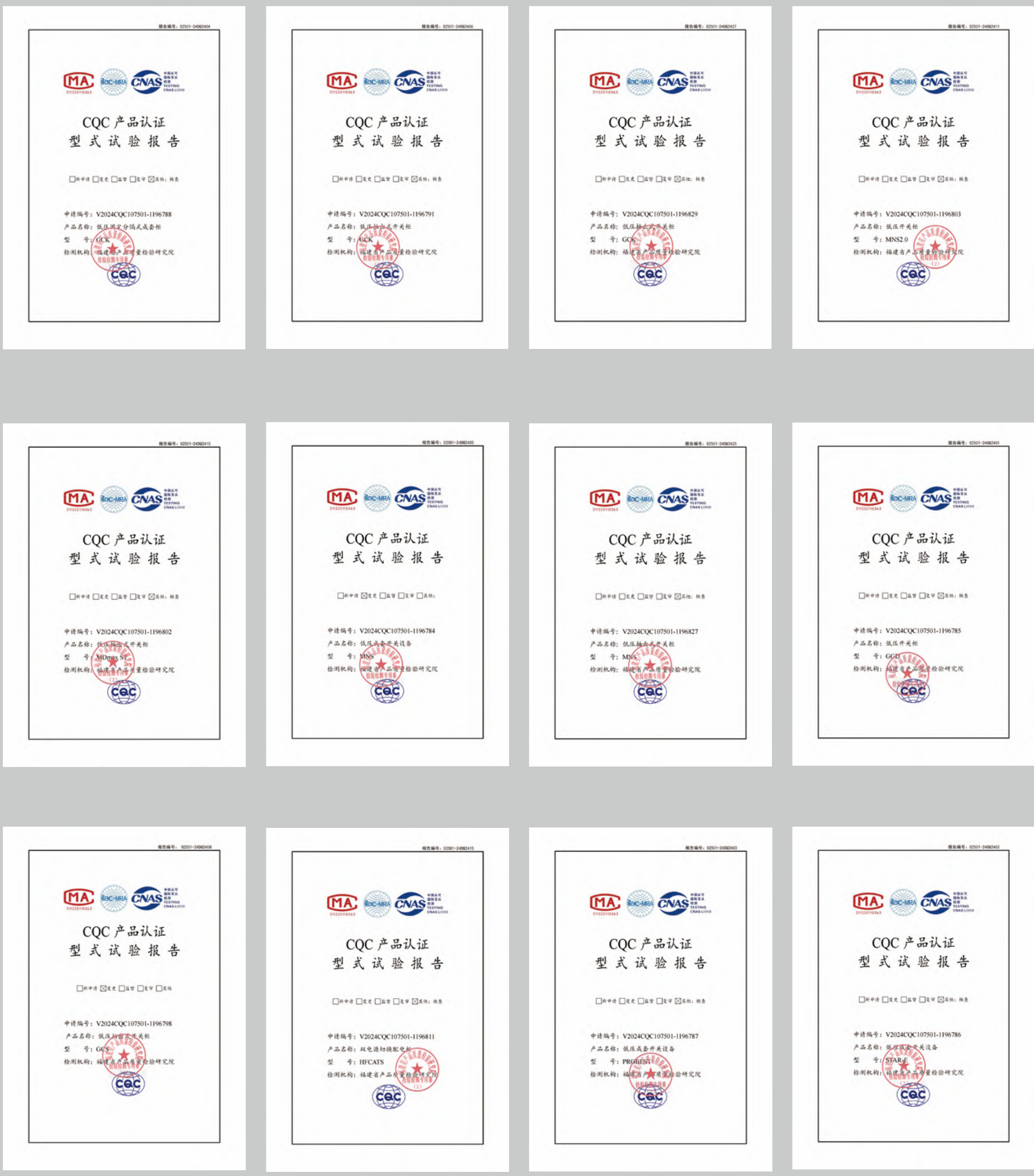
ISO9001 Quality System Certification Certificate
ISO14001 Environmental System Certification Certificate

HFEV-12
Test Certificate Report

KYN
Test Certificate Report

Ring Main Cabinet
Type Test Report

3C
Self Declaration Certificate for



contents

HFEV-12

Indoor Medium Voltage AC Vacuum Circuit Breaker

The HFEV-12 vacuum circuit breaker features the industry-renowned Hongfa vacuum interrupter and embedded pole technology, along with a modular design operating mechanism. It represents a perfect combination of Hongfa's research, design, and manufacturing technologies. The HFEV-12 vacuum circuit breaker is designed for use in indoor switchgear within a 12kV power system operating at a frequency of 50Hz. It is widely used for power distribution system to control and protect in various fields, including power systems, petrochemical industries, mining enterprises, data centers, ports, and large and medium-sized buildings. The HFEV-12 can be used in KYN withdraw-able switchgear as well as in fixed switchgear.

