

■ If the models and specifications in this product catalogue is changed due to the change of products, we will not inform
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Electronic Samples

Company Website

WeChat Official Account

Tiktok Code



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Recruiting agents from all over the country

Selection guide

ZHEJIANG KANGGE ELECTRIC CO.,LTD



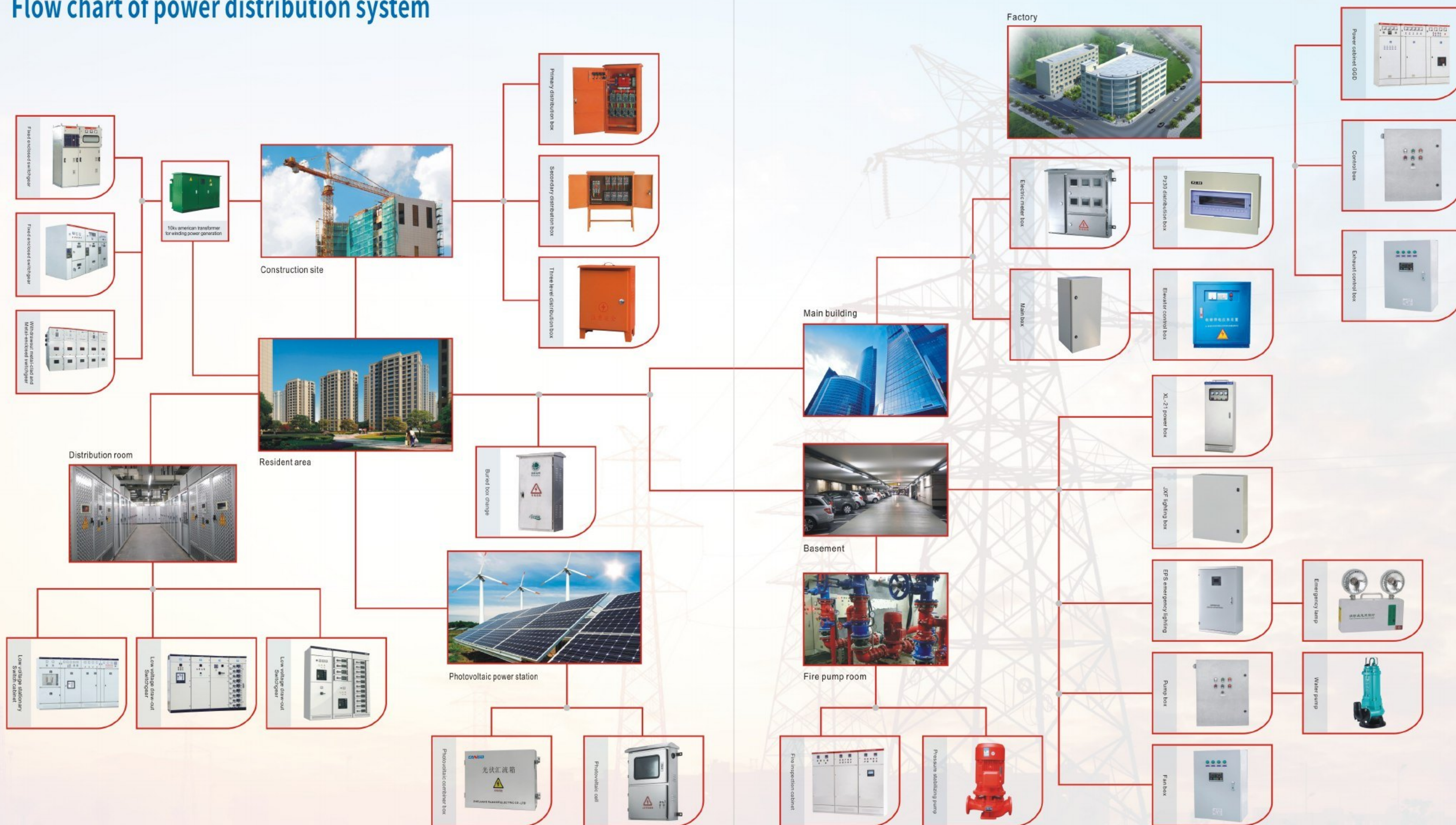
Pursuit perfection ,
create super excellence

Complete Equipment For Transmission and Distribution Selection Guide



 ZHEJIANG
KANGGE ELECTRIC CO.,LTD

Flow chart of power distribution system



COMPANY PROFILE

Electrical shell solution provider

Registered capital/10000 yuan

10,080

Floor area/square meter

60,000+



Zhejiang Kangge Electric Co., Ltd. was founded in 2010 and is headquartered in Yueqing Economic Development Zone, Zhejiang Province. It is a comprehensive company integrating scientific research, manufacturing, trade, and sales, with a registered capital of 100.8 million yuan, with multiple wholly-owned (holding) companies under its jurisdiction, and two major production bases in Yueqing and Wenling, covering an area of over 60,000 square meters.

The company mainly produces and operates low-voltage energy metering boxes (made of PC/ABS material, SMC material, metal material), high and low voltage cable branch box, primary and secondary fusion complete set of pole mounted circuit breakers. Once and twice integrated into equipment such as loop cages, the products cover the transmission and distribution of the power grid and user side equipment.



Production Strength

The company has over 200 production and testing equipment, 100+ supplier cooperation units, and 500+ customers. The marketing network covers various regions of the country, as well as multiple countries and regions such as Africa and South America.

The company currently has 300 employees, including 19 technical personnel, 7 middle and senior engineers, and has established partnerships with the West Beijing University of Technology. It has reached a strategic school enterprise cooperation and established 01 Intelligent Research Institute in Yueqing, in collaboration with Zhao Huijiao. The team is jointly committed to the intelligentization of electrical products and the development of a product series for smart and safe electricity use.

Production Equipment

200+

Collaborative units

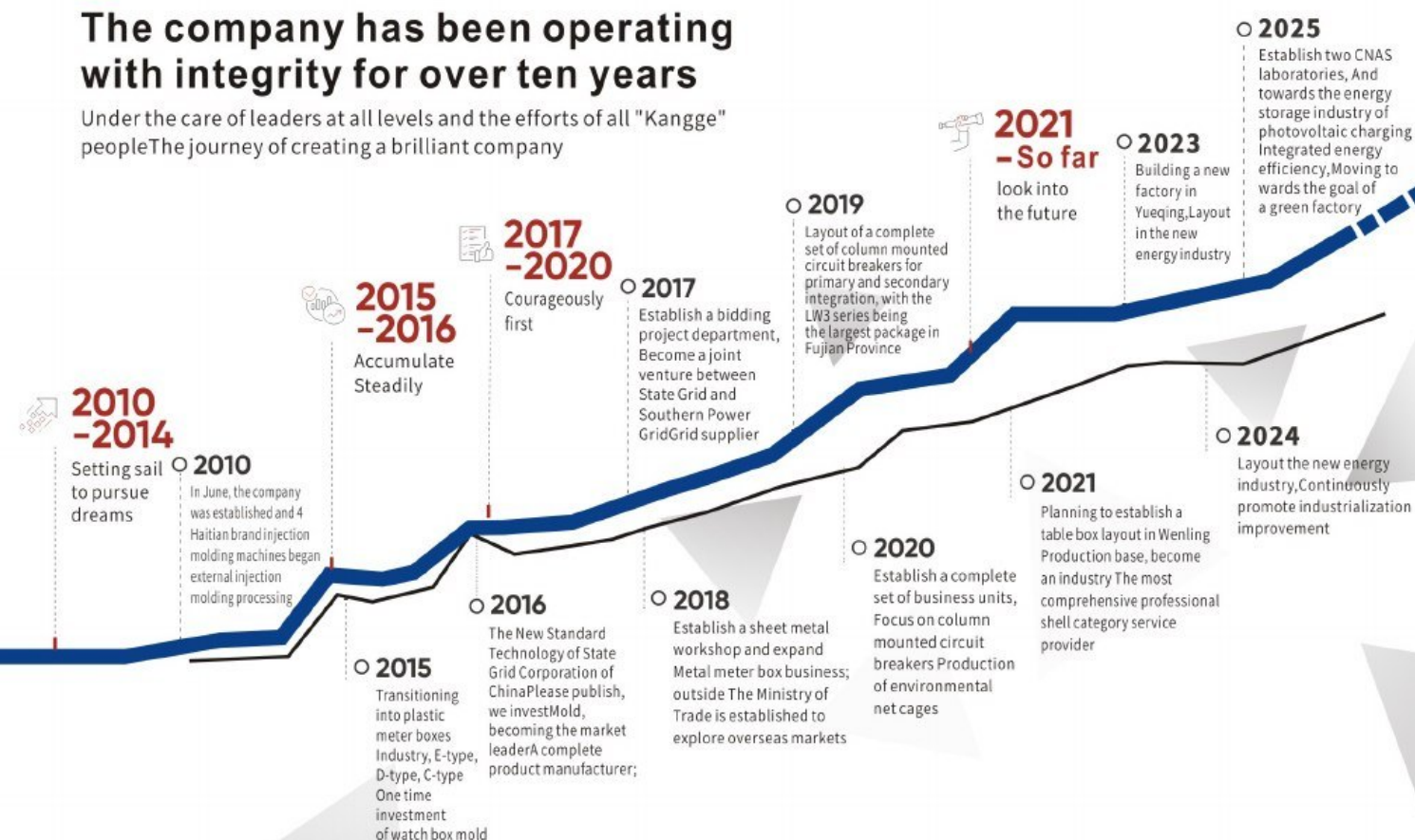
100+

Serve customers

500+

The company has been operating with integrity for over ten years

Under the care of leaders at all levels and the efforts of all "Kangge" people, the journey of creating a brilliant company.



WORKSHOP EQUIPMENT

Good products are inseparable from advanced equipment and sophisticated technology. Years of hard work have made us deeply aware of the importance of "science is the primary productive force".

In order to expand the scale of enterprise development and productivity, we have introduced advanced high-tech equipment from home and abroad. With excellent quality and unique style, our products have won high-quality products for our customers.

CANGO 康格

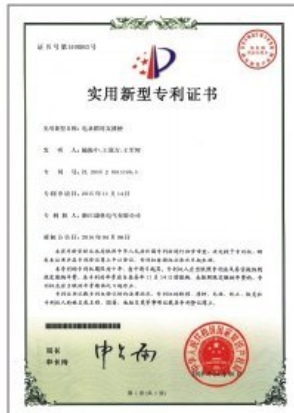
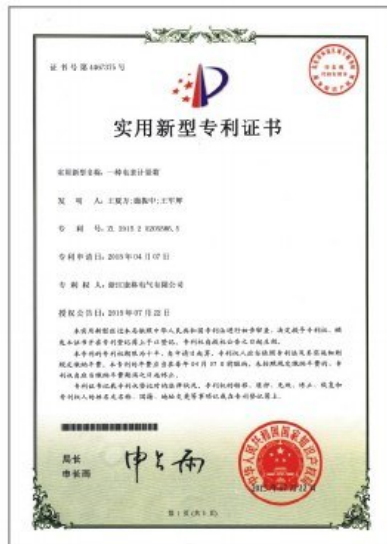


AUTHORIZED
CERTIFICATION

Quality management is the wings of New Era's soaring. Smooth communication, strict quality control, perfect detail operation, and pleasant business dealings. In New Era, in short, every customer must receive the most perfect service. This is our consistent business spirit. We have always won the praise and support of the industry with our professionalism and focus, and have also enabled New Era Company to create a series of fine products worthy of being passed down.



PATENT CERTIFICATE



PRODUCT
CONTENTS



A Box type substation 01-06

YB0-12/0.4 prefabricated substation	01-04
ZGS11-12 series combined American prefabricated substation	05-06



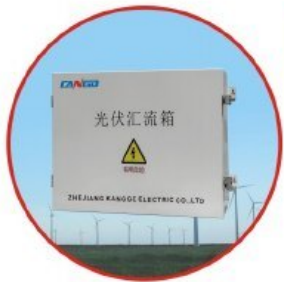
B High voltage switchgear 07-28

KYN61-40.5 armored removable AC metal closed switchgear	07-08
XGN17-40.5 box type fixed AC metal enclosed switchgear	09-10
KYN28-24 armored removable AC metal closed switchgear	11-12
KYN28-12 armored removable AC metal closed switchgear	13-14
XGN66-12 box-type fixed metal-enclosed switchgear	15-16
XGN15-12AC metal closed ring loop switchgear	17-18
HXGN17-12 box type fixed metal closed ring loop switchgear	19-20
TBBZ series high-voltage reactive power automatic compensation device	21-22
SRM-12 series of fully insulated pneumatic ring network switchgear	23-24
GTXGN-12 solid insulated ring network switchgear	25-26
GZDW series DC power supply cabinet	27-28



C Low voltage switchgear 29-42

MNS low voltage extraction type switchgear	29-30
GCS low voltage extraction type switchgear	31-32
GCK low voltage extraction type switchgear	33-34
GGD AC low voltage switchgear	35-36
GJ low voltage reactive intelligent compensation device	37-38
APF active power filter	39-40
XL-21 type low voltage power distribution cabinet	41-42



D Photovoltaic new energy 43-52

10kV~40.5kV series modular intelligent precast cabinet	43-44
BWG photovoltaic grid connected cabinet	45-46
KG-SX/GFD01 photovoltaic grid connected box	47-48
KG-RX-GF-AC01 photovoltaic AC combiner box	49-50
KG-RX-GF-AC01 photovoltaic DC combiner box	51-52



E Transformer 53-83

S11 type of oil immersed power transformer	53-54
S13 type of oil immersed power transformer	55-56
S20 energy efficiency secondary oil immersed transformer	57-58
S22 energy efficiency first level oil immersed transformer	59-60
35kV distribution transformer	61-62
SH15-M sealed amorphous alloy power transformer	63-64
SZ11 series 10kV,35kV load transformer	65-66
SC(B)10 type dry power transformer	67-70
SC(B)12 dry-type transformer	71-72
SC(B)13 dry-type transformer	73-74
SC(B)14 energy efficiency secondary dry-type transformer	75-76
SC(B)18 energy efficiency first level dry-type transformer	77-78
SCBH15 dry type amorphous alloy iron core power transformer	79-80
SG(B)10 series H-class three-phase dry-type power transformer	81-83



PROFESSIONAL SUPPLIER OF TRANSMISSION
AND DISTRIBUTION EQUIPMENT

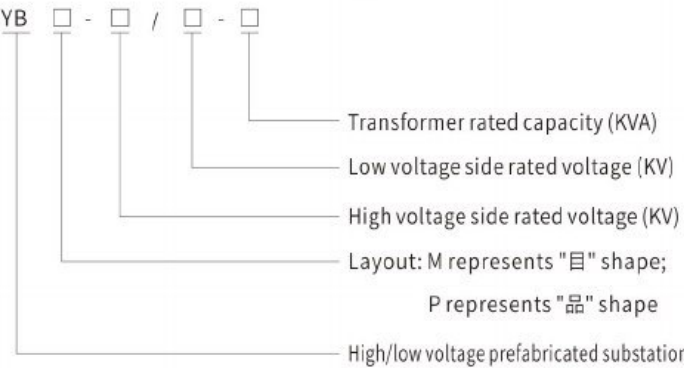


YB0-12/0.4
prefabricated substation

Product overview

This product fully complies with the GB17467 "High-voltage and Low-voltage Prefabricated Substation" standard. It is suitable for urban public power distribution, street light power distribution, industrial and mining enterprises, urban buildings, residential areas, oil fields, docks, hotels, parks and construction sites, etc., and can realize ring network or terminal power supply mode.

Model and meaning



Environmental conditions for use

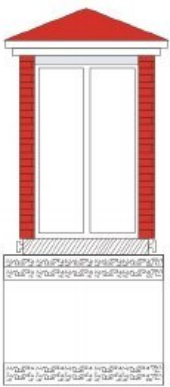
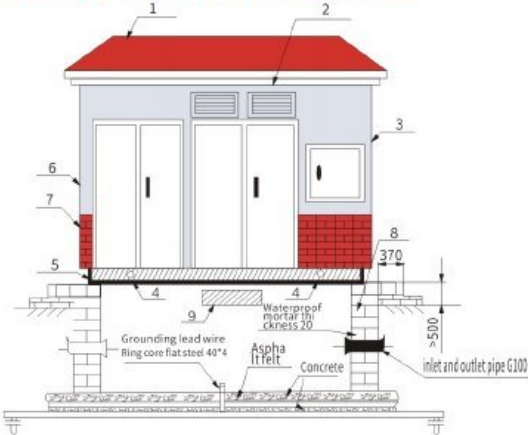
- △ Altitude: ≤1000m;
- △ Ambient temperature: -25°C~+40°C;
- △ Temperature: Maximum monthly average temperature +30°C, maximum annual average temperature +20°C;
- △ Relative humidity: daily average value is not more than 95%, monthly average value is not more than 90%;
- △ Shockproof level: horizontal acceleration 0.4m/s², vertical acceleration 0.15m/s²;
- △ The installation site has no severe impact, no serious pollution and chemical corrosion, no conductive dust and explosion hazards. If it cannot meet the normal use conditions, please negotiate with our company to solve it.

YB0-12/0.4 prefabricated substation

Technical parameters

Item		Unit	Parameter		
High voltage unit	Rated frequency	Hz	50		
	Rated voltage	kV	6	10	35
	Maximum operating voltage	kV	6.9	11.5	40.5
	Rated current	A	400、630、1250		
	Transfer current	A	1200-3150		
	Power frequency withstand voltage to ground and phase/isolating break	kV	42/48		
	Lightning impulse withstand voltage to ground and phase/isolating break	kV	75/85		
	Rated short-circuit breaking current (current limiting fuse)	kA	31.5		
Transformer unit	Rated voltage	kV	6、10、35		
	Rated capacity	kVA	30-2000		
	Tap range	%	±2×2.5%、±5%		
	Connection group		Yyn0、Dyn11		
	Impedance voltage	%	4、4.5、6、8		
Low voltage unit	Rated voltage	V	220、380、690、800		
	Main circuit rated current	A	50-4000		
	Branch current	A	5-800		
Enclosure	Protection level (conventional products)		High voltage room IP33; Transformer room IP23; Low voltage room IP33		
	Noise level	dB	≤ 50		

Installation dimensions



1. Roof
2. Shutters
3. External metering box
4. Lifting ring
5. Channel steel frame
6. Door
7. Strip brick, imitation brick wall
8. Concrete foundation
9. Foundation vent

Ordering instructions

- Users need to provide the following information when placing an order:
- △ Model, capacity, quantity, color and size requirements, shell material;
 - △ Transformer model, performance, connection group, tapping range and impedance requirements;
 - △ High and low voltage side primary wiring scheme, component model, specifications and requirements;
 - △ Transformer oil (25#, 45#, high flash point oil);
 - △ Power intelligent management network or property management requirements for box-type substation access configuration;
 - △ Use environment requirements.



Substation structure diagram



YB0-12/0.4 prefabricated substation



ZGS11-12 series combined American prefabricated substation

Product overview

This product is developed by absorbing the latest foreign advanced technology and combining the actual domestic situation. The whole product has the characteristics of small size, easy installation and maintenance, low noise, low loss, anti-theft, strong overload capacity, and full protection. It is suitable for new residential areas, green belts, parks, stations and hotels, construction sites, airports and other places.

ZGS11-12 series combined American prefabricated substation is suitable for 10kV ring network power supply, dual power supply or terminal power supply system as a substation, metering, compensation control and protection device. This product complies with the following standards: GB/T17467-1998 "High-voltage and Low-voltage Prefabricated Substations" DL/T537-93 "6-35KV Box Substation Ordering Technical Conditions".

Model and meaning

ZGS □ - 12/0.4 (□) □ / □

Transformer rated capacity (KVA)

Type of operating mechanism for high-voltage switchgear

T-spring-operated mechanism;
S-manual mechanism;

Type of main switch for high-voltage switchgear
F-load switch; F·R-load switch + fuse

Rated voltage

Design serial number

Prefabricated substation (American style)

Environmental conditions for use

△ Altitude not exceeding 1000m;

△ Ambient temperature: -35°C~+40°C;

△ Relative humidity: daily average value not exceeding 95%, monthly average value not exceeding 90%;

△ Installation location: a place without fire, explosion hazard, chemical corrosive gas and good ventilation, with a ground inclination of no more than 3°.

