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-RMU-

Product Catalog

DSJ Electrical Co.,Ltd





About DSJ

Building Power, Building Trust: **42 Years of Excellence**

Founded in 1983, DSJ has established itself as a leading force in China's electrical distribution industry, with 42 years of expertise in both medium-voltage and low-voltage electrical products.

As an outstanding enterprise, DSJ boasts independent research, development, production, and sales capabilities, ensuring that we can meet customers' needs with the fastest delivery and the highest level of customization. Our workforce consists of over 300 employees, including 50 senior management professionals, 30 experienced engineers, 8 senior designers, and 5 senior technicians.

We specialize in the manufacturing of distribution, circuit protection, and photovoltaic products that exceed both national and international quality standards. Over the past 40 years, DSJ has provided high-quality, safe electrical products to public facilities, large enterprises, and residential sectors worldwide, with one of the lowest return rates in the industry.

As a well-recognized Chinese brand, DSJ is dedicated to upholding our brand integrity. We adhere to the core philosophy of "Quality First, Customer Priority, and Integrity at the Core," striving to bring premium Chinese power equipment and exceptional service capabilities to customers worldwide.

Core Ideology

Quality First

Customer Priority

Integrity at the Core

 **40+**
Years of Excellence

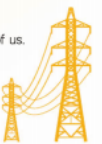
Established in 1983, DSJ has delivered trusted solutions for over four decades, solidifying its position as a pioneer in electrical equipment.

 **15,000+**
Square Meters of Facility

Strong manufacturing capabilities, with the capacity to produce 8,000 units per month.

 **\$108**
Million in Revenue

The continuous growth in sales volume demonstrates the market's recognition of us.



Factory Introduction



DSJ is a financially robust company with a registered capital of **7.84 million USD** and a facility spanning more than **15,000 square meters**.

Our production capabilities are supported by **30 units** of intelligent product testing and debugging equipment, **50 machine tools**, and **6 automated production lines**.

DSJ is also home to four innovation laboratories, holding more than **60 national invention patents**.

Crafting Quality Electrical Products for Over 40 Years



Honors and Certifications

• We are holding more than 60 national invention patents

Invention Patent



Utility Model Patent



• We have been awarded numerous prestigious national-level honors



QEFG-12 ECO-FRIENDLY GAS INSULATED RING MAIN UNIT



Product Overview

The QEFG series eco-friendly gas ring main unit is a gas switchgear independently developed by Beijing Qingchang. It uses a safe and eco-friendly mixed gas instead of SF₆ as the insulation medium in the gas box to solve the problem of SF₆ gas leakage pollution. It has a high level of operational safety and is used as the core unit in the distribution network.

The QEFG eco-friendly gas insulated ring main unit uses inert gases such as dry air, nitrogen, and C4 to provide insulation, making it more eco-friendly; The use of eco-friendly solutions is more in line with the development direction of China's power industry, so QEFG type eco-friendly gas ring main unit has become a more popular type of ring main unit in China at present. Compared to conventional switchgear products, QEFG ring main unit is more lightweight, convenient for transportation and installation. Excellent intelligent design fully meets the current demand for smart grids in China, improves electricity safety, greatly increases daily work efficiency, and reduces the burden of manual management.

Our QEFG series is divided into two types: QEFG II type (lower isolation); QEFG Type IV (upper isolation)

Product Features



Eco-friendly

This product uses no harmful gases or greenhouse gases, and more than 95% of the materials used are eco-friendly recyclable materials; the proportion of epoxy resin parts and components is less than 5%.



Maintenance Free

All high-voltage components are either gas-sealed or metal-enclosed, preventing rust and corrosion of parts. The electrical components have a long lifespan, stable performance, and can achieve maintenance-free operation.



Higher Reliability and Security

The conductive part of the main circuit is sealed with eco-friendly gases and the high-voltage live conductors are enclosed, unaffected by changes in external environmental conditions. This allows the equipment to be used in places with harsh environments, ensuring long-term operation. It has high reliability and no risk of electric shock or fire. Excellent gas tightness ensures it can serve for 30 years without needing gas replenishment.



No Partition/Solid Seal Design

The core switch design does not use interphase insulation partitions or solid seal methods to improve heat dissipation capacity and reduce the risk of partial discharge and phase-to-phase insulation failure caused by insulation aging failure.