According to standard: GB/T1984-2014 IEC 62271-100:2021• DL/T402-2016

Item		Unit	Parameter				
Rated voltage		kV	12				
Rated insulation level	Rated short-term power frequency withstand voltage Ud (effective value)	kV	Phase to phase 42		Isolation Gap 48		
	Lightning impulse withstand voltage Up (peak)	kV	Phase to ground 75		Isolation Gap 85		
Rated frequency fr		Hz	50				
Rated current In		A	630	630 1250	630 1250 1600 2000 2500 3150	1250 1600 2000 2500 3150 4000	4000* 5000*
Rated short-circuit breaking current		kA	20	25	31.5	40	50
Rated short-circuit withstand current		kA	20	25	31.5	40	50
Rated peak withstand current		kA	52	65	82	104	130
Rated short-circuit making current (peak)		kA	52	65	82	104	130
Rated short-circuit current duration		s	4				
Electric endurance class			E2				
Mechanical lifespan			50000 / M2 level			30000/ M2 level	10000
Rated cable charging switching current		A	25				
Rated back-to-back capacitor bank/individual breaking current		A	630/800				
Rated operating sequence			O-0.3s-CO-180s-CO				

Product features

- Core Components: Vacuum Interrupter and embedded pole are independently researched, developed, and manufactured.
- Specifications: Third-generation HFEV-12 indoor medium voltage sealed vacuum circuit breaker.
  (Rated voltage：12kV; Rated Current: 630A to 5000A; Rated short circuit breaking current:20kA to 50kA).
- Type Testing:The product has passed comprehensive type testing by Xi'an high-voltage research institute.
- Modular Spring Operating Mechanism:** High reliability and maintenance-free.
- Rated current: up to 5000A
- Rated short-circuit breaking current up to 50kA
- Rated full short circuit breaking capabilities up to 50 shots, with a maximum rated mechanical life of 50000 times
- Environmental friendly design: Adopting an environmentally friendly electroplating process that does not contain trivalent chromium, and the epoxy resin does not contain harmful or carcinogenic substances such as epichlorohydrin
- Intelligent functions: motorized truck, on-line temperature monitoring, on-line mechanical characteristics monitoring.

XGN□-12

AC Medium Voltage Ring Main Unit

The XGN-12 is a type of fixed metal-enclosed switchgear (commonly referred to as a ring main unit) designed for use in secondary MV distribution networks. It operates at a rated voltage of 12kV and a frequency of 50Hz, suitable for three-phase AC systems. It is widely used in urban distribution networks, industrial distribution systems, and building distribution systems.

According to standard: GB/T3906-2020 GB/T3804-2017 GB/T1985-2023 DL/T404-2018 DL/T486-2021

Project		Unit	Parameter	
Rated voltage		kV	12	
Rated insulation level	Rated short-term power frequency withstand voltage Ud (effective value)	kV	Phase to phase 42	isolation gap 48
	Lightning impulse withstand voltage Up (peak)	kV	Phase to ground 75	isolation gap 85
Rated frequency fr		Hz	50	
Rated short-circuit withstand current		kA	20	
Rated peak withstand current		kA	50	
Rated short-circuit making current (peak)		kA	50	
Rated short-circuit current duration		s	4	

Product features

The ring main unit features a cabinet made from aluminum-zinc-coated steel or cold-rolled steel plates, which are bent and assembled to create a lightweight and aesthetically pleasing design. The unit is versatile, with a complete range of options for installation and easy expansion. The main switching components use either compressed-air or vacuum load switches and their combinations. It is compact, maintenance-free, and has a three-phase linkage structure with clear isolation breaking points. The load break switches and combination devices can be installed in various configurations, including side or top expansion, and it includes a reliable mechanical linkage and interlocking mechanism that achieves the "Five Preventive Interlocking" function. The unit is operated from the front with protective features and can be wall-mounted securely. It supports both manual and electric operation, with remote control capabilities. Load break switches are equipped with linked protective insulation doors or transparent insulation covers to shield live contacts, ensuring personnel safety.

HXGN□-12

Environmentally Friendly Gas-Insulated Ring Main Unit

The HXGN-12 AC high-voltage metal-enclosed ring main switchgear is used in 12kV distribution systems, capable of achieving both ring network power supply and radial power supply. It features a compact size and a space-saving design, which significantly reduces the footprint of distribution substations. The switchgear is widely used in urban power grid construction and renovation and is suitable for industrial and mining enterprises, compact secondary substations, switching stations, box-type substations, shopping malls, high-rise buildings, residential areas, hospitals, schools, parks, and other distribution systems. It serves as an essential component for both ring network power supply and terminal distribution.

