



Product Selection Manual

产品选型手册

Powering Progress,
Connecting a Better Future



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Company introduction



“REGARDING THE COMPANY”

An innovative force leading global development in the field of power systems

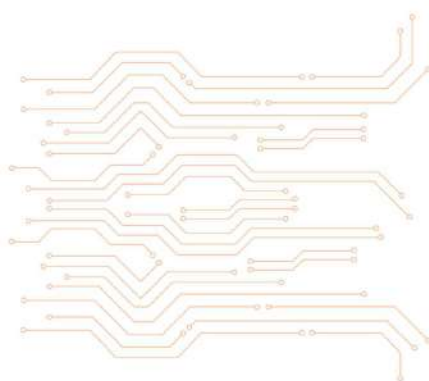


Henan Jinxing Electrical Equipment Co., Ltd., formerly a recommended enterprise for urban and rural power grid construction and renovation by the State Economic and Trade Commission, has products that have passed provincial and ministerial-level appraisals and ISO9001:2000 quality system certification.

Our company is committed to serving global partners and providing reliable support for power engineering projects. We specialize in the design, manufacture, and supply of high-quality transformers, possessing advanced production facilities, a rigorous quality control system, and professional technical support. We are dedicated to providing safe, efficient, and stable power solutions, meeting international standards and exceeding customer expectations in every project. Adhering to the principles of professionalism, integrity, and customer focus, we look forward to building long-term partnerships with global clients and contributing to the reliable and sustainable development of the global power industry.



▶ The company possesses rich manufacturing experience and comprehensive testing methods, equipped with advanced production equipment and strong technical capabilities. It is a professional manufacturer of power transformers, dry-type transformers, box-type transformers, and special transformers. "Adhering to enterprise innovation, pursuing technological progress, and creating first-class products" is the company's consistent development principle.



▶ Our transformers have the following characteristics: "One Strong and One Rigid"—strong short-circuit withstand capability; "Two Nos"—no oil leakage, no need for on-site core disassembly; "Three Lows"—low loss, low noise, and low partial discharge.

▶ Main products include various models of power transformers and special transformers with voltage levels below 220KV and capacities below 63000KVA, as well as various models of 35KV and 10KV dry-type transformers and European and American style box-type substations.



▶ Our products have repeatedly won awards for high-quality products from the Ministry of Electric Power and the Ministry of Machinery. Our products are sold in more than 30 countries and regions worldwide and are highly praised by users.



Company philosophy



“REGARDING THE COMPANY”

An innovative force leading global development in the field of power systems



All employees of the company are committed to providing users with high-quality, reasonably priced products through exquisite craftsmanship, first-class product quality, and thoughtful after-sales service.



JINXING





D-30~6300kVA

Single-phase oil immersed transformer

单相油浸式变压器



► 产品概述 Product overview

In the distribution network with dispersed power supply, single-phase transformers have great advantages as distribution transformers.

在供电分散的配电网中，单相变压器作为配电变压器有较大的优点。

It can reduce the length of low-voltage distribution lines, reduce line losses, and improve the power supply quality.

它可以减少低压配电线路的长度，减少线路损失，提高供电质量。

With the design of a high-efficiency and energy-saving wound core structure, the characteristic of this transformer is that it adopts the overhead suspension installation method. It has a small volume and requires a small capital construction investment. It can reduce the low-voltage power supply radius and can reduce the low-voltage line losses by more than 60%.

采用了高效节能卷铁芯结构设计，该变压器的特点是采用柱上式悬挂安装方式，体积小，基建投资小，减少低压供电半径，可降低低压线路损 60% 以上。

The transformer adopts a fully sealed structure, has a strong overload capacity, high reliability for continuous operation, simple maintenance, and a long service life.

变压器采用全密封结构，过负荷能力强，连续运行可靠性高，维护简单，使用寿命长。

It is suitable for rural power grids, remote areas, scattered villages, agricultural production, lighting, and power consumption. It can also be used for the energy-saving renovation of overhead distribution lines in railway and urban power grids.

适合农村电网，偏远地区，分散村落，农业生产，照明和动力用电，也可用于铁路，城市电网节能改造柱上式配电线路。

It has the characteristics of small volume, convenient installation, simple maintenance, low noise, low line loss, high efficiency and energy saving, reliable operation, and strong overload capacity.

体积小、安装方便、维护简单、噪音低、线损低、高效节能、运行可靠、过负荷能力强。

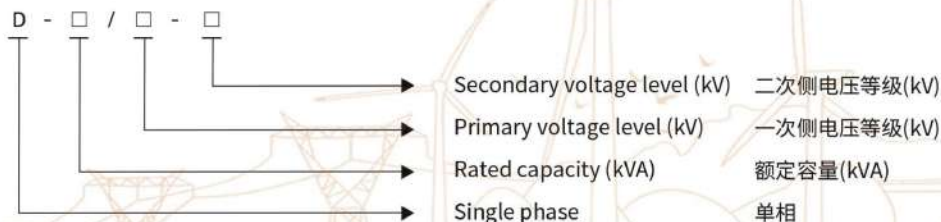
► 特点 peculiarity

- ① Small in size, easy to install and simple to maintain.
体积小、安装方便、维护简单。
- ② Low noise, low line loss, highly efficient and energy-saving.
噪音低、线损低、高效节能。
- ③ Reliable in operation and with strong overload capacity.
运行可靠、过负荷能力强。

► 执行标准 Enforce standards

- ① JBT 10317-2014: Technical parameters and requirements of singlephase oil immersed distribution transformers
JB/T 10317-2014 单相油浸式配电变压器技术参数和要求

► 型号说明 Type description





► 性能参数 Performance parameter

Rated capacity (kVA) 额定容量	Voltage 电压 group 组合		Vector group 联接组别	Impedance voltage(%) 阻抗电压	Loss(W)损耗		No-load current (%) 空载电流	Weight (kg) 重量			Boundary dimension (LxWxH,mm) 外形尺寸	Gauge vertical/ Horizontal 测量/ 垂直水平
	HV (kV) 高压	LV(kV) 低压			No-load loss 空载损耗	Load loss 负载损耗		Body weight 器身重量	Oil weight 油重	Gross weight 毛重		
5	11 10.5 10 6.3 6	0.22 0.24	6	3.5	35	145	4	50	40	130	530*450*850	400/250
10					35	260	3.5	65	40	150	560*450*870	400/300
16					65	365	3.2	80	40	180	600*450*920	400/300
20					80	430	3.0	100	50	205	620*450*940	400/300
30					100	625	2.5	115	50	225	700*450*980	400/300
40					125	775	2.5	150	55	270	700*480*1040	400/300
50					150	950	2.3	175	70	310	850*510*1100	400/300
63					180	1135	2.1	190	80	340	660*520*1100	400/300
80					200	1400	2.0	240	100	420	770*530*1120	400/300
100					240	1650	1.9	295	100	490	840*600*1150	400/300
125					285	1950	1.8	370	110	560	890*740*1160	500/400
160					365	2365	1.7	430	130	650	950*790*1170	500/400

Rated capacity (kVA) 额定容量 (kVA)	Voltage combination and tapping range 电压组合及分接范围			Join group label 联接组标号	No-load loss(W) 空载损耗 (W)	Load loss(W) 负载损耗 (W)	No-load current(%) 空载电流 (%)	Short-circuit imped- ance(%) 短路阻抗 (%)
	High voltage (kV) 高压(kV)	High pressure tap range(%) 高压分接范围(%)	Low volt- age (kV) 低压(kV)					
5	6 6.3 10 10.5 11	±2×2.5 ±5	0.22 0.23 0.24	li6	40	215	3.2	3.5
10					45	235	2.8	
15					53	315	2.8	
20					62	405	2.8	
25					70	480	2.8	
30					80	560	2.8	
50					120	855	2.3	
63					135	1020	2.1	
80					160	1260	2.0	
100					190	1485	1.9	
125					220	1755	1.8	
160					260	2050	1.6	

S-30~31500kVA-NX1

Three-phase oil immersed transformer

三相油浸式变压器



► 产品概述 Product overview

In response to the national strategic goal of energy conservation and emission reduction, and combining with the characteristics of our own products, our company, in accordance with the requirements of the energy efficiency grades of energy-saving products in the GB20025-2020 standard, through continuous research, development and improvement, has designed and produced transformer products of different energy efficiency grades that meet the requirements of the national standard.

为响应国家节能减排的战略目标，结合自身产品特点，我公司按照 GB20025-2020 标准节能型产品能效等级的要求，经过不断研发改进，设计生产出符合国标要求的不同能效等级的变压器产品。

Through the research and application of new materials and new processes, as well as continuous independent innovation, and through the optimized design and continuous improvement of the iron core and windings, the goal of reducing losses and noise has been achieved, meeting the requirements of the national standard GB20025-2020. Moreover, the noise level has decreased by 20% compared with the current national standard JB/T10088-2016, and the product performance has reached the domestic advanced level.



通过新材料、新工艺的研究运用及不断的自主创新，通过对铁芯以及绕组的优化设计和不断改良，达到了降低损耗和噪音的目的，满足国标 GB20025-2020 的要求，且噪音水平与现行国标 JB/T10088-2016 相比下降了 20%，产品性能达到了国内先进水平。

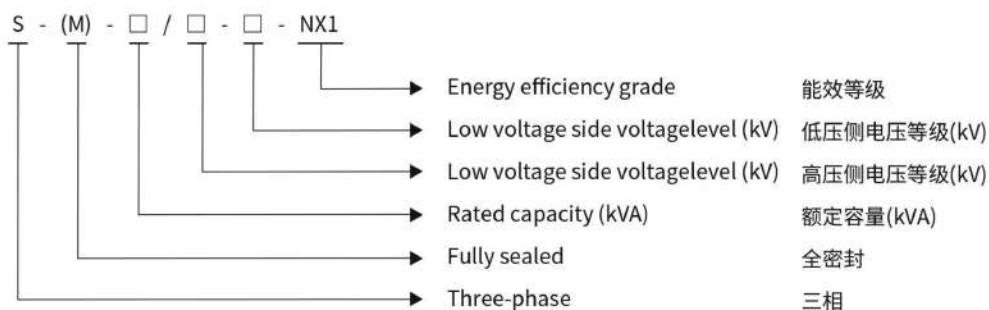
Compared with the energy efficiency grade II products, the energy efficiency grade I products have lower losses.

相较于能效二级，能效一级产品损耗更低。

▶ 执行标准 Enforce standars

- GB 1094-2013 Power transformer
GB 1094-2013 电力变压器
- GBT6451-2015 Oil immersed power transformer technical parameters and requirements
GBT6451-2015 油浸式电力变压器技术参数和要求
- IEC 60076 Power transformer
IEC 60076 电力变压器

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

- Below an altitude of 1000 meters
海拔高度1000m以下
- The highest ambient temperature is +40 degrees Celsius
环境温度最高气温+40摄氏度
- The highest daily average temperature is +20 degrees Celsius
最高日平均气温+20摄氏度
- The lowest outdoor temperature is -20 degrees Celsius
室外最低气温-20摄氏度

► 性能参数 Performance parameter

Rated capacity (kVA) 额定容量	Electrical steel strip 电工钢带			Amorphous alloy 非晶合金		
	No-load loss (W) 空载损耗	Load loss(W) 负载损耗		No-load loss(W) 空载损耗	Load loss(W) 负载损耗	
		Dyn11/Yzn11	Yyn0		Dyn11/Yzn11	Yyn0
30	70	505	480	33	535	510
50	90	730	695	43	780	745
63	100	870	830	50	930	890
80	115	1050	1000	60	1120	1070
100	135	1265	1200	75	1350	1285
125	150	1510	1440	85	1615	1540
160	180	1850	1760	100	1975	1880
200	215	2185	2080	120	2330	2225
250	260	2560	2440	140	2735	2610
315	305	3065	2920	170	3275	3120
400	370	3615	3440	200	3865	3675
500	430	4330	4120	240	4625	4400
630	510	4960		320	5300	
800	630	6000		380	6415	
1000	745	8240		450	8800	
1250	870	9600		530	10260	
1600	1050	11600		630	12400	
2000	1225	14640		710	14800	
2500	1440	14840		860	16300	



S-30~31500kVA-NX2

Three-phase oil immersed transformer

三相油浸式变压器



► 产品概述 Product overview

In response to the national strategic goal of energy conservation and emission reduction, and in combination with the characteristics of our own products, our company, in accordance with the requirements of the energy efficiency grades of energy-saving products specified in the GB20025-2020 standard, through continuous research, development and improvement, has designed and produced transformer products of different energy efficiency grades that meet the requirements of the national standard.

为响应国家节能减排的战略目标，结合自身产品特点，我公司按照 GB20025-2020 标准节能型产品能效等级的要求，经过不断研发改进，设计生产出符合国标要求的不同能效等级的变压器产品。

Through the research and application of new materials and new processes, as well as continuous independent innovation, and through the optimized design and continuous improvement of the iron core and windings, the goal of reducing losses and noise has been achieved, meeting the requirements of the national standard GB20025-2020. Moreover, the noise level has decreased by 20% compared with the current national standard JB/T10088-2016, and the product performance has reached the domestic advanced level.



通过新材料、新工艺的研究运用及不断的自主创新，通过对铁芯以及绕组的优化设计和不断改良，达到了降低损耗和噪音的目的，满足国标 GB20025-2020 的要求，且噪音水平与现行国标 JB/T10088-2016 相比下降了 20%，产品性能达到了国内先进水平。

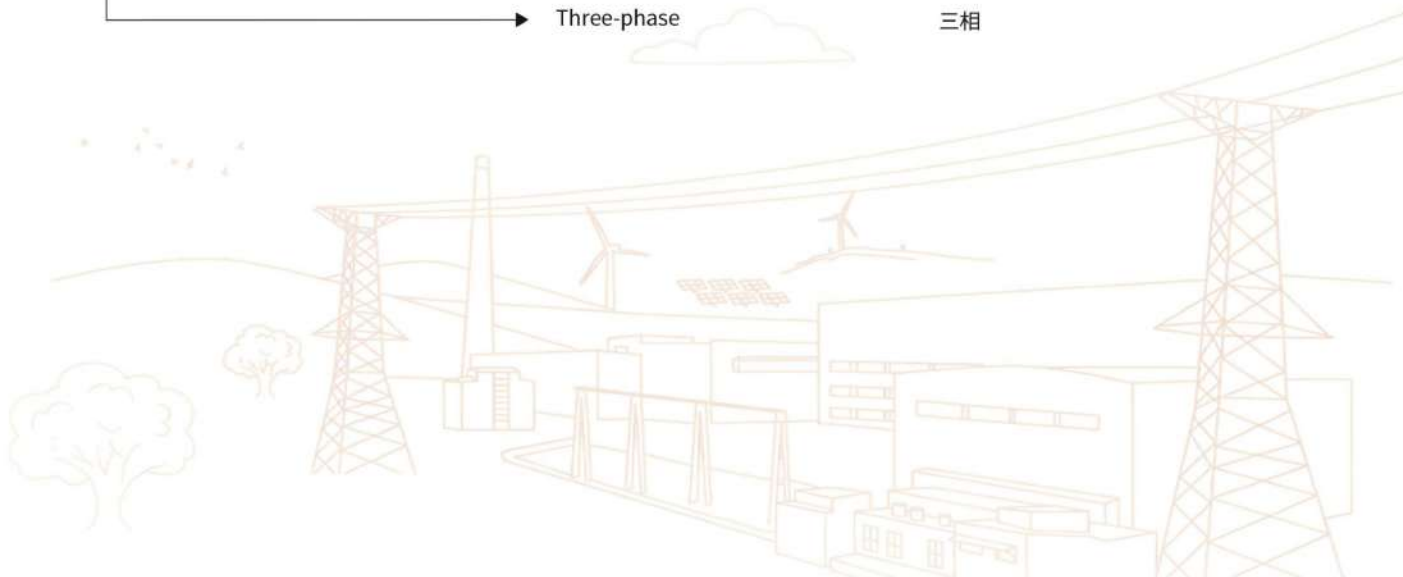
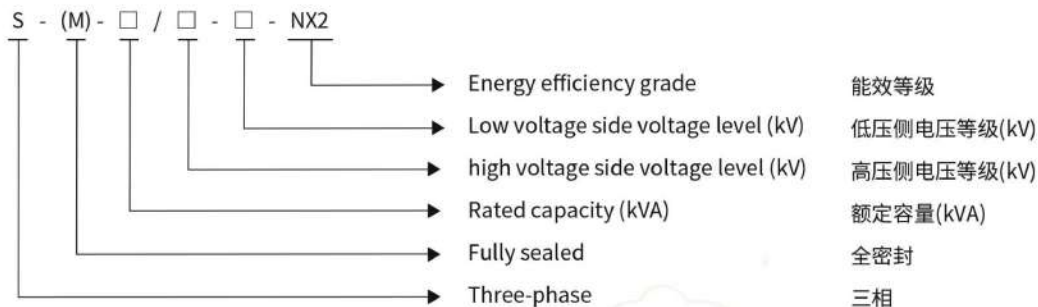
Compared with products of energy efficiency grade II, products of energy efficiency grade I have lower losses.

相较于能效二级，能效一级产品损耗更低。

▶ 执行标准 Enforce standars

- ◎ GB 1094-2013 Power transformer
GB 1094-2013 电力变压器
- ◎ GBT6451-2015 Oil immersed power transformer technical parameters and requirements
GBT6451-2015 油浸式电力变压器技术参数和要求
- ◎ IEC 60076 Power transformer
IEC 60076 电力变压器

▶ 型号说明 Type description



► 性能参数 Performance parameter

Rated capacity (kVA) 额定容量	Electrical steel strip 电工钢带			Amorphous alloy 非晶合金		
	No-load loss (W) 空载损耗	Load loss(W) 负载损耗		No-load loss(W) 空载损耗	Load loss(W) 负载损耗	
		Dyn11/Yzn11	Yyn0		Dyn11/Yzn11	Yyn0
30	70	505	480	33	535	510
50	90	730	695	43	780	745
63	100	870	830	50	930	890
80	115	1050	1000	60	1120	1070
100	135	1265	1200	75	1350	1285
125	150	1510	1440	85	1615	1540
160	180	1850	1760	100	1975	1880
200	215	2185	2080	120	2330	2225
250	260	2560	2440	140	2735	2610
315	305	3065	2920	170	3275	3120
400	370	3615	3440	200	3865	3675
500	430	4330	4120	240	4625	4400
630	510	4960		320	5300	
800	630	6000		380	6415	
1000	745	8240		450	8800	
1250	870	9600		530	10260	
1600	1050	11600		630	12400	
2000	1225	14640		710	14800	
2500	1440	14840		860	16300	



S (11) -30~31500kVA

Three-phase oil immersed transformer

三相油浸式变压器



► 产品概述 Product overview

Three-phase oil-immersed transformers. The transformer body adopts a new type of insulation structure, which improves the short-circuit resistance ability. The iron core is made of high-quality cold-rolled silicon steel sheets. The winding adopts a multi-layer cylindrical or foil structure. All fasteners are treated with special anti-loosening measures. This product has the characteristics of high efficiency and low loss, which can save a large amount of power consumption and operation costs, and has remarkable social benefits.

三相油浸式变压器，器身采用了新型绝缘结构，提高了抗短路能力；铁芯由高质量冷轧硅钢片制成；绕组采用多层圆筒式或箔式结构；所有紧固件均采用特殊防松处理。该产品具有高效率，低损耗的特点，可节省大量的电耗和运行费用，社会效益显著。

The tank adopts a fully enclosed corrugated oil tank structure, which prevents air and moisture from coming into contact with the transformer oil, reduces the degree of oil aging, and prolongs the service life of the transformer.

The product has an outdoor structure, is free of oil stains, and has a high anti-fouling level. During the normal service life, there is no need to replace the transformer oil, and it is truly maintenance-free, ensuring the safe operation and reliability of the power grid.