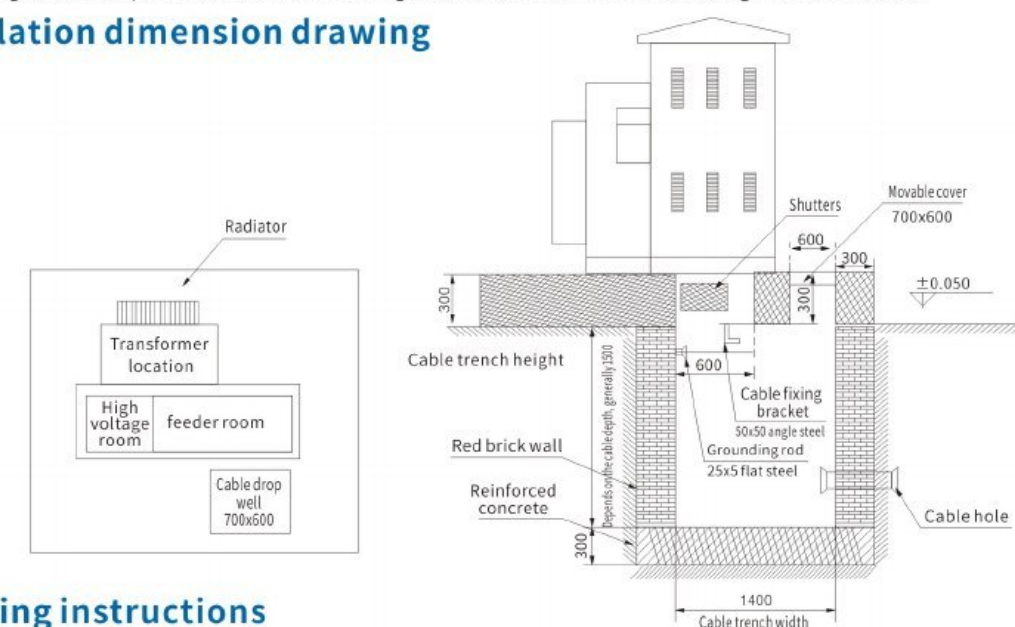
Transformer performance parameters

△ 10kV combined transformer S9, S10, S11 series oil-immersed transformer performance level

Serial number	Rated capacity (KVA)	Rated voltage		Voltage adjustment range (%) (%)	Combination group number	No-load current (%)		Loss (W)				Impedance voltage (%)	Noise (dB)	Temperature rise (K)
		High voltage (kV)	Low voltage (kV)			S9	S10/S11	No-load loss			Load loss			
								S9	S10	S11	S9/S10/S11			
1	30	6	0.4	±5	Yyn0	2.2	2.0	130	110	100	600	4	55	Topoil temperature 55 Coil 65
2	50					2.0	1.8	170	150	130	870			
3	63					1.9	1.5	200	180	150	1049			
4	80					1.7	1.2	250	200	180	1250			
5	100					1.6	1.1	290	230	200	1500			
6	125					1.5	1.0	340	270	240	1800			
7	160					1.4	1.0	400	310	280	2200			
8	200					1.4	0.8	480	380	340	2600			
9	250	6.3				1.2	0.8	560	460	400	3050	4.5		
10	315					1.1	0.7	670	540	480	3650			
11	400					1.0	0.7	800	650	570	4300			
12	500					1.0	0.6	960	780	680	5150			
13	630	10	0.69	±2×2.5	Dyn11	0.9	0.6	1200	920	810	6200	4.5		
14	800					0.8	0.6	1400	1120	980	7500			
15	1000					0.7	0.5	1700	1320	1150	10300			
16	1250					0.6	0.5	1950	1560	1360	12000			
17	1600					0.6	0.5	2400	1880	1640	14500			

Note: a. According to user requirements, the high voltage tapping range of the transformer can be designed to be $\pm 2 \times 2.5\%$; b. According to user requirements, the low voltage of the transformer can be designed to be 0.69kV.

Installation dimension drawing



Ordering instructions

- △ Product operation site and special requirements;
- △ Provide product ordering drawings, which should include wiring diagrams, and indicate transformer capacity, main component models and specifications, distribution branch circuits and capacity;
- △ When electric energy metering and reactive power automatic compensation devices are required, metering meters and transformer configuration requirements should be provided, and compensation capacitor capacity should be indicated;
- △ Indicate product surface treatment requirements;
- △ Please indicate terminal type or ring network type when ordering combined transformers.



KYN61-40.5 armored removable AC metal closed switchgear

Product overview

KYN61-40.5(Z) armored removable AC metal-enclosed switchgear (hereinafter referred to as switchgear) is a three-phase AC 50Hz, rated voltage 40.5KV indoor complete power distribution device. It is used for receiving and distributing electric energy in power plants, substations and industrial and mining enterprises, and has functions such as control, protection and monitoring of circuits. It can also be used in places with frequent operations.

This switchgear complies with GB/T11022-1999, GB3906-2006 and DL404-1997 standards.

Model and meaning

K Y N 61 - 40.5 □ / □ □ □ - □ □

- Rated short-circuit breaking current
- Rated current
- Special use conditions
- Operating mechanism type
- Main switch type
- Rated voltage
- Design serial number
- Indoor
- Removable (handcart type)
- Metal armored type

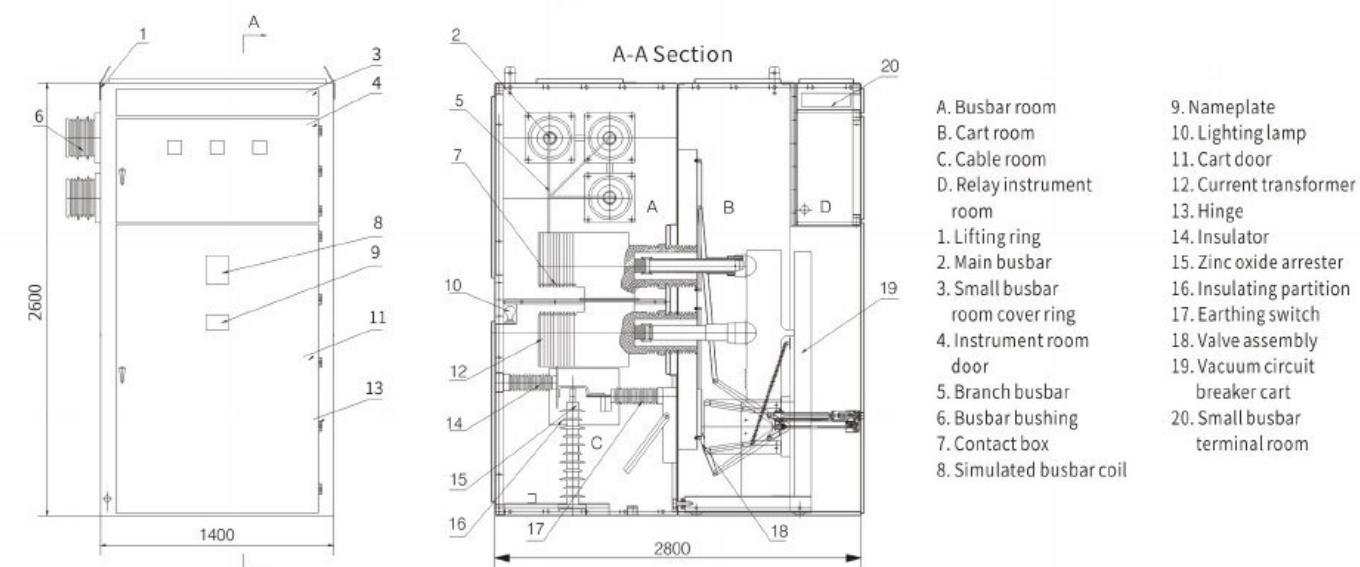
Environmental conditions for use

- △ Ambient air temperature: -15°C~+40°C;
 - △ Altitude: 2000m and below;
 - △ Humidity conditions: daily average not more than 95%, daily average water vapor pressure not more than 2.2kPa; monthly average not more than 90%, monthly average water vapor pressure not more than 1.8kPa.
 - △ Earthquake intensity: not more than 8 degrees;
 - △ Places without obvious pollution such as corrosive or flammable gases.
- Note: When the above normal use conditions are exceeded, the user can negotiate with the company.

Technical parameters

Serial number	Item	Unit	parameters
1	Rated voltage	kV	40.5
2	Rated current	A	1250、1600、2000
3	Rated frequency	Hz	50
4	Rated short-time withstand current	kA	20、25、31.5
5	Rated peak withstand current	kA	50、63、80
6	Rated power frequency withstand voltage	kV	95/1 min
7	Rated lightning surge withstand voltage	kV	185
8	Rated short-circuit duration	S	4
9	Protection level		IP3X

Overall dimensions of switchgear



Ordering instructions

When ordering, please specify:

1. Main circuit scheme number, purpose, single-line system diagram, arrangement diagram and distribution room layout diagram, etc.;
2. Auxiliary circuit wiring schematic diagram, terminal arrangement diagram;
3. Model, specification and quantity of electrical components in the switchgear;
4. Requirements for control, measurement and protection functions of the switchgear and requirements for other locking and automatic devices;
5. If a busbar bridge is required between switchgears or incoming line cabinets, the rated current carrying capacity of the busbar bridge, the span of the busbar bridge, the height from the ground and other specific requirements should be provided;
6. When accessories and spare parts are required, the type and quantity should be specified;
7. If the switchgear is used in special environmental conditions, it should be specified in detail when ordering.

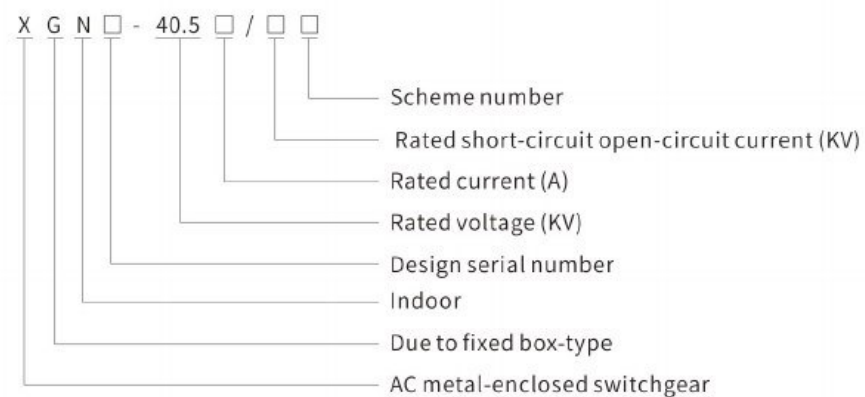


XGN17-40.5 box type fixed AC metal enclosed switchgear

Product overview

XGN17-40.5 box-type fixed AC metal-enclosed switchgear is designed according to GB3906-200 "3.6KV-40.5KV AC metal-enclosed switchgear and control equipment". Its appearance meets the IP2X protection level specified in GB 4208-2008. This switchgear is a three-phase AC 50Hz single busbar and indoor complete set with busbar bypass system, used for receiving and distributing 35KV network power.

Model and meaning



Environmental conditions for use

- △ Altitude: not more than 1000m;
 - △ Ambient temperature: upper limit +40°C, lower limit -5°C;
 - △ Relative humidity: daily average value not more than 85%, (at +25°C);
 - △ Earthquake intensity: no violent vibration and turbulence and vertical tilt not more than 5°;
 - △ Environmental conditions: no explosion hazard.
- Note: When the above normal use conditions are exceeded, the user can negotiate with our company to determine.

Technical parameters

Serial number	Item date	Unit	Parameter	
1	Rated voltage	kV	40.5	
2	Maximum rated current	A	2000	
3	Rated breaking current	KA	25	31.5
4	Rated closing current (peak value)	KA	63	80
5	Limiting through-current peak value	KA	63	80
6	Rated short-time withstand current (4s)	KA	25	31.5
7	Dimensions (width x depth x height)	mm	1918x3250x3125	
8	Protection level		IP2X	
9	Weight	kg	Approx1500	

Structural dimension drawing

1. Circuit breaker, small busbar and terminal room
2. Main busbar isolating switch
3. Current transformer
4. Current transformer
5. Bypass busbar isolating switch
6. Line isolating switch
7. Bypass busbar room
8. Application plate
9. Left operation panel
10. Lower left small door
11. Simulated busbar plate
12. Nameplate
13. Vacuum circuit breaker
14. R-C type overcurrent absorber (variable element)

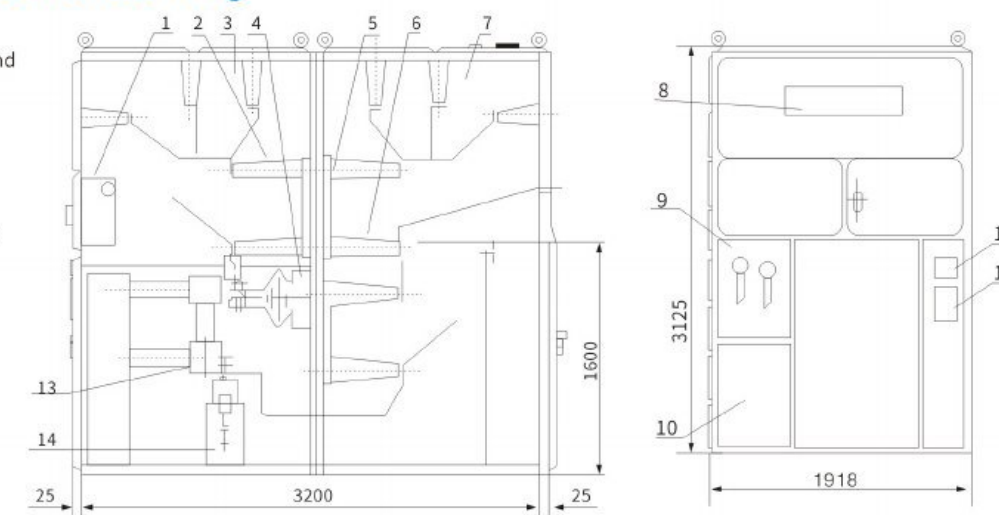


Figure: Basic structure of switch with bypass (or cable "—" part inlet and outlet wiring diagram (08 scheme as an example)

Ordering instructions

- △ Users must provide the following information when placing an order;
- △ Primary line number and primary system diagram, and indicate its rated current.
- △ Secondary line schematic diagram.
- △ High-voltage cabinet layout diagram.
- △ If the option uses a non-standard primary solution, please raise it when placing an order and negotiate a solution.
- △ The busbar specification is proposed by the orderer. If it is not proposed, the busbar in the cabinet will be made according to our factory's standard aluminum busbar.
- △ Switch cabinet paint color.



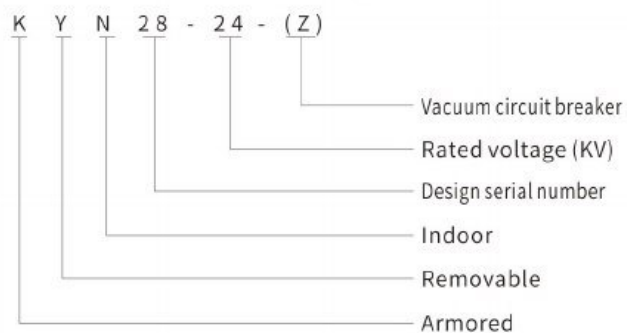
KYN28-24 armored removable AC metal closed switchgear

Product overview

KYN28-24 can be installed with removable AC metal-enclosed switchgear (hereinafter referred to as "switchgear"), suitable for three-phase AC 50Hz power system. Used to receive and distribute electrical energy and control, protect and monitor circuits.

This product complies with the standards: GB3908-2006 "3.6-40.5KV AC metal-enclosed switchgear and control equipment", GB/T11022 "Common technical requirements for high-voltage switchgear and control equipment standards", IEC62271:200 "AC metal-enclosed switchgear and control equipment with rated voltage above 1kV and below 52", DL/T404 "Technical conditions for ordering indoor AC high-voltage switchgear".

Model and meaning



Environmental conditions for use

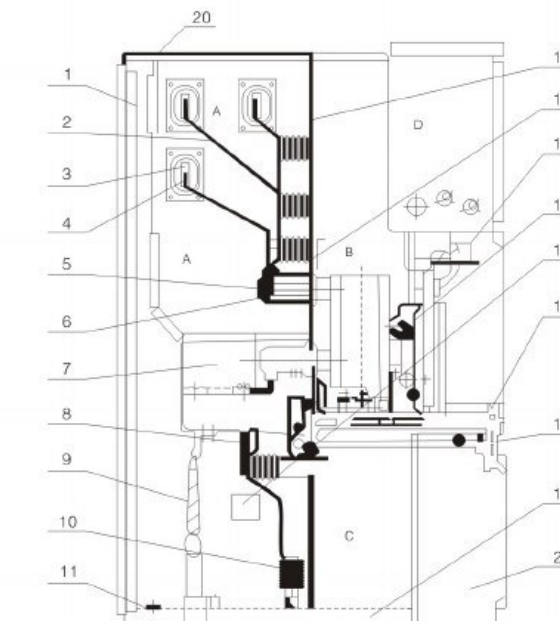
- △ Ambient air temperature: maximum temperature 40°C, minimum temperature -15°C;
- △ Relative humidity: daily average value not more than 95%, daily average water vapor pressure not more than 22Kpa; monthly average value not more than 90%, monthly average water vapor pressure not more than 1.8Kpa;
- △ Altitude: 1000m and below;
- △ Earthquake intensity: not more than 8 degrees;
- △ Ambient air should not be obviously polluted by corrosive or flammable gases, water vapor, etc.;
- △ No frequent severe vibration places;
- △ When used under normal environmental conditions specified in G83906. Negotiated by the user and the manufacturer.

KYN28-24 armored removable AC metal closed switchgear

Technical parameters

Item	Unit	Data
Rated voltage	kV	24
Rated frequency	Hz	50
Rated current of circuit breaker	A	630、1250、1600、2000、2500、3150、4000
Rated current of switchgear	A	630、1250、1600、2000、2500、3150、4000
Rated dynamic stability current (4s)	kA	16、20、25、31.5、40、50
Rated stability current (peak value)	kA	40、50、63、80、100、125
Rated short-circuit breaking current	kA	16、20、25、31.5、40、50
Rated short-circuit closing current (peak value)	kA	40、50、63、80、100、125
Rated insulation level	1min power frequency withstand voltage	Between poles, pole to ground
		Between breaks
	Lightning impulse withstand voltage (peak value)	Between poles, pole to ground, and break
		Between breaks
Protection level		Housing IP4X, isolation room, circuit breaker room door open IP2X

Note: The short-circuit capacity of the current transformer is considered separately.



- A. Busbar room
- B. Circuit breaker trolley room
- C. Cable room
- D. Relay instrument room
- 1. Housing
- 2. Branch busbar
- 3. Busbar bushing
- 4. Main busbar
- 5. Stationary contact
- 6. Stationary contact box
- 7. Current transformer
- 8. Grounding switch
- 9. Cable
- 10. Lightning arrester
- 11. Grounding main busbar
- 12. Removable partition
- 13. Partition (valve)
- 14. Secondary plug
- 15. Circuit breaker trolley
- 16. Heating device
- 17. Removable horizontal partition
- 18. Earthing switch operating mechanism
- 19. Bottom plate
- 20. Pressure relief device
- 21. Control wire trough

Ordering instructions

- △ Main circuit diagram number, purpose and single-line system diagram, rated voltage, rated current, rated short-circuit breaking current, distribution room layout and switchgear arrangement and configuration diagram, etc.
- △ Requirements for switchgear control, measurement and protection functions and other requirements for locking and automatic devices.
- △ Model, specification and quantity of main electrical components in switchgear.
- △ If busbar bridge connection is required between switchgears or incoming line cabinets, provide specific requirements such as rated current carrying capacity of busbar bridge, span of busbar bridge, height from ground, etc.
- △ When switchgear is used in special environmental conditions, detailed instructions should be given when ordering.
- △ Other special requirements.

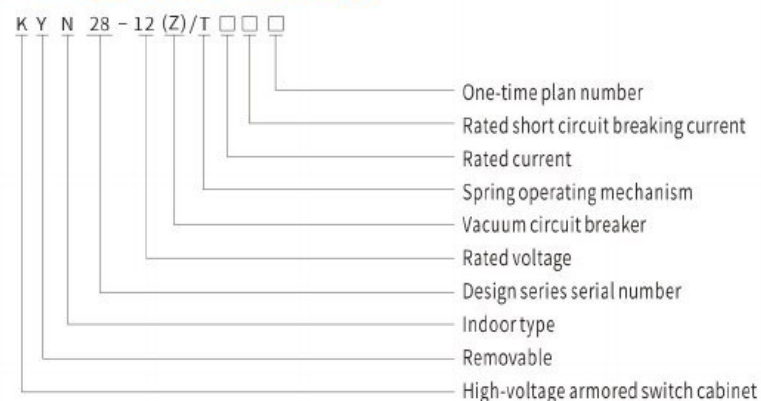


KYN28-12 armored removable AC metal closed switchgear

►► Product overview

KYN28-12 armored removable metal closed switch equipment is suitable for 3.6-12kV three-phase AC 50Hz power grid, as the purpose of receiving and distributing electrical energy, and controlling, monitoring and protecting the circuit. Can be used in single bus, single bus segmentation systems or dual bus systems. Switching equipment complies with the requirements of IEC298 "AC Metal Closed Switch Equipment and Control Equipment with Rated Voltage of 1KV or above 52KV or below", IEC694 "Classification of High Voltage Switch and Control Equipment", my country GB3906-2006 "3.6kV~40.5KV AC Metal Closed Switch Equipment and Control Equipment", Germany DIN.VDE0670 "AC Metal Closed Switch Equipment with Rated Voltage of 1KV or below" and other standards. And it has complete and reliable anti-miss operation functions.

►► Model and Meaning



►► Environmental conditions

- △ Ambient air temperature: upper limit +40°C, lower limit -10°C;
- △ Relative temperature: the daily average is not greater than 95%, and the monthly average is not greater than 90%;
- △ Altitude: no more than 1000m;
- △ The earthquake intensity shall not exceed 8 degrees;
- △ No fire, explosion hazard, serious filth, chemical corrosion and violent vibration. When the usage conditions exceed the above range, the user should negotiate with our company to determine the allowable scope and technical measures.