According to standard: GB/T3906-2020 GB/T1984-2014 GB/T2423 GB/T4109-2022 DL/T404-2018 DL/T402-2016

Product features

Green and environmentally friendly

The environmental consideration for the HXGN-12 extends beyond the product itself to its entire lifecycle. It uses environmentally friendly dry air as the insulation medium and avoids non-degradable thermal plastic materials in favor of reusable thermoplastic materials, minimizing its environmental impact throughout its lifespan.

High reliability/high security

All high-voltage live parts are housed in stainless steel chambers with an IP67 protection rating, making it suitable for installation in high humidity, high pollution, high salt mist, and box-type substations.

Visible switch fracture

The panel features a three-position switch breakage visibility.

Mature technology

To ensure reliable welding, the product uses a domestically advanced robotic automatic welding system. The sealed dry air chamber is a sealed system with a lifespan exceeding 30 years and an annual leakage rate not greater than 0.01%.

Low environmental impact

All high-voltage live parts are enclosed in stainless steel chambers with an IP67 protection rating, suitable for installation in environments with high humidity, sand, dust, salt pollution, and box-type substations.

project	Unit	V unit	K unit	KPT unit	PT unit	M unit	Unit B
		Vacuum circuit breaker cabinet	Isolation switchgear	Isolation voltage transformer cabinet	Voltage transformer cabinet	Measurement cabinet	Bus lifting
Rated voltage	kV	12	12	12	12	12	12
Rated short-term power frequency withstand voltage Ud (effective value)	kV	42/48	42/48	42/48	42/48	42/48	42/48
Lightning impulse withstand voltage Up (peak)	kV	75/85	75/85	75/85	75/85	75/85	75/85
Rated current	A	630	630	630	630	630	630
Main circuit withstand current	kA/s	20/4	20/4	20/4	20/4	20/4	20/4
Breaking current	kA	20					
Short circuit making current	kA	50					
Earthing switch short circuit making capability	kA/shots	50/（5 times）	50/（2times）	50/（2times）			
Electrical lifespan		E2					
Mechanical life of circuit breakers	Operations	10000					
Disconnector and earthing switch mechanical life	Operations	5000/5000	5000/5000	5000/5000			
Mechanical operation sequence		O-0.3s-CO-180s-CO					

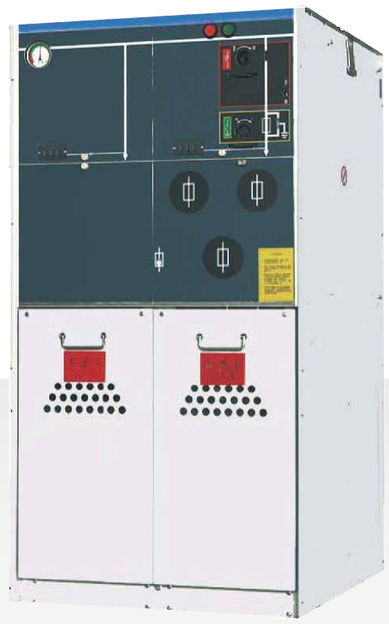
XGN□-12 (SF6)

SF6 Ring Main Unit

The XGN-12 AC medium-voltage metal-enclosed ring main unit is used in 12kV distribution systems. It is capable of achieving both ring network power distribution and radial power distribution. The unit features a compact size and a space-saving design, which significantly reduces the footprint of switching stations or distribution substations.

The switchgear is widely used in the construction and renovation of urban power grids. It is suitable for industrial and mining enterprises, small secondary substations, switching stations, box-type substations, shopping malls, high-rise buildings, residential communities, hospitals, schools, parks, and other distribution systems, serving as a crucial component for ring network power supply and terminal distribution.

According to standard: GB/T3906-2020 GB/T3804-2017 BG/T16926-2009 GB/T1985-2023 DL/T404-2018 DL/T486-2021



Product features

High reliability/high security

All high-voltage live parts are sealed within a gas tank insulated with SF6, greatly enhancing insulation performance. The gas tank is securely grounded, ensuring that operators cannot come into contact with high-voltage live components. The switch features a reliable arc-quenching channel and has passed internal arc tests at 20 kA/1s. The cable compartment cover and switch status are equipped with reliable mechanical interlocks.

Mature technology

Equipped with a domestically advanced robotic automatic welding system, the sealed SF6 gas tank is a closed system with a lifespan exceeding 30 years and an annual leakage rate of less than or equal to 0.01%.