产品为户外型结构，无油垢，防污等级高；在正常使用期内无需更换变压器油，真正做到免维护，保证电网的安全运行及可靠性。

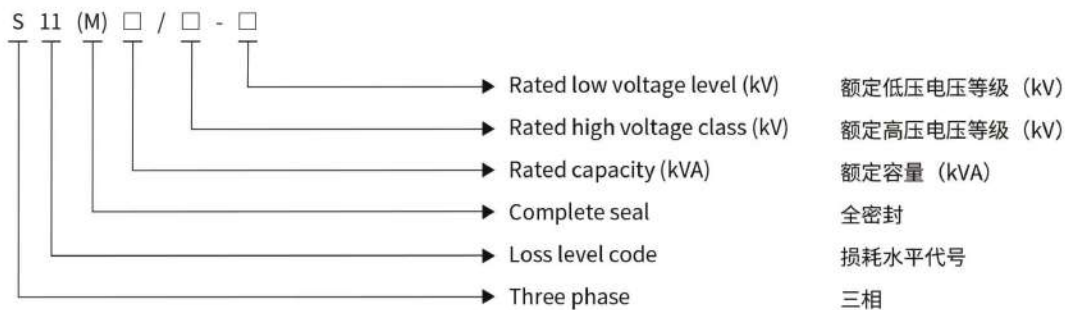


The transformer is equipped with a pressure relief safety protection. When the pressure in the transformer is too high due to a fault, it can be reliably and safely released through the pressure relief valve to prevent the expansion of the accident.
 变压器设有压力释放安全保护，当变压器发生故障压力过高时，可以通过压力

▶ 执行标准 Enforce standars

- ⊙ GB 1094-2013 Power transformer
GB 1094-2013 电力变压器
- ⊙ GBT6451-2015 Oil immersed power transformer technical parameters and requirements
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- ⊙ IEC 60076 Power transformer
IEC 60076 电力变压器

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

- ⊙ Below an altitude of 1000 meters
海拔高度1000m以下
- ⊙ The highest ambient temperature is +40 degrees Celsius
环境温度最高气温+40摄氏度
- ⊙ The highest daily average temperature is +20 degrees Celsius
最高日平均气温+20摄氏度
- ⊙ The lowest outdoor temperature is -25 degrees Celsius
室外最低气温-25摄氏度



► 性能参数 Performance parameter

Rated capacity (KVA) 额定容量	Voltage group 电压组合		Vector group 联接组别	Loss(W) 损耗		No-load current (%) 空载电流	Impedance voltage(%) 阻抗电压	Boundary dimension (LxWxH,mm) 外形尺寸	Weight (kg) 重量
	HV(kV) 高压	LV(kV) 低压		No-load loss(W) 空载损耗	Load loss(W) 负载损耗				
30	20 22 24	0.4	Dyn11 or YynO	100	690/660	2.1	5.5	670×310×615	346
50				130	1010/960	2.0		700×325×630	417
80				180	1440/1370	1.8		755×355×690	556
100				200	1730/1650	1.6		785×360×685	619
125				240	2080/1980	1.5		805×370×720	703
160				290	2540/2420	1.4		850×385×735	794
200				340	3000/2860	1.3		865×405×805	935
250				400	3520/3350	1.2		905×415×935	1086
315				480	4210/4010	1.1		925×440×915	1226
400				570	4970/4730	1.0		970×465×960	1468
500				680	5940/5660	1.0	1035×500×1010	1758	
630				810	6820	0.9	1110×525×1075	2074	
800				980	8250	0.8	1190×580×1155	2840	
1000				1150	11330	0.7	1205×560×1195	2842	
1250				1380	13200	0.7	1185×590×1205	3168	
1600				1660	15950	0.6	1225×565×1345	3800	
2000				1950	19140	0.6	1310×615×1435	4633	
2500				2340	22220	0.5	1390×660×1510	5329	





Rated capacity (KVA) 额定容量	Voltage group 电压组合		Vector group 联接组别	Loss(W) 损耗		No-load current (%) 空载电流	Impedance voltage(%) 阻抗电压	Boundary dimension (LxWxH,mm) 外形尺寸	Weight (kg) 重量			
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80				180	1440/1370	1.8		755×355×690	556			
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160				290	2540/2420	1.4		850×385×735	794			
200				340	3000/2860	1.3		865×405×805	935			
250				400	3520/3350	1.2		905×415×935	1086			
315				480	4210/4010	1.1		925×440×915	1226			
400				570	4970/4730	1.0		970×465×960	1468			
500				680	5940/5660	1.0	1035×500×1010	1758				
630				24	0.4	Dyn11 or Yyn0	810	6820	0.9	6.0	1110×525×1075	2074
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	HV(kV) 高压	LV(kV) 低压		No-load loss(W) 空载损耗	Load loss(W) 负载损耗				
630	35-38.5	3.15	Yd11	830	7860	0.65	6.5	2300×1100×2000	2610
800				980	9400	0.65		2390×1130×2070	3310
1000				1150	11500	0.65		2420×1200×2110	3580
1250				1400	13900	0.55		2500×1270×2130	3990
1600				1690	16600	0.45		2510×1290×2340	4740
2000				2170	18300	0.45		2420×2070×2390	5120
2500				2560	19600	0.45		2520×2210×2470	5880
3150	35-38.5	3.15	Yd11	3040	23000	0.45	7.0	2630×2280×2510	7770
4000				3610	27300	0.45		2720×2430×2570	8750
5000				4320	31300	0.45		2870×2470×2750	9930
6300				5250	35000	0.45		3100×2580×2950	12760
8000	35-38.5	3.15	YNd11	7200	38400	0.35	8.0	3250×2680×3150	14500
10000				8700	45300	0.35		3320×2720×3230	16900
12500				10000	53800	0.30		3410×2950×3410	19980
16000				12100	65800	0.30		3600×3220×3630	24200
20000				14400	79500	0.30		3810×3640×4040	31200
25000				17000	94000	0.25		4180×4170×4260	36100
31500				20200	112000	0.25		4820×4630×4440	42600



S (13) -30~31500kVA

Three-phase oil immersed transformer

三相油浸式变压器



► 产品概述 Product overview

This series of oil-immersed transformers breaks through the traditional planar structure and adopts a three-phase symmetrical three-dimensional structure.

该系列油浸式变压器突破了传统的平面式结构,采用三相对称立体式结构。

The magnetic circuits of the three-phase iron cores of the product are completely symmetrical, the magnetic resistance is greatly reduced, and the exciting current and no-load loss are significantly decreased.

产品三相铁芯磁路完全对称,磁阻大大减少,励磁电流、空载损耗显著降低。

It is an energy-efficient and energy-saving transformer that uses traditional materials but has lower operating noise and a more compact structure.

是一种使用传统材料,但运行噪音更低,结构更为紧凑的高效节能型变压器。

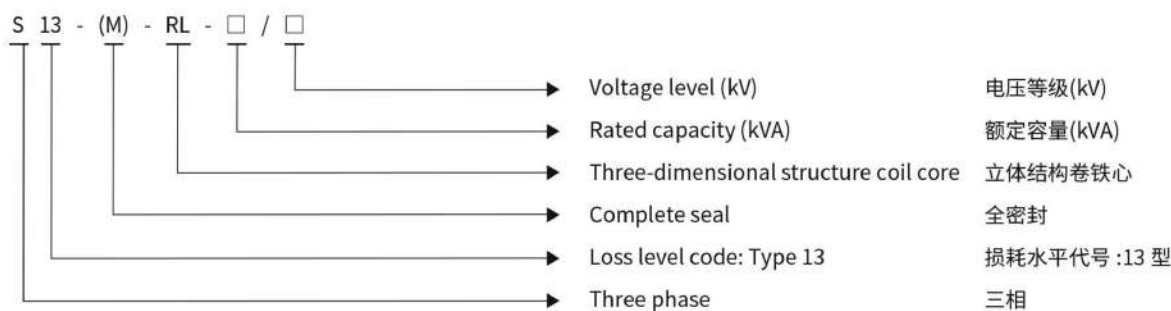
It has outstanding performance in energy conservation and consumption reduction, as well as material saving and environmental protection.

其在节能降耗,省材环保上的出色表现。

▶ 执行标准 Enforce standars

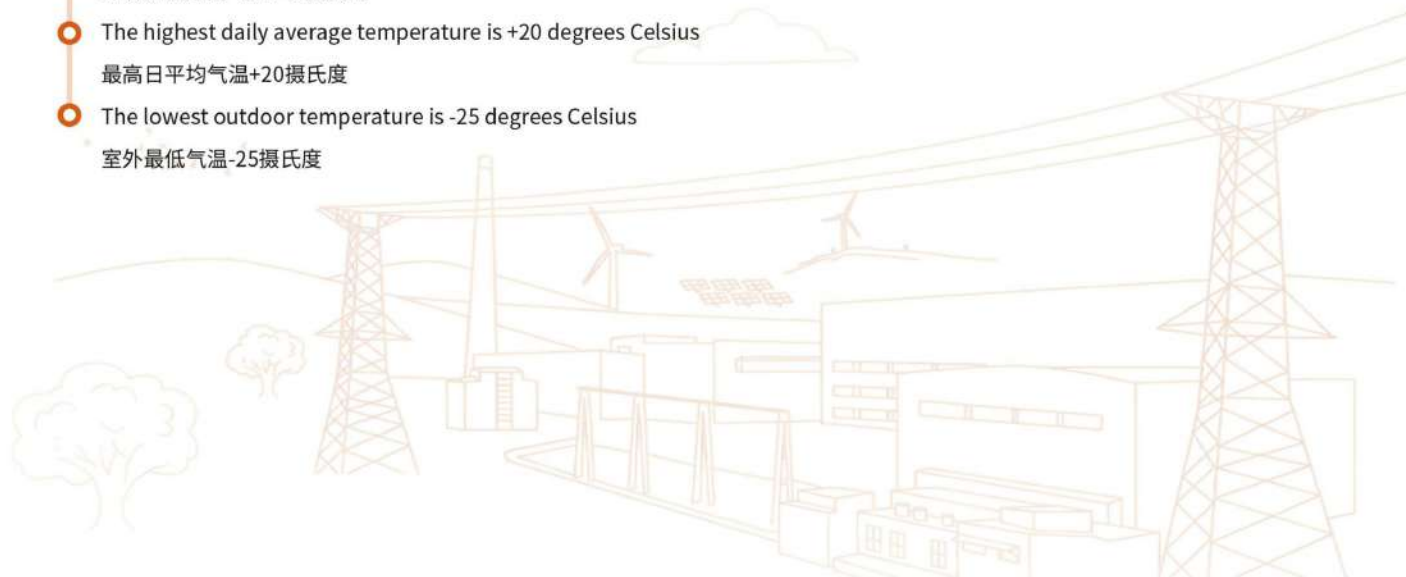
- GB 1094-2013 Power transformer
GB 1094-2013 电力变压器
- GBT6451-2015 Oil immersed power transformer technical parameters and requirements
GBT6451-2015 油浸式电力变压器技术参数和要求
- IEC 60076 Power transformer
IEC 60076 电力变压器

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

- Below an altitude of 1000 meters
海拔高度1000m以下
- The highest ambient temperature is +40 degrees Celsius
环境温度最高气温+40摄氏度
- The highest daily average temperature is +20 degrees Celsius
最高日平均气温+20摄氏度
- The lowest outdoor temperature is -25 degrees Celsius
室外最低气温-25摄氏度





► 性能参数 Performance parameter

Rated capacity (kVA) 额定容量	Voltage group 电压组合		Vector group 联接组别	Loss(W) 损耗		No-load current (%) 空载电流	Impedance voltage(%) 阻抗电压	Boundary dimension (LxWxH,mm) 外形尺寸	Weight (kg) 重量
	HV(kV) 高压	LV(KV) 低压		No-load loss (W) 空载损耗	Load loss(W) 负载损耗				
30	11 10.5 10 6	0.4	Dyn11 or YynO	80	630/600	0.3	4	800x620x1100	300
50				100	910/870	0.24		840x640x1150	380
80				130	1090/1040	0.22		980x670x1210	480
100				150	1310/1250	0.21		1040x700x1230	540
125				170	1580/1500	0.20		910x800x1260	590
160				200	1890/1800	0.19		1110x970x1290	720
200				240	2310/2200	0.18		1180x1020x1310	860
250				290	2730/2600	0.17		1190x1030x1300	970
315				340	3200/3050	0.16	1290x1120x1360	1170	
400				410	3830/3650	0.16	1280x1110x1410	1320	
500				480	4520/4300	0.16	1400x1210x1420	1490	
630				570	6200	0.15	1440x1250x1490	1910	
800				700	7500	0.15	1540x1340x1520	2160	
1000				830	10300	0.14	1600x1420x1630	2550	
1250				970	12000	0.13	1680x1460x1730	3160	
1600				1170	14500	0.12	1780x1540x1810	3850	
						4.5			



SH (15) -30~31500kVA Three-phase oil immersed transformer

三相油浸式变压器



▶ 产品概述 Product overview

Amorphous alloy is a new type of energy-saving material. The metal atoms in it are arranged in a disordered amorphous state. It is completely different from the crystal structure of silicon steel, and it is more conducive to magnetization and demagnetization.

非晶合金是一种新型节能材料,其金属原子呈无序非晶体排列,它与硅钢的晶体结构完全不同,更利于被磁化和去磁。

The thickness of its iron core sheet is extremely thin, only 0.025mm, which is less than 1/10 of that of ordinary silicon steel sheets. 其铁心片厚度极薄仅 0.025mm,不到普通硅钢片的 1/10。

This new material, when used in the iron core of a transformer, has the characteristics of high saturation magnetic induction intensity, low loss, low exciting current, and good temperature stability, etc.

这种新材料用于变压器铁芯,具有高饱和磁感应强度、低损耗、低激磁电流、良好的温度稳定性等特点。

► 性能参数 Performance parameter

Rated capacity (kVA) 额定容量	Voltage group 电压组合		Vector group 联接组别	Loss(W)损耗		No-load current (%) 空载电流	Impedance voltage(%) 阻抗电压	Boundary dimension (LxWxH,mm) 外形尺寸	Weight (kg) 重量
	HV(kV) 高压	LV(KV) 低压		No-load loss (W) 空载损耗	Load loss(W) 负载损耗				
30	11 10.5 10 6.3 6	0.4	Dyn11	33	600	1.5	4	920×850×830	410
50				43	870	1.2		1040×780×870	520
63				50	1040	1.1		1010×810×880	570
80				60	1250	1.0		1060×830×910	640
100				75	1500	0.9		1140×830×860	750
125				85	1800	0.8		1110×880×950	830
160				100	2200	0.6		1130×880×1000	940
200				120	2600	0.6		1240×900×1020	1090
250			Yyn0	140	3050	0.6	1290×900×1070	1250	
315				170	3650	0.5	1380×840×1110	1470	
400				200	4300	0.5	1420×920×1250	1710	
500				240	5150	0.5	1360×1040×1180	1990	
630				320	6200	0.3	1530×1120×1310	2390	
800				380	7500	0.3	1880×1210×1360	2760	
1000				450	10300	0.3	2040×1520×1360	3240	
1250				530	12000	0.2	2140×1520×1430	3820	
1600	630	14500	0.2	2260×1540×1500	4620				





DC-30~6300kVA

Single-phase dry transformer

单相干式变压器



► 产品概述 Product overview

Single-phase transformers are widely used in the commercial low-voltage field.

单相变压器广泛应用于商业低压领域。

They work as step-down transformers and reduce the voltage value of the equipment to a value suitable for powering electronic devices.

它们作为降压变压器工作，并将设备电压值降低到适合电子设备供电的值。

On the secondary side, a rectifier is usually connected to convert the alternating current voltage into direct current voltage.

在二次侧，通常连接整流器，将交流电压转换为直流电压。

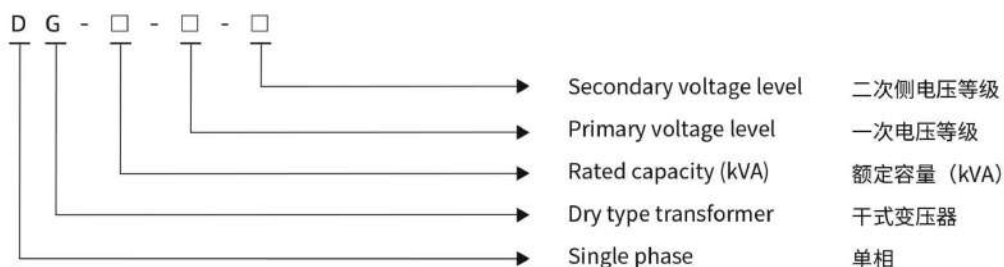
They are widely used as power transformers for imported important equipment, precision machine tools, mechatronic equipment, etc.

它们广泛用于进口重要设备、精密机床、机械电子设备等的电源变压器。

▶ 执行标准 Enforce standards

- ⊙ VDE0550: Small transformer
VDE0550:小型变压器
- ⊙ IEC439: Low-voltage switchgear and control equipment
IEC439: 低压成套开关设备和控制设备
- ⊙ JB5555: machine tool control transformer
JB5555: 机床控制变压器
- ⊙ GB5226: Mechanical and electrical equipment
GB5226: 机械电气设备

▶ 型号含义 Type description



▶ 性能参数 Product overview

Rated capacity (kVA) 额定容量(千伏安)	Rated voltage (V) 额定电压(伏)		Overall dimensions (mm) 外形尺寸(mm)			Installation dimensions (mm) 安装尺寸(mm)	
	novice 初级	secondary 次级	A(wide) A(宽)	D(deep) D(深)	E(high) E(高)	B	C
	5	220	110	340	320	380	220
10	380			340	420	260	126
15	400			360	480	260	136
20	380	127	440	380	540	300	141
25			480	400	580	320	155
30			500	380	600	320	156
40	400	220	540	420	620	360	170
50			560	450	660	360	175
70			640	520	720	400	195
	440	400					

Other capacity and size,can be customized according to customer requirements of any capacity,voltage,etc



SCB-30~31500kVA-NX1

Three-phase dry type transformer

三相干式变压器



► 产品概述 Product overview

The structural design of the dry-type transformer with second-level energy efficiency is advanced, and high-temperature insulation materials that are resistant to both sound and visual influence are adopted. It has the characteristics of good no-load energy consumption, safety and reliability, etc., ensuring a stable power output.

二级能效干式变压器的结构设计先进，采用了视听高温绝缘材料，它具有良好的无负载能耗和安全可靠等特性，保证电力稳定输出。

It is mainly used for the wiring of electrical circuits, electrical equipment and electromechanical equipment, providing stable power output quality for the power matching of various electrical and mechanical equipment.

主要用于电线路、电器设备和机电设备的接线，为各类电气机械设备的电力配套提供稳定的电力输出质量。

It has a high insulation class and stable and reliable performance. In practical applications, it can provide continuous and stable high-quality voltage transformation services.

它的绝缘等级高，性能稳定可靠，在实际应用时，能够提供持续稳定的高质量的变压服务。

It has high working efficiency and can provide efficient power output to ensure the safe operation of the power supply.

它的工作效率高，能够提供高效的功率输出，确保电源的安全运行。

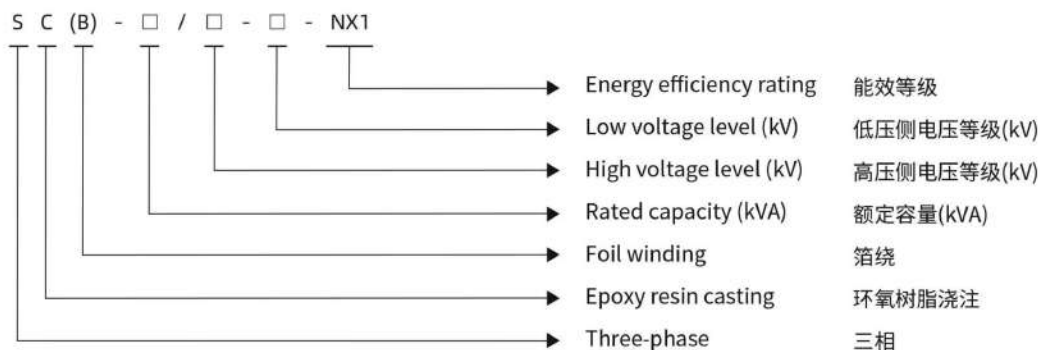
It has good heat dissipation performance and excellent performance reliability during long-term operation.