KYN28-12 armored removable AC metal closed switchgear

►► Technical parameters

project	unit	data					
Rated voltage	kV	3	6	7.2	12		
Rated frequency	Hz	50					
Circuit breaker rated current	A	630	1250	1600	2000	2500	3150
Switch cabinet rated current	A	630	1250	1600	2000	2500	3150
Rated short-term withstand current (4S)	kA	16	20	25	31.5	40	50
Rated peak withstand current (peak value)	kA	40	50	63	80	100	125
Rated short circuit breaking current	kA	16	20	25	31.6	40	50
Rated short circuit closing current (peak value)	kA	40	50	63	80	100	125
Rated insulation level	1min power frequency withstand voltage	kV	24	32	42		
	Lightning impact withstand voltage	kV	40	60	75		
Protection level	The housing is IP4X, isolation room, circuit breaker room door is IP2X when it is opened						

►► Switch cabinet size

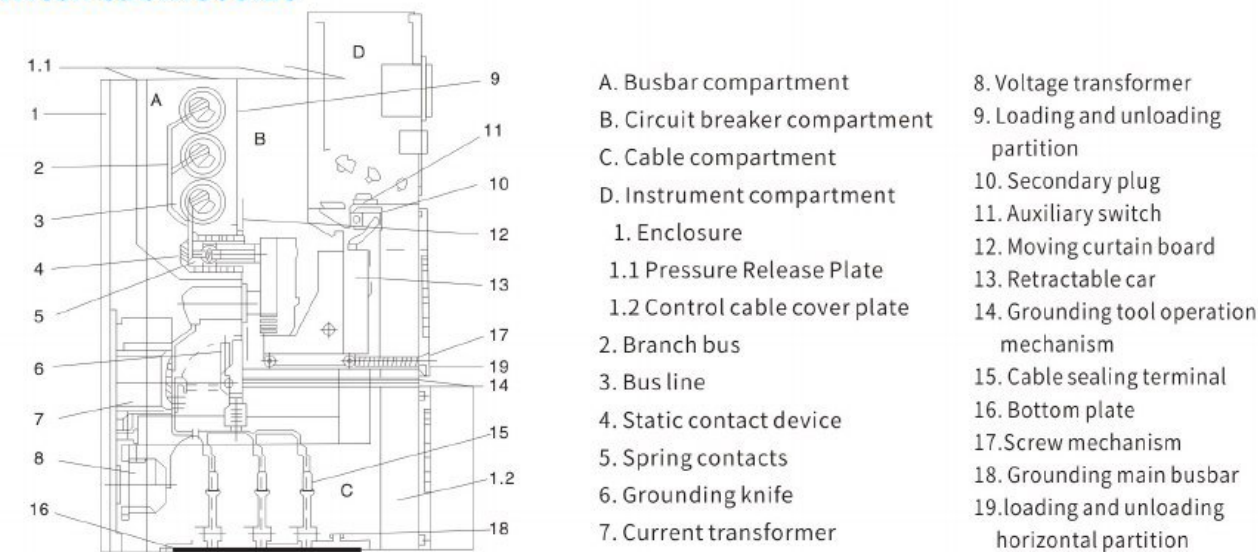


Figure 1: Basic structure diagram of KYN28-12 feeder switch cabinet

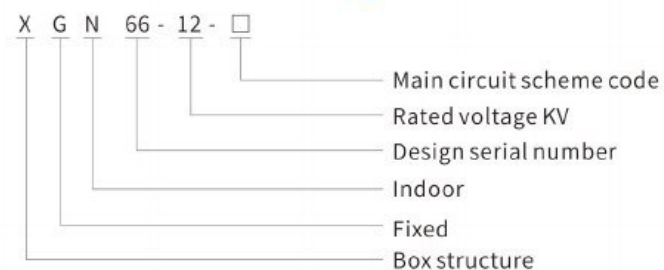
►► Ordering instructions

- The following technical information should be provided when ordering:.
- △ The main circuit scheme diagram number, purpose and main junction system diagram, distribution room floor layout diagram and arrangement configuration diagram, etc.
 - △ Requirements for the control, measurement and protection functions of switch equipment and requirements for other locking and swinging devices.
 - △ The models, specifications and quantity of main electrical components in the switching equipment.
 - △ If the busbar bridge is required between switching equipment or the inlet cabinet, the rated current carrying capacity of the busbar bridge, the span of the busbar bridge, the height from the ground, etc. should be provided.
 - △ When using switch equipment under special environmental conditions, it should be explained in detail during ordering. , should be explained in detail when ordering.
 - △ Other special requirements.



Product overview

►► Model and meaning



- △ Ambient temperature: maximum +40°C, minimum -15°C;
- △ Altitude: not more than 1000m;
- △ Relative temperature: daily average not more than 95%, monthly average not more than 90%;
- △ Earthquake intensity not more than 8 degrees;
- △ No fire, explosion hazard, severe pollution, chemical corrosion and severe vibration.

Serial number	project	Unit	Technical parameters
1	Rated voltage	KV	3.6、7.2、 12
2	Rated current	A	630、 1250
3	Rated short-circuit breaking current	KA	20、 25、 31.5
4	Rated short-circuit closing current	KA	50、 63、 80
5	Rated short-time withstand current (4s effective value)	KA	20、 25、 31.5
6	Rated peak withstand current (peak value)	KA	50、 63、 80
7	1min power frequency withstand voltage	KV	42
8	Lightning impulse withstand voltage	KV	75
9	Secondary circuit 1min power frequency withstand voltage	KV	2
10	Protection level		IP3X
11	Dimensions (width x depth x height)	mm	900x1000x2200

Technical drawings of the VS1 Fixed Switchgear showing dimensions and internal components.

Left Drawing (Front View): Shows the front view of the switchgear with a height of 2300 mm and a width of 1000 mm (excluding front and rear doors). The internal components, including the main busbar, circuit breaker, and isolator, are visible. The label "VS1(Fixed)" is present.

Middle Drawing (Side View): Shows the side view of the switchgear with a height of 2300 mm and a width of 900 mm. The internal components are visible from the side. The label "VS1(Fixed)" is present.

Right Drawing (Front View): Shows the front view of the switchgear with a height of 2200 mm and a width of 1000 mm. The internal components are visible. The label "VS1(Fixed)" is present.

Bottom Drawing (Base Frame Installation Diagram): Shows the base frame installation diagram with dimensions: 4x12x30, D-260, W-60, and 30. The label "Base frame installation diagram" is present.

Rightmost Drawing (Side View): Shows the side view of the switchgear with a height of 2200 mm and a width of 1000 mm. The internal components are visible. The label "Side view" is present. The drawing also shows the cable trench and the 10# Channel steel.

- △ Primary wiring scheme diagram and primary wiring scheme arrangement diagram.
- △ Secondary circuit schematic diagram, wiring diagram, terminal wiring diagram.
- △ Primary and secondary equipment list.
- △ Switch cabinet layout diagram and busbar bridge installation location.
- △ Please consult with our company for spare parts and special use conditions of equipment.



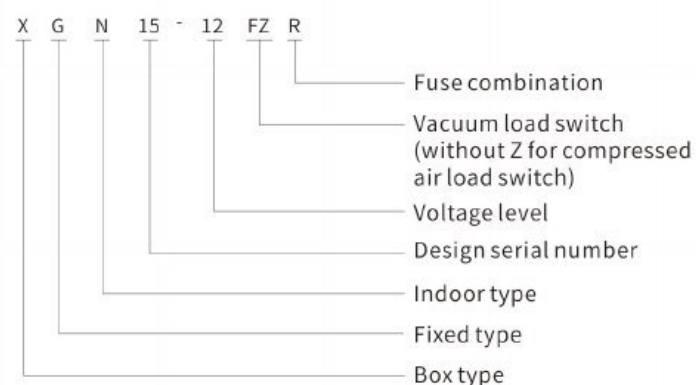
XGN15-12 AC metal closed ring loop switchgear

Product overview

XGN15-12 box-type fixed metal enclosed ring network switchgear (referred to as ring network cabinet) is suitable for AC 50HZ, 12KV power system. Widely used in industrial and civil cable ring networks and power supply terminals.

Especially suitable for small secondary substations, switchgear, urban residential power distribution, industrial and mining enterprises, shopping malls, airports, subways, wind power generation, hospitals, stadiums, railways and other places.

Model and meaning



Environmental conditions for use

- △ Altitude: $\leq 1000\text{m}$ (if there are special requirements, please indicate when ordering. Currently, there are 6 groups operating at an altitude of 5200m).
- △ Ambient temperature: $-35^{\circ}\text{C}+45^{\circ}\text{C}$, maximum daily average temperature difference $\leq 25^{\circ}\text{C}$.
- △ Daily relative humidity does not exceed 95% on average, and monthly average relative humidity does not exceed 90%.
- △ Seismic resistance: 8 degrees.
- △ Severe vibration and impact, and no fire, chemical corrosion, or explosion hazards.

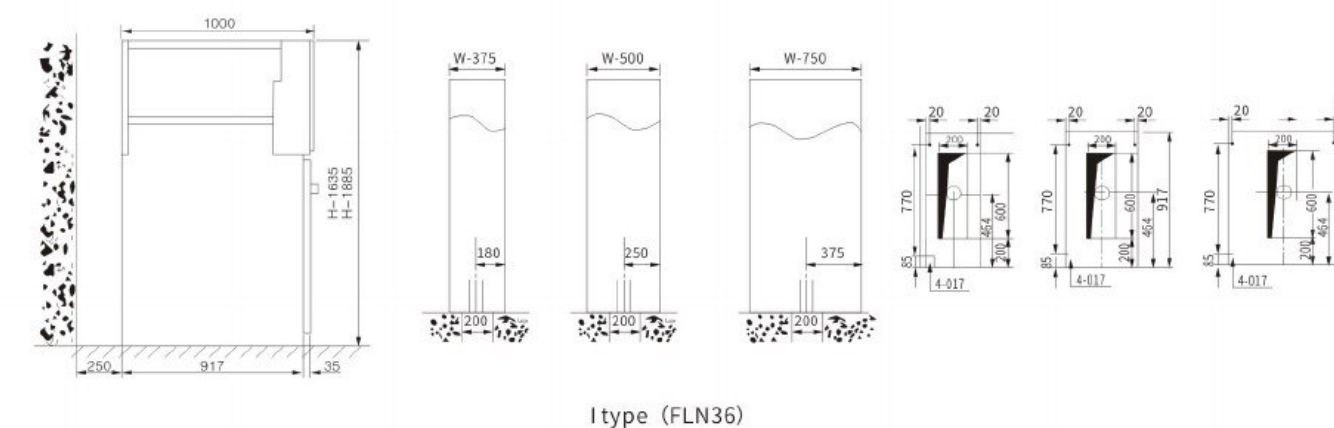
XGN15-12 AC metal closed ring loop switchgear

Technical parameters

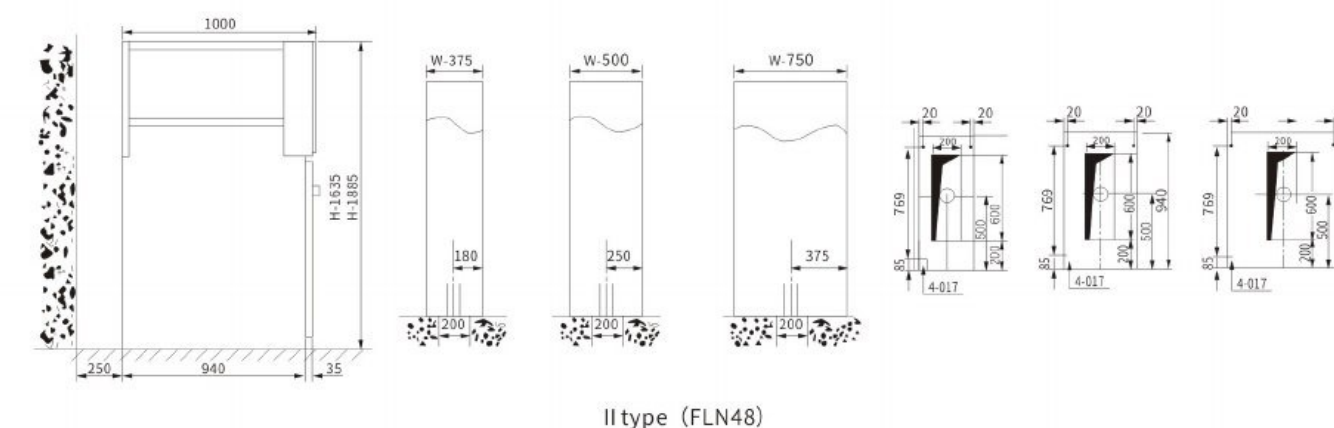
Serial number	Name	Unit	Parameters
1	Rated voltage	kw	12
2	Rated frequency	Hz	50
3	Rated current of main bus	A	630
4	Rated short-time withstand current/duration of main circuit and grounding circuit	KA/s	20/3.20/20
5	Rated peak withstand current of main circuit and grounding circuit	kA	50
6	Rated short-circuit closing current of main circuit and grounding circuit	KA	50
7	Number of load switch breaking times at full capacity	Time	100
8	Fuse breaking current	KA	31.5、40、50
9	Mechanical life	次	2000
10	1min power frequency withstand voltage (effective value) time, to ground/isolating break	KV	42/48
11	Lightning impulse withstand voltage (peak value) phase-to-phase, to ground/isolating break	KV	75/85
12	1min power frequency withstand voltage of secondary circuit	KV	2

Overall dimensions and basic installation dimensions

XGN15-12 I overall installation dimensions



XGN15-12 II overall installation dimensions





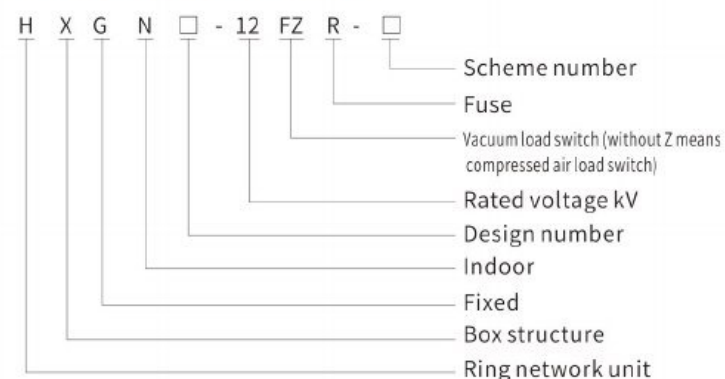
HXGN17-12 box type fixed metal closed ring loop switchgear

Product overview

HXGN17-12 box-type fixed metal-enclosed switchgear (referred to as ring main unit), a complete set of AC high-voltage equipment with a rated voltage of 12kV and a rated frequency of 50Hz, is mainly used for three-phase AC ring network, terminal distribution network and industrial power equipment, and plays the role of receiving, distributing electric energy and protection. This ring main unit has strong completeness and small size, and has no fire and explosion hazards. It is also suitable for installation in box-type substations.

It complies with GB3906 "3.6~40.5 AC metal-enclosed switchgear and control equipment" and the requirements of the international standard IEC298 "AC metal-enclosed switchgear and control equipment". It also has the "five-protection" interlocking function.

Model and meaning



Environmental conditions for use

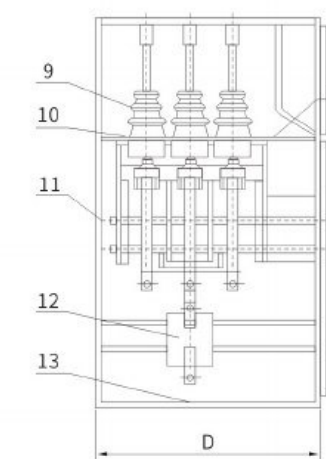
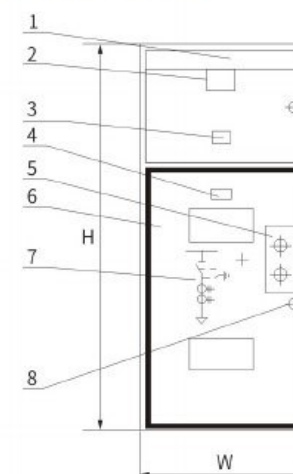
- △ Ambient temperature upper limit +40°C, lower limit -25°C;
- △ Altitude not more than 1000m;
- △ Daily average relative temperature not more than 95%, monthly average not more than 90%;
- △ Places without fire, explosion hazard and severe vibration;
- △ Ambient air has no obvious pollution such as corrosive or flammable gas, water vapor and conductive dust.

HXGN17-12 box type fixed metal closed ring loop switchgear

Technical parameters

Serial number	Name	Unit	FN12-12	FZN25-12
1	Rated voltage		12	
2	1min power frequency withstand voltage	kV	42 to ground and phase-to-phase; 48 to isolation break	
3	Lightning impulse voltage (peak value)		75 to ground and phase-to-phase; 85 to isolation break	
4	Rated frequency	Hz	50	
5	Rated current	A	630	
6	Electric life under rated current	time	100	
7	No-load transformer breaking capacity	KVA	Not less than 1250	
8	Rated thermal stability current	kA/S	20/4; Earthing switch20/2	
9	Rated dynamic stability current (peak value)	kA	50	
10	Rated short-circuit closing current (peak value)		50	
11	Fuse rated current	A	125	
12	Rated transfer current	A	870	
13	Rated short-circuit breaking current	kA	20	
14	Matched fuse model		S□LAJ-12	
15	Mechanical life	time	2000	10000
16	Auxiliary circuit 1min power frequency withstand voltage	kV	2	
17	Electric operating mechanism working voltage	V	AC/DC 220; 110	
18	Protection level		IP2X	

Dimensions



- Instrument door
- Instrument
- DXN display
- Nameplate
- Operating mechanism
- Lower door
- Analog board
- Door lock
- Load switch
- Middle partition
- Frame
- Current transformer
- Cable bracket
- Relay room

Cabinet width(W)	Cabinet depth(A)	Cabinet height(H)
600	900	2000
650	900	2000
700	900	2000
800	900	2000

Ordering instructions

The following technical information should be provided when ordering:

- △ Main wiring scheme number, purpose and single-line system diagram, rated voltage, rated current, rated short-circuit breaking current, distribution room layout diagram and switch cabinet arrangement and configuration diagram, etc.;
- △ Requirements for switch cabinet control, measurement and protection functions and requirements and schematic diagrams of other locking and automatic devices;
- △ Models, specifications and quantities of main electrical components in the switch cabinet;
- △ When the switch cabinet is used in special environmental conditions, detailed instructions should be given when ordering;
- △ Other special requirements must be detailed in writing and negotiated before ordering.



TBBZ series high-voltage reactive power automatic compensation device

▶▶ Product overview

The TBBZ series high-voltage reactive power automatic compensation device automatically tracks and compensates for reactive power based on the grid and load conditions of the 6kV and 10kV power supply busbars, by controlling the automatic switching of the capacitor bank in the system. The power factor reaches 0.9 or above. Greatly optimize power quality, save losses and reduce consumption, and improve the transmission capacity of the power transmission and distribution system.

►► Model and meaning

TBB Z □-□ () □□□

— Endnote 1.2.3

- Number of groups and capacity of each group (G is a fixed compensation)

— Compensation capacity (kvar)

— Rated working voltage (kV)

- Group automatic switching

- Parallel capacitor compensation complete set device

TBBZ series high-voltage reactive power automatic compensation device

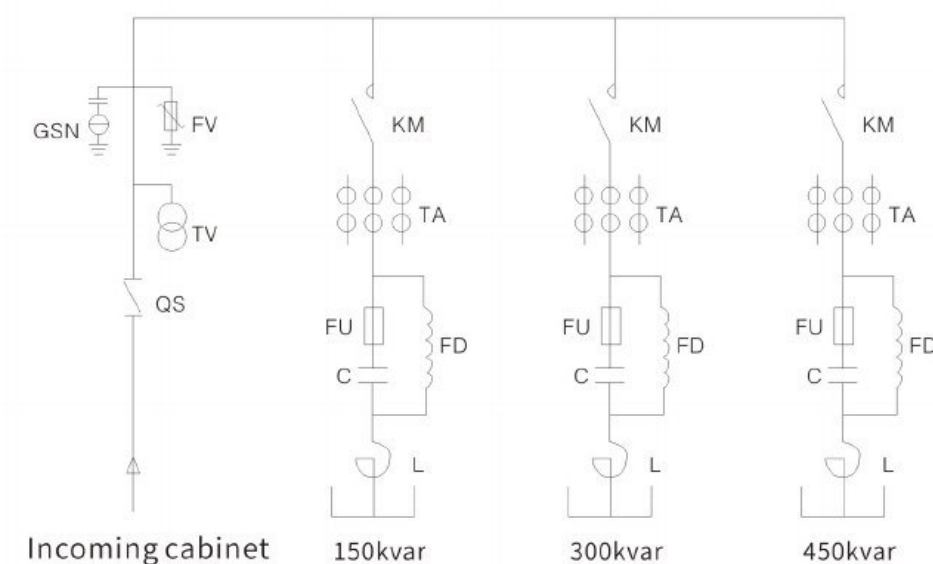
►► Environmental conditions for use

- △ Altitude: not exceeding 1000m;
- △ Environmental temperature:- 25~+55°C;
- △ Relative humidity: not exceeding 85%;
- △ Explosive media are not allowed in the operating area, and the surrounding media should not contain corrosive or insulating gases or conductive media. It is not allowed to be filled with water vapor or have serious mold presence.

►► Technical Parameter

- △ A single capacitor is equipped with spray type fuse protection, and each group is equipped with lightning arrester for over voltage protection during operation and lightning strike;
- △ Large screen LCD display controller, real-time display of system voltage, current, and power factor; Equipped with RS232/RS485 standard communication interface and capable of achieving "Four remote control functions:" functions:
- △ Each group can be configured with a reactor to suppress closing inrush current or harmonic amplification.
- △ Rated voltage: 6-10kV;
- △ Rated frequency: 50Hz;
- △ Rated capacity: 100-10000kvar;
- △ Number of groups: 1-5 groups;
- △ Selection of reactor parameters: suppress closing inrush current, with a reactance rate of 0.1-1%; Suppress more than 5 harmonics with a reactance rate of 6%; Suppress more than 3 harmonics with a reactance rate of 12%.