Minimal Environmental Impact:

All high-voltage live parts are sealed within a stainless steel gas tank with an IP67 protection rating, making it suitable for use in highly humid, polluted, high salt mist, and high-altitude environments.

Project		Unit	Combination Electrical Appliances (F.R)	Load switch cabinet (F)
Rated voltage		kV	12	
Rated Current		kA	1250	630
Rated insulation level	Rated short-term power frequency withstand voltage Ud (effective value)	kV	Phase to phase	isolation gap
			42	48
	Lightning impulse withstand voltage Up (peak)	kV	Phase to ground	isolation gap
			75	85
Rated frequency fr		Hz	50	
Rated short-circuit breaking current/rated peak withstand current		kA	31.5	50
Rated short-circuit making current/rated short-term peak withstand current		kA	80	20
Rated Short-Circuit Duration		s	—	4

XGW-12

Ring Main Unit Box

The ring main unit box is an electrical device that houses a set of ring main units in a metal or non-metal insulated cabinet, enabling ring network power supply. The core components include circuit breaker cabinets, PT cabinets, and DTU cabinets. It offers advantages such as a simple structure, compact size, standardization, low cost, improved power supply quality, and enhanced safety.

According to standard: GBT/T3906-2020 GBT/T1984-2014 GBT/T17467-2020 GBT/T4109-2022 DL/T404-2018 DL/T402-2016 DL/T537-2018 DL/T593-2016

Product features

The outdoor enclosure is made from high-quality sheet metal with a thickness of not less than 2mm, providing high strength and requiring minimal foundation leveling. The surface is treated with powder coating, offering strong corrosion resistance. The overall surface has no removable fasteners, ensuring good anti-theft protection.

The top cover is designed with a 5-degree drainage slope and equipped with a sealed floor at the cable entry point to prevent moisture from entering the cabinet. The door is sealed with gaskets, and the door lock is rainproof. A limit device is in place when the door is open, and the protection level reaches IP44.

The internal equipment is pre-installed in the factory, making on-site installation easy with minimal setup and commissioning work, allowing for quick power delivery.

Project	Unit	Parameter
Rated voltage	kV	12
Rated current	A	630
Rated frequency	Hz	50
Rated short-term withstand current (main circuit)	kA	20
Rated peak withstand current (main circuit)	kA	50
Rated short-circuit duration (main circuit)	s	4
Rated short-term withstand current (grounded circuit)	kA	17.4
Rated peak withstand current (grounded circuit)	kA	43.5
Rated short-circuit duration (grounded circuit)	s	2
Rated short-term power frequency withstand voltage/break	kV	42/48
Rated lightning impulse withstand voltage/break	kV	75/85

KYN28A

Metal-Clad Withdrawable Switchgear

The KYN28A-12 metal-clad withdrawable switchgear is suitable for three-phase AC 50Hz power systems with a rated voltage of 12kV. It is mainly used in various types of substations, power plants, and industrial building distribution systems, providing functions for circuit control, protection, monitoring, and measurement. The product features intelligent functionality, including an electric truck and electric earthing switch, online monitoring of switch mechanical characteristics, and capabilities for unmanned operation and remote intelligent maintenance. The switchgear is equipped with a comprehensive "five-proof" interlocking function to ensure both operator and power supply safety.

According to standard: GB/T 3906-2020 GB/T 1984-2014 DL/T404-2018、DL/T593-2016 IEC62271-100:2021IEC62271-200:2021

Product features

The cabinet body is made from high-quality aluminum-zinc-coated steel plates, processed and assembled using precision CNC machines and multi-bending techniques. The switchgear has standardized, aesthetically pleasing, and environmentally friendly dimensions. It consists of a fixed cabinet body and a removable component (referred to as the truck). The switchgear’ s external protection level is up to IP4X, while the internal compartment protection level is IP2X. The truck and earthing switch have reliable mechanical interlocks with the cabinet door, ensuring flexible, safe, and reliable operation. It is designed to accommodate the HFEV-12 series vacuum circuit breaker and is also compatible with similar domestic and international circuit breakers and contactor products.

Project		Unit	Parameter	
Rated voltage		kV	12	
Rated current		A	630/1250/1600/2000/2500/3150/4000/5000	
Rated insulation level	Rated short-term power frequency withstand voltage Ud (effective value)	kV	Phase to phase	isolation gap
			42	48
	Lightning impulse withstand voltage Up (peak)	kV	Phase to ground	isolation gap
			75	85
Rated frequency		Hz	50	
Rated short-circuit breaking current		kA	20/25/31.5/40/50	
Rated short-circuit withstand current		kA	20/25/31.5/40/50	
Rated peak withstand current		kA	52/65/82/104/130	
Rated short-circuit making current (peak)		kA	52/65/82/104/130	
Rated short-circuit current duration		s	4	

MNS2.0

Low-voltage switchgear

The MNS2.0 is a new type of low-voltage distribution device authorized for production by ABB. It is designed for indoor use in three-phase AC systems operating at 50 (60) Hz and a rated voltage of 400V, and it serves for power distribution and centralized control. This device is suitable for power plants, substations, electrical systems, petrochemical industries, industrial enterprises, airports, ports, municipal engineering, and construction sites.