Rated Parameters

S/N	Name	Unit	Load switchgear C	Circuit breaker cabinet V	Combined electric cabinet F
1	Rated voltage	kV	12		
2	Rated frequency	Hz	50		
3	Rated current	A	630	630	1250
4	Rated short-time power frequency withstand voltage	Phase-to-phase and Phase-to-ground	42		
		Fracture	48		
5	Rated lightning impulse withstand voltage	Phase-to-phase and Phase-to-ground	75		
		Fracture	85		
6	Rated peak withstand current	kA	50	50	63
7	Rated short-time withstand current	kA	20	20	25
8	Rated short circuit duration	S	4	4	4
9	Rated short circuit breaking current	kA	/	20	25
10	Closing current (peak)	kA	50	50	63
11	Electrical life rating (main switch / grounding switch)	/	E2/E1	E2/E1	/
12	Gas pressure (20°C)	MPa	0.02-0.025mpa		
13	Annual gas leakage rate	%	≤0.01		
14	Gas tank protection rating	/	IP67		
15	Shell protection rating	/	IP4X		
16	Overall dimensions	mm	420*850*1950		500*850*1950

QLG-12/24 SF₆ GAS INSULATED RING MAIN UNIT



Common switch modules include

V- circuit breaker module

C- load switch module

F- combined electric module

D- cable connection module

Product Features



Modular and expandable

The use of expansion modules in coordination allows for up to five modules with the same gas tank. Beyond that, further expansion is achieved through busbar expansion.



Maintenance Free

SF₆ gas integrated structure, with moving and static contacts, arc extinguishing chamber, busbar sealed in the same gas tank. It is designed for a maintenance-free life of 30 years.



Reliable Mechanical Interlock

It has a variety of reliable mechanical interlocks, and there are analog signs on the cabinet panel to fully ensure the safety of operation.



Automatic and Intelligent

Cooperate with DTU to realize automatic and intelligent control.

Rated Parameters

S/N	Item	Unit	Parameter		
1	Rated voltage	kV	12	24	
2	Rated current	A	630/1250	630	
3	Rated frequency	Hz	50/60		
4	1 min power frequency withstand voltage	Phase-to-phase and Phase-to-ground	kV	42	65
		Isolation fracture	kV	48	79
5	Lightning impulse withstand voltage	Phase-to-phase and Phase-to-ground	kV	75	125
		Fracture	kV	85	145
6	Rated SF ₆ gas pressure (gauge pressure at ring temperature of 20°C)	MPa	0.04		
7	SF ₆ annual leakage rate	%	≤0.01		
8	Protection rating	SF ₆ gas tank	IP67		
		Cabinet body	IP55		
Overall dimensions					
9	General scheme	mm	350*770*1850		
10	State-grid standardization	mm	420*750*1950		

Product Overview

QLG series ring main unit is a SF₆ gas insulated metal enclosed switchgear independently developed and produced by our company. The equipment uses SF₆ gas as insulation and breaking medium, and the load switch, vacuum circuit breaker and live busbar are all sealed in a closed stainless steel container filled with a certain pressure. The external American standard / European standard bushing is connected with the incoming and outgoing cable through the cable joint to form a fully insulated and fully closed structure. This effectively prevents flooding and withstands contamination, making it suitable for various harsh environments. The product is widely used in 12kV ring network or terminal power supply system.

QLG-40.5 SF₆ GAS INSULATED NEW ENERGY RING MAIN UNIT



Product Overview

QLG40.5 is a scalable ring main unit for secondary distribution networks. The QLG40.5 ring main unit is available in a variety of standard combinations to meet the application requirements of most 33~40.5kV distribution networks. The stainless steel chamber of QLG 40.5 is filled with SF₆ gas, which completely seals and isolate all live parts and switches from the outside world. This fully sealed system ensures that internal switches and all live parts are unaffected by external environmental changes, guaranteeing high reliability, personnel safety, and virtually maintenance-free operation. Because of compact size and flexible combination features, it is especially suitable for the following places: compact secondary substations, small industrial and mining enterprises, wind power plants, photovoltaic power plants, hotels, shopping malls, office buildings, commercial centers and so on.

Product Features



Flexible Combination

It has scalability and can achieve a combination of full modularity and semi-modularity.



Maintenance Free

All live parts and switches are completely sealed and isolated from the outside world.