Electrical wiring diagram



►► Ordering instructions

- △Please specify any special requirements for compensation capacity and grouping for the full range of product models;
△Do you need a microcomputer monitoring device, indoor or outdoor type;
△When a reactor is needed, the harmonic situation should be provided, mainly the order of the lowest harmonic.

SRM-12 series of fully insulated pneumatic ring network switchgear

Product overview

The SRM-12 fully insulated inflatable ring network switchgear independently developed by our company has passed the type test of the National High Voltage Electrical Testing Center. The product is widely used in 10kV/6kV distribution systems and is the preferred switch product for various urban and rural users' power transformation and distribution systems.

The switchgear adopts a modular unit mode, which can be combined according to different purposes; There are two main types of fixed unit combinations and expandable units, which meet the flexible use needs of various substations for compact switchgear.

The SRM-12 fully insulated inflatable ring network switchgear is a completely sealed system, with its charged components and switches enclosed within a stainless steel body. The entire switch device is not affected by external environmental conditions, ensuring operational reliability and personal safety. And it has achieved maintenance free operation. By selecting expandable busbars, any combination can be achieved to achieve full modularity. The expansion of busbar safety insulation and shielding ensures reliability and safety. The SRM-12 fully insulated inflatable ring network switchgear can also provide TV based automation solutions, forming the concept of intelligent switches and minimizing on-site installation and commissioning workload.

SRM-12 fully insulated inflatable ring network switchgear is divided into non expandable standard configuration and expandable standard configuration. Due to its combination of full and half modules and self scalability, it has extremely special flexibility.

SRM-12 fully insulated inflatable ring network switchgear complies with GB standards. The design life span for operation under indoor conditions (20 °C) exceeds 30 years.

Technical Parameter

Model		C module	F module	V module		CB module	
		Load switch	Gis	Vacuum Switch	Isolation/grounding switch	Circuit breaker vacuum break	Isolation/grounding switch
Rated voltage	kV	12	12	12	12	12	12
Rated frequency	Hz	50	50	50	50	50	50
Power frequency withstand voltage (phase to phase/port)	kV	42/48	42/48	42/48	42/48	42/48	42/48
Lightning impulse withstand voltage	kV	75/85	75/85	75/85	75/85	75/85	75/85
Rated current	A	630	Note1)	630		1250/630	
Rated closed loop breaking current	A	630					
Rated current charging interruption current	A	135/135					
Rated short-circuit closing current (peak)	A	50	80				
Rated peak withstand current	kA	50					
Rated short-time withstand current	kA/3s	20					
Rated short circuit breaking current	kA		31.5	20		25	
Rated transfer current	A		1750				
Maximum current of equipped fuse	A	-	125				
Loop resistance	μΩ	≤300	≤600				
Mechanical life span Number of times	time	5000	3000	5000	2000	5000	5000

Note: 1) It depends on the rated current of the fuse.





GTXGN-12
solid insulated ring network switchgear

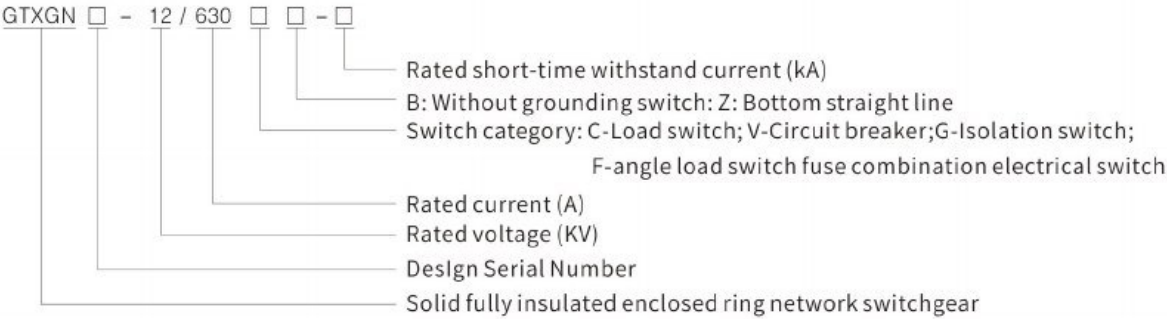
Product overview

The GTXGN-12 series solid insulated enclosed ring network switchgear is a type of solid insulated vacuum switchgear that is fully insulated, fully sealed, and maintenance free. All high-voltage live parts are cast with epoxy resin material with excellent insulation performance, organically combining the vacuum arc extinguishing chamber, main electrical circuit, insulation support, etc. into a whole, and the functional units are connected through fully insulated solid busbar. Therefore, the entire switchgear is not affected by the external environment, ensuring the reliability of equipment operation and the safety of operators.

This ring main unit has the characteristics of simple structure, flexible operation, reliable interconnection, and easy installation. It is suitable for 50Hz, 12 kV power systems and widely used in industrial and civil cable ring networks and distribution network terminal projects. It is used for the reception and distribution of electrical energy, especially for urban residential distribution, small substations, switch stations, cable branch boxes, box type substations, industrial and mining enterprises, shopping malls, airports, subways, wind power generation, hospitals, sports stadiums, railways, tunnels and other places.

Due to its advantages of full insulation, full sealing, and full shielding, this product is particularly suitable for use in harsh environments such as high altitude, high temperature, humid heat, severe cold, and severe pollution.

Model and meaning



GTXGN-12 solid insulated ring network switchgear

Environmental conditions for use

- △ Environmental temperature: -45°C~+45°C
- △ Humidity: Maximum average relative humidity, daily average ≤ 95%, monthly average ≤ 90%
- △ Altitude: ≤ 4000 meters
- △ Seismic resistance: 8 degrees
- △ Protection level: IP67 for live body sealing, IP67 for fuses, IP3X for switchgear enclosure

Technical Parameter

Project			Unit	Data	
Rated voltage			KV	12	
Rated frequency			Hz	50	
Rated current			A	630	1250
Rated insulation level	Power frequency withstand voltage	Fracture surface	KV	48	
		Alternate with	KV	42	
		Relatively	KV	42	
	Lightning impulse withstand voltage	Fracture surface	KV	85+	
		Alternate with	KV	75	
		Relatively	KV	75	
Rated short-circuit breaking current (1s)			KA	25	31.5
Rated short-time withstand current (4s)			KA	25	31.5
Rated peak withstand current (1p)			KA	63	80
Rated short-circuit closing current (peak) (1ma)			KA	63	80
Degrees of protection provided by enclosure				IP4X	
Operating mode				Spring energy storage type	

External dimensions

Model	Width (mm)	Depth (mm)	Height (mm)
Circuit breaker cabinet (V cabinet)	400	887	1450
Load switch cabinet (C cabinet)	400	887	1450
Fuse combination cabinet (F cabinet)	500	887	1450
Measurement cabinet (M cabinet)	750	887	1450
Lift cabinet, direct connection cabinet (D cabinet)	400	887	1450
Voltage Transformer Cabinet (PT Cabinet)	400	887	1450
Load switch lifting cabinet (SL cabinet)	800	887	1450
Circuit breaker lifting cabinet (SV cabinet)	800	887	1450



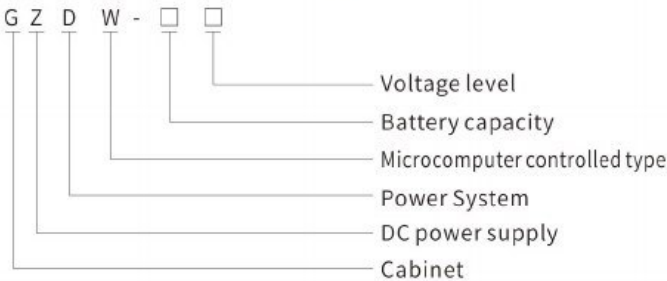
GZDW
series DC power supply cabinet

Product overview

The GZDW series (microcomputer controlled DC power cabinet) is used in large, medium, and small power plants and substations as a DC power supply for high-voltage switch opening and closing, relay protection, automatic control, emergency lighting, lighting, and audio signals under normal operation and accident conditions. It can also be applied to DC power supplies required in industries such as metallurgy, railway, mining, petrochemicals, postal and telecommunications, medical and health, banks, hotels, high-rise buildings, and computer networks. The microcomputer controlled DC power cabinet can be used as a DC power supply for unmanned, remote centralized monitoring power plants, substations, and other industries.

This product complies with the standard JB/T5777.4-2000 "General Technical Conditions and Safety Requirements for DC Power Supply Equipment in Power Systems".

Model and meaning



Environmental conditions for use

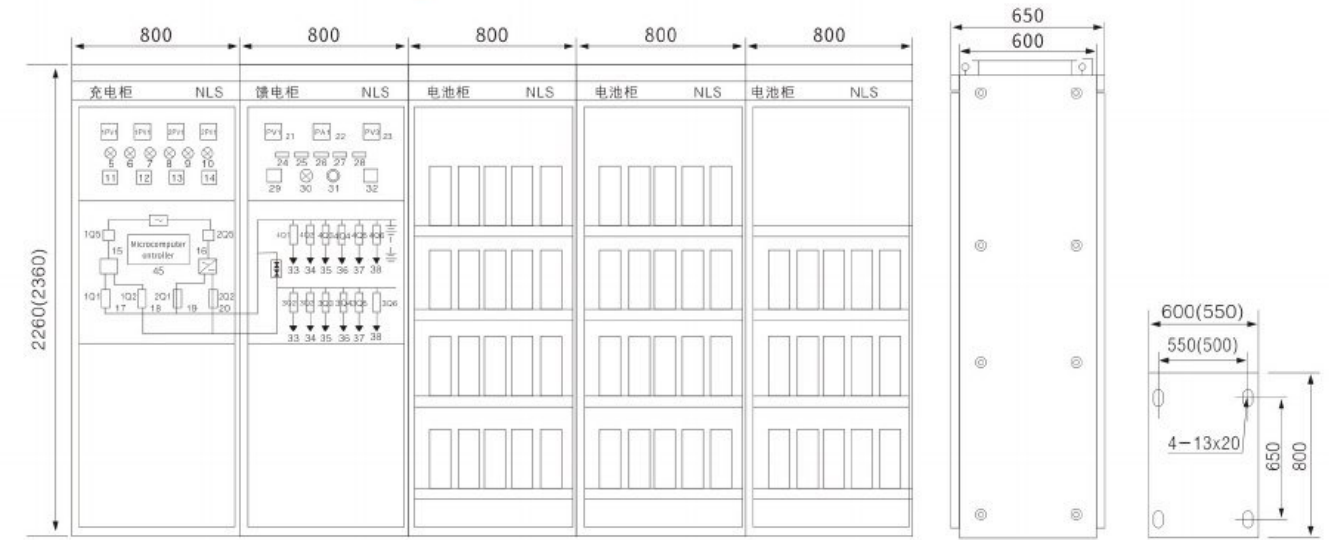
- △ Altitude: not exceeding 2000m.
 - △ Environmental temperature:- 5 °C ~+40 °C.
 - △ Relative humidity: not greater than 90% (at 20 ± 5 °C)
- Note: Special conditions can be resolved through negotiation with our company.

GZDW series DC power supply cabinet

Technical Parameter

Serial Number	Project	Unit	Parameter
1	Input power supply voltage	V,Hz	Three phase AC 380 ± 10%, 50Hz ± 5%
2	Rated output DC voltage	V	24、48、110、220
3	Rated output DC current	A	5、8、10、15、20、30、40、50、80、100、150、200、250、300、350、400
4	Rated capacity of battery	Hh	10、20、38、40、50、60、65、80、100、150、200、250、300、400、500、600、800、1000
5	Output DC current regulation range		of rated value
6	Voltage stabilization accuracy		<±0.5%
7	Stabilized current precision		<±0.5%
8	Ripple factor		<0.1%
9	Machine noise	db	<55
10	Main transformer temperature rise	°C	<70
11	Way of working		Continuous work
12	Efficiency		>90%
13	Protection grade		IP20~IP30

Outline dimension diagram



GZDW235-300.260M DC power cabinet screen layout and installation legend (screen layout according to user's actual needs)

Ordering instructions

- Please provide the following information:
- △ Product model and specifications
 - △ Product technical parameters;
 - △ Main electrical appliances and system configuration;
 - △ The external dimensions and color of the screen (cabinet) body;
 - △ Order quantity;
 - △ Standard configuration of relevant technical agreements.



MNS low voltage extraction type switchgear

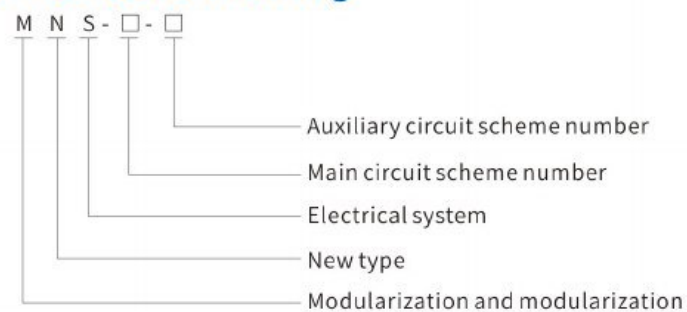
Product overview

The MNS low-voltage with drawable switchgear (hereinafter referred to as the switchgear) is one of the most advanced low-voltage with drawable switchgear equipment in China recently. This product is standardized. The integrated series consists of modules, and the bottom is equipped with reliable mechanical interlocking devices, making it safer and more reliable for users to use.

This switchgear is suitable for three-phase five wire power supply systems with AC 50 (60) Hz, rated working voltage 400V.660V, rated current 5000A and below. It can be used in power plants, substations, industrial and mining enterprises, buildings, hotels, airports, docks, and communication centers such as broadcasting and television to control power generation, transmission and distribution, energy conversion, and energy consumption equipment. The main busbar is compensated for reactive power through a capacitor compensation cabinet.

Compliant with national standards: GB7251.1 "Low voltage switchgear" IEC60439 "Low voltage switchgear and control equipment"

Model and meaning



MNS low voltage extraction type switchgear

Environmental conditions for use

- △ The ambient air temperature is not higher than +40 °C, not lower than -5 °C, and its average temperature within 24 hours is not higher than +35 °C;
- △ Atmospheric conditions: The air is clean, and the relative humidity does not exceed 50% at a maximum temperature of +40 °C. Higher relative humidity is allowed at lower temperatures, such as 90% at +20 °C, but temperature changes should be taken into account as condensation may occur accidentally;
- △ Altitude not exceeding 2000m;
- △ This device is suitable for transportation and storage at temperatures ranging from -25 °C to +5.5 °C. Within a short period of time (not exceeding 24 hours), the device should not suffer any irreparable damage at these extreme temperatures and should be able to function normally under the above conditions;
- △ If the above usage conditions cannot be met, they should be resolved through negotiation between the user and the manufacturer;
- △ When this device is used on offshore oil drilling platforms and nuclear power plants, a separate technical agreement should be signed.

Technical Parameter

Rated insulation voltage	660V
Rated operational voltage	380V, 660V
Maximum operating current of the main busbar	5000A
Rated withstand current of main busbar	100kA
Rated peak withstand current of main busbar	220kA
Maximum operating current of distribution busbar (vertical busbar)	1000A
Peak current of distribution busbar (vertical busbar)	80kA
Standard type	105kA (maximum value)
Enhanced	176kA (maximum value)

External dimensions

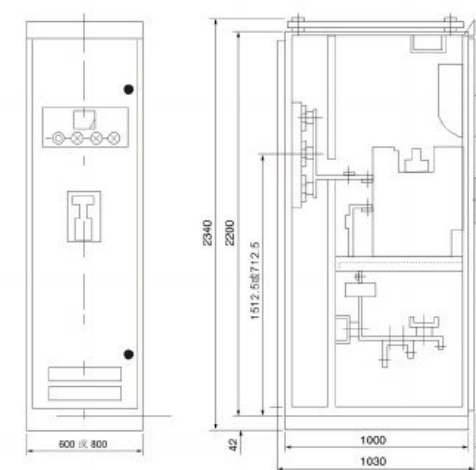


Figure 3PC cabinet

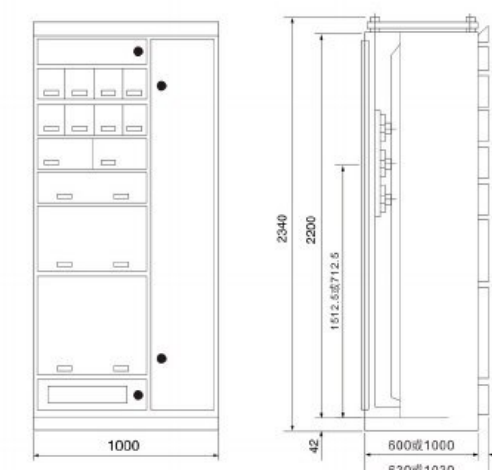


Figure 4 Pull out MCC Cabinet

Ordering instructions

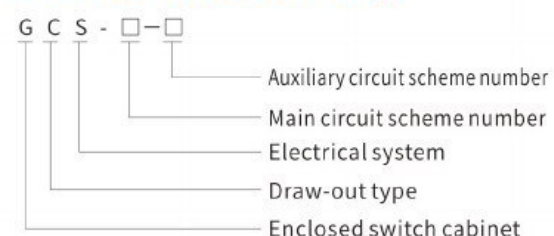
- △ Users should provide the following information
 1. Single line system diagram of the main circuit scheme.
 2. Schematic diagram or wiring diagram.
 3. Provide detailed specifications and quantities of the electrical equipment installed in each cabinet, and fill out the order specification form.
 4. Arrangement and combination of switchgear, layout plan.

GCS low voltage extraction type switchgear

Product overview

GCS device is suitable for power distribution system in power plants, petroleum, chemical industry, metallurgy, textile, high-rise buildings and other industries. It is used as a low-voltage complete distribution device for power distribution, motor centralized control and reactive power compensation in power generation and supply systems with three-phase AC frequency of 50 (60) Hz, rated working voltage of 3B0V (400V), (660V), rated current of 4000A and below in large power plants, petrochemical systems and other places with high automation and computer interface.

Model and meaning



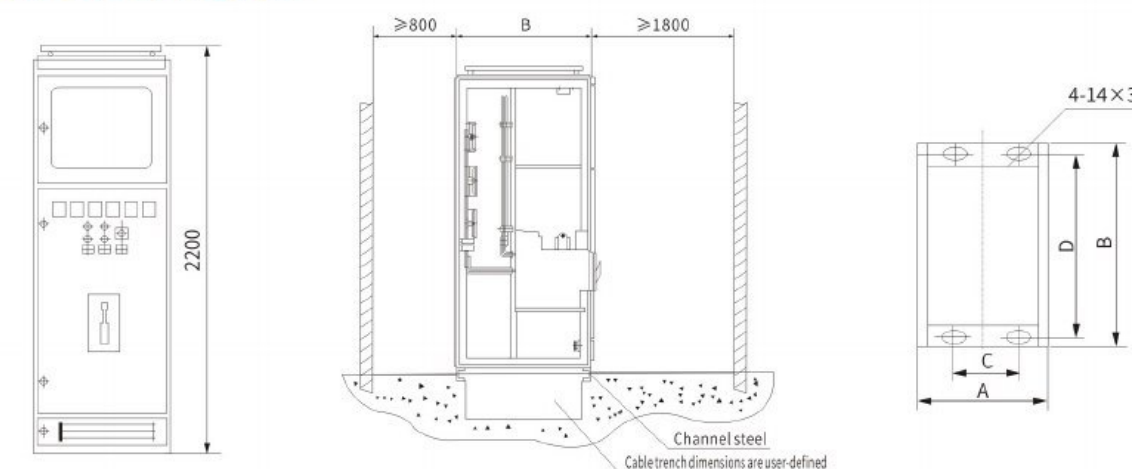
Environmental conditions for use

- △ The ambient air temperature should not be higher than +40°C and lower than -5°C. The average temperature within 24 hours should not be +35°C. If it exceeds this limit, the system should be operated at reduced capacity according to the actual situation.
- △ For indoor use, the altitude of the place of use shall not exceed 2000m.
- △ The relative humidity of the surrounding air shall not exceed 50% when the maximum temperature is +40°C. A higher relative humidity is allowed at lower temperatures, such as 90% at +20°C. The influence of condensation due to temperature changes should be taken into account.
- △ The device should be installed with a slope of no more than 50° from the vertical plane, and the entire cabinet array should be relatively flat (in compliance with GBJ232-B2 standard).
- △ The device should be installed in a place without severe vibration and impact and where the electrical components are not subject to corrosion.

Technical Parameters

Technical Parameters Main circuit rated voltage (V)		A C380(400). (660)
Auxiliary circuit rated voltage (V)		A C220. 380(400) DC 110. 220
Rated frequency (Hz)		50(60)
Rated insulation voltage (V):		660(1000)
Rated current (A)	Horizontal busbar	≤ 4000
	Vertical busbar (MCC)	1000
Busbar rated short-time withstand current (kA/1s)		50,80
Busbar rated peak withstand current (kA/0.1s)		105, 176
Power frequency test voltage (V/1min)	Main circuit	2500
	Auxiliary circuit	1760
Busbar	Three-phase four-wire system	A.B.C.PEN
	Three-phase five-wire system	A.B.C.PE.N
Protection level		IP30,IP40

Installation Diagram



General cabinet code	A	B	C	D	notes
GCS-TG1010-4	1000	1000	850	956	Tie-cabinet
GCS-TG0810-4	800	1000	650	956	Incoming cabinet
GCS-TG0808-4	800	800	650	756	Incoming cabinet
GCS-TG0608-4	600	800	450	756	Incoming cabinet

Ordering instructions

The ordering contract includes the following:

1. The full model of the product including the main circuit scheme number and the auxiliary circuit scheme number
2. The main circuit system combination sequence diagram
3. The auxiliary circuit electrical schematic diagram
4. The list of components in the cabinet
5. The setting parameters such as voltage, current, time, etc. in the circuit
6. Other special requirements that are inconsistent with the normal use of the product

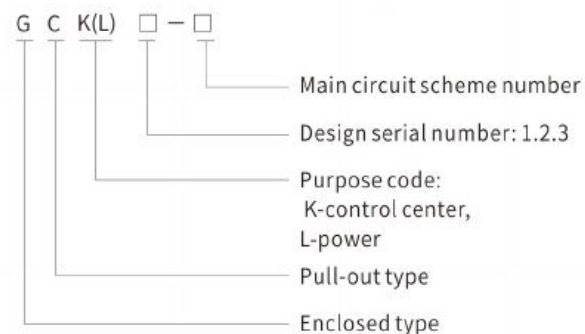


GCK low voltage extraction type switchgear

►► Product overview

GCK low voltage withdrawable switchgear consists of two parts: power distribution center (PC) cabinet and motor control center (MCC). It is suitable for power users such as power plants, substations, industrial and mining enterprises as a distribution system with AC 50Hz, maximum working voltage up to 660V, and maximum working current up to 3150A. It is used for power distribution, motor control, lighting and other distribution equipment for power conversion and distribution control.