它的散热性好，在长时间的运行过程中，具备优异的性能可靠性。

▶ 执行标准 Enforce standards

- ⊙ GB 1094-2013 Power transformer
GB 1094-2013 电力变压器
- ⊙ GB/T 2900.95 Electrical terms transformers, voltage regulator and reactors
GB/T 2900.95 电工术语 变压器、调压器和电抗器
- ⊙ GB/T 10228 Technical parameters and requirements of dry type power transformers
GB/T 10228 干式电力变压器技术参数和要求
- ⊙ GB 20052-2020 Power transformer energy efficiency limit value and energy
GB 20052-2020 电力变压器能效限定值及能效等级
- ⊙ IEC 60076 Power transformer
IEC 60076 电力变压器

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

- ⊙ Below an altitude of 1000 meters
海拔高度1000m以下
- ⊙ The highest ambient temperature is +40 degrees Celsius
环境温度最高气温+40摄氏度
- ⊙ The highest daily average temperature is +20 degrees Celsius
最高日平均气温+20摄氏度
- ⊙ The lowest outdoor temperature is -20 degrees Celsius
室外最低气温-20摄氏度



► 性能参数 Performance parameter

Rated capacity (kVA) 额定容量	Electrical steel belt 电工钢带				Amorphous alloy 非晶合金				Rated capacity (kVA) 额定容量
	No-load loss(W) 空载损耗	Load loss(W)负载损耗			No-load loss(W) 空载损耗	Load loss(W)负载损耗			
		B(100°C)	F(120°C)	H(145°C)		B(100°C)	F(120°C)	H(145°C)	
30	105	605	640	685	50	605	640	685	4.0
50	155	845	900	965	60	845	900	965	
80	210	1160	1240	1330	85	1160	1240	1330	
100	230	1330	1415	1520	90	1330	1415	1520	
125	270	1565	1665	1780	105	1565	1665	1780	
160	310	1800	1915	2050	120	1800	1915	2050	
200	360	2135	2275	2440	140	2135	2275	2440	
250	415	2330	2485	2665	160	2330	2485	2665	
315	510	2945	3125	3355	195	2945	3125	3355	
400	570	3375	3590	3850	215	3375	3590	3850	
500	670	4130	4390	4705	250	4130	4390	4705	
630	775	4975	5290	5660	295	4975	5290	5660	
630	750	5050	5365	5760	290	5050	5365	5760	
800	875	5895	6265	6715	335	5895	6265	6715	
1000	1020	6885	7315	7885	385	6885	7315	7885	
1250	1205	8190	8720	9335	455	8190	8720	9335	
1600	1415	9945	10555	11320	530	9945	10555	11320	
2000	1760	12240	13005	14005	700	12240	13005	14005	
2500	2080	14535	15445	16605	840	14535	15445	16605	





SCB-30~31500kVA-NX2 Three-phase dry type transformer

三相干式变压器



► 产品概述 Product overview

The structural design of the dry-type transformer with second-level energy efficiency is advanced, and high-temperature insulation materials that are resistant to both sound and visual influence are adopted. It has the characteristics of good no-load energy consumption, safety and reliability, etc., ensuring a stable power output.

二级能效干式变压器的结构设计先进，采用了视听高温绝缘材料，它具有良好的无负载能耗和安全可靠等特性，保证电力稳定输出。

It is mainly used for the wiring of electrical circuits, electrical equipment and electromechanical equipment, providing stable power output quality for the power matching of various electrical and mechanical equipment.

主要用于电线路、电器设备和机电设备的接线，为各类电气机械设备的电力配套提供稳定的电力输出质量。

It has a high insulation class and stable and reliable performance. In practical applications, it can provide continuous and stable high-quality voltage transformation services.

它的绝缘等级高，性能稳定可靠，在实际应用时，能够提供持续稳定的高质量的变压服务。

It has high working efficiency and can provide efficient power output to ensure the safe operation of the power supply.

它的工作效率高，能够提供高效的功率输出，确保电源的安全运行。

It has good heat dissipation performance and excellent performance reliability during long-term operation.

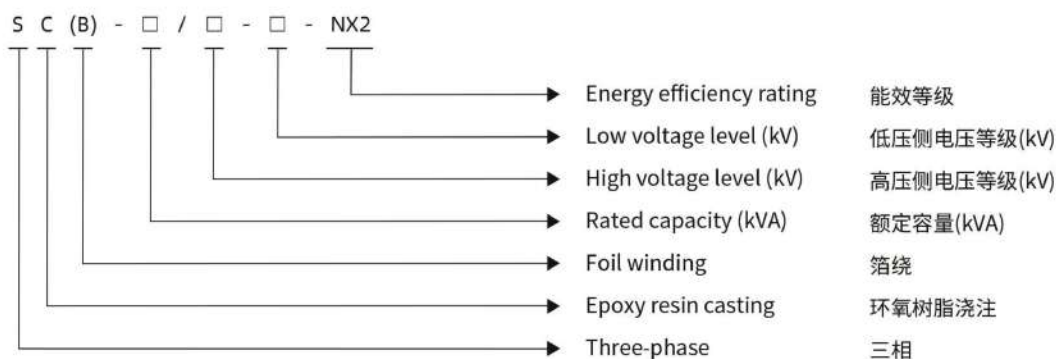
它的散热性好，在长时间的运行过程中，具备优异的性能可靠性。



▶ 执行标准 Enforce standards

- ⊙ GB 1094-2013 Power transformer
GB 1094-2013 电力变压器
- ⊙ GB/T 2900.95 Electrical terms transformers, voltage regulator and reactors
GB/T 2900.95 电工术语 变压器、调压器和电抗器
- ⊙ GB/T 10228 Technical parameters and requirements of dry type power transformers
GB/T 10228 干式电力变压器技术参数和要求
- ⊙ GB 20052-2020 Power transformer energy efficiency limit value and energy
GB 20052-2020 电力变压器能效限定值及能效等级
- ⊙ IEC 60076 Power transformer
IEC 60076 电力变压器

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

- ⊙ Below an altitude of 1000 meters
海拔高度1000m以下
- ⊙ The highest ambient temperature is +40 degrees Celsius
环境温度最高气温+40摄氏度
- ⊙ The highest daily average temperature is +20 degrees Celsius
最高日平均气温+20摄氏度
- ⊙ The lowest outdoor temperature is -20 degrees Celsius
室外最低气温-20摄氏度



► 性能参数 Performance parameter

Rated capacity (kVA) 额定容量	Electrical steel belt 电工钢带				Amorphous alloy 非晶合金				Short-circuit impedance(%) 短路阻抗
	No-load loss(W) 空载损耗	Load loss (W) 负载损耗			No-load loss(W) 空载损耗	Load loss (W) 负载损耗			
		B(100°C)	F(120°C)	H(145°C)		B(100°C)	F(120°C)	H(145°C)	
30	130	605	640	685	60	605	640	685	4.0
50	185	845	900	965	75	845	900	965	
80	250	1160	1240	1330	100	1160	1240	1330	
100	270	1330	1415	1520	110	1330	1415	1520	
125	320	1565	1665	1780	130	1565	1665	1780	
160	365	1800	1915	2050	145	1800	1915	2050	
200	420	2135	2275	2440	170	2135	2275	2440	
250	490	2330	2485	2665	195	2330	2485	2665	
315	600	2945	3125	3355	235	2945	3125	3355	
400	665	3375	3590	3850	265	3375	3590	3850	
500	790	4130	4390	4705	305	4130	4390	4705	
630	910	4975	5290	5660	360	4975	5290	5660	
630	885	5050	5365	5760	350	5050	5365	5760	
800	1035	5895	6265	6715	410	5895	6265	6715	
1000	1205	6885	7315	7885	470	6885	7315	7885	
1250	1420	8190	8720	9335	550	8190	8720	9335	
1600	1665	9945	10555	11320	645	9945	10555	11320	
2000	2075	12240	13005	14005	850	12240	13005	14005	
2500	2450	14535	15445	16605	1020	14535	15445	16605	
									6.0





SCB (10) -30~31500kVA

Three-phase dry type transformer

三相干式变压器



► 产品概述 Product overview

This series of dry-type transformers with fillers and thin insulation. Because the coils are encapsulated by epoxy resin, they are flame-retardant, fireproof, explosion-proof, maintenance-free, pollution-free and small in size, and can be directly installed in the load center.

该系列带填料薄绝缘干式变压器，由于线圈被环氧树脂包封，所以难燃、防火、防爆、免维护、无污染、体积小，可直接安装在负荷中心。

Meanwhile, the scientific and reasonable design and pouring process make the product have a smaller partial discharge amount, lower noise and stronger heat dissipation capacity. Under the condition of forced air cooling, it can operate continuously at 140% of the rated load for a long time, and is equipped with an intelligent temperature controller for centralized monitoring and control.

同时，科学合理的设计和浇注工艺，使产品局部放电量更小、噪声低、散热能力强，在强迫风冷条件下可以在 140% 额定负载下长期运行，并配有智能温控仪，可以集中监视和控制。

The foil-type coil can solve problems such as high short-circuit stress of products wound with low-voltage and large-current coils, unbalanced ampere-turns, poor heat dissipation effect, large winding helix angle, and unstable quality of manual welding.



箔式线圈可解决电压低、大电流线圈绕制产品短路应力高、安匝不平衡、散热效果差、绕制螺旋角大、手工焊接质量不稳定等问题。

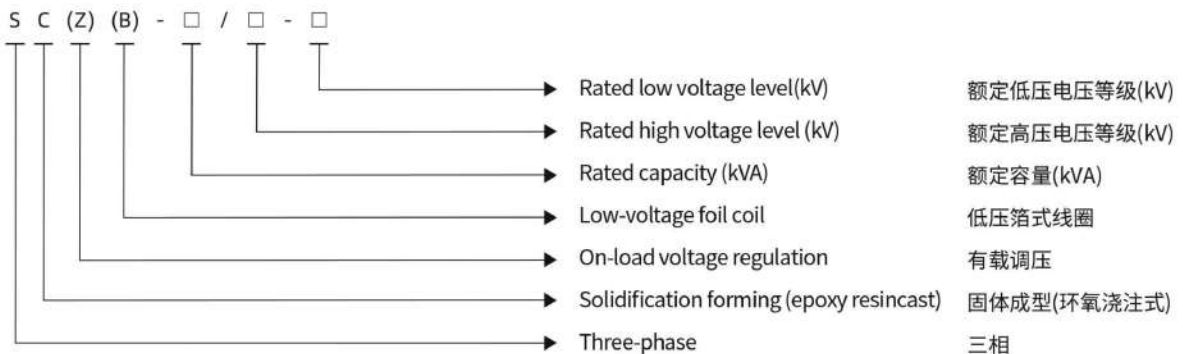
At the same time, the winding ends of our company adopt resin sealing, curing, moisture-proof and anti-fouling measures, and the copper busbars are automatically welded by argon arc welding.

同时本公司绕组端部采用树脂密封、固化、防潮、防污，铜排采用氩弧焊自动焊接。

▶ 执行标准 Enforce standards

- ◎ GB 1094-2013 Power transformer
GB 1094-2013 电力变压器
- ◎ GB/T 2900.95 Electrical terms transformers, voltage regulator and reactors
GB/T 2900.95 电工术语 变压器、调压器和电抗器
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GB 20052-2020 电力变压器能效限定值及能效等级
- ◎ IEC 60076 Power transformer
IEC 60076 电力变压器

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

- Below an altitude of 1000 meters
海拔高度1000m以下
- The highest ambient temperature is +40 degrees Celsius
环境温度最高气温+40摄氏度
- The highest daily average temperature is +20 degrees Celsius
最高日平均气温+20摄氏度
- The lowest outdoor temperature is -20 degrees Celsius
室外最低气温-20摄氏度



► 性能参数 Performance parameter

Rated capacity (kVA) 额定容量	Voltage group 电压组合			Vector group 联接组别	Impedance voltage(%) 阻抗电压	No-load loss(W) 空载损耗	Load loss F/120°C (W) 负载损耗 F/120°C	Load loss H/145°C (W) 负载损耗 H/145°C	No-load current (%) 空载电流	Dimension(mm) 外形尺寸			Weight (kg) 重量				
	HV(kV) 高压	Tap range 分接范围	LV(kV) 低压							L	W	H					
50	20	±2×2.5% ±5%	0.4	YynO Dyn11	6.0	340	1230	1310	2.0	750	600	800	520				
100						540	1990	2130	1.8	950	700	840	750				
160						670	2470	2640	1.5	1000	950	760	870				
200						730	2940	3140	1.5	1100	950	820	900				
250						840	3420	3660	1.3	1230	950	1450	1250				
315						970	4080	4360	1.3	1260	1000	1500	1420				
400						1150	4840	5180	1.1	1340	1050	1650	1820				
500						22				1350	5790	6190	1.1	1400	1150	1650	2180
630						24				1530	6840	7320	1.0	1410	1150	1650	2380
800										1750	8260	8840	1.0	1470	1250	1750	2640
1000										2070	9780	10400	0.85	1530	1300	1750	3010
1250										2380	11500	12300	0.85	1580	1300	1850	3650
1600										2750	13800	14800	0.85	1680	1400	1850	4450
2000										3240	16300	17500	0.7	1770	1450	2050	5630
2500										3870	19300	20700	0.7	1850	1450	2150	6610

Rated capacity (kVA) 额定容量	Voltage group 电压组合			Vector group 联接组别	Impedance voltage (%) 阻抗电压	No-load loss (W) 空载损耗	Load loss 120 (W) 负载损耗 120°C	No-load current (%) 空载电流
	HV(kV) 高压	Tap range 分接范围	LV(kV) 低压					
50	33 35 38.5	±2×2.5%	0.4	YynO or Dyn11	6.0	450	1420	2.3
100						680	2090	2.0
160						790	2810	1.5
200						880	3325	1.5
250						990	3800	1.3
315						1170	4510	1.3
400						1370	5410	1.1
500						1520	6650	1.1
630						1860	7690	1.0
800						2160	9120	1.0
1000						2430	10400	0.75
1250						2830	12700	0.75
1600						3240	15400	0.75
2000						3820	18200	0.75
2500						4450	21800	0.75



SCB (11) -30~31500kVA

Three-phase dry type transformer

三相干式变压器



► 产品概述 Product overview

Compared with the SCB10 product, the no-load loss is reduced by 12%.

与 SCB10 型产品相比，空载耗损下降 12%。

The noise level is reduced, which greatly improves the economic benefits. It has high mechanical strength, good short-circuit resistance, flame retardancy, explosion prevention, and no pollution. It can be directly installed on the load.

噪音水平降低，大大的提高了经济效益，机械强度高，抗短路性能好，阻燃防爆无污染，可以直接安装在负载。

It is maintenance-free, has good moisture resistance, can operate under 100% humidity, does not require preheating treatment before commissioning, and does not require dehumidification treatment during intermittent operation.

免维护，防潮性能好，可以在 100% 湿度下运行，投运前无需预热处理，间断运行无需去潮处理。

It has a small external dimension, light weight, and low partial discharge.

外形尺寸小，重量轻，局放低。

It has a high insulation level and good resistance to lightning impulse.

绝缘水平高、耐雷电冲击性能好。

It has strong heat dissipation ability and can operate at 150% of the rated load under the condition of cold air.

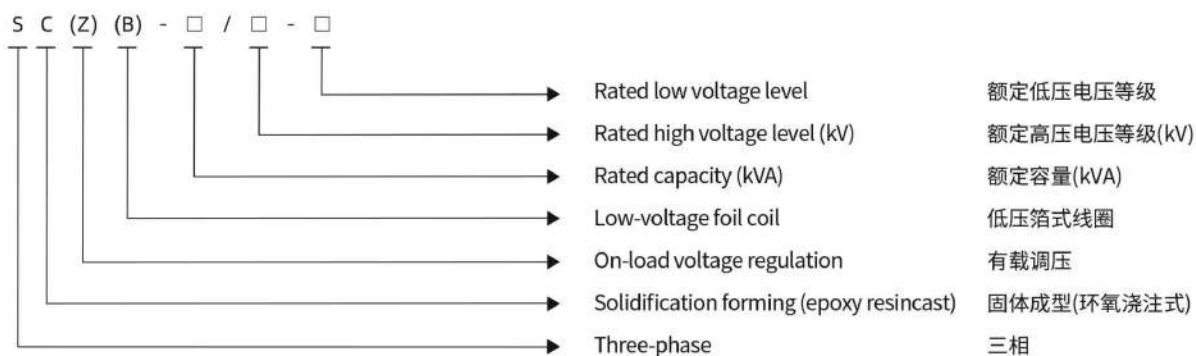
散热能力强，在冷风条件下可 150% 额负载运行。



▶ 执行标准 Enforce standards

- ◎ **GB 1094-2013 Power transformer**
GB 1094-2013 电力变压器
- ◎ **GB/T 2900.95 Electrical terms transformers, voltage regulator and reactors**
GB/T 2900.95 电工术语 变压器、调压器和电抗器
- ◎ **GB/T 10228 Technical parameters and requirements of dry type power transformers**
GB/T 10228 干式电力变压器技术参数和要求
- ◎ **GB 20052-2020 Power transformer energy efficiency limit value and energy**
GB 20052-2020 电力变压器能效限定值及能效等级
- ◎ **IEC 60076 Power transformer**
IEC 60076 电力变压器

▶ 型号说明 Type description

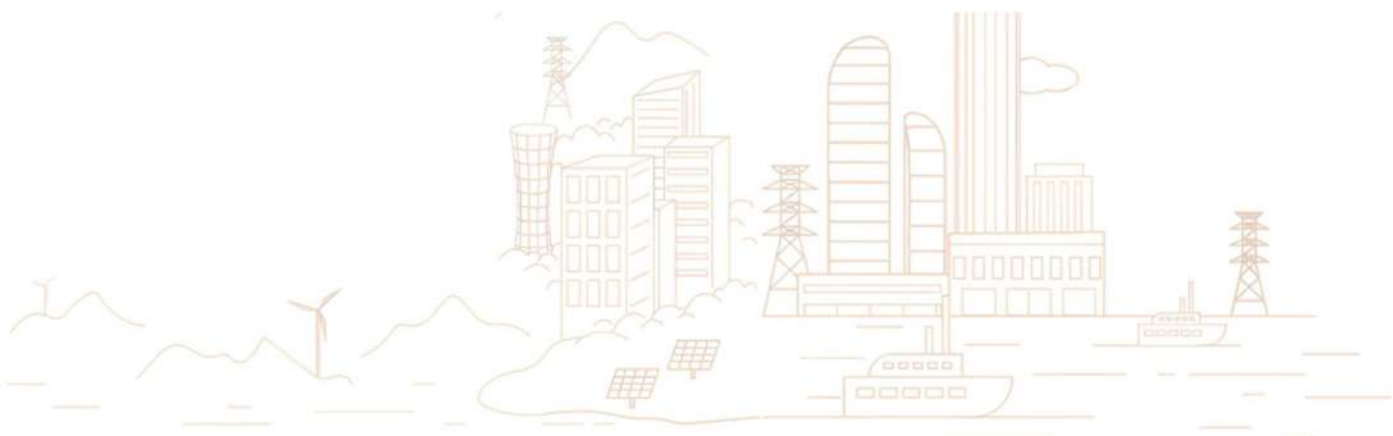


▶ 正常使用条件 Normal service condition

- ◎ Below an altitude of 1000 meters
海拔高度1000m以下
- ◎ The highest ambient temperature is +40 degrees Celsius
环境温度最高气温+40摄氏度
- ◎ The highest daily average temperature is +20 degrees Celsius
最高日平均气温+20摄氏度
- ◎ The lowest outdoor temperature is -20 degrees Celsius
室外最低气温-20摄氏度

► 性能参数 Performance parameter

Rated capacity (kVA) 额定容量	Voltage group 电压组合			Impedance voltage(%) 阻抗电压	SC(B)11			Sound level (dB) 声级	Dimension(mm) 外形尺寸			Weight (kg) 重量
	HV(kV) 高压	Tap range 分接范围	LV(kV) 低压		No-load loss (W) 空载损耗	Load loss 120°C (W) 负载损耗 120°C	No-load current (%) 空载电流		L	W	H	
					±2x2.5% ±5%	04	4					
30	11	±2x2.5% ±5%	04	4	170	710	2.0	44	620	400	600	220
50	10.5				250	1000	2.0	44	650	400	740	320
80					330	1380	1.5	45	750	500	770	460
100					360	1570	1.5	45	800	500	830	580
125	6.6				420	1850	1.3	46	950	880	1090	750
160					490	2130	1.3	46	950	880	1090	780
200	6				560	2530	1.1	47	1050	900	1200	850
250					650	2760	1.1	48	1050	900	1200	1030
315					790	3470	1.0	48	1080	900	1250	1060
400					880	3990	1.0	49	1110	950	1270	1400
500					1040	4880	1.0	49	1130	950	1380	1550
630					1210	5880	0.85	49	1200	950	1450	1820
630					1170	5960	0.85	50	1320	950	1375	1850
800					1370	6960	0.85	51	1310	1000	1315	2150
1000					1590	8130	0.85	52	1400	1070	1520	2550
1250					1880	9690	0.85	53	1440	1150	1570	3020
1600	2210				11730	0.85	54	1650	1200	1795	4500	
2000	2750				14450	0.7	55	1800	1260	1870	5300	
2500	3240	17170	0.7	56	1950	1260	2035	6200				

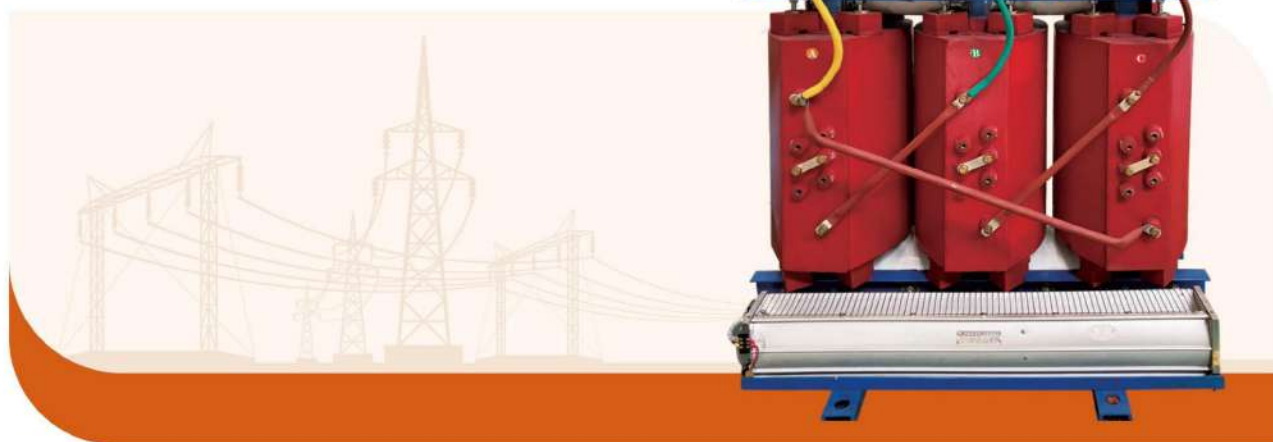




SCBH (15) -30~31500kVA

Three-phase dry type transformer

三相干式变压器



► 产品概述 Product overview

Our company can produce various types of this product with a voltage class of 40.5kV and below.