Safe and Reliable Operation

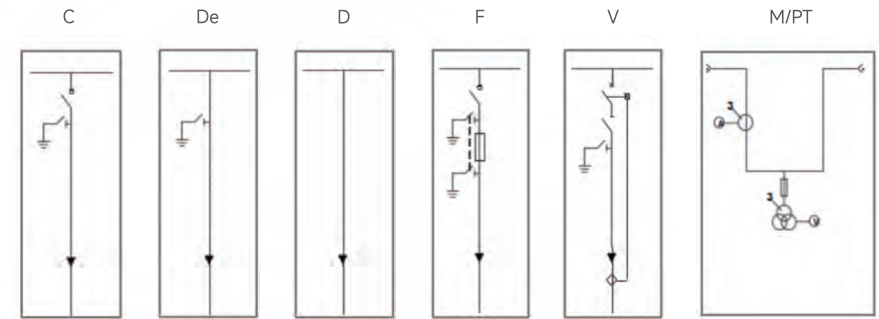
Passed ASTA certification, in line with GB, IEC standards.



Compact Size, Convenient Transportation and Installation

Its compact size and low transportation cost make it particularly easy to install in space-constrained situations.

Typical primary plan



Rated Parameters

S/N	Name	Unit	Load switchgear C	Circuit breaker cabinet V	Combined electric cabinet F	
1	Rated voltage	kV	40.5			
2	Rated frequency	Hz	50/60			
3	Rated current	A	630	630	1250	125A
4	Rated short-time power frequency withstand voltage	Phase-to-phase and Phase-to-ground	95			
		Fracture	118			
5	Rated lightning impulse withstand voltage	Phase-to-phase and Phase-to-ground	185			
		Fracture	215			
6	Rated peak withstand current	kA	50	50	63	
7	Rated short-time withstand current	kA	20	20	20/25	
8	Rated short circuit duration	S	5	4	4/2	/
9	Rated short circuit breaking current	kA	/	20	25	20
10	Closing current (peak)	kA	50	50	63	50
11	Electrical life rating (main switch / grounding switch)	/	E2/E1	E2/E1		/
12	SF ₆ gas rated pressure (20°C)	MPa	0.045mpa			
13	SF ₆ annual gas leakage rate	%	≤0.01			
14	Mechanical life of circuit breaker	Time (s)	/	10000	/	
15	Mechanical operation life of load switch	Time (s)	5000	/	5000	
16	Mechanical life of isolating switch	Time (s)	/	3000	/	
17	Mechanical life of grounding switch	Time (s)	3000	3000	3000	
18	Gas tank protection rating	/	IP67			
19	Shell protection rating	/	IP55			
20	Overall dimensions (single space)	mm	450×920×2260			

QCXE-12/24 ECO-FRIENDLY GAS INSULATED METAL ENCLOSED SWITCHGEAR (C-GIS)



Product Overview

QCXE-12/24 Eco-friendly Gas Insulated Metal Enclosed Switchgear (C-GIS) are independently developed by our company. This series of products meets market demand and can use eco-friendly gas insulation or SF₆ as the insulation medium for metal enclosed switchgear (C-GIS) to meet the needs of different customers.

The QCXE-12/24 series switchgear has very high safety and reliability, which can ensure the continuous and stable operation of the power system and the personal safety of operators. At the same time, it also has a user-friendly operating interface, making it easy for on-site operators to operate. Rated voltage 12/24kV, rated current 630~3150A, rated breaking current 25~40kA.

QCXE-12, 24 series switchgear adopts modern and innovative switchgear design concept, with a variety of functional modules to choose from. Commonly used functional modules are L, F, D, R, P, M, etc. Other modules can be customized according to the requirements of the primary system diagram when necessary. These functional modules can be installed on-site. Routine tests are carried out on all modules prior to shipment. No special tools are required to install these devices.

Product Features



Flexible Combination

This product is designed with eco-friendly gas/SF₆ universal solution, safe and reliable, meeting market demand.



Maintenance Free

The high-voltage conductor is completely sealed, with incoming and outgoing lines through insulating bushings, maintenance-free for the life cycle.



Miniaturization

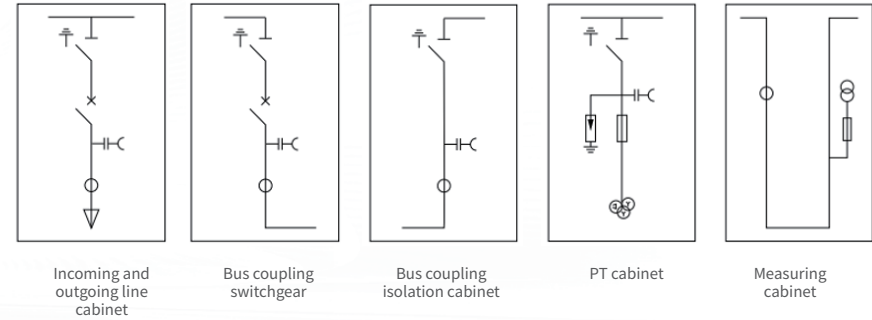
Compact structure, reducing the footprint by about half compared to traditional switchgear.