►► Model and meaning



►► Environmental conditions for use

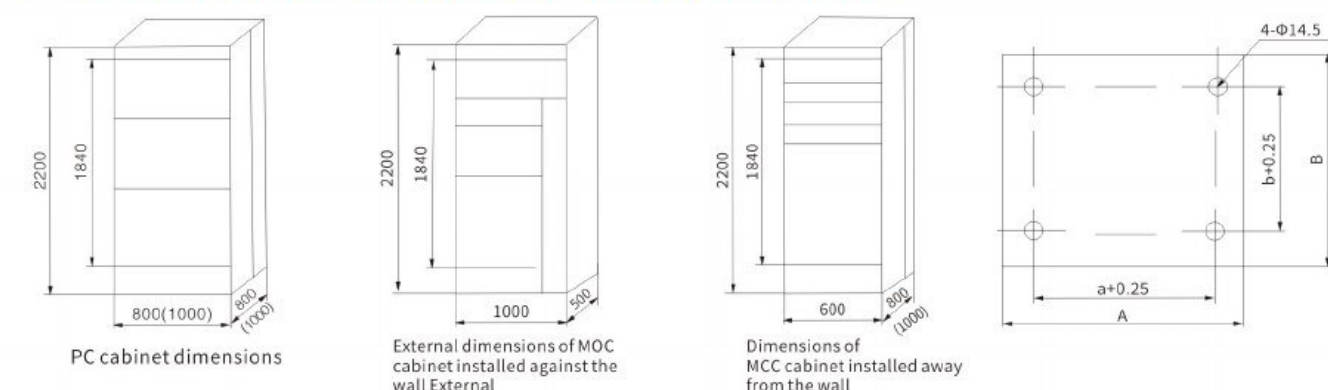
- △ Altitude shall not exceed 2000m.
- △ Ambient air temperature shall not exceed +40°C, and the average temperature within 24h shall not exceed +35°C, and the ambient air temperature shall not be lower than -50°C.
- △ Atmospheric conditions: clean air, relative humidity shall not exceed 50% at +40°C, and higher relative humidity is allowed at lower temperatures, such as 90% at +20°C.
- △ Places without fire, explosion hazard, serious pollution, chemical corrosion and severe vibration.
- △ The inclination with the vertical plane shall not exceed 5°.
- △ This product is suitable for transportation and storage at the following temperatures: -25°C~+55°C, and shall not exceed +70°C in a short time (not exceeding 24h).
- △ If the above conditions of use cannot be met, the user shall propose it to the manufacturer when placing an order and negotiate a solution.

GCK low voltage extraction type switchgear

►► Technical Parameters

Rated operating frequency (Hz)		50
Rated operating voltage (V)		380, 660
Rated insulation voltage (V)		660
Rated operating current (A)	Horizontal busbar	630-3150
	Vertical busbar	600
Rated short-time withstand current	Horizontal busbar	80kA (effective value)/1s
	Vertical busbar	50kA (effective value)/1s
Rated peak withstand current	Horizontal busbar	176kA/0.1s
	Vertical busbar	110kA/0.1s
Main circuit connector (A)		200, 400
Auxiliary circuit connector (A)		10
Power frequency withstand voltage 1 minute (V)		2500
Protection level		IP40
Operation mode		Local, remote, automatic

►► Product appearance and installation dimensions



Installation dimensions and installation holes

Cabinet width	Cabinet depth	Mounting hole distance (a)	Mounting hole distance (b)
800	500	685	385
600	800	485	685
600	1000	485	885
800	800	685	685
800	1000	685	885
1000	800	885	685
1000	1000	885	885

►► Ordering instructions

- △ Users should provide the following information when placing an order;
- △ Primary circuit scheme number, equipment model, capacity and single-line system diagram;
- △ Secondary circuit schematic diagram If the user does not provide the requirements, the manufacturer will provide it according to the standard;
- △ Switch cabinet arrangement diagram and distribution room layout diagram;
- △ If the main busbar specifications are not provided, the manufacturer will provide them according to the standard;
- △ Switch cabinet surface color (the manufacturer's standard color is: light bean color);
- △ If the user has other requirements, they can negotiate with our factory to resolve them.



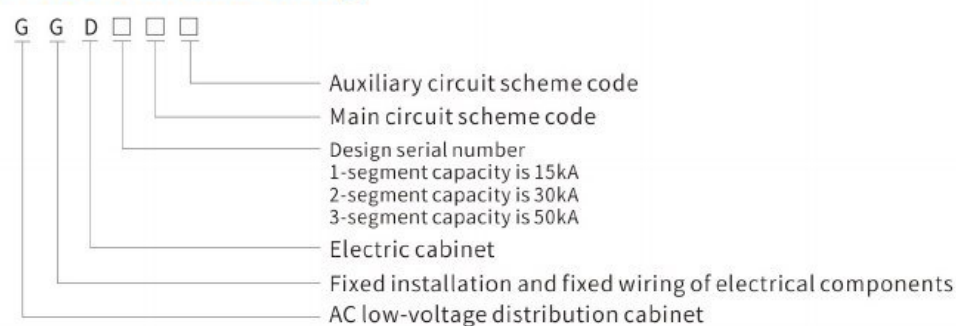
GGD AC low voltage switchgear

Product overview

GGD AC low-voltage distribution cabinet is suitable for power plants, substations, factories and mines and other power users with AC 50Hz, rated working voltage 380V, and rated working current up to 3150A. It is used for power conversion, distribution and control of power, lighting and distribution equipment. GGD AC low-voltage distribution cabinet is a new type of low-voltage distribution cabinet designed according to the requirements of the superiors of the Ministry of Energy, the majority of power users and the design department, based on the principles of safety, economy, rationality and reliability. The product has the characteristics of high breaking capacity, good dynamic thermal stability, flexible power scheme, convenient combination, strong series and practicality, novel structure, and high protection level. It can be used as a replacement product for low-voltage complete switchgear.

GGD type AC low voltage distribution cabinet complies with IEC439 "Complete switchgear and control equipment" and GB7251 "Low voltage complete equipment" and other standards.

Model and meaning



GGD AC low voltage switchgear

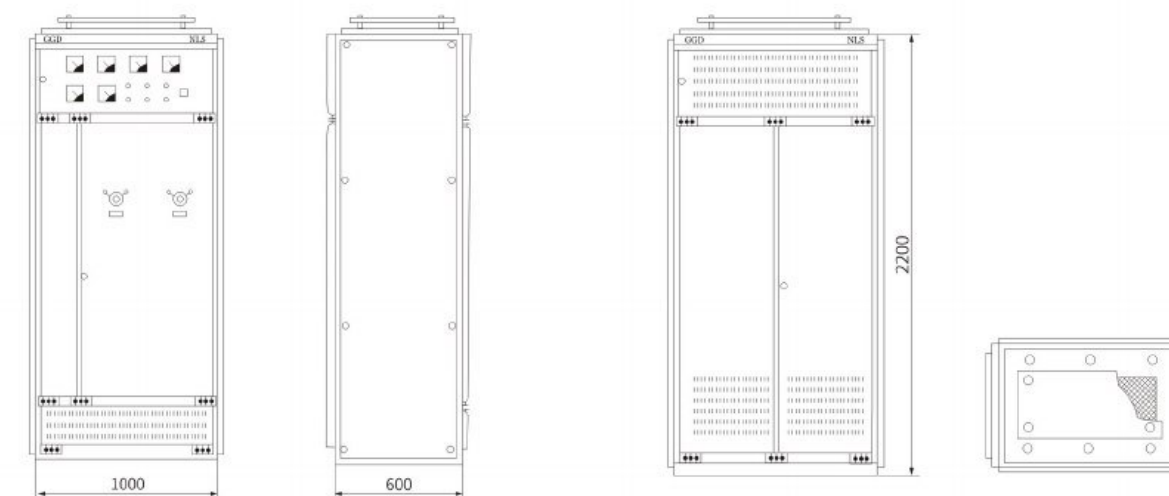
Environmental conditions for use

- △ The ambient air temperature is not higher than +40°C and not lower than -5°C. The average temperature within 24 hours shall not be higher than +35°C.
- △ For indoor installation and use, the altitude of the use location shall not exceed 2000m
- △ The relative humidity of the ambient air shall not exceed 50% at the highest temperature of +40°C, and a higher relative humidity is allowed at lower temperatures. (For example, 90% at +20°C) The influence of condensation that may occur occasionally due to temperature changes should be taken into account.
- △ The inclination of the equipment from the vertical plane shall not exceed 5% when it is installed.
- △ When the equipment is installed, it shall be installed in a place without severe vibration and impact, and in a place where the electrical components are not corroded.
- △ If the user has special requirements, it can be negotiated with the manufacturer to solve

Technical parameters

Model	Rated voltage (V)	Rated current (A)	Rated short-circuit breaking current (kA)	Rated short-circuit breaking current (kA)	Rated peak withstand current (kA)
GGD1	380	A 1000	15	15	30
		B 600(630)			
		C 400			
GGD2	380	A 1500(1600)	30	30	63
		B 1000			
		C 600			
GGD3	380	A 3150	50	50	105
		B 2500			
		C 2000			

Dimensions



Ordering instructions

- △ When placing an order, the user should provide the following information:
 1. Full model of the product (including the main circuit scheme number and the auxiliary circuit scheme number)
 2. Main circuit system combination sequence diagram
 3. Auxiliary circuit electrical schematic diagram
 4. List of components in the cabinet
 5. Other special requirements that do not conform to the normal use conditions of the product

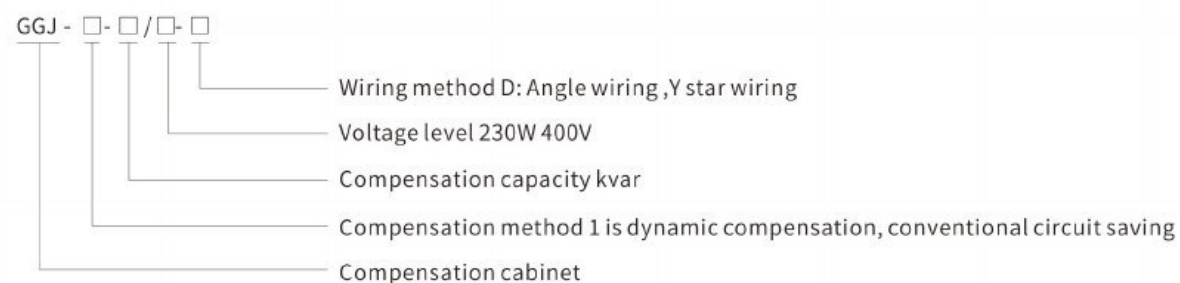


GGJ low voltage reactive intelligent compensation device

►► Product overview

GGJ low voltage reactive power intelligent compensation device adopts computer aided design (CAD), introduces microcomputer control, and implements intelligent tracking compensation for reactive power. It has a reasonable structure, advanced technology, and is widely used in low voltage power grids to improve power factor, reduce reactive power loss, and improve power supply quality. It is a new power saving product. It is specially used for reactive power compensation of three-phase transformers with a capacity of 130-630KVA.

►► Model and meaning



GGJ low voltage reactive intelligent compensation device

►► Structural features

- △ Adopt intelligent controller control, complete functions, reliable performance, automatic compensation mode; can increase the power factor to above 0.9.
- △ Real-time display of power factor of power grid, display range: lagging (0.00-0.99), leading (0.00-0.99).
- △ With multiple comprehensive protection functions such as overvoltage, over-harmonic, over-compensation, system failure, phase loss, overload, etc.
- △ Memory of set parameters, the system will not lose parameters after power outage, and automatically enter the operating state after the power grid returns to normal, without the need for personnel on duty.
- △ According to the load balance state of the power grid, phase compensation or mixed compensation can be adopted.
- △ Strong anti-interference ability, can resist the 2000V interference pulse directly input from the power grid, which is higher than the national professional standard.

►► Environmental conditions for use

- △ Altitude: $\leq 2000\text{m}$.
- △ Ambient temperature: $-20^{\circ}\text{C} \sim +45^{\circ}\text{C}$.
- △ Relative humidity: $\leq 90\%$ at 20°C .
- △ Installation environment: no harmful gases and steam, no conductive or explosive dust particles and severe mold.

►► Main technical parameters

- △ Rated voltage: 0.38-0.66KV.
- △ Rated frequency: 50Hz.
- △ Rated capacity: 1-600kvar.
- △ Applicable voltage range: (0.85-1.1) times rated voltage.
- △ Maximum allowable current: 1.3 times rated current.
- △ Control circuit: 1-16 circuits.
- △ Switching time: 1-150s/time, adjustable.
- △ Working mode: automatic, continuous operation.

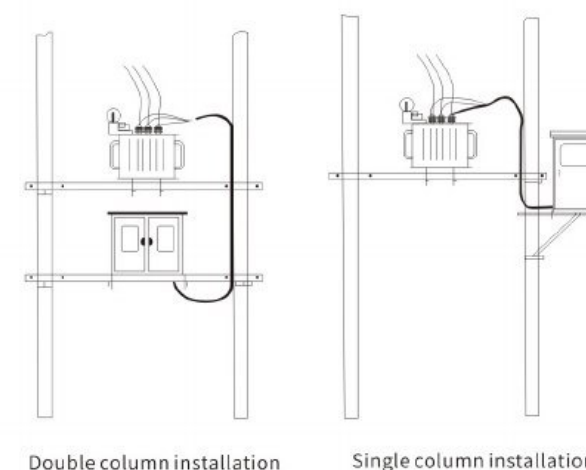
►► Distribution network monitoring function

Real-time measurement and hourly recording of three-phase voltage, current, frequency, active power, reactive power, power factor, active electricity, reactive electricity on the low-voltage side of the transformer; total voltage and current distortion rate and 2-25 harmonic total amount.

With RS-232 and RS-485 interfaces, data can be recorded on a handheld computer, and wireless meter reading, device testing, parameter setting and real-time measurement data and recorded data can be realized through remote communication functions.

Data analysis function: can analyze and process the operating load data, statistically query; comprehensively analyze the power supply quality, calculate the voltage qualification rate, power supply load rate, reliability rate and maximum load rate; query the power factor, active power and reactive power in different time periods; draw curves of each phase voltage, current, power factor, etc.; print comprehensive analysis and statistical reports.

►► Outdoor pole installation method (below)



Double column installation

Single column installation

►► Ordering instructions

1. Determine the rated capacity of the transformer, the rated voltage of the secondary side, and the transformation ratio of the secondary current transformer.
2. Determine the reactive load status and the natural power factor of the power receiving system, the total working current and fluctuation range of the compensated system and equipment; whether the load characteristics are impact load, fluctuating load or conventional steady-state load.
3. Device model, type, and total amount.
4. The device is an outdoor box type, and the materials used are ordinary steel/stainless steel and the color of the box.
5. The device is an indoor cabinet type, and the color of the device; if it needs to be combined with other distribution cabinets, the model and combination method of other distribution cabinets must be stated.
6. Outdoor pole installation, single pole installation or double pole installation.

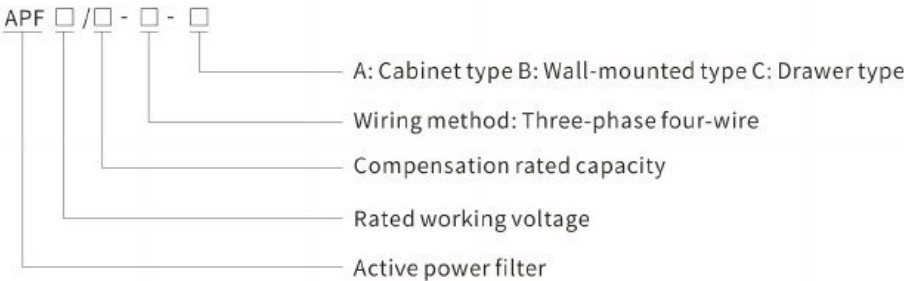


APF
active power filter

Product overview

APF series low voltage active filter is the latest generation of all-digital harmonic elimination equipment independently developed and launched by our company. Compared with traditional technologies, it has special advantages, such as faster, smaller, more powerful, easy to install, simple to debug and easy to maintain. These advantages make it easy to solve power quality problems. In addition to dynamic compensation of harmonics, this product can also perform reactive power compensation, solve power quality problems such as voltage fluctuations and flicker, and this series of products adopts the most advanced control technology to achieve fully automated control, making it the preferred equipment for eliminating harmonics.

Model and meaning

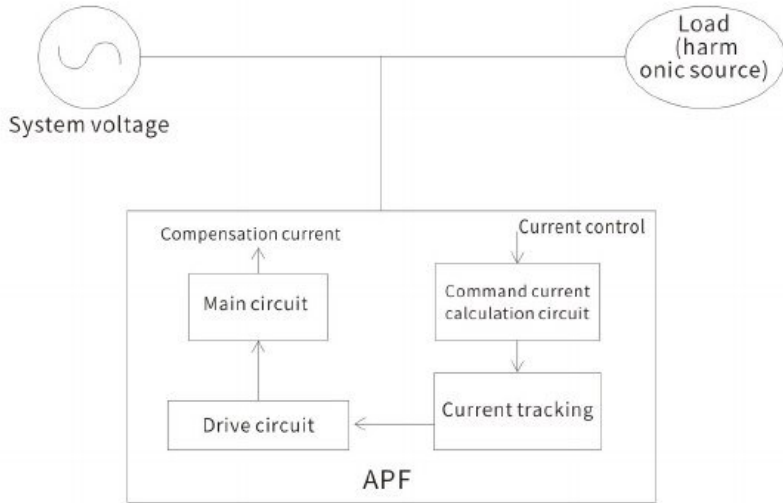


APF active power filter

Working principle

APF uses power electronics technology, and the main components of the equipment include: controller. Air flow device, DC support capacitor, connection reactor, etc. The control system of APF includes DSP+FPGA, command current operation circuit and current tracking control circuit to realize parameter setting, control command acquisition and other

The principle of APF equipment is shown in the figure; APF detects the load current through the current transformer, and extracts the harmonic components in the load current through internal DSP calculation, and then sends the PWM signal to the internal GBT control inverter to generate a harmonic current equal to the load harmonic current and opposite in direction to inject into the power grid to achieve the purpose of filtering.



Technical Parameters

Wiring method	Three-phase four-wire
Working voltage	380V±20%
Working frequency	50Hz/60Hz
Dynamic full response time	Open loop ≤5ms Closed loop ≤10ms
Function	Harmonic control, reactive power compensation, reactive power and spectrum wave
Loss	<3%
Filtrate range	2-51 times
Filtering effect	Filtration rate>90%
Protection type	Short circuit, undervoltage, overload, phase loss, overvoltage, overhumidity, overcurrent protection
Protection level	IP30, other IP levels can be customized
Cooling method	Forced air cooling
Working environment temperature	- 25°C~+40°C
Working environment humidity	≤90%RH without condensation
Storage environment temperature	- 40°C~+65°C
Altitude	≤2000m, derating by 1%/100m if exceeded
Installation environment	Indoor installation, without fire, explosion, chemical corrosion, conductive dust and away from vibration
Communication mode	Photoelectric communication
Installation method	Wall-mounted, draw-out, cabinet
Compensation current size	30-1200A

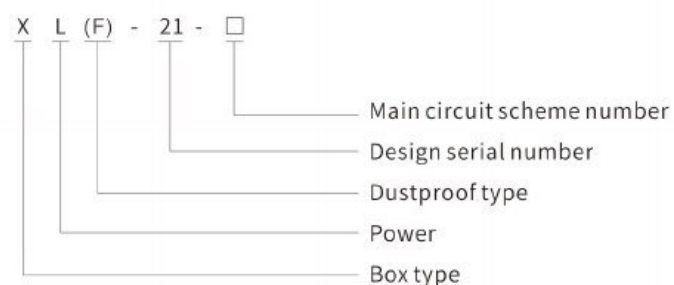


XL-21 type low voltage power distribution cabinet

Product overview

XL-21 power cabinet is widely used in power plants and industrial and mining enterprises. It is used for power or lighting distribution in three-phase three-wire, three-phase four-wire, three-phase five-wire and other distribution systems with three-phase AC below 500V. It is installed against the wall indoors, operated and repaired in front of the screen; the box body is a fully enclosed structure, assembled from C profiles or 8MF profiles. The box uses a new type of rotary load isolation switch, which can be operated with load. The front door is equipped with voltage and current indicator instruments, signal lights, buttons, transfer switches and other main command components. This distribution box uses self-designed new components, compact structure, beautiful shape, easy maintenance, and a variety of wiring schemes for users to choose.