我司可生产电压等级 40.5kV 及以下各种类该产品。

This product has the advantages of low no-load loss, being oil-free, flame-retardant and self-extinguishing, moisture-resistant, crack-resistant, and maintenance-free.

该产品具有空载损耗低、无油、阻燃自熄、耐潮、抗裂和免维修等优点。

Any place where ordinary dry-type transformers are currently used can be replaced by amorphous alloy dry-type transformers.

凡是现在使用普通干变的场所都可由非晶干变所取代。

It can be used in high-rise buildings, commercial centers, airports, oil platforms, subways, tunnels, airports, railway stations, industrial and mining enterprises, and power plants.

可用于高层建筑、商业中心、机场、石油平台、地铁、隧道、机场、车站工矿企业和发电厂。

It is especially suitable for installation and use in places with high fire protection requirements such as flammable and explosive areas.

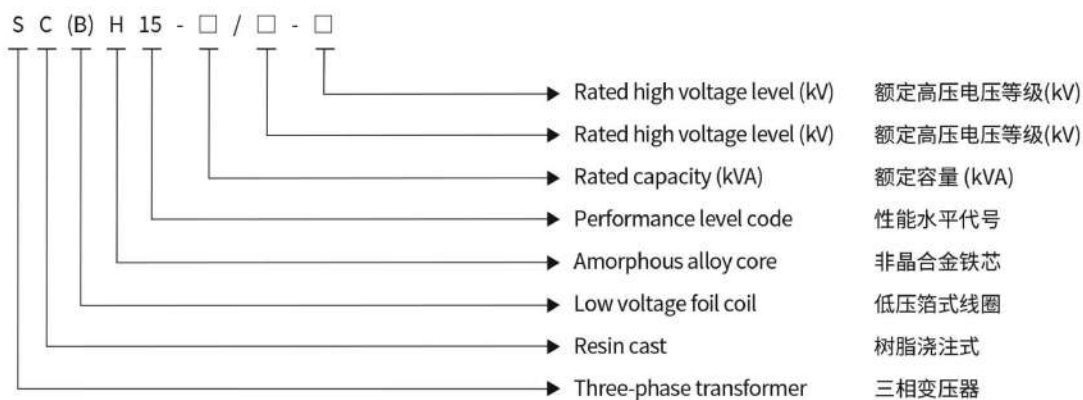
特别适合于易燃、易爆等防火要求高的场所安装使用。



▶ 执行标准 Enforce standards

- ◎ GB 1094-2013 Power transformer
GB 1094-2013 电力变压器
- ◎ GB/T 2900.95 Electrical terms transformers, voltage regulator and reactors
GB/T 2900.95 电工术语 变压器、调压器和电抗器
- ◎ GB/T 10228 Technical parameters and requirements of dry type power transformers
GB/T 10228 干式电力变压器技术参数和要求
- ◎ GB 20052-2020 Power transformer energy efficiency limit value and energy
GB 20052-2020 电力变压器能效限定值及能效等级
- ◎ IEC 60076 Power transformer
IEC 60076 电力变压器

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

- ◎ Below an altitude of 1000 meters
海拔高度1000m以下
- ◎ The highest ambient temperature is +40 degrees Celsius
环境温度最高气温+40摄氏度
- ◎ The highest daily average temperature is +20 degrees Celsius
最高日平均气温+20摄氏度
- ◎ The lowest outdoor temperature is -20 degrees Celsius
室外最低气温-20摄氏度



► 性能参数 Performance parameter

Rated capacity (KVA) 额定容量	Voltage group 电压组合		Vector group 联接组别	Loss(W)损耗		No-load current(%) 空载电流	Impedance voltage(%) 阻抗电压	Weight (Kg) 重量	Boundary dimension (LxWxH,mm) 外形尺寸	Gauge 轨距		
	HV(kV) 高压	LV(kV) 低压		No-load loss(W) 空载损耗	Load loss 75°C 负载损耗					Longitudinal/ transverse (mm) 纵向/横向		
100	11 10.5 10 6.3 6	0.4	Dyn11	130	1570	1.2	4	890	950×600×960	550×550		
160				170	2130	1.1		1170	1220×600×1060	550×550		
200				200	2530	1.0		1400	1270×710×1160	660×660		
250				230	2760	1.0		1560	1350×760×1240	660×660		
315				280	3470	0.9		1770	1370×870×1360	820×820		
400				310	3990	0.8		2180	1460×870×1360	820×820		
500				360	4880	0.8		2440	1490×870×1430	820×820		
630				420	5880	0.7		2850	1760×1120×1490	1070×1070		
630				410	5960	0.7	6	3015	1710×970×1450	1070×1070		
800				480	6960	0.7		3430	1850×1120×1600	1070×1070		
1000				550	8130	0.6		4050	1900×1120×1170	1070×1070		
1250				650	9690	0.6		4690	2030×1120×1880	1070×1070		
600				760	11730	0.6		5610	2120×1120×1970	1070×1070		
2000				1000	14450	0.5		5820	2120×1120×1990	1070×1070		
2500				1200	17170	0.5		6730	2190×1120×2110		1070×1070	



EWR Series

Medium voltage switchgear

中压开关柜



► 产品概述 Product overview

Our company can produce this product with a voltage class range of 1-40.5kV and below. The fully enclosed and fully insulated gas-filled ring main unit is a metal common box type enclosed switchgear insulated by SF₆ gas. This equipment can be composed of modules such as the load switch unit, the combined electrical appliance unit of load switch and fuse, the vacuum circuit breaker unit, and the busbar incoming line unit. By adopting a series of excellent technologies and materials, it has excellent electrical and mechanical properties, is less affected by the environment and climate, is compact in size, easy to install, convenient to operate, maintenance-free, and has a flexible combination mode. The clear and intuitive design ensures simple and direct operation. It has a large feeder connection capacity and is suitable for a variety of wiring systems. Through us, we can provide users with an integrated three-position load switch circuit breaker. Using a load switch instead of a disconnecter is safer and more reliable. The fully enclosed design on the primary side provides protection against accidental contact, and the mechanical interlock live-line indicator that meets the "five-prevention" requirements can provide live-line indication for the incoming and outgoing lines.

我司可生产电压等级范围为 1-40.5kV 及以下的该产品。全封闭全绝缘充气式环网开关设备是 SF₆ 气体绝缘的金属共箱式封闭开关设备，该设备可由负荷开关单元、负荷开关熔断器组合电器单



元、真空断路器单元、母线进线单元模块组成。采用一系列优良技术和材料，具有优异的电气性能和机械性能，受环境和气候影响小，体积小，易于安装，操作方便，无需维护，且具有灵活的组合方式。清晰直观的设计保证操作简单、直接。馈线接线容量大，适合多种接线系统。通过我们可为用户提供一体化三工位负荷开关断路器采用负荷开关替代隔离开关，更安全可靠，一次侧全密闭设计提供意外接触的保护满足五防要求的机械联锁带电显示器可提供进出线路带电指示。

Reliable operation: With a fully enclosed design, all switches and live busbar conductors are sealed in an air box welded by 3mm stainless steel plates; equipped with silicone rubber cable plugs to achieve full insulation and full sealing of the cable ends, thus not being affected by external environmental factors such as dust, humidity, and small animals. The spring energy storage operating mechanism can be operated manually or electrically. The simulated wiring diagram on the operation panel provides switch position indication. The cabinet body is made of galvanized steel plates and electrostatically sprayed on the surface to enhance corrosion resistance. The pressure gauge monitors the safe pressure range of SF6 gas in the box body. The main models of this product are EWR-12, EWR-24, and EWR-40.5.

运行可靠：全密闭设计，所有开关及母线带电体均密封在 3mm 不锈钢板焊接成的气箱中；配硅橡胶电缆插头，实现电缆头全绝缘全密封，从而不受灰尘、潮湿、小动物等外界环境影响弹簧储能操作机构，可人工或电动操作面板模拟线图提供开关位置指示柜体用镀锌板制作，表面静电喷涂，增强抗腐蚀性。压力表监视箱体内 SF6 气体安全压力范围。该产品主要型号有 EWR-12、EWR-24、EWR-40.5。

This product has the characteristics of being maintenance-free, highly reliable, with a service life of up to 20 years, having multiple incoming line methods, being able to achieve left, right, upper or front incoming lines, and multiple combination methods. Arbitrary combination can be achieved between each unit. Using insulated busbars, it can achieve front-to-back or left-to-right cabinet combination. The design scheme is flexible, the feeder outlet capacity is large, the floor space is small, and it is suitable for a variety of application requirements. It is mainly applicable to the power distribution networks of compact secondary substations, small industrial and mining enterprises, wind power plants, hotels, shopping malls, office buildings, commercial centers, etc.

该产品具有免维护，高度可靠，使用寿命可达 20 年，多种进线方式，可实现左、右、上或前进线多种组合方式，各单元之间可实现任意组合采用绝缘母线，可实现前后并柜或左右并柜，设计方案灵活，馈出线容量大、占地小，适合多种应用需求的特点。主要适用于紧凑型二次变电所、小型工矿企业、风力发电厂、酒店、商场、办公楼、商业中心等配电网中。



▶ 执行标准 Enforce standards

- ◎ GB 1984-2003 High voltage AC circuit breaker
GB 1984-2003 高压交流断路器
- ◎ GB 1985-2005 High voltage AC isolation switch and ground switch
GB 1985-2005 高压交流隔离开关和接地开关
- ◎ GB 3804-2004 3.6kV~40.5kV high voltage AC load switch
GB 3804-2004 3.6kV~40.5kV 高压交流负荷开关
- ◎ IEC60265 High-voltage switches
IEC60265高压开关
- ◎ GB 16926-2009 AC high voltage load switch fuse combination
GB 16926-2009 交流高压负荷开关熔断器组合电器
- ◎ IEC420 High-voltage alternating current switch-fuse combinations
IEC420高压交流开关-熔断器组合
- ◎ GB 3906-2006 3.6kV~40.5kV AC metal enclosed switchgear and control equipment
GB 3906-2006 3.6kV~40.5kV 交流金属封闭开关设备和控制设备
- ◎ IEC62271 High-voltage switchgear and controlgear
IEC62271高压开关设备和控制设备
- ◎ GB/T11022-2011 Common technical requirements for high voltage switchgear and control equipment standards
GB/T11022-2011 高压开关设备和控制设备标准的共用技术要求
- ◎ IEC60694 Common specifications for high-voltage switchgear and controlgear standards
IEC60694高压开关设备和控制设备标准通用规范
- ◎ GB/T11023 High pressure switchgear - sulfur hexafluoride gas seal test method
GB/T11023 高压开关设备六氟化硫气体密封试验方法

▶ 型号说明 Type description



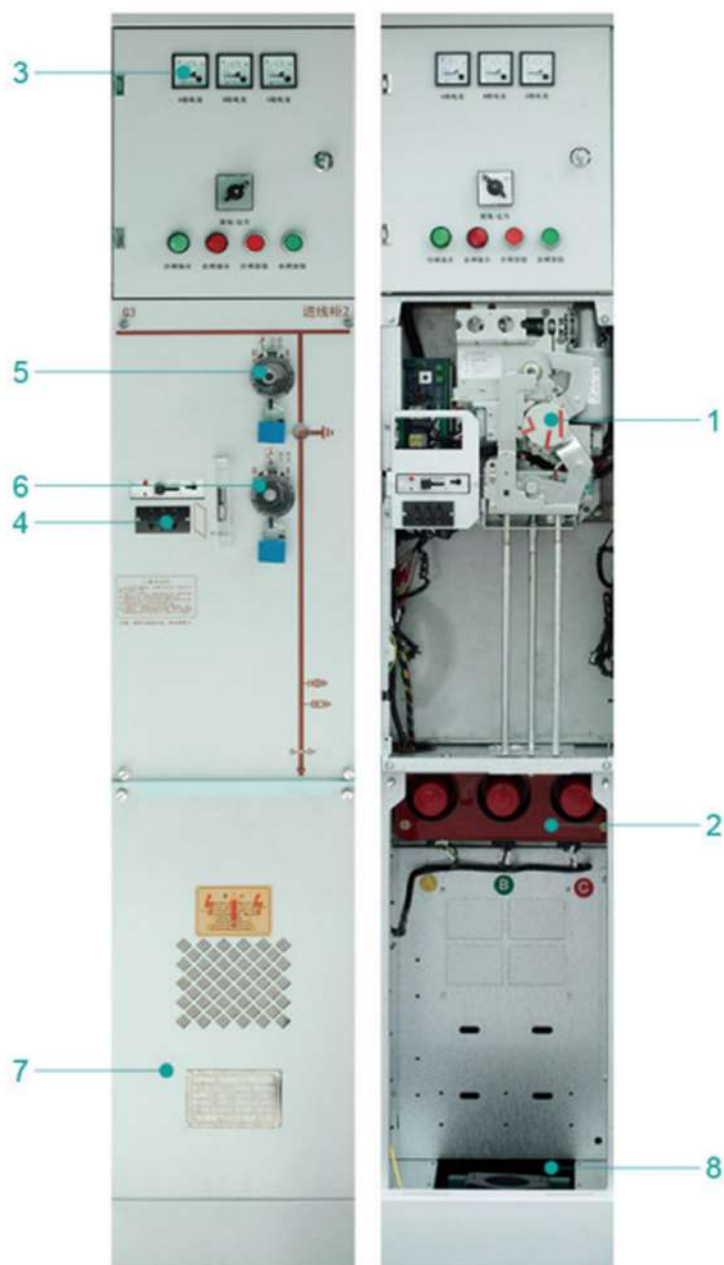


► 性能参数 Performance parameter

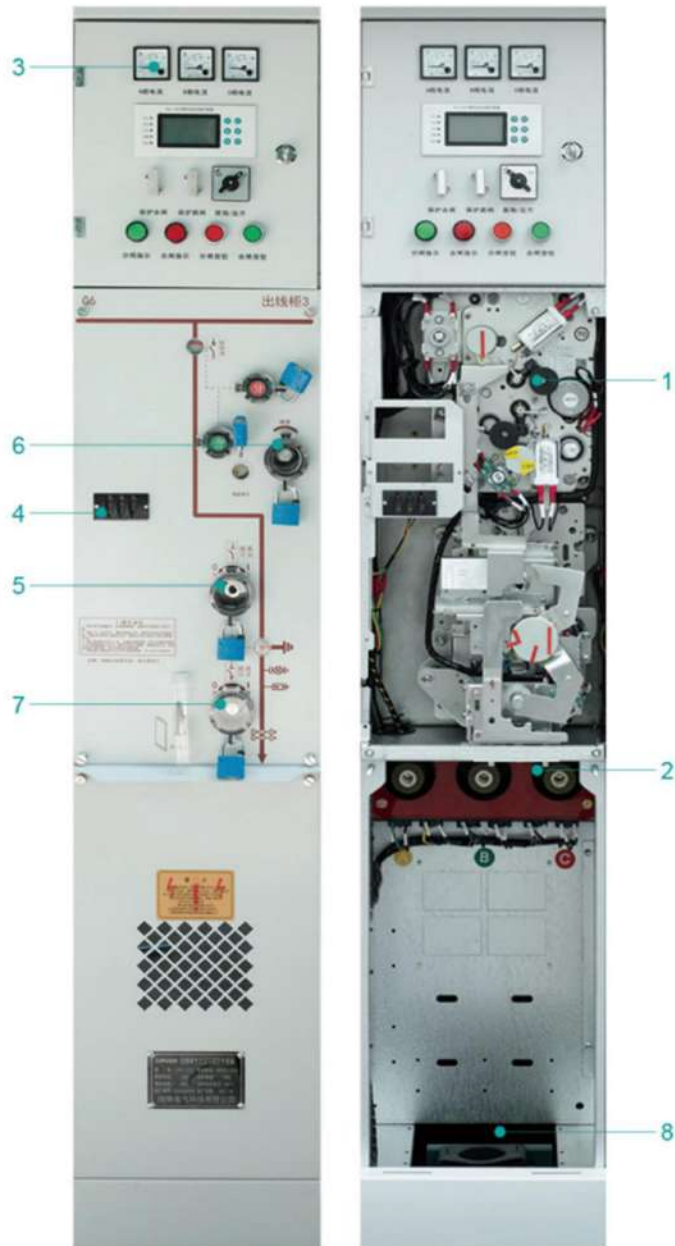
Cell code	significance			
C	Standard single casing load switch unit			
F	Load switch-fuse combined electrical unit			
V	Circuit breaker unit			
D	Cable entry unit (without switch)			
+	Busbar side bushing			
—	Busbar top sleeve			
SL	Parent unit			
M	Measuring unit			
PT	PT cell			
1K2(4)	Load switch unit with double casing outlet			
Performance indication				
SF6 gas pressure	The absolute pressure at 20°C is 1.4bar	Normal operating environment conditions		
Annual leakage rate of gas	0.2%/year	Maximum temperature	40°C	
Class of protection	IP67	Minimum temperature	-40°C	
Air chamber stainless steel thickness	3.0mm	Maximum mean relative humidity	≤95%	
		altitude	≤2000 meter	
Bus bar		Meet the criteria		
Switchgear inside the bus	400mm ² Cu	GB/T11022	GB3906	GB1985
Switchgear ground bus	150mm ² Cu	GB16926	GB38041	GB1984
colour		GB3309		
Switch cabinet front panel	RAL7012	IEC60056	IEC60129	IEC60265
Side panel and cable room front cover plate	RAL7035	IEC60298	IEC60420	IEC60694

item	C module	F module	V module		CB module	
	Load switch	Combination apparatus	Vacuum switch	Isolation/ground switch	Vacuum circuit breaker	solation/ground switch
Rated voltage kV	12	12	12	12	12	12
Rated frequency Hz	50	50	50	50	50	50
Power frequency withstand voltage (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	note	630		1250/630	
Rated closed-loop breaking current A	630					
Rated cable charging breaking current A	135/135					
Rated short circuit closing current (peak)	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	25
Rated transfer current A		1750				
Fuse maximum current A	-	125				
Loop resistance Ω	≤ 300	≤ 600				
Mechanical life (second)	5000	3000	5000	2000	5000	5000





1	Operating mechanism 操作机构	5	Main switch operating hole 主开关操作孔
2	Switch inlet bushing 开关进线套管	6	Ground switch operation hole 接地开关操作孔
3	amperemeter 电流表	7	Cable bin door 电缆仓门
4	display 显示器	8	Cable hoop 电缆抱箍



1	Operating mechanism 操作机构	5	Isolation switch operating hole 隔离开关操作孔
2	Switch inlet bushing 开关进线套管	6	Circuit breaker energy storage operation hole 断路器储能操作孔
3	amperemeter 电流表	7	Ground switch operation hole 接地开关操作孔
4	display 显示器	8	Cable hoop 电缆抱箍



HXGN Series

Medium voltage switchgear

中压开关柜



► 产品概述 Product overview

Our company can produce voltage class range of 1-40.5kV and below the product. The product is a complete set of power distribution device composed of high voltage circuit breaker, load switch, contactor, high voltage fuse, isolation switch, ground switch, transformer and station transformer, as well as control, measurement, protection, regulation device, internal connector, auxiliary shell and support parts. The cabinet structure is assembled by bending and welding steel plates, and the protection level is IP2X. The upper part of the cabinet is the bus bar room, and the instrument room is located in the front of the bus bar room and is separated by steel plates. The middle part of the cabinet is a switch room, and an insulating partition is arranged between the switch and other components.