Wide Application

It can be used in high-altitude and humid coastal areas.

Typical primary plan



Rated Parameters

Unit	Item	Unit	Parameter		
1	Rated voltage	kV	12	24	
2	Rated current	A	630、1250、2500、3150		
3	Rated frequency	Hz	50		
4	Rated power frequency withstand voltage(1min)	Phase-to-phase and Phase-to-ground	kV	42	65
		Isolation fracture	kV	48	79
5	Rated lightning impulse voltage (1.2/50ms)	Phase-to-phase and Phase-to-ground	kV	75	125
		Fracture	kV	85	145
6	Main circuit temperature rise	A	1.1*I _r		
7	Rated short-time breaking current	kA	25、31.5、40		
8	Rated short-circuit closing current	kA	63、80、100		
9	Rated short-time withstand current	kA	25、31.5、40		
10	Rated peak withstand current	kA	63、80、100		
11	Rated pressure	Minimum functional pressure	MPa	0.03/ 0	
12	Gas tank protection rating	/	IP67		
13	Shell protection rating	/	IP4X		
14	Rated operating voltage	V	DC48、DC110、DC220		
15	Rated auxiliary voltage	V	AC220		
16	Overall dimensions (W*D*H)	mm	600*1250*2250 (1250A)		
			800*1600*2250 (2500A)		
			900*1600*2250 (3150A)		

QCXF-40.5 SF₆ GAS INSULATED METAL ENCLOSED SWITCHGEAR (C-GIS)

Product Overview

The QCX F-40.5 series SF₆ gas insulated metal enclosed switchgear (C-GIS) is a metal-enclosed switchgear (C-GIS) independently developed by our company, which adopts SF₆ as the insulation medium and meets market demand.

QCX F-40.5 series switchgear has very high safety and reliability, which can ensure the continuous and stable operation of the power system and the personal safety of operators. At the same time, it also has a user-friendly operating interface, making it easy for on-site operators to operate. Rated voltage 40.5kV, rated current 1250~3150A, rated breaking current 25~40kA.

QCX F-40.5 series switchgear adopts modern and innovative switchgear design concept, with a variety of functional modules to choose from. Commonly used functional modules are L, D, R, P, M, etc. Other modules can be customized according to the requirements of the primary system diagram when necessary. These functional modules can be installed on-site. Routine tests are carried out on all modules prior to shipment. No special tools are required to install these devices.



Product Features



Multi-scheme

There are multiple switch schemes in the design, including integrated and split types, which can be selected according to project requirements.



Maintenance Free

The high-voltage conductor is completely sealed, with incoming and outgoing lines through insulating bushings, maintenance-free for the life cycle.



Miniaturization

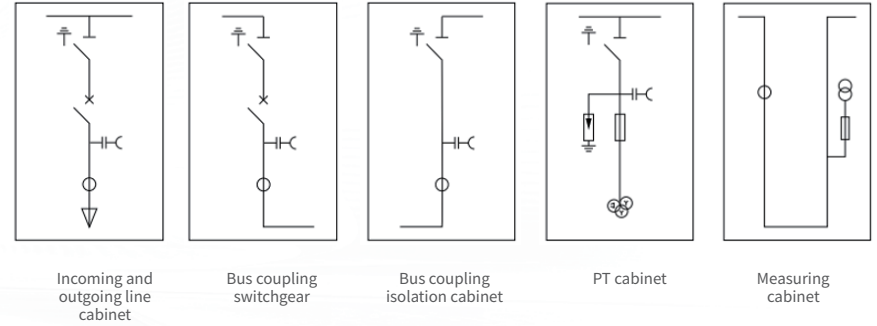
Compact structure, reducing the footprint by about half compared to traditional switchgear.



Wide Application

It can be used in high-altitude and humid coastal areas.