Model and meaning



XL-21 type low voltage power distribution cabinet

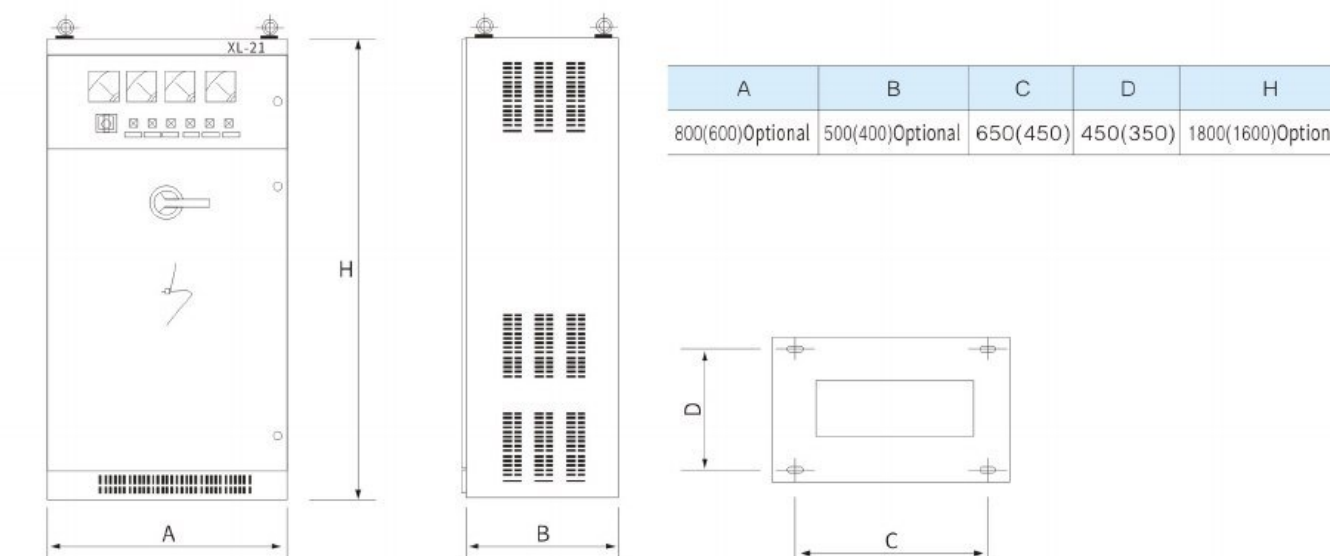
Conditions of Use

- △ Ambient humidity: -5°C~+40°C, and the average temperature within 24h does not exceed +35°C.
 - △ Altitude: not more than 2000m.
 - △ Relative humidity: not more than 50% when the ambient air temperature is +40°C; higher relative humidity can be achieved at lower temperatures (such as: 90% at +20°C), and moderate condensation is allowed considering the temperature change.
 - △ The inclination of the equipment from the vertical plane should not exceed 5° when installed.
 - △ The equipment should be installed in a place without severe vibration, impact and corrosion.
- Note: If the above conditions are exceeded, please negotiate with our company.

Technical Parameters

Name	Unit	Data
Main circuit rated voltage	V	AC:380
Auxiliary circuit rated voltage	V	AC:220,380
Rated frequency	HZ	50
Rated insulation voltage	V	630
Rated current	A	≤800A

Box shape and installation dimensions



XL-21 power cabinet appearance and installation dimensions

Ordering instructions

- △ All product models (including main circuit scheme number and auxiliary circuit scheme number).
- △ Main circuit system diagram, cabinet plan arrangement diagram.
- △ Auxiliary circuit electrical schematic diagram.
- △ List of components in the cabinet (main bus specifications)
- △ Cabinet color, (if no requirements, light camel gray will be supplied) box size.
- △ Other special requirements that do not meet the normal use conditions of the product.

►► Features of modular intelligent prefabricated cabins

- △ Provide fully modularized assembly solutions for substations, reducing floor space by 30% and shortening system design, installation and commissioning cycles by 70%;
- △ Adopt all-metal prefabricated cabins and configure intelligent environmental control systems, which can be applied to complex climate and geographical environments such as high temperature, high humidity, and dust;
- △ Support e Cloud energy cloud platform access, provide remote health diagnosis, fault analysis, maintenance guidance and other functions, and realize unmanned substations and full life cycle management of equipment;
- △ Reliable operation and quality assurance.

►► Application areas

- △ Boosting stations in new energy fields such as wind power, photovoltaic power, offshore wind power, and distributed photovoltaic power
- △ Power grid 10kV~40.5kV substation
- △ Large scale industrial and mining enterprises' self use substations

►► Technical parameters

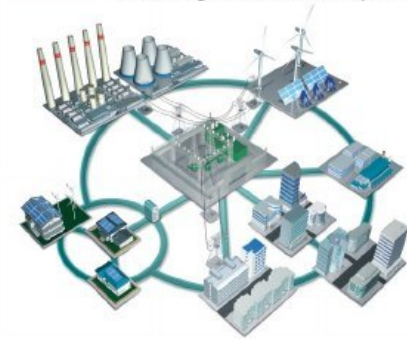
Project	Conventional outdoor substation	Prefabricated cabin substation
Area	About 3,000 square meters	About 2,000 square meters
Construction period	About 3~4 months	The whole station is pre-installed as a whole, all equipment is prefabricated in the factory and can be installed on site, with a short construction period of 1-2 months
Cable usage	Equipment is dispersed, primary and secondary cables are used in large quantities	Equipment debugging is integrated, electrical distance is shortened, and about 30% of cables can be saved
Environmental requirements	High environmental requirements, harsh environments such as wind, sand, condensation, etc. are very harmful to the equipment	Adopting a full metal cabin design, IP54 protection level, equipped with a complete HVAC system, it can prevent wind, sand, condensation, and improve the feasibility of the equipment
Construction and management costs	Many buildings, high construction costs; equipment provided by different manufacturers, high coordination and management costs	Assembled design, no buildings at the entire site, low construction costs; all equipment is provided by the company, and all installation and adjustment work is responsible, low management costs
Operation and maintenance costs	Open design is greatly affected by the environment, and the operation and maintenance costs are high	Closed design is basically not affected by external conditions such as the environment, and the operation and maintenance costs are low

10kV~40.5kV series
modular intelligent precast cabinet

►► Features

- Specialized in intelligent storage**
Automotive temperature control/electronic control solutions, cloud-terminal intelligent battery management algorithms
- Friendly and flexible**
Supports parallel system and can be expanded to MW level
- Intelligent and efficient**
Built-in EMS function to improve energy efficiency management; new IGBT module, high-efficiency conversion

- Feasible and stable**
Supports multiple battery inputs to improve battery cycle life; high-frequency switching, low current ripple and high voltage quality
- Rich configuration**
Integrated with a variety of boost systems; Can integrate ventilation system





BWG photovoltaic grid connected cabinet

Product overview

BWG photovoltaic grid-connected cabinet is an important part of the centralized inverter and step-up transformer or AC combiner box and step-up transformer. The incoming line of this photovoltaic grid-connected cabinet adopts circuit breaker input or direct input, the output adopts circuit breaker or load isolation switch, the busbar adopts electroplated or purified busbar connection, and provides secondary lightning protection. The system rated voltage is up to AC690V, the protection level is IP40 indoors and IP65 outdoors; the secondary measurement and control cable is a cable greater than 2.5mm for current, a cable greater than 1.5mm for voltage, and a cable greater than 1.0mm for control. The measuring current transformer is a current transformer of level 0.5, and the metering transformer is a current transformer of level 0.25. Related functions can also be added according to customer requirements. This product adopts professional electrical design and component selection, making the internal structure of the cabinet safe, simple, beautiful, convenient for on-site wiring and maintenance, and ensuring long-term stable operation of the equipment.

Features

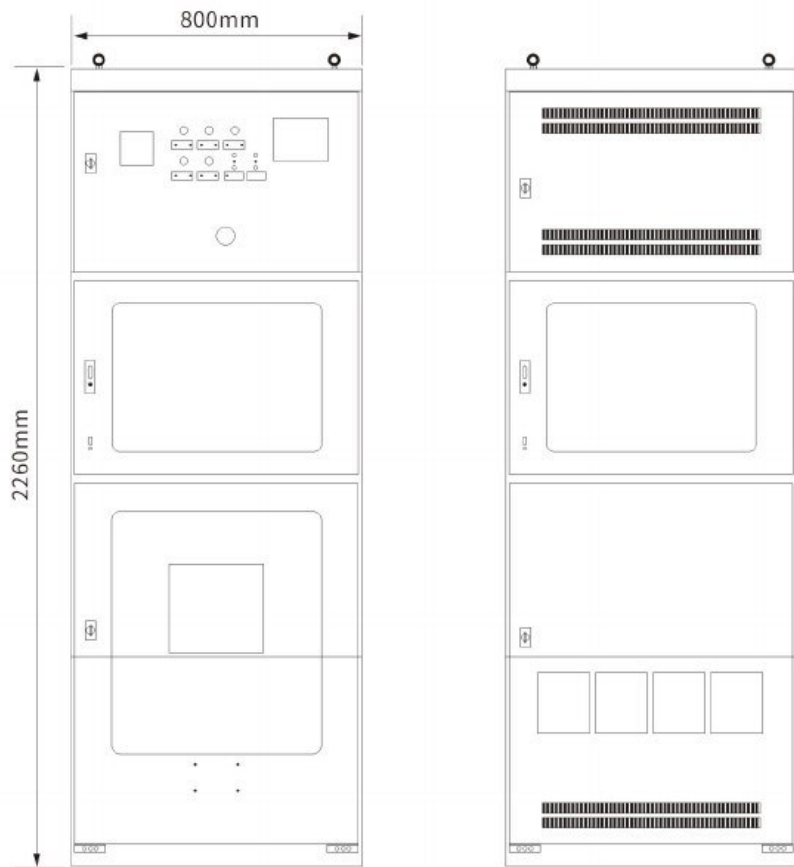
- △Both fixed installation design and plug-in design can be adopted;
- △Functional units are formed by circuit breakers and components of Feng Company or well-known brands at home and abroad, which have excellent technical performance, safety and reliability;
- △Various standard unit modules can be composed separately for customers to assemble at will;
- △The isolation between regions and the mutual isolation between the incoming and outgoing lines of functional units are adopted to effectively enhance the safety protection performance;
- △Combined assembly structure, all structural parts of the frame are firmly connected with screws, the frame, door and panel are electrostatically sprayed after phosphating, and all non-sprayed parts are galvanized and passivated. It can meet the requirements of various components and can meet different working environments to achieve the corresponding protection level;
- △The frame is made of high-quality steel plate, and the frame can be equipped with a hole with a modulus of 25mm, which can be expanded for various purposes. There are two ways of incoming lines: upper and lower side incoming lines;
- △High breaking capacity, good dynamic thermal stability, flexible and convenient electrical scheme combination, strong practicality, and the main parameters reach the international advanced level;
- △Light weight, high mechanical strength and assembly precision, and beautiful appearance.

BWG photovoltaic grid connected cabinet

Technical Parameters

Product Model	BWG
Maximum input voltage	690VAC
Rated frequency	50Hz
Maximum rated current	3150A
Measurement data	Three-phase current, three-phase voltage, active power, apparent power, power factor, frequency, power
Communication method/protocol	RS485 bus/standard MODBUS-RTU protocol
Temperature and humidity	Working temperature: -40~+85C humidity 95%, no condensation, no corrosive gas
Altitude	≤4000m
Box material	Hot-dip galvanized steel plate/stainless steel/cold-rolled steel plate
Protection level	IP40
Volume (width x height x depth)	2260mm X 800mm X 600mm
Installation method	Floor-standing type

Dimensions



5-8kW single-phase
photovoltaic well grid box

10-100kW three-phase
photovoltaic grid-connected box



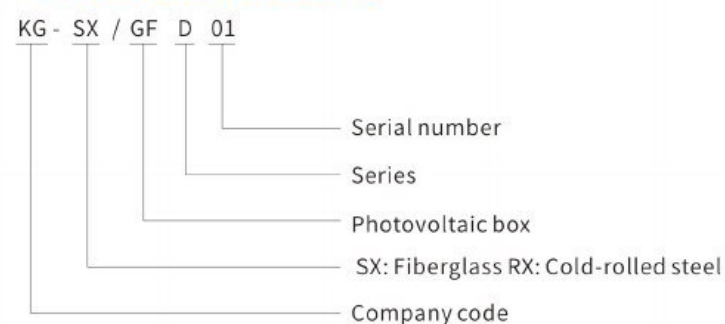
KG-SX/GFD01 photovoltaic grid connected box

►► Product overview

Photovoltaic grid-connected boxes are used for photovoltaic power stations built near user sites. The operation mode is that the user side generates electricity for self-use and the excess electricity is connected to the grid. In order to maximize the protection of system safe operation, ensure the safe coordination between the inverter and the mains power grid, and improve system reliability and power metering, photovoltaic grid-connected distribution boxes are designed.

This product has the characteristics of high protection level, long service life, and easy installation and operation. Its functions include isolation protection, overload protection, short circuit protection, surge grounding protection, over-voltage and under-voltage protection, reclosing after recovery, and power generation and power metering.

►► Model and meaning

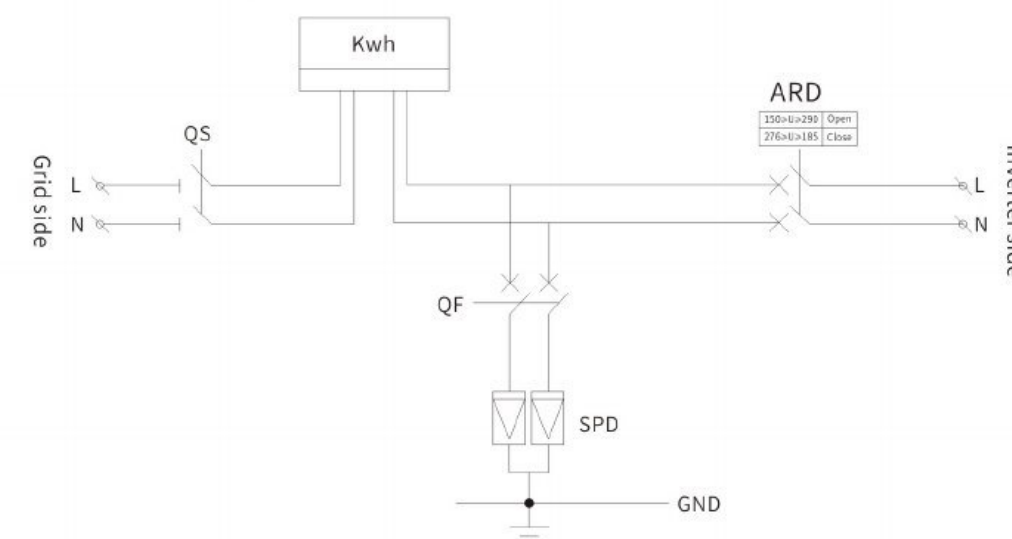


KG-SX/GFD01 photovoltaic grid connected box

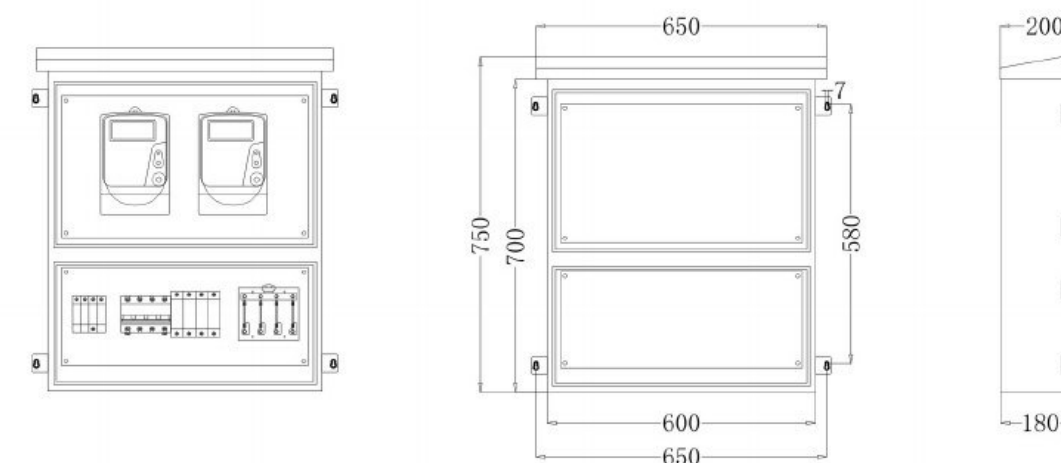
►► Features

- △All metal boxes are made of cold-rolled steel plates or stainless steel plates produced by Wuhan Iron and Steel Corporation. The protection level of the box reaches IP54 or above, which is suitable for outdoor installation.
- △The box adopts a three-layer design. The top layer is designed as the box's cap brim to prevent rainwater from entering the box; the middle layer is designed as a photovoltaic meter. Various data on the meter can be observed through the transparent glass plate, and a seal interface is designed on the door lock; the bottom layer is designed as a control and protection area to facilitate maintenance personnel to maintain and repair.
- △The grid inlet hole of the box is designed to be able to enter the line from the bottom or the side. When entering the line from the side, an IP66 waterproof connector is installed to ensure the protection level of the box.
- △The inverter inlet hole of the box is designed at the bottom, which is convenient for direct wiring on site.
- △The isolating switch in the box adopts a well-known brand, and it has a clear disconnection point, and the design capacity is more than 1.5 times the maximum output current of the inverter.
- △The box is designed with photovoltaic over-voltage and under-voltage protection devices and voltage recovery reclosing protection devices. In addition to undervoltage protection, this product can also protect against unstable grid voltage.
- △The box is designed with lightning surge protection. The standard maximum discharge current of the surge protector is 40KA. In areas with frequent thunderstorms, a larger lightning surge protector can be selected, and the maximum discharge current can reach 100KA.
- △The box is designed with an overcurrent protection circuit breaker to ensure that the circuit breaker can be reliably disconnected when the system is overloaded and short-circuited.
- △The mounting plate inside the box can be configured with epoxy resin insulation board according to customer requirements. The thickness of the insulation board is at least 5mm.
- △Anti-islanding device can be configured according to customer requirements.

►► Electrical wiring diagram



►► 5~8kW appearance and installation dimensions





KG-RX-GF-AC01photovoltaic
AC combiner box

Product overview

KG-RX-GF-AC01 photovoltaic AC combiner box is an important component for photovoltaic string power generation system, connecting string inverters and AC distribution cabinets or step-up transformers. The incoming line of this combiner box adopts circuit breaker input, and the output adopts circuit breaker or load isolation switch. After busbar confluence, secondary lightning protection is adopted. The maximum rated voltage of the system is AC690V, and the protection level is IP65, the same level as the string inverter, which meets the requirements of outdoor installation and meets the requirements of waterproof, dustproof, UV protection, salt spray corrosion, etc.

This product greatly simplifies the wiring between the string inverter and the AC distribution cabinet or step-up transformer. The internal structure of this product is simple and clear, and the wiring is neat and reasonable. It has high reliability and simple maintenance. It can be installed on the wall outdoors and can adapt to various harsh environments. In addition to standard materials and sizes, it can be customized according to user requirements.

Functional features

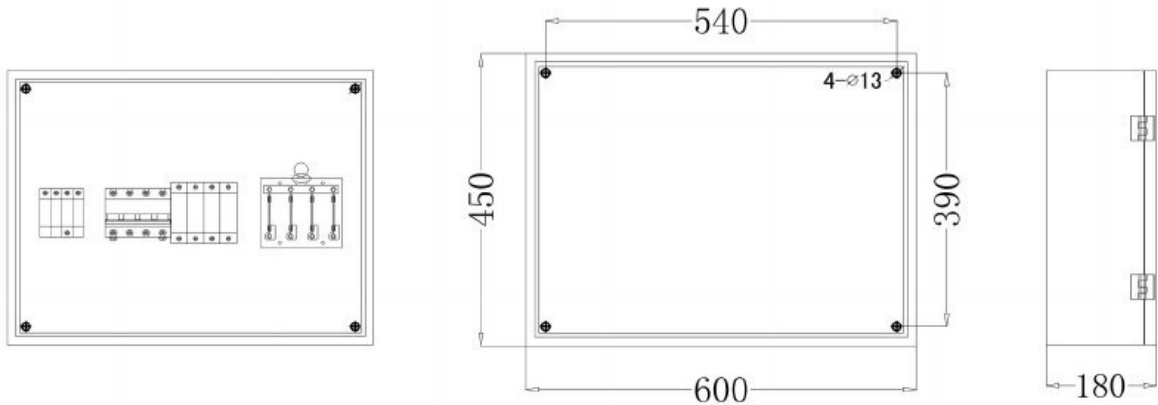
- △The protection level of the AC combiner box reaches IP65, and it is a wall-mounted sealed cabinet that can meet the requirements of outdoor installation;
- △To meet the simultaneous access of multiple string inverters, each incoming line is protected by a thermal magnetic circuit breaker, and the rated voltage reaches AC690V;
- △The use of a dedicated high-voltage lightning arrester can meet the overvoltage and lightning protection between the three phases, and the working voltage reaches AC480V or above;
- △The busbars in the box are all connected by electroplated or purified busbars to reduce the internal resistance and connection points of the busbars;
- △The output uses a circuit breaker, load isolation switch or fuse output.