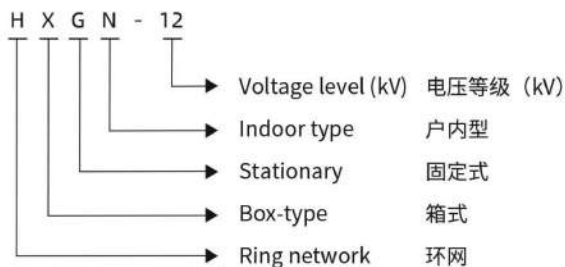
我公司可生产电压等级范围为1-40.5kV及以下的产品。本产品是由高压断路器、负荷开关、接触器、高压熔断器、隔离开关、接地开关、变压器、站用变压器以及控制、测量、保护、调节装置、内接件、辅助外壳、支撑件等组成的成套配电装置。机柜结构采用钢板折弯焊接组装，防护等级为IP2X。柜体上部为母线排室，仪表室位于母线排室前部，用钢板隔开。机柜中间部分为开关室，开关与其他部件之间设置绝缘隔板。



▶ 执行标准 Enforce standards

- IEC 62271 High voltage switchgear and control equipment
IEC 62271 高压开关设备和控制设备
- GB/T11022 Standard common technical requirements for high voltage switchgear and control equipment
GB/T11022 高压开关设备和控制设备标准公用技术要求

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

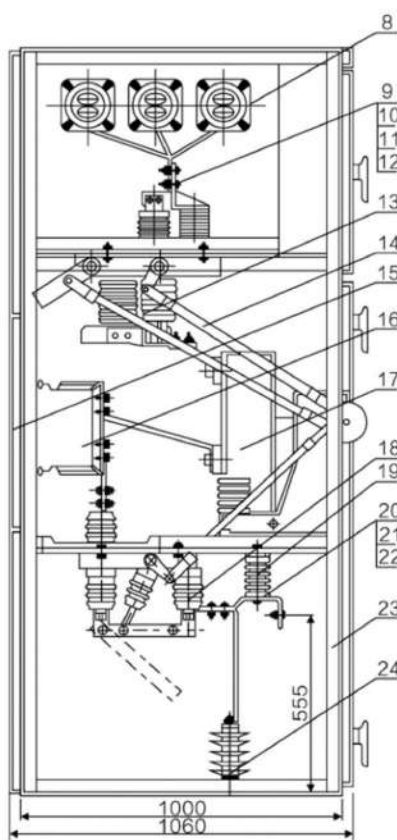
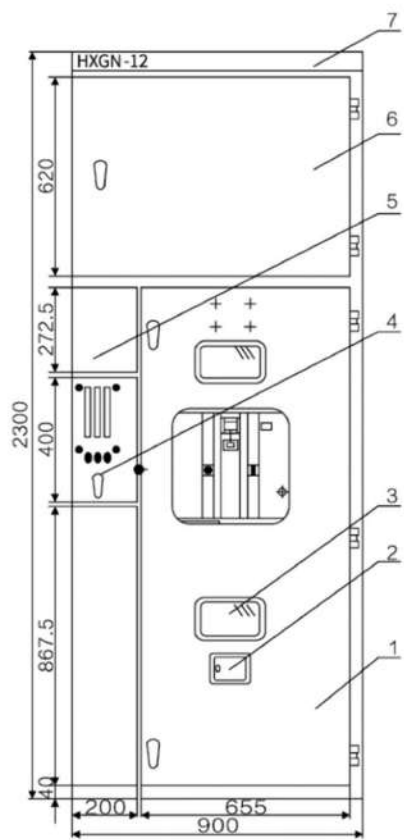
- Ambient air temperature: $-15^{\circ}\text{C} \sim +40^{\circ}\text{C}$
周围空气温度: $-15^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- Altitude: 1000m and below
海拔高度: 1000m 及以下
- Relative humidity: The daily average relative humidity is not more than 95%, and the monthly average relative humidity is not more than 90%.
相对湿度: 日平均相对湿度不大于 95%, 月平均相对湿度不大于 90%
- Seismic intensity: Not exceeding 烈度 8 degrees
地震烈度: 不超过 8 度
- Places without fire, explosion hazards, serious pollution, chemical corrosion and severe vibration
无火灾、爆炸危险、严重污秽、化学腐蚀及剧烈振动的场所



► 性能参数 Performance parameter

item 项目	Unit 单位	Parameters 参数
Rated voltage 额定电压	kV	12
Rated frequency 额定频率	Hz	50
Rated current of main busbar/Max rated current of fuse 主母线额定电流/熔断器最大额定电流	A	630/125
Rated short time withstand current of main circuit and earth circuit 主回路、接地回路额定短时耐受电流	kA/s	20/3
Rated peak withstand current of main circuit and earth circuit 主回路、接地回路额定峰值耐受电流	kA	50
Rated short-circuit making current of main circuit and earth circuit 主回路、接地回路额定短路关合电流	kA	50
The opening times of the load switch with fullcapacity 负荷开关满容量开断数	次	100
Fuse breaking current 熔断器开断电流	kV	31.5840
Rated closed loop breaking current 额定闭环开断电流	A	630
Rated transfer current 额定转移电流	A	1600
Mechanical life 机械寿命	次	2000
1min power frequency withstand voltage(peak value)between phases,phase and earth/phase and isolation fracture 1分钟工频耐压(峰值)相间、对地/隔离断口	kV	42/48
Lighting impulse withstand voltage(peak value)between phases,phase and earth/phase and isolation fracture 雷电冲击耐受电压(峰值)相间、对地/隔离断口	kV	75/85
Secondary loop 1min power frequency withstand voltage 二次回路1分钟工频耐压	kV	2
Protection level 防护等级		IP3X





1	Cabinet door
2	floodlight
3	Observation window
4	Operating mechanism
5	Small door panel
6	Instrument door
7	brows
8	Busbar through wall bushing
9	bolt
10	gasket
11	gasket
12	nut
13	Disconnecting switch
14	Lever
15	Rear panel
16	Current transformer
17	Vacuum circuit breaker
18	Disconnecting switch
19	sensor
20	bolt
21	gasket
22	gasket
23	skeleton
24	Lightning arrester





KYN Series

Medium voltage switchgear

中压开关柜



► 产品概述 Product overview

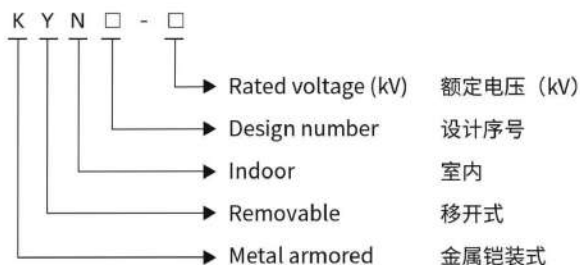
Our company can produce this product with a voltage class range of 1-40.5kV and below. The KYN series switchgear is an armored withdrawable AC metal-enclosed switchgear. It is suitable for a three-phase AC 50Hz power system, used for receiving and distributing electrical energy, and implementing control, protection, and monitoring of the circuit. The main models are KYN28A-12, KYN28A-24, and KYN61-40.5. It can be equipped with various indoor vacuum circuit breakers and can be installed with microcomputer protection as a combined electrical appliance to achieve remote measurement, remote control, remote signaling, and unattended operation.

本公司可生产1-40.5kV及以下电压等级范围的产品。KYN系列开关柜是一种铠装抽出式交流金属封闭开关柜。它适用于三相交流50Hz电力系统，用于接收和分配电能，并对电路进行控制、保护和监测。主要型号有KYN28A-12、KYN28A-24、KYN61-40.5。可配各种室内真空断路器，也可作为组合式电器安装微机保护，实现遥测、遥控、遥发信号、无人值守操作。

▶ 执行标准 Enforce standards

- IEC 62271 High voltage switchgear and control equipment
IEC 62271 高压开关设备和控制设备
- GB/T11022 Standard common technical requirements for high voltage switchgear and control equipment
GB/T11022 高压开关设备和控制设备标准公用技术要求

▶ 型号说明 Type description



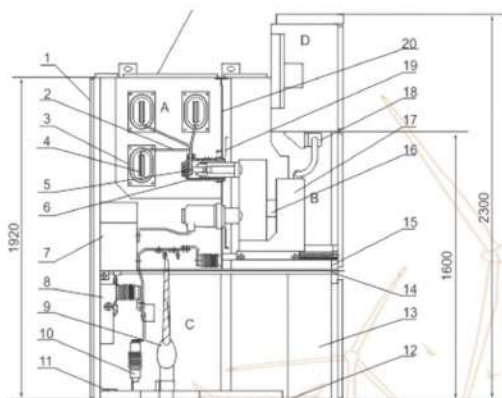
▶ 正常使用条件 Normal service condition

- Ambient air temperature: $-15^{\circ}\text{C} \sim +40^{\circ}\text{C}$
周围空气温度: $-15^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- Altitude: 1000m and below
海拔高度: 1000m 及以下
- Relative humidity: The daily average relative humidity is not more than 95%, and the monthly average relative humidity is not more than 90%.
相对湿度: 日平均相对湿度不大于 95%, 月平均相对湿度不大于 90%
- Seismic intensity: Not exceeding 烈度 8 degrees
地震烈度: 不超过 8 度
- Places without fire, explosion hazards, serious pollution, chemical corrosion and severe vibration
无火灾、爆炸危险、严重污秽、化学腐蚀及剧烈振动的场所



► 性能参数 (KYN28A-12) Performance parameter

Name 名称	Unit 单位	Data 数据	
		Matched circuit breaker 配用断路器	
		ZN63A-12(VS1)	VD4
Rated voltage 额定电压	KV	12	12
1min power frequency withstand voltage 1分钟工频耐受电压	kV	42	42
Rated impulse withstand voltage(peak) 额定冲击耐受电压(峰值)	kV	75	75
Rated frequency 额定频率	Hz	50	50
Rated current 额定电流	A	630、1250、1600、2000、2500、3150、4000、5000	
Rated current of branch busbar 分支母线额定电流	A	630、1250、1600、2000、2500、3150、4000、5000	
Rated short-time withstand current (virtual value) 额定短时耐受电流(有效值)	kA	16、20、25、31.5、40、50	16、20、25、31.5、40、50
Rated peak withstand current 额定峰值耐受电流	kA	40、50、63、80、100、125	40、50、63、80、100、125
Rated short circuit duration 额定短路持续时间	S	4	
Protection level 防护等级		The shell is IP4X and it is IP2X when the compartment door and handcart door is opened 外壳为 IP4X, 隔室门, 手车室门打开时为 IP2X	
Weight 重量	kg	700-1200	700-1200

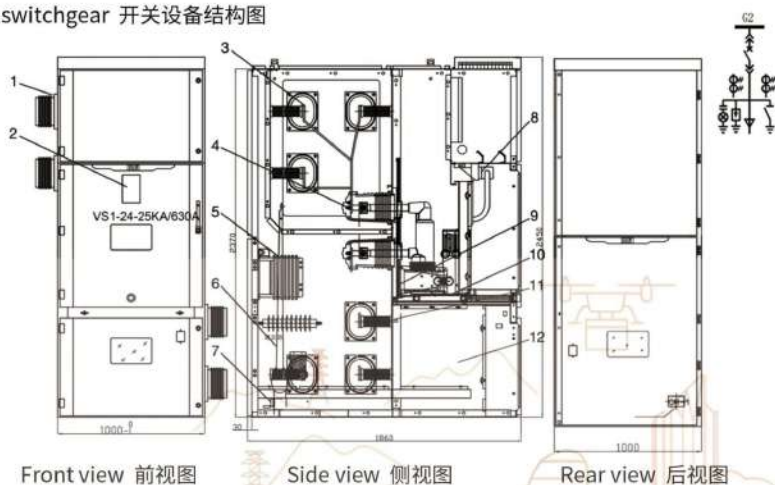


A	Busbar room 母线室
B	Circuit breaker handcart room 断路器手车室
C	Cable room 电缆室
D	Relay instrument room 继电器仪表室

► 性能参数 (KYN28A-24) Performance parameter

Name 名称	Unit 单位	Value 数值
		Matched circuit breaker 配用断路器
Rated voltage 额定电压	kV	24kV
1min power frequency withstand voltage 1分钟工频耐受电压	kV	(50)65
Rated impulse withstand voltage(peak) 额定冲击耐受电压(峰值)	kV	125
Rated frequency 额定频率	Hz	50(60)
Rated current 额定电流	A	63012501600200025003150
Rated current of branch busbar 分支母线额定电流	A	6301250160020002500
Rated short-time withstand current 额定短时耐受电流	kA	16202531.3
Rated peak withstand current 额定峰值耐受电流	kA	40506380
Rated short circuit duration 额定短路持续时间	S	4
Protection level 防护等级		The enclosure is IP4x and it is IP2X when the compartment door and circuit breaker chamber door are opened 外壳为 IP4X, 隔室门、断路器室门打开时为 IP2X
Weight 重量	kg	8001000 Rated current above 1600A 8001000(额定电流 1600A 以上)

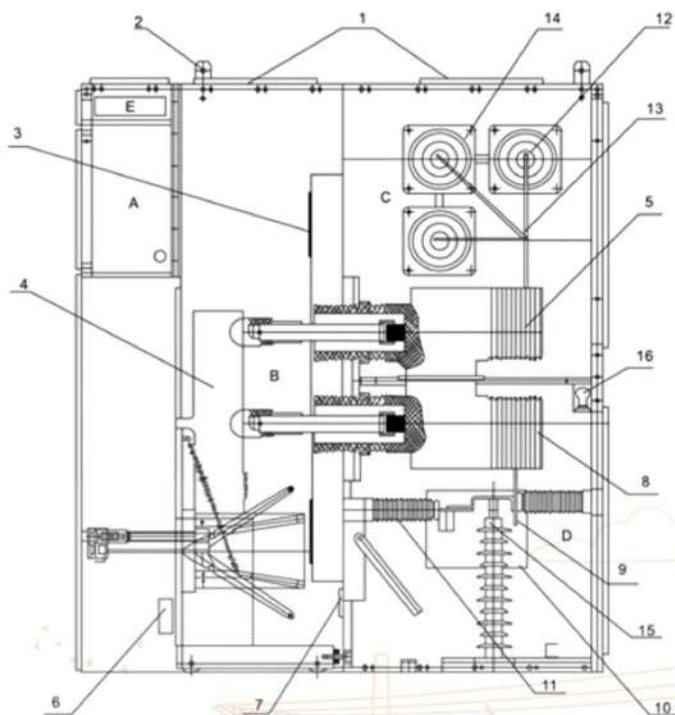
Structure of drawing of switchgear 开关设备结构图





► 性能参数 (KYN61-40.5) Performance parameter

Name 名称	Unit 单位	Value 数值
Rated voltage 额定电压	kV	40.5
Rated current 额定电流	A	125016002000
Rated frequency 额定频率	Hz	50
Rated short-time withstand current 额定短时耐受电流	kA	202531.5
Rated peak withstand current 额定峰值耐受电流	kA	506380
Rated power frequency withstand voltage 额定工频耐受电压	kV	95/1min
Rated lightning impulse withstand voltage 额定雷电冲击耐受电压	kV	185
Rated short-circuit duration 额定短路持续时间	S	4
Degree of protection 防护等级		IP3X



A	Instrument room	1	Bleeder plate
B	Breaker room	2	Hanging rings
C	Busbar room	3	valve
D	Cable house	4	Circuit breaker
E	Small bus room	5	Contact box
		6	Secondary plug
		7	Heating device
		8	Current transformer
		9	cable
		10	Insulating partition
		11	Ground switch
		12	Main busbar
		13	Support busbar
		14	Busbar bushing
		15	Lightning arrester
		16	floodlight



GCK Series

Low voltage switchgear

低压开关柜



▶ 产品概述 Product overview

This product is widely applied to the Power Center (PC) for power distribution and the Motor Control Center (MCC) in power plants, substations, industrial and mining enterprises, and high-rise buildings. It serves as a low-voltage complete power distribution device for power distribution, centralized control of motors, and reactive power compensation in power generation and power supply systems with an alternating current frequency of 50-60Hz, a rated working voltage of 1kV and below, and a rated current of 6300A and below.

该产品广泛应用于发电厂、变电所、厂矿企业和高层建筑得动力配电中心 PC 和电动机控制中心 MCC，作为交流 50-60Hz，额定工作电压为 1kV 及以下，额定电流为 6300A 及以下得发、供电系统中配电、电动机集中控制，无功补偿使用得低压成套配电装置。

The entire cabinet adopts a assembled combined structure, with installation through modular holes. The components have strong versatility, good applicability, and a high degree of standardization. The upper part of the cabinet body is the busbar chamber, the front part is the electrical appliance chamber, and the rear part is the cable inlet and outlet chamber. Each chamber is separated by a steel plate or an insulating plate to ensure safety.

整柜采用拼装式组合结构，模数孔安装，零部件通用性强，适用性好，标准化程度高。柜体上部为母线室、前部为电器室、后部为电缆进出线室，各室间有钢板或绝缘板作隔离，以保证安全。

The door of the drawer compartment of the MCC cabinet and the operating handle of the circuit breaker or disconnecter are equipped with a mechanical interlock. The door can only be opened when the handle is in the off position. The incom



ing switch, the tie switch, and the drawers of the MCC cabinet have three positions: the on position, the test position, and the off position. According to the incoming power requirements, a busbar bridge can be installed on the top of the switchgear cabinet.

MCC柜抽屉小室的门与断路器或隔离开关的操作手柄设有机械联锁，只有手柄在分断位置时门才能开启。受电开关、联络开关及MCC柜的抽屉具有三个位置：接通位置、试验位置、断开位置。开关柜的顶部根据受电需要可装母线桥。

▶ 执行标准 Product overview

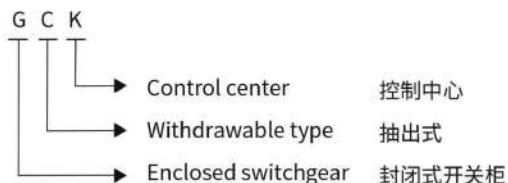


IEC439: Low-voltage Switchgear and control equipment



GB7251: Low-voltage Switchgear

▶ 型号说明 Type description





► 性能参数 Performance parameter

Projects 项目		Parameters 参数
Protection level	防护等级	IP40,IP30
Rated working voltage	额定工作电压	AC,380(V)
Frequency	频率	50Hz
Rated insulation voltage	额定绝缘电压	660V
Working conditions	工作条件	
Environment	环境	Indoors 室内
Altitude	海拔高度	≤2000m
Ambient temperature	环境温度	-5°C~+40°C
The min.temperature under store and transportation	在储存、运输条件下, 最低温度为	-30°C
Relative humidity	相对湿度	≤90%
Capacity of control motor(kW)	控制电动机容量(kW)	

Projects 项目				Parameters3 参数
Rated current(A)	额定电流(A)			
Horizontal busbar	水平母线			1600,2000,3150
Vertical busbar	垂直母线			630,800
Control connector of main circuit	主电路触头接插件			200,400
Feeding circuit	馈电电路			1600
Max.current	最大电流	PC cabinet	P C 柜	630
Power receiving circuit	受电电路	MCC cabinet	M C C 柜	1000,1600,2000,2500,3150
Rated short time withstand current (kA)	额定短时耐受电流(kA)			
Virtual Value	有效值			5,080
Peak value	峰值			105,176
Power frequency withstand voltage(V/1min)	工频耐压			2500





GCS Series

Low voltage switchgear

低压开关柜



▶ 产品概述 Product overview

The GCS low-voltage withdrawable switchgear is applicable to the power distribution systems of industries such as power plants, petroleum, chemical engineering, metallurgy, textile, and high-rise buildings.