According to standard: 7251.2-2023、GB/T14048、JB/T9661、IEC61439-2:2020

Product Features

The cabinet frame uses a C-shaped skeleton with a 25mm modular hole pattern. The frame structure can be assembled into various types of cabinets without special tools, such as front-operating or back-to-back single or multiple switchgear cabinets. The cabinet structure is compact and well-organized, optimizing space utilization and reducing site constraints.

The drawer units feature operational, test, withdrawable, and isolation positions. Each position is mechanically interlocked with the main switch and can be locked with a padlock on the operating handle, ensuring reliable operation and personnel safety.

Standardized components are used, making operation, maintenance, and replacement convenient. The cabinet is highly adaptable, with custom protection levels based on customer requirements.

Different types of functional components (e.g., fixed and withdrawable) can be freely installed within a single cabinet, offering greater flexibility. The equipment ensures high operational continuity and reliability, protecting operator safety.

The equipment undergoes multiple high-performance tests, including:

- Seismic resistance test (seismic intensity level 9)
- Arc ignition test (100kA/0.5s)
- Salt spray test (96 hours)
- High altitude test (4000 meters)
- Electromagnetic compatibility test

Project		Unit	Parameter
Rated voltage		V	400
Rated current		A	400~6300
Rated frequency		Hz	50
Rated insulation level	Rated insulation voltage	V	690
	Auxiliary circuit insulation voltage		400/600
	Rated impulse withstand voltage	kV	6

MNS

Low-voltage switchgear

The MNS low-voltage switchgear is a new generation of low-voltage switchgear developed by our company, reflecting the trends in domestic and international low-voltage switchgear development. It is suitable for three-phase four-wire and three-phase five-wire AC power systems with a rated voltage of 380V and a frequency of 50 (60) Hz, used for electrical energy distribution and power central control. This device is applicable to power plants, substations, electrical systems, petrochemical industries, industrial enterprises, airports, docks, municipal engineering, buildings, and other power consumption locations.

According to standard: GB7251.2-2023、GB/T14048、JB/T 9661、IEC 61439-2:2020

Product features

The cabinet frame uses a C-shaped skeleton with an E=25mm modular hole, allowing the frame structure to be assembled into various types of cabinets without special tools, such as front-operating and back-to-back single or multi-unit switchgear. The cabinet structure is compact and well-organized, improving space utilization and reducing site location constraints.

The drawer units do not have work, test, withdrawal, or isolation positions; each position can be mechanically interlocked with the main switch and can be locked with a padlock on the operating handle, ensuring strict operational safety and personnel safety.

Standardized components are used, making operation, maintenance, and replacement convenient. The cabinet is highly adaptable and can be customized to meet protection level requirements based on customer needs.

Different types of functional components (e.g., fixed and withdrawable components) can be freely installed within a single cabinet, offering greater flexibility.

The equipment offers high continuity and reliability, ensuring operational safety for personnel.

It has passed several high-performance tests.

Project		Unit	Parameter
Rated voltage		V	400
Rated current		A	1600~4000
Rated frequency		Hz	50
Rated insulation level	Rated insulation voltage	V	690
	Auxiliary circuit insulation voltage		400
	Rated impulse withstand voltage	kV	6

MDmax-ST series

Low-voltage switchgear

The MDmax-ST is a low voltage switchgear authorized by ABB. It features a modular design, using standard components and standardized assemblies to achieve compactness, diversity, and flexibility in panel configurations. It can be assembled into different types of switchgear, such as fixed, fixed-separation, or drawer-type configurations. The MDmax-ST is designed to handle functions including distribution, reactive power compensation, motor control centers (MCC), AC frequency converters, and soft starters. With its multifunctional and modular characteristics, the MDmax-ST is suitable for use in power plants, substations, power systems, petro-chemical industries, industrial enterprises, airport railways, docks, municipal engineering, buildings, and other electrical applications.