KG-RX-GF-AC01 photovoltaic AC combiner box

Electrical Specifications

Product Model	KG-RX-GF-AC4	KG-RX-GF-AC6	KG-RX-GF-AC8
Number of input channels	1~4	5~6	7~8
Maximum input voltage	AC690		
Input current per channel	0~100A		
Maximum output current	250A	400A	630A
Rated working voltage Un	480VAC		
Voltage protection level Up	≤3.2kV		
Nominal current capacity In (8/20us)	20kA (optional according to customer requirements)		
Maximum current capacity Imax (8/20us)	40kA (optional according to customer requirements)		
Response time	<25ns		
Temperature and humidity	Working temperature: -40~+85C, humidity 95%, no condensation, no corrosive gas		
Altitude	≤4000m		
Box material	Hot-dip galvanized steel plate/stainless steel/cold-rolled steel plate/engineering plastic		
Box protection level	IP65		
Cable connector protection level	IP66		
Volume (width x height x depth)	800×600×200mm	800×800×200mm	800×1000×200mm

Appearance and installation dimensions





KG-RX-GF-AC01 photovoltaic DC combiner box

Product overview

The KG-RX-GF-24/Z/D lightning protection combiner box combines the DC input of up to 24 photovoltaic cell module strings into one or more outputs, each with a fuse, and the outputs are equipped with lightning arresters and circuit breakers, greatly simplifying the input wiring of DC distribution cabinets and inverters. Provide lightning protection, short-circuit protection, and grounding protection. The combiner box is divided into two types: intelligent and non intelligent. The intelligent lightning protection combiner box is equipped with a combiner monitoring unit inside, which can monitor the input current of each photovoltaic cell string, summarize the output voltage, temperature inside the box, and the status of lightning protection devices, circuit breakers, etc.

The internal layout of the device is simple and clear, with neat and reasonable wiring. High reliability and easy maintenance. Outdoor wall mounted installation can adapt to various harsh environments. In addition to related core components, others can be customized according to user requirements.

Functional features

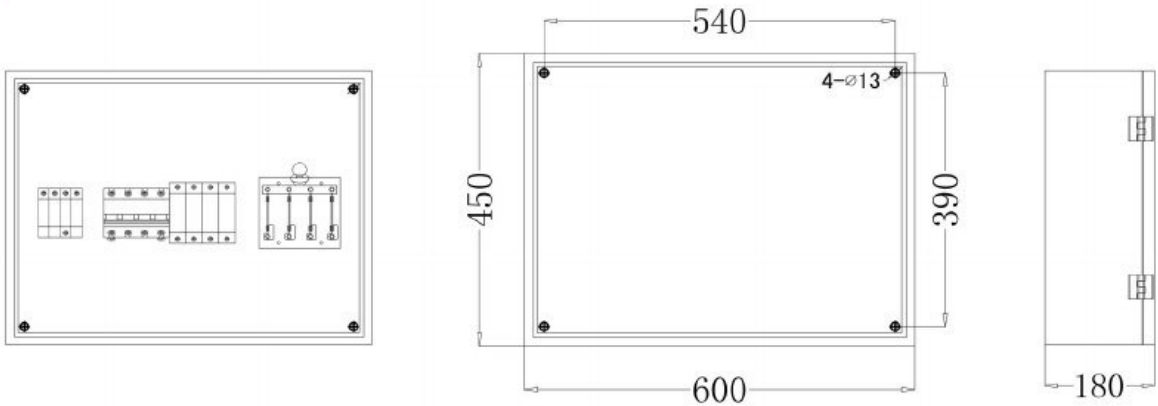
- △The protection level of the combiner box reaches IP65, with waterproof, dust-proof, rust proof, and salt spray resistant properties, meeting the requirements for outdoor installation;
- △Can simultaneously connect up to 24 battery strings;
- △The positive and negative poles of each battery string are equipped with photovoltaic specific fuses to protect the module string from faults. The fuse base and fuses are used together to reduce maintenance costs for owners and effectively protect the personal safety of maintenance personnel;
- △The use of photovoltaic dedicated high-voltage lightning arresters can protect the positive and negative poles of the busbar after convergence, with a continuous working voltage (Uc) of up to 1500VDC;
- △The power module inside the combiner box can be connected to a maximum photovoltaic voltage of 1500DCV;
- △The measurement and control module of the △ combiner box adopts reliable Honeywell Hall elements (DC CT sensors) to collect, monitor, alarm, and locate local faults in the current and bus voltage of each photovoltaic string. It can also measure the temperature inside the combiner box, detect the status of lightning arresters and output circuit breakers, etc;

KG-RX-GF-AC01 photovoltaic DC combiner box

Electrical Specifications

Product model	KG-RX-GF-AC24	KG-RX-GF-AC16	KG-RX-GF-AC12	KG-RX-GF-AC8
Number of input channels	17~24	13~16	8~12	Below 8
Maximum input voltage	1500Vdc			
Input current per channel	0~20A			
Maximum output current	420A	280A	210A	140A
Circuit breaker frame current	630A	400A	315A	250A
Input connector	MC4 (optional)			
Input waterproof terminal size	M16(Φ4~8mm)			
Output waterproof terminal size	M63(Φ37~44mm)			
Grounding waterproof terminal size	M18(Φ5~10mm)			
Communication waterproof terminal size	M18(Φ5~10mm)			
Monitoring module	Detects current per channel, bus voltage, circuit breaker status, lightning arrester status, cabinet temperature			
Communication method/protocol	RS485 bus/standard MODBUS-RTU protocol			
Anti-reverse function	Configure modular package anti-reverse diode (optional)			
Temperature and humidity	Working temperature: -40~+85C, humidity 95%, no condensation, no corrosive gas			
Altitude	≤4000m			
Monitoring module function	≤8W when working			
Auxiliary power supply	Auxiliary power supply: AC85V-265V/DC24V(10%)/DC300V-1500V			
Case material	Hot-dip galvanized steel plate/stainless steel/cold-rolled steel plate			
Protection level	IP65			

Appearance and installation dimensions





S11 type of oil immersed power transformer

►► Product overview

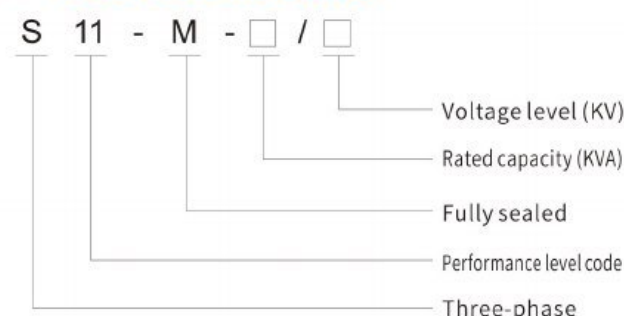
The S11-M series fully sealed oil-immersed power transformer developed and produced by our company has the advantages of low loss, low noise and high efficiency, which can achieve good energy-saving effect and reduce pollution. Compared with ordinary oil-immersed transformers, fully sealed transformers have eliminated the oil storage cabinet. The change of oil volume is automatically adjusted and compensated by the elasticity of the corrugated sheet of the corrugated oil tank. The transformer is isolated from the air, which prevents and slows down the deterioration of oil and insulation aging, enhances operational reliability, and is maintenance-free for normal operation.

►► Product Features

1. The transformer core is made of imported high-quality cold-rolled silicon steel sheets, which greatly reduces no-load loss and no-load current, and the core is tied to ensure the compactness of the core and reduce noise.
2. The high and low voltage windings are wound with oxygen-free copper. The low voltage winding 500kVA and below adopts a layered cylindrical structure. 630kVA and above adopt a double helix or quadruple helix structure, and the high voltage winding adopts a multi-layer cylindrical structure.
3. The transformer connection group adopts Dyn11 to reduce the impact of harmonics on the power grid and improve the power supply quality.
4. The transformer is a fully sealed structure, which prolongs the service life, does not require hanging core, and is maintenance-free.
5. The measured noise value is lower than the standard.

After normal transportation, this series of transformers do not need to be checked by hanging core, and the relevant parts can be installed and the acceptance project test can be carried out. After passing the test, it can be put into operation.

►► Model and meaning



S11 type of oil immersed power transformer

►► Main product performance parameters of S11 10KV double winding series

Model	Rated capacity (KVA)	Connection group number	Voltage combination (KV)			No-load loss (kW)	Load loss (kW)	No-load current (%)	Short circuit resistance (%)
			High voltage (kV)	Tap range (%)	Low voltage (kV)				
S11-M-30	30	Dyn11 Yzn11 Yyn0	6 6.3 10 10.5	±2×2.5% ±5%	0.4	0.100	0.630/0.600	1.5	4.0
S11-M-50	50					0.130	0.910/0.870	1.3	
S11-M-63	63					0.150	1.09/1.04	1.2	
S11-M-80	80					0.180	1.31/1.25	1.2	
S11-M-100	100					0.200	1.58/1.50	1.1	
S11-M-125	125					0.240	1.89/1.80	1.1	
S11-M-160	160					0.280	2.31/2.20	1.0	
S11-M-200	200					0.340	2.73/2.6	1.0	
S11-M-250	250					0.400	3.20/3.05	0.90	
S11-M-315	315					0.480	3.83/3.65	0.90	
S11-M-400	400	Dyn11 Yyn0	6 6.3 10 10.5	±2×2.5% ±5%	0.4	0.570	4.52/4.30	0.80	4.5
S11-M-500	500					0.680	5.41/5.15	0.80	
S11-M-630	630					0.810	6.20	0.60	
S11-M-800	800					0.980	7.50	0.60	
S11-M-1000	1000					1.15	10.3	0.60	
S11-M-1250	1250					1.36	12.0	0.50	
S11-M-1600	1600					1.64	14.50	0.50	
S11-M-2000	2000					1.94	18.3	0.40	
S11-M-2500	2500					2.29	21.2	0.40	5.0

Note 1: For transformers with a rated capacity of 500kVA and below, the load loss values above the slash in the table are applicable to Dyn11 or Yzn11 connection groups, and the load loss values below the slash are applicable to Yyn0 connection groups.

Note 2: When the annual average load rate of the transformer is between 35% and 40%, the highest operating efficiency can be obtained by using the loss values in the table.

►► Main product performance parameters of S11 20KV double winding series

Model	Rated capacity (KVA)	Connection group number	Voltage combination (KV)			No-load loss (kW)	Load loss (kW)	No-load current (%)	Short circuit resistance(%)
			High voltage (kV)	Tap range (%)	Low voltage (kV)				
S11-M-30	30	Dyn11	20	±5%	0.4	0.09	0.66	2.1	5.5
S11-M-50	50					0.13	0.96	2.0	
S11-M-63	63					0.15	1.145	1.9	
S11-M-80	80					0.18	1.37	1.8	
S11-M-100	100					0.20	1.65	1.6	
S11-M-125	125					0.24	1.98	1.5	
S11-M-160	160					0.29	2.42	1.4	
S11-M-200	200					0.33	2.86	1.3	
S11-M-250	250			0.40		3.35	1.2		
S11-M-315	315			0.48		4.01	1.1		
S11-M-400	400			0.57		4.73	1.0		
S11-M-500	500			0.68		5.66	1.0		
S11-M-630	630			0.81		6.82	0.9		
S11-M-800	800			0.98		8.25	1.8		
S11-M-1000	1000		1.15	11.33	0.7				
S11-M-1250	1250		1.36	13.20	0.7				
S11-M-1600	1600		1.64	15.95	0.6	6.0			

Note: This 20KV transformer can produce dual voltage wiring at high voltage according to customer requirements. That is, the transformer input end can be switched by using a conversion switch according to the difference between the two voltages of 20KV and 10KV in the network test.

►► Insulation level

Voltage level (kV)	Maximum operating voltage kV (effective value)	Rated short-time power frequency withstand voltage kV (effective value)/1 minute	Rated lightning impulse withstand voltage kV (peak value)	
			Full wave	Cut wave
0.4	0.46	5	75	85
10	12	35	125	140
20	23	55	125	140

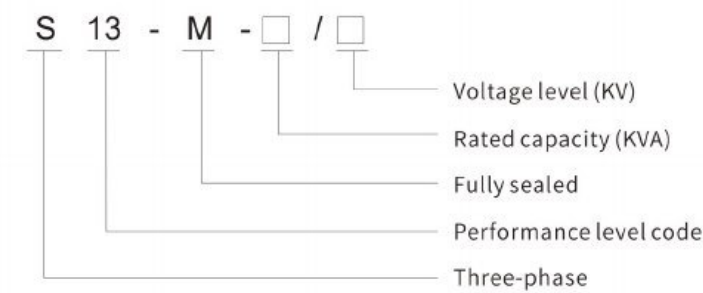


S13 type oil immersed power transformer

Product overview

The S13 type is a product independently developed by our company based on the original S11 type distribution transformer, through the research and application of new materials and new processes, the combination of independent innovation and technology introduction, and the optimization and innovative design of the core and coil structure to achieve the purpose of reducing no-load loss and noise.

Model and meaning



S13 type of oil immersed power transformer

Product Introduction

The S13 ultra-low loss fully sealed oil-immersed power transformer is the latest energy-saving transformer product designed and produced by our company.

The S13 series products produced by our company are all made of Shanghai Baosteel 0.23-0.30mmQ series high magnetic permeability curved silicon steel sheets. The high and low voltage windings are all made of copper foil and copper wire, and a fully sealed corrugated sheet oil tank structure is adopted, which has significant economic benefits in grid operation.

Compared with the S11 type, the no-load loss of the S13 power transformer is reduced by an average of about 27%.

A positioning structure is designed inside the body to ensure that there is no displacement during transportation. At the same time, all fasteners are equipped with locking nuts to ensure that the fasteners do not loosen during long-term operation of the product, meeting the requirement of no core hanging. The fully sealed structural design isolates the transformer body from the air, prevents and slows down the deterioration and moisture of the transformer oil, and enhances the operating reliability.

In terms of safety design, pressure relief valves, signal thermometers, gas relays, etc. are installed to ensure the safe operation of the transformer.

The surface of the oil tank is degreased, derusted, and phosphated before being coated with a three-proof paint (rainproof, moisture-proof, and salt spray-proof), which can meet the special no-load losses in wet and dirty areas such as metallurgy and petrochemical systems. The average reduction in noise level is 37%. Compared with the current national standard JB/T10088-2004, the average reduction in noise level is 20%, and the product performance level has reached the domestic advanced level.

Product standards

GB/T1094.1-2013 Power transformer
GB/T1094.2-2013 Power transformer
GB/T1094.3-2017 Power transformer
GB/T6451-2015 Technical parameters and requirements for three-phase oil-immersed power transformers

Usage conditions

Device type: outdoor
Altitude: no more than 1000m
Ambient temperature: maximum temperature +40°C, outdoor minimum temperature -25°C
Installation location: environment without corrosive gas and obvious dirt

Main product performance parameters of S13 10KV double winding series

Model	Rated capacity (KVA)	Connection group number	Voltage combination (KV)			No-load loss (W)	Load loss		No-load current(%)	Short circuit resistance (%)
			High voltage (kV)	Tap range (%)	Low voltage (kV)		Dy	Yy		
S13-M-10	10	Yyn0 or Dyn11	10 6.3 6	±5% ±2×2.5% OR +3×2.5% -1	0.4	40	360	340	2.8	4.0
S13-M-20	20					70	525	500	2.5	
S13-M-30	30					80	630	600	2.3	
S13-M-50	50					100	910	870	2.0	
S13-M-63	63					110	1090	1040	1.9	
S13-M-80	80					130	1310	1250	1.9	
S13-M-100	100					150	1580	1500	1.8	
S13-M-125	125					170	1890	1800	1.7	
S13-M-160	160					200	2310	2200	1.6	
S13-M-200	200					240	2730	2600	1.5	
S13-M-250	250					290	3200	3050	1.4	4.5
S13-M-315	315					340	3830	3650	1.4	
S13-M-400	400					410	4520	4300	1.3	
S13-M-500	500					480	5410	5150	1.2	
S13-M-630	630					570	6200	6200	1.1	
S13-M-800	800					700	7500	7500	1.0	
S13-M-1000	1000					830	10300	10300	1.0	
S13-M-1250	1250					970	12000	12000	0.9	
S13-M-1600	1600					1170	14500	14500	0.8	
S13-M-2000	2000					1550	17800	18300	0.8	5.0
S13-M-2500	2500					1830	20700	21200	0.7	
S13-M-3150	3150					2100	24300	24300	0.7	

►► Energy efficiency secondary oil immersed transformer

Model	Rated capacity (KVA)	Connection group number	Voltage combination (KV)			No-load loss (W)	DY Load loss (W)	YY Load loss (W)	No-load current(%)	Short circuit resistance(%)
			High voltage	Tap range	Low voltage					
S20-M-30/10-NX2	30	Yyn0 or Dyn11	10.5 10 6.3 6	±5% ±2x2.5%	0.4	70	505	480	1.5	4.0
S20-M-50/10-NX2	50					90	730	695	1.3	
S20-M-63/10-NX2	63					100	870	830	1.2	
S20-M-80/10-NX2	80					115	1050	1000	1.2	
S20-M-100/10-NX2	100					135	1265	1200	1.1	
S20-M-125/10-NX2	125					150	1510	1440	1.1	
S20-M-160/10-NX2	160					180	1850	1760	1	
S20-M-200/10-NX2	200					215	2185	2080	1	
S20-M-250/10-NX2	250					260	2560	2440	0.9	
S20-M-315/10-NX2	315					305	3065	2920	0.9	
S20-M-400/10-NX2	400					370	3615	3440	0.8	4.5
S20-M-500/10-NX2	500					430	4330	4120	0.8	
S20-M-630/10-NX2	630					510	4960		0.6	
S20-M-800/10-NX2	800					630	6000		0.6	
S20-M-1000/10-NX2	1000					745	8240		0.6	
S20-M-1250/10-NX2	1250					870	9600		0.5	
S20-M-1600/10-NX2	1600					1050	11600		0.5	5.0
S20-M-2000/10-NX2	2000					1225	14640		0.4	
S20-M-2500/10-NX2	2500					1440	14840		0.4	

S20 energy efficiency secondary oil immersed transformer

►► Product overview

The energy-saving and energy-efficient secondary oil-immersed transformer is a new type of energy-saving transformer developed based on the GB20052-2020 standard. Our company has achieved the purpose of reducing no-load loss and noise through the research and application of new materials and new processes, and the combination of independent innovation and technology introduction, and through the optimization and innovative design of the core and coil structure. It is an independently developed product.

The noise level is reduced by an average of 20% compared with the current national standard JB/T 10088-2016, and the product performance level has reached the domestic advanced level.

►► Model and meaning



►► Energy efficiency first level oil immersed transformer

Model	Rated capacity (KVA)	Connection group number	Voltage combination (KV)			No-load loss (W)	DY Load loss (W)	YY Load loss (W)	No-load current(%)	Short circuit resistance(%)
			High voltage	Tap range	Low voltage					
S22-M-30/10-NX1	30	Yyn0 or Dyn11	10.5 10 6.3 6	±5% ±2x2.5%	0.4	65	455	430	1.5	4.0
S22-M-50/10-NX1	50					80	655	625	1.3	
S22-M-63/10-NX1	63					90	785	745	1.2	
S22-M-80/10-NX1	80					105	945	900	1.2	
S22-M-100/10-NX1	100					120	1140	1080	1.1	
S22-M-125/10-NX1	125					135	1360	1295	1.1	
S22-M-160/10-NX1	160					160	1665	1585	1	
S22-M-200/10-NX1	200					190	1970	1870	1	
S22-M-250/10-NX1	250					230	2300	2195	0.9	
S22-M-315/10-NX1	315					270	2760	2630	0.9	
S22-M-400/10-NX1	400					330	3250	3095	0.8	4.5
S22-M-500/10-NX1	500					385	3900	3710	0.8	
S22-M-630/10-NX1	630					460	4460		0.6	
S22-M-800/10-NX1	800					560	5400		0.6	
S22-M-1000/10-NX1	1000					665	7415		0.6	
S22-M-1250/10-NX1	1250					780	8640		0.5	
S22-M-1600/10-NX1	1600					940	10440		0.5	
S22-M-2000/10-NX1	2000					1085	13180		0.4	5.0
S22-M-2500/10-NX1	2500					1280	13360		0.4	

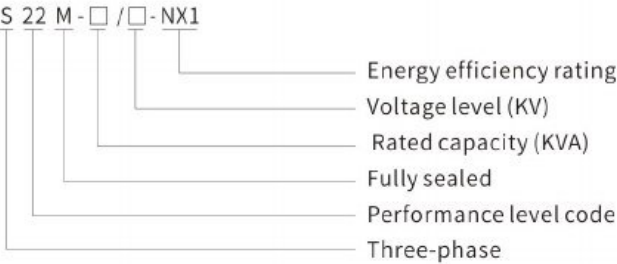
S22 energy efficiency first level oil immersed transformer

►► Product overview

The energy-saving and energy-efficient first-level oil-immersed transformer is a new type of energy-saving transformer developed based on the GB20052-2020 standard. Our company has achieved the purpose of reducing no-load loss and noise through the research and application of new materials and new processes, and the combination of independent innovation and technology introduction, and through the optimization and innovative design of the core and coil structure. It is an independently developed product.

The noise level is reduced by an average of 20% compared with the current national standard JB/T 10088-2016, and the product performance level has reached the domestic advanced level.