GCS低压抽出式开关柜，适用于发电厂、石油、化工、冶金、纺织、高层建筑等行业的配电系统。

In places with high automation requirements such as large-scale power plants and petrochemical systems, which require interfaces with computers, it serves as a low-voltage complete power distribution device for the centralized control of distribution motors and reactive power compensation in power generation and power supply systems with a three-phase alternating current frequency of 50(60)Hz, a rated working voltage of less than 1kV, and a rated current of 6300A or less.

在大型发电厂、石化系统等自动化程度高要求与计算机接口的场所，作为三相交流频率为 50 (60) Hz、额定工作电压为 1kV 以下，额定电流为 6300A 及以下的发、供电系统中的配电电动机集中控制、无功功率补偿使用的低压成套配电装置。



▶ 执行标准 Product overview

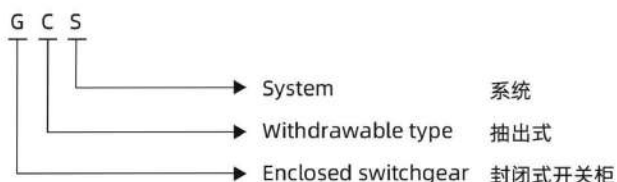


IEC439: Low-voltage Switchgear and control equipment



GB7251: Low-voltage Switchgear

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

- The ambient air temperature shall not be higher than +40°C and not lower than -5°C, and the average temperature within 24 hours shall not be higher than +35°C. When these limits are exceeded, the capacity shall be derated for operation according to the actual situation.
周围空气温度不高于 +40°C, 不低于 -5°C, 24 小时内平均温度不得高于 +35°C。超过时, 需根据实际情况降容运行。
- It is for indoor use, and the altitude of the installation location shall not exceed 2000m.
户内使用, 使用地点的海拔高度不得超过 2000m。
- The relative humidity of the ambient air shall not exceed 50% when the maximum temperature is +40°C. At lower temperatures, a higher relative humidity is allowed. For example, it is 90% at +20°C. The influence of occasional condensation caused by temperature changes should be taken into account.
周围空气相对湿度在最高温度为 +40°C 时不超过 50%, 在较低温度时允许有较大的相对湿度, 如 +20°C 时为 90%, 应考虑到由于温度的变化可能会偶然产生凝露的影响。
- When the device is installed, the inclination from the vertical plane shall not exceed 5°, and the entire group of cabinet rows shall be relatively flat. The device shall be installed in a place without severe vibration and impact, and where the electrical components will not be subject to undue corrosion.
装置安装时与垂直面的倾斜度不超过 5°, 且整组柜列相对平整; 装置应安装在无剧烈震动和冲击以及不足以使电器元件受到不应有腐蚀的场所。



► 性能参数 Performance parameter

Serial number	name		argument
1	Main circuit rated voltage (V)		1kV and below
2	Rated voltage of auxiliary circuit		Ac 220,380(400),DC 110,220
3	Rated frequency(Hz)		50(60)
4	Rated insulation voltage (V)		
5	Rated current(A)	Horizontal bus	≤6300
	Rated current(A)	Vertical Bus(MCC)	1000
6	Bus rated short-time withstand current (kA/1s)		5,080
7	Bus rated peak withstand current(kA/0.1s)		105,176
8	Power frequency test voltage (V/1min)	Main circuit	2500
		Auxiliary circuit	2000
9	Bus bar	Three-phase four-wire system	A.B.C.PEN
		Three-phase five-wire system	A.B.C.PEN
10	Class of protection		IP30.IP40

Size (mm)				
Cabinet height(H)	2200			
Cabinet width (D)	400	600	800	1000
Tank depth(W)	800 1000	800 1000	600 800 1000	600 800 1000

Cabinet width (D)	Tank depth (W)	Cabinet height(H)
6,008,001,000	8,001,000	2200

Serial number	name		Tolerance(mm)
1	perpendicularity		3.3
2	levelness	Top of two cabinets next to each other	2
		Top of a row cabinet	5
3	unevenness	Two cabinets next to each other	1
		Lining the sides of the cabinets	5
4	Cabinet joint		2



GGD Series

Low voltage switchgear

低压开关柜



► 产品概述 Product overview

The cabinet body of the GGD type AC low-voltage power distribution cabinet adopts the form of a universal cabinet. The framework is assembled by local welding of 8MF cold-formed steel sections. The framework parts and special supporting parts are supplied by the designated production factory of the steel sections to ensure the precision and quality of the cabinet body.

GGD 型交流低压配电柜的柜体采用通用柜的型式，构架用 8MF 冷弯型钢局部焊接组装而成，构架零件及专用配套零件由型钢定点生产厂配套供货，以保证柜体的精度和质量。

The components and parts of the universal cabinet are designed according to the modular principle, and there are installation holes of 20 modules. The high universal coefficient enables the factory to achieve pre-production, which not only shortens the production and manufacturing cycle but also improves work efficiency.

通用柜的零部件按模块原理设计，并有 20 模的安装孔。通用系数高，可以使工厂实现预生产，既缩短了生产制造周期，也提高了工作效率。



▶ 执行标准 Product overview

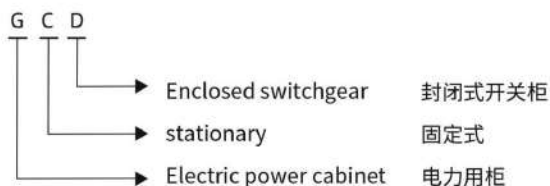


IEC439: Low-voltage Switchgear and control equipment



GB7251: Low-voltage Switchgear

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

- The ambient air temperature shall not be higher than +40°C and not lower than -5°C, and the average temperature within 24 hours shall not be higher than +35°C. When these limits are exceeded, the capacity shall be derated for operation according to the actual situation.
周围空气温度不高于 +40°C，不低于 -5°C，24 小时内平均温度不得高于 +35°C。超过时，需根据实际情况降容运行。
- It is for indoor use, and the altitude of the installation location shall not exceed 2000m.
户内使用，使用地点的海拔高度不得超过 2000m。
- The relative humidity of the ambient air shall not exceed 50% when the maximum temperature is +40°C. At lower temperatures, a higher relative humidity is allowed. For example, it is 90% at +20°C. The influence of occasional condensation caused by temperature changes should be taken into account.
周围空气相对湿度在最高温度为 +40°C 时不超过 50%，在较低温度时允许有较大的相对湿度，如 +20°C 时为 90%，应考虑到由于温度的变化可能会偶然产生凝露的影响。
- When the device is installed, the inclination from the vertical plane shall not exceed 5°, and the entire group of cabinet rows shall be relatively flat. The device shall be installed in a place without severe vibration and impact, and where the electrical components will not be subject to undue corrosion.
装置安装时与垂直面的倾斜度不超过 5°，且整组柜列相对平整；装置应安装在无剧烈震动和冲击以及不足以使电器元件受到不应有腐蚀的场所。

► 性能参数 Performance parameter

Product code	A	B	C	D
GGD06	600	600	450	556
GGD06A	600	800	450	756
GGD008	800	600	650	556
GGD08A	800	800	650	756
GGD10	1000	600	850	556
GGD10A	1000	800	850	756
GGD12	1200	600	1050	556
GGD12A	1200	800	1050	756

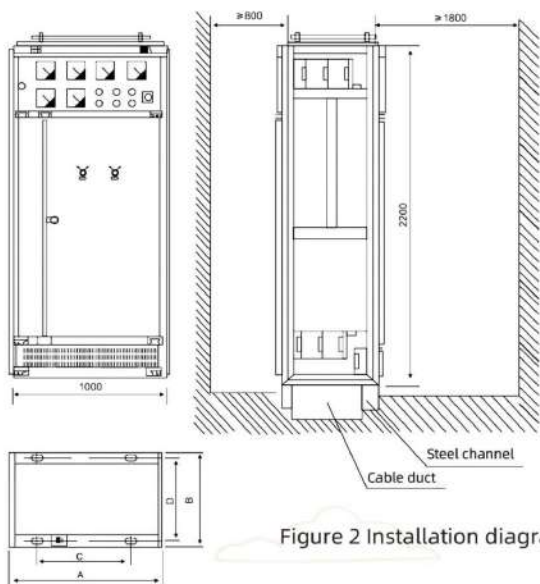
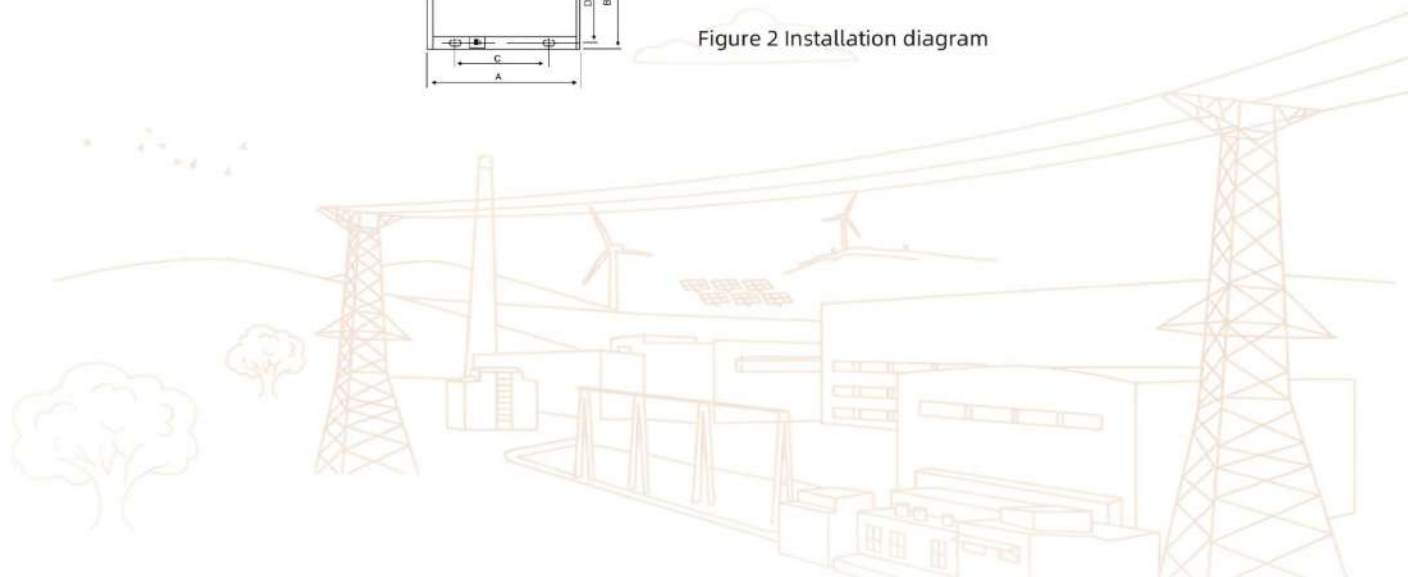


Figure 2 Installation diagram





GGJ Series

Low voltage switchgear

低压开关柜



► 产品概述 Product overview

The GGJ low-voltage reactive power intelligent compensation device adopts computer-aided design and introduces microcomputer control to intelligently track and compensate the reactive power. Its structure is reasonable and the technology is perfect. It is widely applied to the low-voltage power grid, which can improve the power factor, reduce reactive power loss, and improve the power supply quality. It is a new type of power-saving product.

GGJ低压无功智能补偿装置采用计算机辅助设计，引入微电脑控制，对无功量实行智能化跟踪补偿，其结构合理，技术完善，广泛应用于低压电网，提高功率因数，减少无功损耗，改善供电质量，是新型的节电产品。

Controlled by an intelligent controller, it has complete functions and reliable performance. The compensation mode is automatic. It can increase the power factor to above 0.9. It can display the power factor of the power grid in real time, and the display range is: lagging (0.00-0.99), leading (0.00-0.99). It has a variety of comprehensive protection functions such as overvoltage, over-harmonic, over-compensation, system failure, phase

loss, overload, etc. It can remember the set parameters, and the parameters will not be lost after the system power failure. After the power grid returns to normal, it will automatically enter the operating state without the need for personnel on duty. According to the load balance situation of the power grid, it can adopt phase-by-phase compensation or mixed com



pensation. It has strong anti-interference ability and can resist the interference pulse with an amplitude of 2000V directly input from the power grid, which is higher than the national professional standard.

采用智能控制器控制，功能齐全，性能可靠，补偿方式自动：可将功率因数提高至 0.9 以上；实时显示电网功率因数，显示范围：滞后 (0.00-0.99)，超前 (0.00-0.99)；具有过电压、过谐波、过补偿、系统故障、缺相、过载等多种综合保护功能；记忆已设定的参数，系统停电后不会丢失参数，电网恢复正常后，自动进入运行状态，无须人员值守；可根据电网负荷平衡状况，采取分相补偿或混合补偿；抗干扰能力强，能抵御从电网直接输入的幅值 2000V 干扰脉冲，高于国家专业标准。

It can measure and record at every full hour the three-phase voltage, current, frequency, active power, reactive power, power factor, active electric energy, reactive electric energy at the low-voltage side of the transformer, the total distortion rate of voltage and current, and the harmonic content of the 2nd to 25th order. It has RS-232 and RS-485 interfaces, which can be used for data transcription by a palm computer. It can also realize wireless meter reading, device testing, parameter setting, and reading of real-time measurement data and recorded data through the remote communication function. It has a data analysis function, which can analyze, process, count and query the operation load data. It can comprehensively analyze the power supply quality, calculate the voltage qualification rate, power supply load rate, reliability rate and maximum load rate. It can query the power factor, active power and reactive power in different time periods. It can draw the curves of each phase voltage, current, power factor, etc. It can print comprehensive analysis and statistical reports.

实时测量和整点纪录变压器低压侧的三相电压、电流、频率、有功功率、无功功率功率因数、有功电度、无功电度；电压电流总畸变率和 2-25 次谐波含量；具有 RS-232 和 RS-485 接口，可进行掌上电脑数据抄录，也可通过远程通讯功能实现无线抄表，装置测试，参数设置和实时测量数据及纪录数据的读取；数据分析功能：可对运行负荷数据进行分析处理、统计查询；综合分析供电质量，计算电压合格率，供电负荷率，可靠率及最大负荷率；分时段查询功率因数、有功功率和无功功率；绘制各相电压、电流、功率因数等曲线图；打印综合分析及统计报表。

▶ 执行标准 Product overview

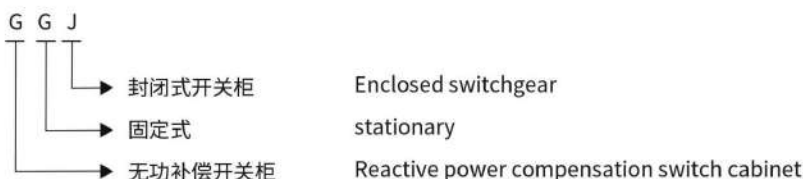


IEC439: Low-voltage Switchgear and control equipment



GB7251: Low-voltage Switchgear

▶ 型号说明 Type description



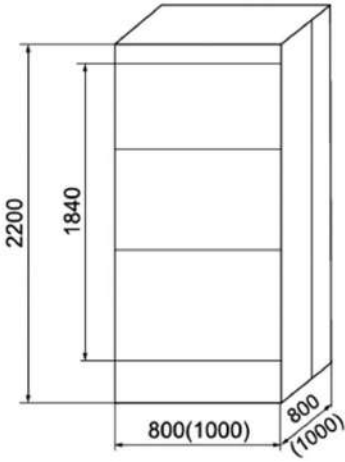


► 正常使用条件 Normal service condition

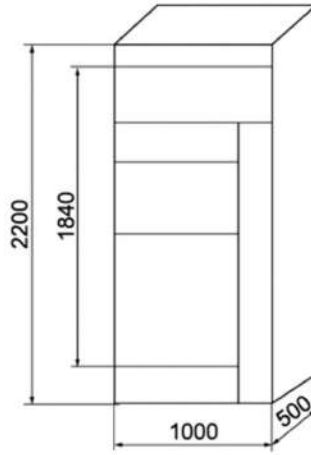
- The ambient air temperature shall not be higher than +40°C and not lower than -5°C, and the average temperature within 24 hours shall not be higher than +35°C. When these limits are exceeded, the capacity shall be derated for operation according to the actual situation.
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- It is for indoor use, and the altitude of the installation location shall not exceed 2000m.
户内使用，使用地点的海拔高度不得超过 2000m。
- The relative humidity of the ambient air shall not exceed 50% when the maximum temperature is +40°C. At lower temperatures, a higher relative humidity is allowed. For example, it is 90% at +20°C. The influence of occasional condensation caused by temperature changes should be taken into account.
周围空气相对湿度在最高温度为 +40°C 时不超过 50%，在较低温度时允许有较大的相对湿度，如 +20°C 时为 90%，应考虑到由于温度的变化可能会偶然产生凝露的影响。
- When the device is installed, the inclination from the vertical plane shall not exceed 5°, and the entire group of cabinet rows shall be relatively flat. The device shall be installed in a place without severe vibration and impact, and where the electrical components will not be subject to undue corrosion.
装置安装时与垂直面的倾斜度不超过 5°，且整组柜列相对平整；装置应安装在无剧烈震动和冲击以及不足以使电器元件受到不应有腐蚀的场所。



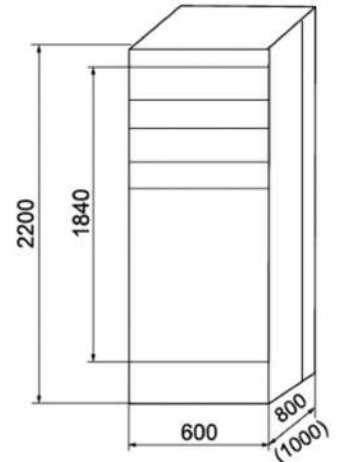
▶ 性能参数 Performance parameter



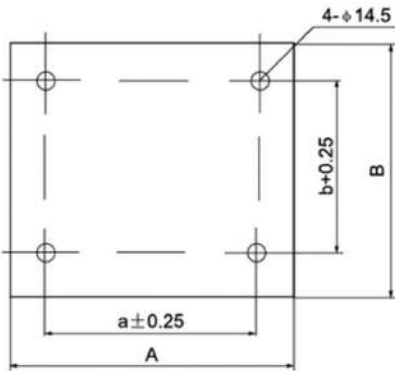
Dimensions of PC cabinet



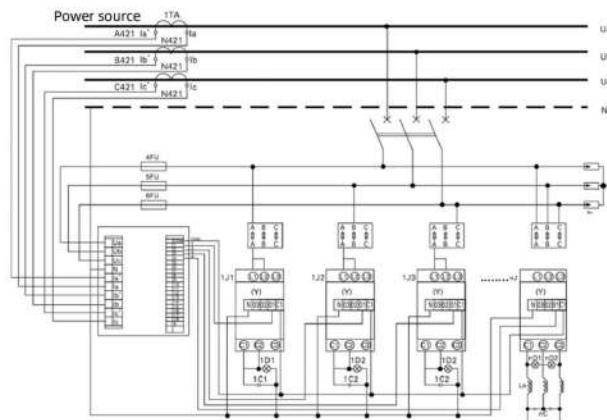
Dimensions of PC cabinet



Dimensions of MCC cabinet for off-wall installation



Cabinet width (A)	Tank depth (B)	Mounting hole spacing (a)	Mounting hole spacing (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





MNS Series

Low voltage switchgear

低压开关柜



► 产品概述 Product overview

The MNS low-voltage draw-out switchgear is developed by our company after referring to and comprehensively improving the MNS low-voltage switchgear of ABB Company in Switzerland. It is a relatively complete low-voltage draw-out switchgear.

MNS 低压抽出式开关柜是我公司参考了瑞士 ABB 公司的 MNS 低压开关柜并加以综合改进后开发的，是较完善的低压抽出式开关设备。

This product is composed of standardized and serialized modules, and the drawers are equipped with reliable mechanical interlock devices, making it safer and more reliable for users during use.

该产品均由标准化的、成系列的模块组成，并且抽屉具有可靠的机械联锁装置，使用户在使用时更安全、更可靠。

This switchgear is suitable for three-phase five-wire power supply systems with an alternating current of 50 (60) Hz, a rated operating voltage of 1kV and below, and a rated current of 6300A and below. It can be used in power plants, substations, industrial and mining enterprises, buildings and hotels, airports, docks, and communication centers such as radio and television.