According to standard: GB/T14048、GB7251.1-2005、JB/T9661-1999、IEC 61439-2:2020

Product Features

- The cabinet frame uses a double-folded edge technique with aluminum-zinc steel, employing 25mm (K-profile) modular holes for assembly, offering high strength and maintenance-free durability.
- The exterior is covered with electroplated and powder-coated finishes, ensuring maximum durability.
- The top cover of the horizontal busbar area is removable, facilitating on-site busbar installation. The main bus system installed at the top of the switchgear is completely isolated from the functional unit area, cable area, and secondary wiring area, providing sufficient safety distance for busbars and maintenance personnel.
- The drawer-type structure allows for up to 36 circuits to be assembled, offering economical reliability and saving on-site space. It allows for three-position switching of drawer circuits without compromising protection levels.
- The movable parts have position indicators, with optional visual, audible, and textual indicators. The drawer door panel and switch feature an interlocking mechanism that prevents the drawer component door from opening when the switch is in the closed position.
- The MDmax-ST offers an optional front door with fully transparent explosion-proof glass for easy observation and an aesthetically pleasing appearance.

Project		Unit	Parameter
Rated voltage		V	400
Rated current		A	1000~4000
Rated frequency		Hz	50
Rated insulation level	Rated insulation voltage	V	590
	Auxiliary circuit insulation voltage		400
	Rated impulse withstand voltage	kV	6

GCK

Withdrawable low-voltage switchgear

The GCK series low voltage withdrawable switchgear is a high-grade modular assembly distribution device, suitable for three-phase four-wire or three-phase five-wire systems with an AC frequency of 50Hz and a rated working voltage of 380V or below. It is used for energy conversion, distribution, and centralized motor control within electrical systems and can be integrated with programmable controllers and microprocessors to form automatic control systems. It is applicable in power plants, substations, electrical systems, petrochemical industries, mining enterprises, airports, rail transit, docks, municipal engineering, buildings, and other electrical settings.

According to standard: GB/T7251.2-2023、GB/T14048、JB/T9661、 IEC 61439-2:2020

Product features

Adopting standardized modular design, it can be assembled into protection, operation, conversion, control, adjustment, measurement
Indications and other standard units. Users can freely choose and assemble according to their needs, forming different framework structures and schemes Drawer unit.
Assembled with 25mm C-shaped profiles, it has strong versatility and flexible assembly, meeting various structural requirements
Requirements for formal protection level and usage environment.
All structural components inside the cabinet shall be galvanized and passivated. The door panels and side doors around the cabinet frame are equipped with electrostatic powder spraying, which includes
Strong mechanical strength and reliable insulation protection ensure safety and reliability.
Each identical functional unit can be interchanged, and in the event of a malfunction, the same functional unit can be used for replacement,
Significantly reducing power outage time and improving power supply reliability.
The switchgear has passed multiple high-performance tests, including:

- Seismic resistance test (seismic intensity level 9)
- arc test (100kA/0.5s)
- Salt spray test (96 hours)
- high-altitude test (4000 meters)
- Electromagnetic compatibility test

Project		Unit	Parameter
Rated voltage		V	380
Rated current		A	400~5000
Rated frequency		Hz	50
Rated insulation level	Rated insulation voltage	V	660
	Auxiliary circuit insulation voltage		400
	Rated impulse withstand voltage	kV	6

GCK

Fixed low-Voltage Switchgear

The GCK series includes both fixed partition and withdrawable types of low voltage switchgear. It is suitable for three-phase four-wire or three-phase five-wire systems with an AC frequency of 50Hz and a rated working voltage of 400V, used for power, distribution, centralized motor control, and power factor compensation. It is widely used in power plants, substations, electrical systems, petrochemical industries, mining enterprises, airports, docks, municipal engineering, buildings, and renewable energy applications.

According to standard:GB/T7251.2-2023、GB/T14048、JB/T9661、 IEC61439-2:2020

Product features

- The switchgear uses a modular assembly structure with high interchangeability of components, good applicability, and a high degree of standardization. It can be flexibly assembled into different structural forms according to needs.
- The electrical component compartments, busbar compartments, and feeder cable compartments are separated by steel plates or insulating boards, ensuring clear partitioning and safe operation.
- Components are mounted within functional units. Circuit breakers are either withdrawable or plug-in, facilitating maintenance and inspection.
- The functional unit’ s operating handle controls the switch’ s on and off positions, and the switch can also be operated through an external power source.
- The fixed partition units do not require additional connections, ensuring safety.

Project		Unit	Parameter
Rated voltage		V	400
Rated current		A	400~4000
Rated frequency		Hz	50
Rated insulation level	Rated insulation voltage	V	690/1000
	Auxiliary circuit insulation voltage		400
	Rated impulse withstand voltage	kV	8

GCS

withdrawable low-voltage switchgear

The GCS series withdrawable low-voltage switchgear (hereinafter referred to as the "device") is used in three-phase AC systems with a frequency of 50 (60) Hz and a rated operating voltage of 380 (400, 660) V, for power distribution, motor control, and capacitor compensation. It is widely applied in power plants, substations, electrical systems, petrochemical industries, industrial enterprises, airports, docks, municipal engineering, construction, and renewable energy sites.