►► Model and meaning



35kV distribution transformer

Implementation standards

- GB1094.1-2 "General Principles for Power Transformers", "Temperature Rise of Power Transformers"
- GB1094.3 "Insulation Level and Insulation Test of Power Transformers"
- GB1094.5 "Capacity of Power Transformers to Withstand Short Circuits"
- GB/T6451 "Technical Parameters and Requirements for Three-Phase Oil-Immersed Power Transformers"
- GB/T15164 "Load Guidelines for Oil-Immersed Power Transformers"
- IEC76 "Power Transformers"
- GB2536 "Transformer Oil"

35KV Class 50kV·A~2500kV·A Three-Phase Double Winding Non-Excitation Voltage Regulating Distribution Transformer

Model	Rated capacity (KVA)	Connection group number	Voltage combination (KV)			No-load loss (W)	Load loss (W)	No-load current(%)	Short circuit resistance(%)
			High voltage (kV)	Tap range(%)	Low voltage (kV)				
S11-50	50	Dyn11 Yyn0	35 38.5	±2×2.5 ±5	0.4	0.160	1.20/1.14	1.3	6.5
S11-100	100					0.230	2.01/1.91	1.1	
S11-125	125					0.270	2.37/2.26	1.1	
S11-160	160					0.280	2.82/2.68	1.0	
S11-200	200					0.340	3.32/3.16	1.0	
S11-250	250					0.400	3.95/3.76	0.95	
S11-315	315					0.480	4.75/4.53	0.95	
S11-400	400					0.580	5.74/5.47	0.85	
S11-500	500					0.680	6.91/6.58	0.85	
S11-630	630					0.830	7.86	0.65	
S11-800	800					0.980	9.40	0.65	
S11-1000	1000					1.15	11.5	0.65	
S11-1250	1250					1.40	13.9	0.60	
S11-1600	1600					1.69	16.6	0.60	
S11-2000	2000					1.99	19.7	0.55	
S11-2500	2500					2.36	23.2	0.55	

Note 1: For transformers with a rated capacity of 500 kV·A or less, the load loss values above the oblique line in the table are applicable to the Dyn11 connection group, and the load loss values below the oblique line are applicable to the Yyn0 connection group.

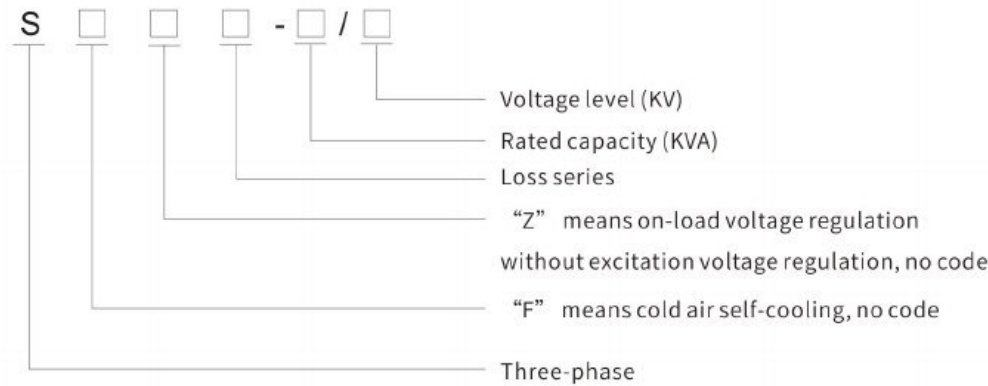
Note 2: When the annual average load rate of the transformer is between 30% and 36%, the highest operating efficiency can be obtained by using the loss values in the table.

35kV distribution transformer

Product overview

The 35KV series oil-filled power transformer is relatively advanced in design, and has been greatly improved and enhanced in materials, structure and technology. The high and low voltage clamps are tightened with steel straps or upper beams and side beams to form a solid frame structure, enhance the core clamping force and withstand transportation impact. It has strong short-circuit resistance, beautiful appearance, reliable operation, low loss, and low noise, reaching the advanced level of similar foreign products.

Model and meaning



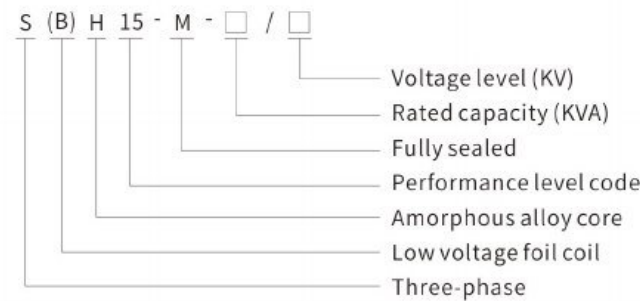


SH15-M sealed amorphous alloy power transformer

Product overview

This transformer can transform the grid voltage into the voltage required by the system or load, realize the transmission and distribution of electric energy, and can replace the transformer with silicon steel core and be widely used in outdoor power distribution system. The large-scale operation of this product can achieve good energy-saving effect and reduce air pollution. It is especially suitable for areas with insufficient power, large load fluctuations and difficult daily maintenance. Since the transformer adopts a fully sealed structure, the insulating oil and insulating medium are not polluted by the atmosphere, so it can operate in a humid environment. It is an ideal distribution equipment in the large distribution network in cities and rural areas.

Model and meaning



SH15-M sealed amorphous alloy power transformer

Product Introduction

This product is an oil-filled sealed type, and its principle is the same as that of a sealed power transformer. The basic elements of amorphous alloys are iron, nickel, cobalt, silicon, boron and carbon. It is an isotropic soft magnetic material with low magnetization power and no structural defects that hinder wall movement. It is extremely thin, only 0.027mm, and the filling factor is correspondingly small, only 0.75-0.8. The resistivity is very high, 3 to 6 times that of silicon steel sheets, and the hardness is 5 times that of silicon steel sheets. Amorphous alloy materials are particularly sensitive to stress.

For the SH15-M-30-2500/6-10 series products, the no-load loss is reduced by 70% based on the GB/T6541 standard value. The implementation standard is GB/T25446-2010 "Technical Reference for Oil-Immersed Amorphous Alloy Core Distribution Transformers".

Product Performance Parameters

Rated capacity	Voltage combination (KV)			Connection group number	No-load loss	Load loss (W)		Short circuit resistance	No-load current
	High voltage (kV)	High voltage tapping range(%)	Low voltage (kV)		W	Yy	Dy	%	%
30	6 6.3 10 10.5 11	± 5% Or ± 2x2.5%	0.4	Yyn0 Or Dyn11	33	600	630	4.0	1.5
50					43	870	910		1.2
63					50	1040	1090		1.1
80					60	1250	1310		1.0
100					75	1500	1580		0.9
125					85	1800	1890		0.8
160					100	2200	2310		0.6
200					120	2600	2730		0.6
250					140	3050	3200		0.6
315					170	3650	3830		0.5
400					200	4300	4520		0.5
500					240	5150	5410		0.5
630					320	6200	6200	4.5	0.3
800					380	7500	7500		0.3
1000					450	10300	10300		0.3
1250					530	12000	12000		0.2
1600					630	14500	14500	5.0	0.2
2000					750	18300	18300		0.2
2500					900	21200	21200		0.2

Note 1: When the core is three-phase and three-column, a Yyn0 connection group can also be used as needed.



SZ11 series 10kV, 35kV load transformer

Product overview

The SZ11 series on load tap changer power transformer is designed with advanced CAD methods, with a reasonable structure and excellent material selection. All indicators comply with GB1094-2013 "Power Transformers" and GB/T6451-2015 "Technical Parameters and Requirements for Three phase Oil immersed Power Transformers" standards, and is currently at the leading level in China. It can be widely applied to urban and rural industrial and agricultural power grids, which is of great significance for energy conservation and environmental protection. The stacking method of the iron chips in this product is staged, changing the traditional iron core stacking process and improving the magnetic circuit distribution inside the iron core. As a result, the no-load loss, no-load current, and noise are reduced by 20% and 10% respectively compared to traditional stacked iron core transformers.

Model and meaning



SZ11 series 10kV, 35kV load transformer

Technical parameters

10kV on-load voltage-changing transformer technical data

Rated capacity (kVA)	Connection group number	Voltage combination			No-load current (%)	No-load loss (W)	Load loss (75°C)W	Short circuit resistance (%)
		High voltage (kV)	High voltage tapping range	Low voltage (kV)				
200	Yyn0 Dyn11	6 ±4×2.5	±5 ±2×2.5	0.4	1.0	380	290	4.0
250					0.9	440	3420	4.0
315					0.9	539	4100	4.0
400		6.3 ±4×2.5			0.8	640	4950	4.0
500					0.8	760	5890	4.0
630					0.6	960	7260	4.5
800		10 ±4×2.5			0.6	1120	8890	4.5
1000		10.5 ±4×2.5			0.6	1360	10400	4.5
1250					0.5	1560	12300	4.5
1600					0.5	1920	14700	4.5
2000		11 ±4×2.5			0.4	2270	18600	4.5
2500					0.4	2680	21600	4.5

35kV on-load voltage-changing transformer technical data

Rated capacity	Connection group number	Voltage combination		No-load current (%)	No-load loss (W)	Load loss (75°C)W	Short circuit resistance(%)
		High voltage (kV)	Low voltage (kV)				
2000	Yd11	35 ±3×2.5	6.3 10 10.5	1.0	2300	19200	6.5
2500				1.0	2720	20600	
3150				0.9	3230	24700	7.0
4000				0.9	3870	29100	
5000				0.85	4640	34200	8.0
6300				0.85	5630	36700	
8000	YNd11	38.5 ±3×2.5	6.3 10 10.5	0.75	7870	40600	8.0
10000				0.75	9280	48000	
12500				0.7	10900	56800	8.0
16000				0.7	13100	70300	
20000				0.65	15500	82700	



SC (B) 10 type dry power transformer

Product overview

The performance indicators of the dry-type transformers produced by our company meet various standards, and have been proven by users to be reliable and have reached the national advanced level. This series of products adopts advanced foreign manufacturing technology, with complete, correct and clear design drawings and technical documents, advanced production equipment, stable manufacturing process and complete measurement methods, providing a solid guarantee for the production of high-quality products.

SC(B)10 epoxy resin cast dry-type transformer is manufactured according to the standard "10-type power transformer". This product has low performance and good energy-saving effect. It is economical to operate and maintenance-free. In addition to advanced process structure, high level of short circuit resistance and lightning impulse, it also has the characteristics of fire resistance, moisture resistance, dust resistance, low noise, etc., and can penetrate deep into the load center. It is widely used in high-rise buildings, airports, stations, docks, power plants, substations, etc. It is especially suitable for installation and use in places with high fire protection requirements such as flammable and explosive.

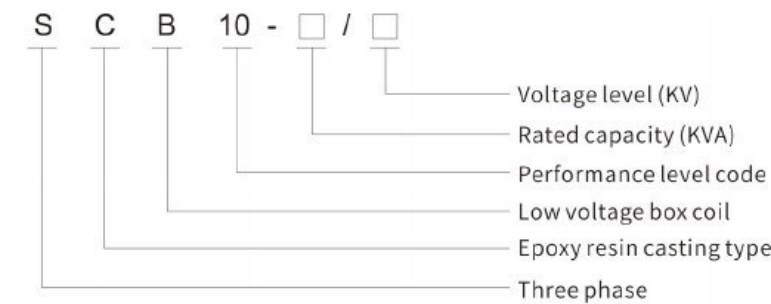
The standard transformer produced by our company is without shell and has a protection level of IP00. If customers need, we can provide shells with protection levels of IP20 and IP23. The shell can be made of ordinary steel plate, stainless steel plate, aluminum alloy and other materials according to customer requirements, and it can be processed by pickling, phosphating, spraying and other treatments. The temperature control display and load recorder are installed on the low-voltage side of the shell, which is convenient for users to observe and safe and reliable.

Performance parameters

Phase number	3 phases
Frequency	50Hz
Insulation heat resistance grade	F grade
Winding average temperature rise	≤100K
Partial discharge	less than 5pc

SC (B) 10 type dry power transformer

Model and meaning



SC(B) type 6kV, 10KV level 30kV·A-2500kV·A non-excitation voltage regulating distribution transformer

Model	Rated capacity (KVA)	Link group label	Voltage combination (KV)			No-load loss (kW)	Load loss (kW)	No-load current (%)	Short circuit resistance (%)
			High voltage (kV)	Tap range (%)	Low voltage (kV)				
SC(B)30	30	Dyn11 Yyn0	6	±2.5 ±5	0.4	0.190	0.710	2.0	4.0
SC(B)50	50					0.270	1.00	2.0	
SC(B)80	80					0.370	1.38	1.5	
SC(B)100	100					0.400	1.57	1.5	
SC(B)125	125					0.470	1.85	1.3	
SC(B)160	160					0.540	2.13	1.3	
SC(B)200	200			0.620		2.53	1.1		
SC(B)250	250			0.720		2.76	1.1		
SC(B)315	315			0.880		3.47	1.0		
SC(B)400	400			6.3		0.980	3.99	1.0	
SC(B)500	500			6.6		1.16	4.88	1.0	
SC(B)630	630			10		1.34	5.88	0.85	
SC(B)630	630		10.5	1.30		5.96	0.85		
SC(B)800	800		11	±2×2.5 ±5		1.52	6.96	0.85	
SC(B)1000	1000					1.77	8.13	0.85	
SC(B)1250	1250					2.09	9.69	0.85	
SC(B)1600	1600					2.45	11.7	0.85	
SC(B)2000	2000					3.05	14.4	0.70	
SC(B)2500	2500					3.60	17.1	0.70	
SC(B)1600	1600					2.45	12.9	0.85	
SC(B)2000	2000					3.05	15.9	0.70	
SC(B)2500	2500					3.60	18.8	0.70	

Note: The load losses listed in the table are the values of different systems at the reference temperature in brackets (see GB1094.11).

The load losses at other insulation system temperatures not included in the table need to be converted accordingly based on their respective reference temperatures, with the data of "155°C (F)" insulation system temperature as reference.

►► SC (B) 10 type 20KV class 50kV · A-2500kV · A non-excitation voltage regulating distribution transformer

Model	Rated capacity (KVA)	Link group label	Voltage combination (KV)			No-load loss (kW)	155°C (F)(120°C) Load loss (kW)	No-load current (%)	Short circuit resistance (%)
			High voltage (kV)	Tap range (%)	Low voltage (kV)				
SC(B)50	50	Dyn11 Yyn0	20 22 24	±2.5 ±5	0.4	0.340	1.23	2.0	6.0
SC(B)100	100					0.540	1.99	1.8	
SC(B)160	160					0.670	2.47	1.5	
SC(B)200	200					0.730	2.94	1.5	
SC(B)250	250					0.840	3.42	1.3	
SC(B)315	315					0.970	4.08	1.3	
SC(B)400	400			1.15		4.84	1.1		
SC(B)500	500			1.35		5.79	1.1		
SC(B)630	630			1.53		6.84	1.0		
SC(B)800	800			1.75		8.26	1.0		
SC(B)1000	1000			2.07		9.78	0.85		
SC(B)1250	1250			2.38		11.5	0.85		
SC(B)1600	1600			2.79		13.8	0.85		
SC(B)2000	2000			3.24		16.3	0.70		
SC(B)2500	2500			3.87		19.3	0.70		
SC(B)2000	2000			3.24		17.8	0.70		
SC(B)2000	2000			3.87		21.2	0.70	8.0	

Note: The load losses listed in the table are the values of different systems at the reference temperature in brackets (see GB1094.11).
The load losses at other insulation system temperatures not included in the table need to be converted accordingly based on their respective reference temperatures, taking the data of "155°C (F)" insulation system temperature as reference.

►► SC (B) 10 type 35KV class 50kV · A-2500kV · A non-excitation voltage regulating distribution transformer

Model	Rated capacity (KVA)	Link group label	Voltage combination (KV)			No-load loss (kW)	155°C (F)(120°C) Load loss (kW)	No-load current (%)	Short circuit resistance (%)
			High voltage (kV)	Tap range (%)	Low voltage (kV)				
SC(B)50	50	Dyn11 Yyn0	20 22 24	±2.5 ±5	0.4	0.450	1.42	2.3	6.0
SC(B)100	100					0.630	2.09	2.0	
SC(B)160	160					0.790	2.81	1.5	
SC(B)200	200			0.880		3.32	1.5		
SC(B)250	250			0.990		3.80	1.3		
SC(B)315	315			1.17		4.51	1.3		
SC(B)400	400			1.37		5.41	1.1		
SC(B)500	500			1.62		6.65	1.1		
SC(B)630	630			1.86		7.69	1.0		
SC(B)800	800			2.16		9.12	1.0		
SC(B)1000	1000			2.43		10.4	0.75		
SC(B)1250	1250			2.83		12.7	0.75		
SC(B)1600	1600			3.24		15.4	0.75		
SC(B)2000	2000			3.82		18.2	0.75		
SC(B)2500	2500			4.45		21.8	0.75		

Note: The load losses listed in the table are the values of different systems at the reference temperature in brackets (see GB1094.11).
The load losses at other insulation system temperatures not included in the table need to be converted accordingly based on their respective reference temperatures, taking the data of "155°C (F)" insulation system temperature as reference.

►► Insulation level

Voltage level (kV)	Maximum operating voltage kV (effective value)	Rated short-time power frequency withstand voltage kV (effective value)/1 minute	Rated lightning impulse withstand voltage kV (peak)	
			Full wave	Cut wave
0.4	0.46	5	75	85
10	12	35	75	
20	24	50	125	
35	42	70	170	

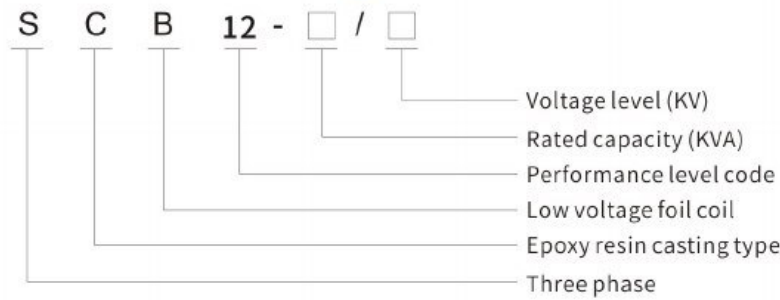


SC (B) 12 dry-type transformer

Product overview

SCB12 dry-type transformer has low loss: the no-load loss of the product is more than 20% lower than that of SCB11 dry-type transformer, with excellent energy-saving effect, economical operation and maintenance-free. Low noise: the noise level of the product is more than 10-15 decibels lower than the current professional standard JB/T10088-2016 "6-220KV transformer sound level Y". Low partial discharge: the resin mixture adopts two technologies, foreign stirring method and vacuum film degassing, so that the mixture is stirred evenly and the bubbles in the mixture are eliminated.

Model and meaning



SC (B) 12 dry-type transformer

SC(B)12 type 10KV series main performance parameters

Model	Connection code	Voltage combination	No-load current (%)	No-load loss (W)	Negative power loss under different insulation heat resistance levels (W)			Short circuit resistance (%)
					B(100°C)	F(120°C)	H(145°C)	
SC12-30	Yyn0 Dyn11	6~11±2x2.5% /0.4	2.0	150	670	710	760	4.0
SC12-50			2.0	215	940	1000	1070	4.0
SC12-80			1.5	295	1290	1380	1480	4.0
SC12-100			1.5	320	1480	1570	1690	4.0
SC12-125			1.3	375	1740	1850	1980	4.0
SC12-160			1.3	430	2000	2130	2280	4.0
SC12-200			1.1	495	2370	2530	2710	4.0
SC12-250			1.1	575	2590	2760	2960	4.0
SC12-315			1.C	705	3270	3470	3730	4.0
SC(B)12-400			1.0	785	3750	3990	4280	4.0
SC(B)12-500			1.0	930	4590	4880	5230	4.0
SC(B)12-630			0.85	1070	5530	5880	6290	4.0
SC(B)12-630			0.85	1040	5610	5960	6400	6.0
SC(B)12-800			0.85	1210	6550	6960	7460	6.0
SC(B)12-1000			0.85	1410	7650	8130	8760	6.0
SC(B)12-1250			0.85	1670	9100	9690	10300	6.0
SC(B)12-1600			0.85	1960	11000	11700	12500	6.0
SC(B)12-2000			0.7	2440	13600	14400	15500	6.0
SC(B)12-2500			0.7	2880	16100	17100	18400	6.0
SC(B)12-1600			0.85	1960	12200	12900	13900	8.0
SC(B)12-2000			0.7	2440	15000	15900	17100	8.0
SC(B)12-2500			0.7	2880	17700	18800	20200	8.0

SG (B) 10 type 35KV class 50kV·A~2500kV·A non-excitation voltage regulating distribution transformer

Model	Rated capacity (KVA)	Link group label	Voltage combination (KV)			No-load loss (KW)	180°C(H)(145°C) Load loss (kW)	No-load current (%)	Short circuit resistance (%)
			High voltage (kV)	Tap range (%)	Low voltage (kV)				
SG(B)50	50	Dyn11 Yyn0	20 22 24	±2.5 ±5	0.4	0.450	1.52	2.3	6.0
SG(B)100	100					0.630	2.23	2.0	
SG(B)160	160					0.790	3.00	1.5	
SG(B)200	200			0.880		3.55	1.5		
SG(B)250	250			0.990		4.06	1.3		
SG(B)315	315			1.17		4.82	1.3		
SG(B)400	400			1.37		5.79	1.1		
SG(B)500	500			1.62		7.11	1.1		
SG(B)630	630			1.86		8.23	1.0		
SG(B)800	800			2.16		9.76	1.0		
SG(B)1000	1000			2.43		11.1	0.75		
SG(B)1250	1250			2.83		13.6	0.75		
SG(B)1600	1600			3.24		16.5	0.75		
SG(B)2000	2000			3.82		19.5	0.75		
SG(B)2500	2500			4.45		23.3	0.75		

Note: The load losses listed in the table are the values of different systems at the reference temperature in brackets (see GB1094.11).
The load losses at other insulation system temperatures not included in the table need to be converted accordingly based on their respective reference temperatures, with the data of "180°C (H)" insulation system temperature as reference.

Memorandum