本开关柜适用于交流 50 (60) Hz、额定工作电压 1kV 及以下，额定电流 6300A 及以下三相五线制的电力供电系统，可用于发电厂、变电所、工矿企业、大楼宾馆、机场、码头以及广播电视等通信中心。



It is used for the control of power generation, power transmission and distribution, power conversion and power consumption equipment, and the main busbar is subject to reactive power compensation through the capacitor compensation cabinet.

来作为发电、输配电、电能转换及电能消耗设备的控制，并通过电容补偿柜对其主母线进行无功补偿。

There are five sizes, all designed with a modular structure at a height of 8E (200mm), and the effective installation height of the components is 1800mm, making the overall layout of the cabinet more reasonable and beautiful.

有五种尺寸都是以 8E (200mm) 高度，进行模块化结构设计，其有效元器件安装高度为 1800mm，使柜体整体布局更合理，更美观。

8E/4: Height 200xWidth 150xDepth 400. Four drawer units are combined in parallel within the height space.

8E/4: 高 200x 宽 150x 深 400 高度空间平行组合 4 个抽屉单元

8E/2: Height 200xWidth 300xDepth 400. Two drawer units are combined in parallel within the height space.

8E/2: 高 200x 宽 300x 深 400 高度空间平行组合 2 个抽屉单元

8E: Height 200xWidth 600xDepth 400. One drawer unit is assembled within the height space.

8E: 高 200x 宽 600x 深 400 高度空间组装 1 个抽屉单元

16E: Height 400xWidth 600xDepth 400. One drawer unit is assembled within the height space.

16E: 高 400x 宽 600x 深 400 高度空间组装 1 个抽屉单元

24E: Height 600xWidth 600xDepth 400. One drawer unit is assembled within the 24E (600mm) height space.

24E: 高 600x 宽 600x 深 400 在 24E (600mm) 高度空间组装 1 个

▶ 执行标准 Product overview

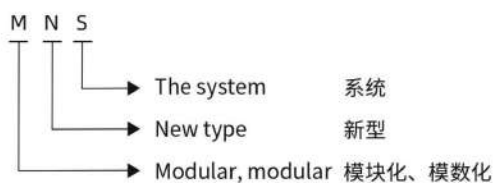


IEC439: Low-voltage Switchgear and control equipment



GB7251: Low-voltage Switchgear

▶ 型号说明 Type description





► 正常使用条件 Normal service condition

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户内使用, 使用地点的海拔高度不得超过 2000m。
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- When the device is installed, the inclination from the vertical plane shall not exceed 5°, and the entire group of cabinet rows shall be relatively flat. The device shall be installed in a place without severe vibration and impact, and where the electrical components will not be subject to undue corrosion.
装置安装时与垂直面的倾斜度不超过 5°, 且整组柜列相对平整; 装置应安装在无剧烈震动和冲击以及不足以使电器元件受到不应有腐蚀的场所。



► 性能参数 Performance parameter

name		GB7251.1-2005 Low Voltage Switchgear and Control Equipment (TTA)
		IEC60439 《Low-voltage Switchgear and Control Equipment》
Overvoltage class		IVIII
Pollution level		3
Rated operating voltage(Ue)(V)		≤1000
Rated insulation voltage (Ui)(V)		≤1000
Rated frequency(Hz)		50(60)
Horizontal bus	Rated current	≤6300A
	Rated Short Time Withstand Current (Icw)(kA)	50,65,80(1s valid)
	Rated Peak Withstand Current (Ipk)(kA)	105,140,176(0.1s Max)
Vertical busbar	Rated maximum operating current	≤1000A
	Rated short-time withstand current	50kA
	Rated peak withstand current	105kA
Case protection class		IP30IP40(Special instructions)

Main bus switch	item		Tolerance (mm)
1	perpendicularity		3.3
2	levelness	Top of two cabinets next to each other	2
		Top of a row cabinet	5
3	unevenness	Two cabinets next to each other	1
		Lining the sides of the cabinets	2
4	Cabinetjoint		2





XL-21

低压开关柜

Low voltage switchgear



▶ 产品概述 Product overview

The power cabinet refers to a combination of electrical control cabinets that provide power for the normal operation of the entire machine, including contactors, frequency converters, high-voltage cabinets, transformers, and so on.

动力柜是指给整台机器的正常运转提供动力的电气控制柜组合，有接触器、变频器、高压柜、变压器等等。

Its functions are as follows:

其作用是：

Supply power to electrical equipment (provide power for the equipment);

1、给用电设备供电（给设备提供电源）；

Start and stop the operation of electrical equipment (with start and stop buttons);

2、启停操作用电设备（有启停按钮）；

Detect the operation of the equipment (set signal indicator lights, with ammeters and voltmeters);

3、检测设备的运转（设置信号指示灯，有电流表电压表）；

Protect electrical equipment (circuit breakers). The power cabinet is the power distribution cabinet, which is specifically used to provide power supply and control for power equipment (generally referring to motors).

4、保护用电设备（断路器）动力柜就是配电柜，是专给动力设备（一般指电动机）提供电源和控制的配电柜

The XL-21 series low-voltage power distribution cabinets are widely suitable for industrial and civil buildings, and are used for power distribution and lighting distribution in a three-phase four-wire power system with an alternating current frequency of 50HZ, 60HZ and a voltage of 1kV and below.

XL-21 系列低压动力配电柜广泛适合于工业与民用建筑中，交流频率为 50HZ、60HZ、电压 1kV 及以下、三相四线电力系统的动力配电和照明配电用。

At the same time, it is suitable for manufacturing various motor starting cabinets, including full-voltage direct starting cabinets, fully digital control soft starting cabinets, autotransformer step-down starting cabinets, star-delta starting cabinets, multi-speed motor starting cabinets, etc.

同时适合制作各种电动机启动柜，包括全压直接启动柜，全数字控制软启动柜、自耦降压启动柜，星三角启动柜，多速电动机启动柜等。

There are dozens of primary circuit scheme numbers or derived scheme numbers for selection, with a wide range of applications.

具有数十种一次线路方案号或派生方案号供选择使用，适用范围广。

This product is an indoor enclosed distribution box.

本产品系户内封闭式配电箱。

The box body is bent and welded with thin steel plates, and there is a single left-opening door on the front. Measuring instruments such as voltmeters and ammeters, as well as operating electrical appliances and signal electrical appliances, are installed on the door.

箱体用薄钢板弯制焊接而成，正面为单扇左开门，门上装有电压表、电流表等测量仪表和操作电器、信号电器等，

It is a power distribution device with a simple structure, reliable operation and low cost.

是一种结构简单、运行可靠、成本较低的动力配电装置。

▶ 执行标准 Product overview

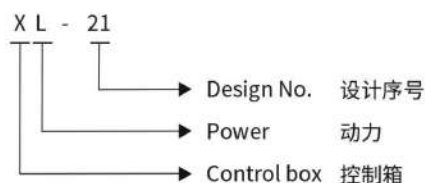


IEC439: Low-voltage Switchgear and control equipment



GB7251: Low-voltage Switchgear

▶ 型号说明 Type description





► 正常使用条件 Normal service condition

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► 性能参数 Performance parameter

Items 项目	Unit 单位	Parameters 参数
Rated working voltage 额定工作电压	V	≤AC1000
Rated frequency 额定频率	Hz	50/60
Rated short time withstand current(1s) 额定短时耐受电流(1s)	kA	50
Rated peak withstand current 额定峰值耐受电流	kA	105
Dielectric strength 介电强度	V/1min	2500
Rated insulation voltage 额定绝缘电压	V	1000
Protection level 防护等级		IP30/IP40
Boundary dimension (WxDxH) 外形尺寸(宽×深×高)	mm	600(800,1000)*350(400,600)*1600(1800)



Cable distribution box

Outdoor ring cabinet

户外环网柜



► 产品概述 Product overview

The cable branching box is an intermediate component for the connection between cables and cables, as well as between cables and other electrical equipment in the distribution line.

电缆分支箱是配线路中，电缆与电缆，电缆与其它电器设备连接的中间部件。

Its connection and combination mode is simple, convenient and flexible, and it has the properties of full insulation, full enclosure, corrosion resistance, maintenance-free, safety and reliability, etc.

其连接组合方式简单方便，灵活，具有全绝缘、全封闭、防腐蚀、免维护、安全可靠等性能。

It is widely used in commercial centers, industrial parks, urban residential communities and a large number of urban power grid renovation projects.

广泛用于商业中心、工业园区、城市住宅小区及大量的城市电网改造工程。

The main functions of the cable branching box are to tap or transfer cables, mainly playing the roles of cable tapping and cable transferring.

电缆分支箱的主要作用是将电缆分接或转接，主要起电缆分接作用和电缆转接作用。

Our company can produce various types of cable branching boxes with a voltage of 40.5 kV and below.

我司可生产 40.5kV 及以下各类电缆分接箱。



Our company can produce various types of cable branching boxes with a voltage of 40.5 kV and below.

我司可生产 40.5kV 及以下各类电缆分接箱。

On a relatively long line, using multiple small-section cables often leads to a waste of cable usage. Therefore, large cables are often used for sending power to the electricity load center.

在一条距离比较长的线路上有多根小面积电缆往往会造成电缆使用浪费，于是送往用电负荷中心的电缆往往使用大电缆。

The large cables are divided into several small-section cables through the cable branching box, and the small-section cables are sent to the load points.

通过电缆分支箱将大电缆分成若干小面积电缆，由小面积电缆送入负荷点。

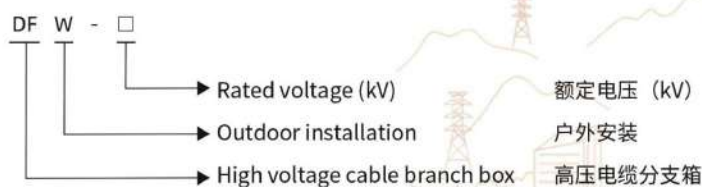
This wiring method is widely used in the power supply of residential communities and small users in urban power grids.

这样的接线方式广泛用于城市电网中的居民小区供电、小用户等供电。

▶ 执行标准 Enforce standards

- ◉ Classification of protection classes for GB 4208 enclosures equipment standards
GB 4208 外壳防护等级的分类
- ◉ Common technical requirements for GB/T 11022 high voltage switchgear and control GB/T 11022 高压开关设备和控制设备标准的共用技术要求
- ◉ DL/T593 Common specifications for HV switchgear enquiries and orders
DL/T593 高压开关设备的共用订货技术导则

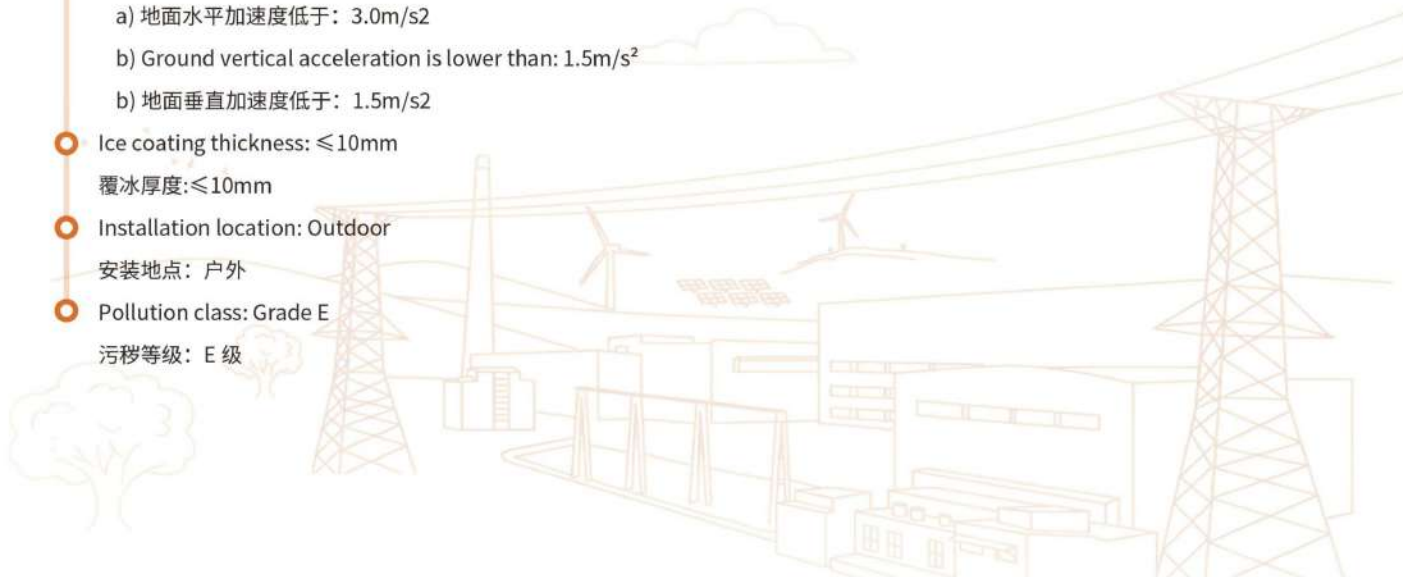
▶ 型号说明 Type description





► 正常使用条件 Normal service condition

- Maximum temperature: +45°C
最高温度: +45°C
- Average temperature of the hottest month: +30°C
最热月平均气温: +30°C
- Annual average temperature: +20°C
年平均气温: +20°C
- Minimum air temperature: -25°C
最低气温: -25°C
- Maximum daily temperature difference: 30K
最大日温差: 30K
- Sunshine intensity: 0.1W/cm²
日照强度: 0.1W/cm²
- Altitude: ≤1000m
海拔高度: ≤1000m
- Ambient relative humidity (at 25°C)
环境相对湿度 (在 25°C时)
 - a) Daily average value: 95%
a) 日平均值: 95%
 - b) Monthly average value: 90%
b) 月平均值: 90%
- Seismic intensity: Grade VIII:
地震烈度: VIII 度:
 - a) Ground horizontal acceleration is lower than: 3.0m/s²
a) 地面水平加速度低于: 3.0m/s²
 - b) Ground vertical acceleration is lower than: 1.5m/s²
b) 地面垂直加速度低于: 1.5m/s²
- Ice coating thickness: ≤10mm
覆冰厚度: ≤10mm
- Installation location: Outdoor
安装地点: 户外
- Pollution class: Grade E
污秽等级: E 级





GIS RMU

Outdoor ring cabinet

户外环网柜



► 产品概述 Product overview

Our company can produce outdoor ring main units, with a voltage class range of 0-40.5 kV.

我司可生产户外环网箱，电压等级范围为 0-40.5kV。

This product is an inflatable outdoor ring main unit with international professional standards, which is developed and produced by our company using internationally advanced professional technology.

该产品是公司采用国际先进专业技术开发、生产的，具有国际专业水准的充气式户外环网箱。

The outer shell of the outdoor ring main unit is designed according to the outdoor structure.

户外环网箱外壳按照户外型结构设计。

The box body material can be selected as stainless steel plate, SMC or GRC according to the customer's requirements, and the surface is treated with plastic spraying, which has sufficient mechanical strength.

箱体材料可根据客户需求选用不锈钢板、SMC 或 GRC，表面喷塑处理，具有足够的机械强度。

There are no fasteners available for disassembly on the surface of the box body, and it has good anti-theft performance.

箱体表面无紧固件可供拆卸，防盗性好。

The top cover has a double-layer structure with an air interlayer and is equipped with a ventilation opening. It has natural convection ventilation, and the heat insulation and heat dissipation performance are good.



顶盖为带空气夹层式双层结构，并带有通风口，自然对流通风，隔热、散热良好。

It is equipped with a rainproof door lock, and there is a limit hook when the box door is opened to facilitate the fixing of the door.

防雨式门锁，箱门开启时有限位拉钩使门便于固定。

The box body is provided with a sealed bottom plate at the cable inlet and outlet, preventing small animals and moisture from entering the box body.

箱体设有电缆进出线口的密封式底板，防止小动物和潮气进入箱体。

The appearance and color of the box body can be customized according to the user's needs. It has a beautiful appearance and is coordinated with the surrounding environment.

箱体外观及颜色可根据用户需要定制，外形美观，与周围环境相协调。

The outdoor ring main unit adopts the EWR series SF6 fully sealed and fully insulated ring main switchgear, or the HXGN series air-insulated switchgear can be adopted.

户外环网箱采用 EWR 系列 SF6 全密封全绝缘环网开关设备，或可采用 HXGN 系列空气绝缘开关设备。

When the EWR series switchgear is used as a component, it has the advantages of modularization, expandability, full insulation, full sealing, safety, reliability, and maintenance-free.

当采用 EWR 系列开关设备作为组成部分时，其具有模块化、可扩展、全绝缘、全密封、安全可靠、免维护等优点。

When the HXGN series air-insulated switchgear is used, compared with the EWR series products, it has the same characteristics of strong safety, adaptability, and expandability. The difference is that it is not a fully insulated and fully sealed product, but it has the advantage of more convenient equipment maintenance.

当采用 HXGN 系列空气绝缘开关设备时，相较于采用 EWR 系列产品，安全性、适应性强、可扩展性强的特点相同，不同点为其非全绝缘全密封产品，但其拥有设备维护更方便的优点。

It is widely used in industrial parks, residential areas, streets, airports, various buildings, bustling commercial centers and other places.

被广泛应用于工业园区、居民区、街道、机场、各种建筑物、繁华商业中心等场所。

► 产品特点 Product characteristics

① High safety:

All live parts are enclosed in the SF6 gas tank, achieving full sealing and full insulation.

It is equipped with a mechanical interlock that meets the "five prevention" requirements, eliminating the occurrence of misoperation.

The incoming and outgoing cables adopt a fully insulated, fully sealed and touchable connection method, ensuring personal safety to the greatest extent.

The box body is equipped with a gas pressure monitoring device to achieve real-time monitoring of the gas pressure during operation. There is an explosion-proof and pressure relief device at the lower rear of the gas tank, and it has passed the internal combustion arc test by an authoritative institution.



高安全性:

所有的带电部分封闭在 SF6 气箱中, 实现全密封全绝缘。

具备满足五防要求的机械连锁, 杜绝误操作的出现。

进出线电缆采用全绝缘全密封可触摸连接方式, 最大程度保证人身安全。

箱体装设气压监测装置, 实现运行期内气压的实时监测; 气箱后下方设有防爆泄压装置, 通过权威机构的内燃弧试验。

2 Flexible solution:

The incoming and outgoing line methods are flexible, and left-side, right-side and bottom incoming (outgoing) lines can be realized.

The combination method is flexible. Any combination can be achieved between all units, with unlimited expansion. The built-in busbar expansion method is adopted, fully meeting the requirements of usability, economy and aesthetics. The design scheme is flexible and can meet the on-site requirements of users.

方案灵活:

进出线方式灵活, 可实现左、右及下进(出)线。

组合方式灵活, 所有单元之间可实现任意组合, 无限制扩展; 采用内置式母线扩展方式, 全面满足使用性、经济性及美观要求; 设计方案灵活, 可满足用户现场的要求。

Compact and reasonable structure:

The dimensions of all unit modules are the same (except for the metering module), and the compact dimensions do not affect the convenience of construction at the same time.

3 结构紧凑合理:

所有单元模块尺寸一致(计量模块除外), 紧凑的尺寸同时又不影响施工的方便性。

4 Economy:

Maintenance-free; it occupies a small area, with high cost performance; and the service life exceeds 30 years.

经济性:

免维护; 占地小, 性价比高; 使用寿命超过 30 年。

5 Widely applicable:

The stainless steel plate of the gas tank part is fully automatically sealed and welded by a robot using TIG welding, and the protection level reaches IP67. It can be installed in wet, dusty, salty, mining areas and any places with air pollution without taking special preventive measures.

应用广泛

气箱部分不锈钢板经机器人全自动 TIG 密封焊接, 防护等级达到 IP67, 可安装在潮湿、多沙尘、盐污、矿山及任何空气污秽的场所而不必采取特别的预防措施。

6 Intelligent:

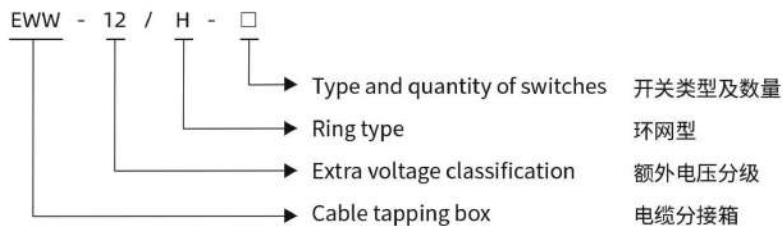
It can be provided with supporting electric operation devices and distribution automation terminal equipment to realize intelligent switchgear with the functions of "remote sensing, remote control, remote signaling and remote adjustment", meeting all the requirements of the smart grid for this type of equipment.