According to standard:GB/T14048、GB/T7251.2-2023、JB/T9661-1999、IEC 61439-2:2020

Product features

The cabinet frame utilizes aluminum-zinc steel with a double-fold edge technology. The frame is structured with 25 mm (K-type) modular holes for spacing, making assembly convenient and robust. The entire frame is precisely connected with transverse and longitudinal bolts, and the structure requires no maintenance.
The exterior is coated with electroplating and powder paint, ensuring maximum durability.
The horizontal busbar area cover is removable, facilitating on-site busbar installation. The main busbar system installed at the top of the switchgear is completely isolated from the functional unit area, cable compartment, and secondary wiring area, ensuring adequate safety distance for busbars and maintenance personnel.
The drawer structure allows for up to 36 circuits, providing an economical and reliable solution while saving space. Without compromising the protection level, it allows for three-position switching of drawer circuits.
The drawers feature position indicators and can be equipped with sound, light, and text indicators. The drawer doors and switches have a mechanical interlock mechanism that prevents opening of the drawer component doors when the switch is in the closed position.
The GCS can be optionally equipped with a fully transparent explosion-proof glass front door for easy observation and an aesthetically pleasing appearance.

Project		Unit	Parameter
Rated voltage		V	400
Rated current		A	1000~4000
Rated frequency		Hz	50
Rated insulation level	Rated insulation voltage	V	690
	Auxiliary circuit insulation voltage		400
	Rated impulse withstand voltage	kV	6

GGD/GGJ

Fixed low-voltage switchgear

The GGD/GGJ series AC switchgear is designed for use in three-phase four-wire or three-phase five-wire power systems with a frequency of 50 Hz and a rated operating voltage of 400 V, for power distribution, motor control, and capacitor compensation. It is widely applied in power plants, substations, electrical systems, petrochemical industries, industrial enterprises, airports, docks, municipal engineering, construction, and renewable energy sites.

According to standard:GB/T7251.2-2023、GB/T14048、IEC61439-2:2020

Product features

- The cabinet frame is assembled using 8MF cold-formed steel, with a modular design based on 20 mm hole spacing, offering high versatility. Cabinets with widths of 1000 mm and 1200 mm use an asymmetric double-door structure, while cabinets with widths of 600 mm and 800 mm use a single-door structure. The rear of the cabinet is designed with a symmetrical double-door structure.
- The doors feature pivot hinges that connect with the frame, making installation and removal convenient. Rubber sealing strips are provided along the edges of the doors to prevent direct collision with the cabinet body and enhance the switchgear's protection level.
- The cabinet has multiple ventilation slots at both the upper and lower ends, creating a natural airflow path from bottom to top within the sealed cabinet to address heat dissipation issues.
- The instrument door with electrical components and internal installation parts form a complete grounding protection circuit, ensuring continuity of grounding.
- The main busbars are arranged at the upper rear of the cabinet, using AMJ-type busbar clamps made from high-strength unsaturated polyester DMC/SMC materials, which provide high mechanical and insulation strength. The top cover of the cabinet is removable, facilitating on-site assembly and adjustment of the main busbars.
- The cabinet is coated with electrostatic powder paint, offering strong adhesion, while internal components are galvanized and passivated to enhance "three-proof" performance (moisture-proof, dust-proof, and anti-corrosion).
- The cabinet supports various cable entry options, including top, bottom, and rear entry, to meet different project requirements.

Project		Unit	Parameter
Rated voltage		V	400
Rated current		A	400~2500
Rated frequency		Hz	50
Rated insulation level	Rated insulation voltage	V	690
	Auxiliary circuit insulation voltage		400
	Rated impulse withstand voltage	kV	6

GZDW-1

Dual standby energy-saving parallel DC power supply system

Our company's GZDW-1 dual redundant energy-saving parallel DC power supply system is designed for use in substations, power plants, various power engineering projects, and locations requiring backup power sources. It serves as the operating and control power supply for high-voltage switches, relay protection, and automation devices, and facilitates remote functions including telemetry, remote control, remote signaling, and remote adjustment.