Typical primary plan



Rated Parameters

Unit	Item	Unit	Parameter				
1	Rated voltage	kV	40.5				
2	Rated current	A	1250	1600	2000	2500	3150
3	Rated frequency	Hz	50				
4	Rated power frequency withstand voltage(1min)	Phase-to-phase and Phase-to-ground	kV				
		Isolation fracture	kV				
5	Rated lightning impulse voltage (1.2/50ms)	Phase-to-phase and Phase-to-ground	kV				
		Fracture	kV				
6	Main circuit temperature rise	A	1.1*Ir				
7	Rated short-time breaking current	kA	25、31.5				
8	Rated short-circuit closing current	kA	63、80				
9	Rated short-time withstand current	kA	25、31.5				
10	Rated peak withstand current	kA	63、80				
11	Rated pressure	MPa	0.04/0.02				
	Minimum functional pressure						
12	Gas tank protection rating	/	IP67				
13	Shell protection rating	/	IP4X				
14	Rated operating voltage	V	DC48、DC110、DC220				
15	Rated auxiliary voltage	V	AC220				
16	Overall dimensions (W*D*H)	mm	600*1400*2500 (≤1250A)				
			800*1700*2500 (>1250A)				

QGG-12 SOLID INSULATED RING MAIN UNIT

Product Overview

Beijing Qingchang has developed the QGG series solid insulated switchgear based on its product development experience in air insulated and gas insulated switchgear. The QGG series solid insulated switchgear has a high level of operational safety and has been recognized as a high-tech achievement by the Beijing Municipal Science and Technology Commission. After years of focused research and development, iteration and innovation, we have successfully developed our fourth generation products. Each series of products has its own characteristics, including single-phase switch scheme, three-phase integrated switch scheme, shielded miniaturization scheme, and complete L, V, and F electrical schemes to meet various customer needs.

Product Features

- Cancel SF₆ gas application and avoid pressure gas tank design
- Single-phase overall design, reducing the safety risks caused by improper installation
- All live parts are sealed (switches are sealed with epoxy resin insulation and busbar are sealed with silicone rubber), achieving a fully insulated and sealed structure with a safety protection rating of IP55
- The operating mechanism is fully sealed, truly achieving maintenance-free operation with the switch and grounding positions of all three phases being independently visible.
- Intelligent, eco-friendly, suitable for special environment, etc.

Rated Parameters

Unit	Item	Unit	Parameter
1	Rated voltage	V	12
2	Rated frequency	Hz	50
3	Rated current	A	630 (1250)
4	Rated short-time withstand current	kA/s	20/4 (25/4)
5	Rated peak withstand current	kA	50(63)
6	1 min power frequency withstand voltage	kV	42/48
7	Lightning impulse voltage	kV	75/85
8	Arc duration	s	≥0.5
9	Primary component protection rating (except metering cabinet)	/	IP55
10	Operating supply voltage	V	DC: 24 48 110 220
11			AC: 110 220
12	Unit cabinet reference dimensions (W×D×H)	mm	II B 型 440×960×1500
13			III A 型 415×945×1600
14			IV A 型 400×850×1520



QCD3000 Distribution Terminal Unit (DTU)

Product Overview

QCD3000 distribution terminal unit (DTU) is a monitoring terminal product independently developed by our company for the increasingly widely used ring main unit and small switching stations in urban power grids. It can cooperate with the distribution network automation main station and substation system to achieve the collection and control of electricity from multiple lines, as well as fault detection, positioning, isolation, and non-fault area power supply recovery, improving power supply reliability.

Product Features

- Stable and reliable, easy to install, high-performance, high-precision, and remotely maintainable
- It supports multiple communication modes and rich communication protocols, which can identify feeder faults and realize three remote monitoring
- Capable of self diagnosis and self recovery, with intelligent storage battery maintenance function, capable of working in complex environments



QCD7000 DISTRIBUTION AUTOMATION TERMINAL UNIT (DTU)

Product Overview

The QCD7000 distribution automation station terminal is a self-developed remote terminal for distribution automation systems based on the construction and development of smart grids. It meets the requirements of the "Standardized Design Scheme for 12 kV Primary and Secondary Integration Ring Main Unit (Box) and Distribution Automation Terminal Unit (DTU) (2021 Edition)". This device follows the modular plug-in design concept and adopts a high-speed and strong anti-interference field bus design. It is suitable for distribution network ring main units or switching stations, and can achieve information collection and control of multiple lines, as well as fault detection, positioning, isolation, and non fault area power supply recovery. It can effectively improve the reliability of the power supply system and shorten the fault handling time.



Product Features



Modularization

The product adopts modular and expandable design, which is composed of a core unit, a power module, a backup power supply and a cabinet.



Standardization

Taking into account the operational habits and functional performance requirements of different regions, with standardized structures and interfaces, it meets the needs for modular replacement and standardized operation and maintenance.



Reliability

Each module adopts industrial grade design, with aviation plug connection method, and the protection rating can reach IP65.



Advancement

It meets the technical requirements of primary and secondary integration, as well as integration of protection and testing, catering to the development requirements of digital distribution networks, and has strong data processing capacity at the "end" devices.