Project	Unit	Parameter
AC input voltage range	V	220AC±20%
Input voltage frequency	Hz	50
DC rated output voltage	V	DC220, 110, 48, 24 optional
Rated output current	A	2/3/5
Stable voltage accuracy		≤±0.5%
Steady current accuracy		≤±1%
Grave wave coefficient		≤0.5%
power factor		≥0.95%
relative humidity		0~90%
operation mode		Continuous long-term operation
Cooling method		Intelligent temperature controlled air cooling/efficient natural cooling
Audible noise		≤50db
Monitoring touch screen functions		Available or optional
Host module display function		have
Protection function		Output circuit protection, host module protection, battery protection
Current sharing function		have
Power supply system mode		parallel connection
Battery installation method		Installation inside the cabinet (optional outside the cabinet)

Product features

- The system utilizes parallel current sharing technology, allowing flexibility in battery selection based on load conditions. Its unique battery monitoring module can automatically activate individual batteries or pairs of batteries, significantly enhancing battery performance and extending battery life by 3 to 5 times. For DC systems with capacities up to 100AH, a single cabinet configuration is sufficient, eliminating the need for separate battery cabinets. The charging module automatically checks, monitors, and alarms for individual batteries or pairs of batteries, and samples and analyzes battery usage and parameters to accurately diagnose faults, aiding in maintenance and repairs.
- The system employs multiple transmission methods for backend connections, enabling real-time monitoring and control of the module and battery status. In addition to dual-loop incoming systems, the charging modules can serve as backups for each other, addressing potential system faults due to module or battery failures and enhancing power reliability. The control and main bus voltages are matched to prevent component damage caused by incorrect wiring.

GZDW-2

Intelligent wall mounted DC power supply device

The GZDW-2 Intelligent Wall-Mounted DC Power Supply Device is designed specifically for substations, switch stations, and end-user terminals. It is an intelligent, integrated wall-mounted power supply that utilizes parallel current-sharing technology to enable maintenance without power interruption. Suitable for industries such as mining, petrochemical, construction, and end-user terminals, it serves as the operational and control power source for high-voltage switches, relay protection, and automation devices, and can also function as a low-voltage backup power source. The system includes 4 lead-acid batteries and features battery activation, battery testing, overvoltage, and overcurrent protection.

Product features

- Automatic battery activation and testing, with comprehensive system protection features.
- Output current sharing ensures stable current output, balancing the output of each individual battery and preventing single battery failures from affecting the entire battery group's lifespan.
- Parallel system allows multiple units to be connected for redundancy, enhancing system reliability.
- Enables maintenance without power interruption, facilitating easy repairs.
- Moderate capacity, with batteries arranged within a single cabinet.
- Compact design for wall-mount installation, saving space.

Project	Unit	Parameter
AC input voltage range	V	220AC±20%
Input voltage frequency	Hz	fifty
DC rated output voltage	V	DC220, 110, 48, 24 optional
Rated output current	A	2/3/5
Stable voltage accuracy		≤±0.5%
Steady current accuracy		≤±1%
Grave wave coefficient		≤0.5%
power factor		≥0.95%
relative humidity		0~90%
operation mode		Continuous long-term operation
Cooling method		Intelligent temperature controlled air cooling/efficient natural cooling
atmospheric pressure		80~106kPa
Host module display function		have
Protection function		Output circuit protection, host module protection, battery protection
Current sharing function		have
Power supply system mode		parallel connection
Battery installation method		Installation inside the cabinet (optional outside the cabinet)

GZDW

Intelligent High Frequency Switching Power Supply DC System

Our company produces the GZDW Intelligent High-Frequency Switch Power DC System, designed for users with various capacities. The system mainly consists of monitoring modules, rectifier modules, AC-DC monitoring modules, and battery inspection modules. It is primarily used in power systems, small power plants, hydroelectric stations, various types of power stations, and other users with DC equipment (such as petrochemical, mining, railway industries, etc.). It is suitable for switch operation and secondary circuits involving instruments, meters, relay protection, and fault lighting.

Project	Unit	Parameter
AC input voltage range	V	380AC±20% 220AC±20%
Input voltage frequency	Hz	fifty
DC rated output voltage	V	DC220, 110 optional
Rated output current	A	6~150
Stable voltage accuracy		≤±0.5%
Steady current accuracy		≤±1%
Grave wave coefficient		≤0.5%
power factor		≥0.95%
relative humidity		0~90%
operation mode		Continuous long-term operation
Cooling method		Intelligent temperature controlled air cooling/efficient natural cooling
Audible noise		≤50db

Product features

- Modular design using high-frequency switch power supplies with N+1 hot standby.
- Smooth adjustment of output voltage and current.
- Distributed multi-level monitoring system for simple and reliable monitoring.
- Reliable lightning protection and electrical insulation measures; optional ground monitoring devices provide real-time monitoring of insulation, ensuring system and personnel safety.
- Equipped with standard RS485 serial interfaces and Ethernet interfaces, facilitating integration into power plant automation systems.
- The main unit features a large LCD touch screen with running status and parameters displayed in Chinese characters. The design is user-friendly and simple, aligning with user habits.