智能化

可配套提供电动操作装置、配电自动化终端设备, 实现具备 "四遥" 功能的智能开关设备, 满足智能电网对该类设备的所有要求。



► 型号说明 Type description



► 执行标准 Product overview

- GB 1984-2003 High voltage AC circuit breaker
GB 1984-2003 高压交流断路器
- GB 1985-2005 High voltage AC isolation switch and ground switch
GB 1985-2005 高压交流隔离开关和接地开关
- GB 3804-2004 3.6kV~40.5kV high voltage AC load switch
GB 3804-2004 3.6kV~40.5kV 高压交流负荷开关
- IEC60265 High-voltage switches
IEC60265 高压开关
- GB 16926-2009 AC high voltage load switch fuse combination
GB 16926-2009 交流高压负荷开关熔断器组合电器
- IEC420 High-voltage alternating current switch-fuse combinations
IEC420 高压交流开关-熔断组合
- GB 3906-2006 3.6kV~40.5kV AC metal enclosed switchgear and control equipment
GB 3906-2006 3.6kV~40.5kV 交流金属封闭开关设备和控制设备
- IEC62271 High-voltage switchgear and controlgear
IEC62271 高压开关设备和控制设备
- GB/T11022-2011 Common technical requirements for high voltage switchgear and control equipment standards
GB/T11022-2011 高压开关设备和控制设备标准的共用技术要求
- IEC60694 Common specifications for high-voltage switchgear and controlgear standards
IEC60694 高压开关设备和控制设备标准通用规范
- GB/T11023 High pressure switchgear - sulfur hexafluoride gas seal test method
GB/T11023 高压开关设备六氟化硫气体密封试验方法
- GB 4208-2008 Enclosure protection class
GB 4208-2008 外壳防护等级
- IEC60529 Degrees of protection provided by enclosures(IP Code)
IEC60529 外壳提供的保护程度 (IP代码)
- DL/T404 3.6kV~40.5kV AC metal enclosed switchgear and control equipment
DL/T404 3.6kV~40.5kV 交流金属封闭开关设备和控制设备
- DL/T 728-2000 Technical Guide for ordering gas insulated metal enclosed switchgear
DL/T 728-2000 气体绝缘金属封闭开关设备订货技术导则



► 性能参数 Performance parameter

Serial number	name		unit	data	
1	Rated voltage		kV	12	
2	Rated current		A	630 1250	
3	Rated frequency		Hz	50	
4	Rated insulation level	1min power frequency withstand voltage	Dry test	kV	42/48 (fracture)
			Wet test		34
			Secondary loop to ground		2
		Lightning impulse withstand voltage(peak)	75/85(fracture)		
5	Rated short circuit closing current(peak)		kA	50 63	
6	Rated short-time withstand current		kA	20 25	
7	Rated peak withstand current		kA	50 63	
8	Rated short circuit breaking current breaking times		time	30	
9	Rated short circuit duration		s	4	
10	Rated operating voltage and rated voltage of auxiliary circuit		V	DC220、AC220、AC/DC220	
11	Rated operating sequence			Minute -0.3s-combined minute-180s-combined minute	
12	Overcurrent Tripping rated current		A	5	
13	Mechanical life		time	10000	
14	Allowable wear accumulation thickness of static and static contacts		mm	3	
15	Overcurrent Rated current of the trip device		A	5	
16	Current ratio of current transformer			200/5400/5600/5	
17	Contact opening distance		mm	9±1	
18	Contact overreach		mm	2±0.5	
19	Average opening speed		m/s	1.2±0.3	
20	Average closing speed		m/s	0.6±0.2	
21	Opening time		ms	20~40	
22	Closing time		ms	30~60	
23	Closing bounce time		ms	≤2	
24	Tripole combination and switching are different			≤2	
25	Phase loop DC resistance		μΩ	≤80(with isolation ≤150)	

Chinese box change

Box-type substation

箱式变电站



► 产品概述 Product overview

The power transformer part of it is placed outside the box-type substation housing. A fully sealed oil-immersed transformer is adopted, which effectively solves the problem of the natural dissipation of heat generated during the operation of the transformer and can quickly remove the heat.

华式箱变本身也主要由高压室、低压室以及变压器等所组成，主要是用于新能源发电项目中的升压箱变系列设备之一。但其布局方式不同，导致了其具有其他箱变所不具备的特点。

The part of the power transformer is placed on the outside of the transformer shell, and the oil-immersed transformer is fully sealed, which effectively solves the problem of natural heat dissipation in the transformer work and can quickly take away the heat.

它的电力变压器的部分置于箱变壳体的外部，采用全密封的油浸式变压器，有效的解决了变压器工作中的热量自然散发问题，可以迅速的带走热量。

The transformer is closely connected to the box-type substation housing through side outgoing lines. The box-type substation is divided into a high-voltage chamber and a low-voltage chamber by the partition plate in the box-type substation housing. It is an ideal product for new energy power generation and is widely used in projects such as wind power generation and photovoltaic power generation.



变压器通过侧出线的方式与箱变外壳紧密连接，通过箱变壳体中隔板将箱变分为高压室和低压室，是新能源发电的理想产品，广泛用于风电、光伏发电等项目中。

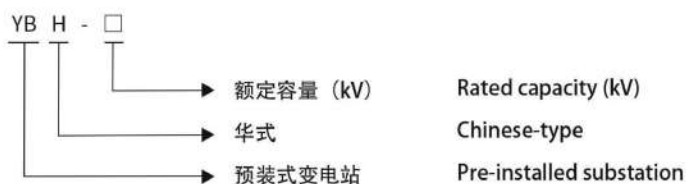
This is a new type of box-type substation product developed by combining the characteristics of European-style box-type substations and American-style box-type substations. Our company can produce this product with a voltage level of 40.5 kV and below.

这是结合了欧式箱变与美式箱变特点而研发的新型箱式变电站产品。我司可生产电压等级 40.5kV 及以下该产品。

▶ 执行标准 Enforce standards

- ◎ GB 1094.1-2013:Power transformers
GB 1094.1-2013:电力变压器
- ◎ GB/T 11022-2011:Common technical conditions for high-voltage switchgear and controls standards
GB/T 11022-2011:高压开关设备和控制设备标准的共同技术条件
- ◎ GB 7251.1-2013:Low voltage packages and controls
GB 7251.1-2013:低压成套设备和控制设备
- ◎ JG/T 10217-2013:Pad-mounted transformer
JG/T 10217-2013:组合式变压器

▶ 型号说明 Type description

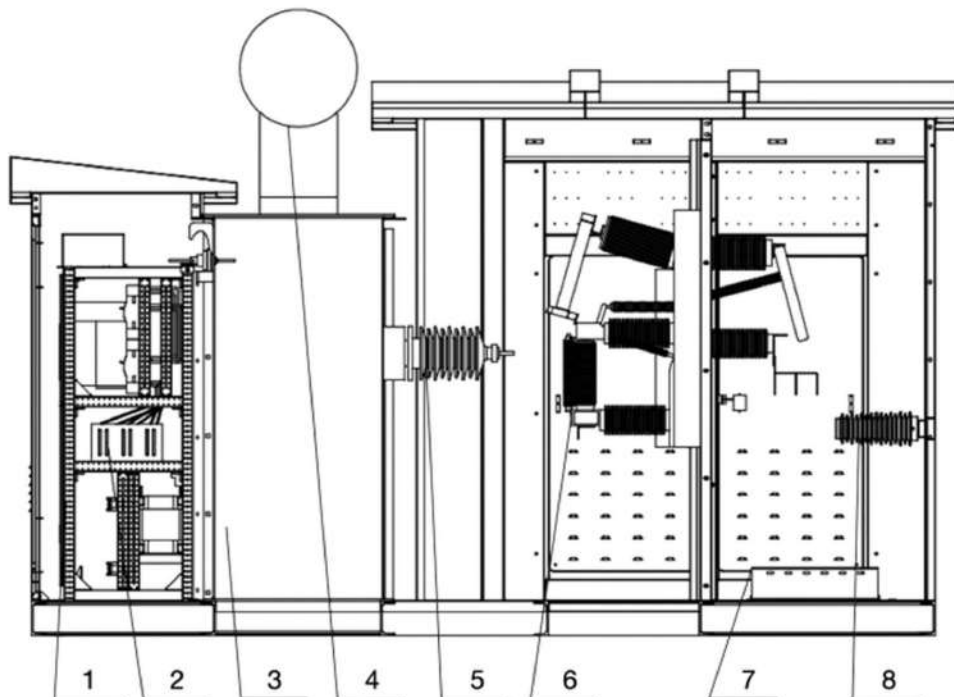


▶ 正常使用条件 Normal service condition

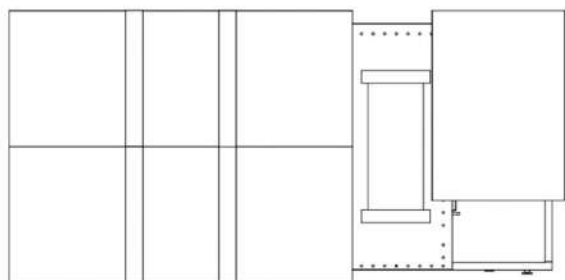
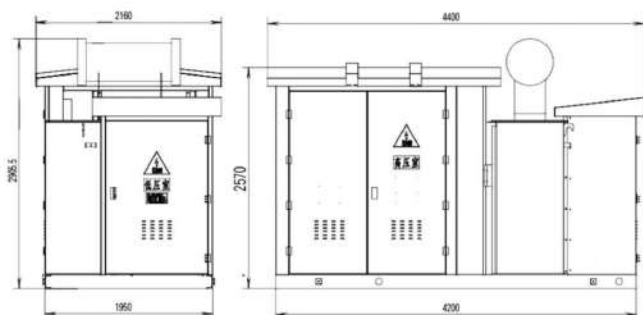
- ◎ 户外使用，具体使用条件与其所包含的变压器、开关柜所需使用环境有关



► 性能参数 Performance parameter



1	Low voltage switchgear 低压开关设备	3	Transformer 变压器	5	High voltage bushing 高压套管	7	Cable clamp bracket 电缆夹支架
2	Insulated busbar frame 绝缘母线框	4	Oil conservator 储油罐	6	Vacuum load switch 真空负荷开关	8	Post insulators 支柱绝缘子





American box change

Box-type substation

箱式变电站



▶ 产品概述 Product overview

The box transformer substations in China were initially developed from the European-style box transformer substations, and they are often relatively bulky in size.

中国的箱变最初是从欧式箱变发展而来的，其体积往往比较庞大。

With the opening of China's foreign economy and the vigorous development of the market economy, around the 1990s, the American COOPER Company took the lead in introducing American-style box transformer substations into the Chinese market, and they achieved rapid development in the Chinese market with their unique characteristics.

随着中国对外经济的开放，市场经济的大力发展，大约在 90 年代，美国 COOPER 公司率先在中国市场打入了美式箱变，并以其独有的特点在中国市场获得了迅速的发展。

From south to north and from east to west in China, the American-style box transformer substations can be seen almost everywhere, and most of them are products copied by domestic manufacturers, and the quality of these products can be said to vary widely.

中国从南到北，从东到西，几乎到处都可以看到这种美式箱变的身影，而且大都是国内厂家仿造的产品，其质量可以说参差不齐。



Through years of application and practice, it is necessary to conduct a serious analysis of the American-style box transformer substations in combination with China's national conditions, and give them a correct positioning, so as to promote the technological and market development of box transformer substations in China.

通过这些年的应用和实践，有必要对美式箱变结合中国国情进行认真分析，给予正确定位，以此来推动中国箱变的技术和市场发展。

Our company can produce this product with a voltage class of 40.5kV and below.

我司可生产电压等级 40.5kV 及以下该产品。

▶ 执行标准 Enforce standards

- ◎ GB 1094.1-2013:Power transformers
GB 1094.1-2013:电力变压器
- ◎ GB/T 11022-2011:Common technical conditions for high-voltage switchgear and controls standards
GB/T 11022-2011:高压开关设备和控制设备标准的共同技术条件
- ◎ GB 7251.1-2013:Low voltage packages and controls
GB 7251.1-2013:低压成套设备和控制设备
- ◎ JG/T 10217-2013:Pad-mounted transformer
JG/T 10217-2013:组合式变压器

▶ 型号说明 Type description

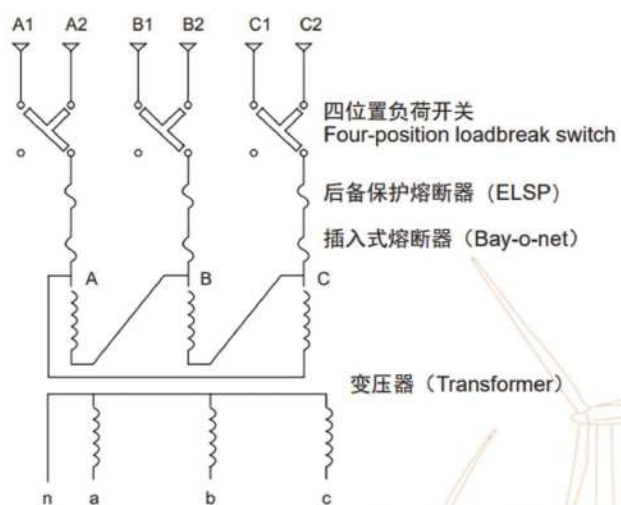
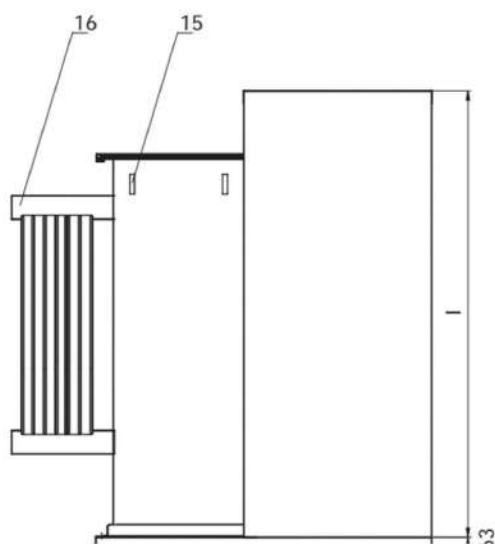
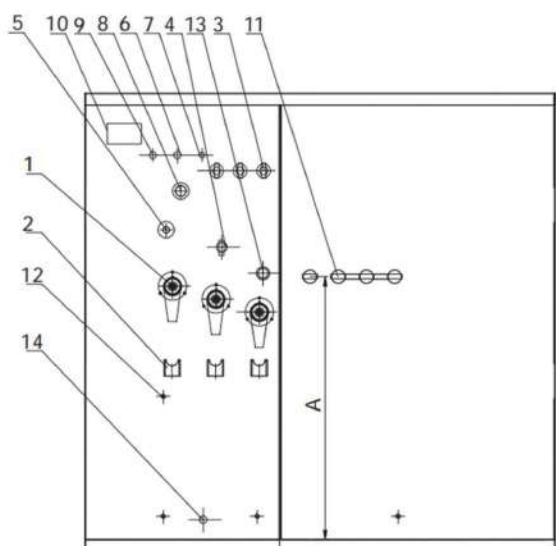


▶ 正常使用条件 Normal service condition

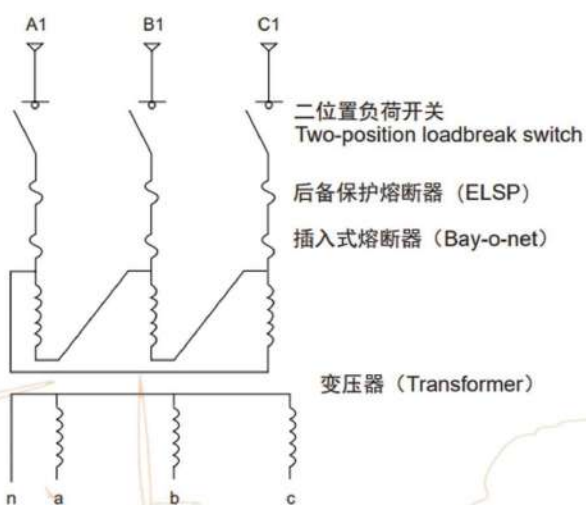
- ◎ It is used outdoors, and the specific operating conditions are related to the required operating environment of the transformers and switchgear it contains.
户外使用，具体使用条件与其所包含的变压器、开关柜所需使用环境有关。



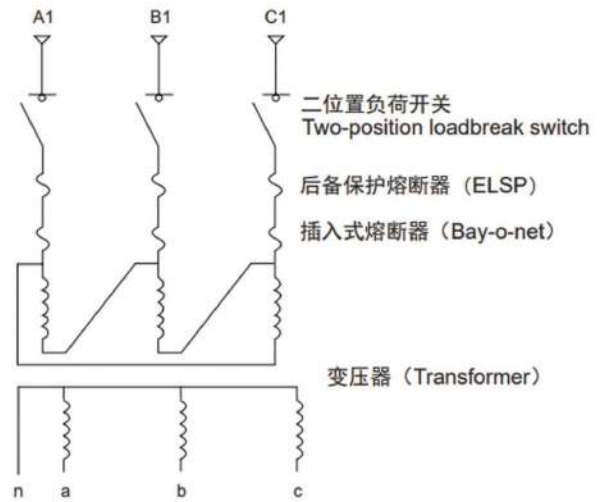
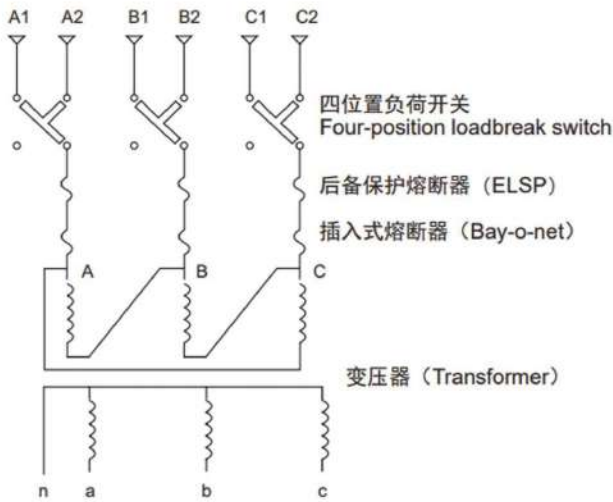
► 性能参数 Performance parameter



环网型箱变
Ring mesh type box change



终端型箱变
Terminal type box change



item		unit	Technical parameter
Rated voltage	High pressure side	kV	10
	Low pressure side	kV	0.4
Maximum operating voltage (kV)		kV	12
Rated frequency		Hz	50
Rated capacity		kVA	100,125,160,200,250,315,400,500,630,800,1000,1250
1 minute power frequency withstand voltage		kV	35
Lightning impulse withstand voltage		kV	95
No load voltage regulation			10kV±2x2.5%
Ambient temperature		°C	-45-40
Allowable temperature rise		°C	65

Capacity (kVA)	High tension (kV)	Tapping range (%)	Low pressure(kV)	Coupling group	No-load loss (W)	Load loss (W)	No-load current (%)	10KV impedance (%)	20KV impedance (%)
100	20 或 10	±2*2.5	0.4	Dyn-11 Yyn-0	200	1500	1.6	4.5	5.5
125					240	1800	1.5		
160					280	2200	1.4		
200					340	2600	1.3		
250					400	3050	1.2		
315					480	3650	1.1		
400					570	4300	1	4.5	6
500					680	5100	1		
630					810	6200	0.9		
800					980	7500	0.8		
1000					1150	10300	0.7		
1250					1360	12000	0.7		



European-style box

Box-type substation

箱式变电站



► 产品概述 Product overview

Compared with the simple design of the American-style box transformer substation, the YBW European-style box transformer substation appears stable and generous, and it pays more attention to the combination of tradition and innovation.

相较于美式箱变的简约设计，YBW 欧式箱变则显得稳重大气，更注重传统与创新相结合。

It originated in countries such as France and Germany, and began to be widely used in China in the late 1970s.

它起源于法国、德国等国家，70 年代后期开始在中国得到广泛应用。

The European-style box transformer substation is composed of parts such as transformers, high-voltage switchgear, and low-voltage switchgear. Each device is closely connected by cables or other transmission media to form an efficient and stable power system.

欧式箱变由变压器、高压开关设备和低压开关设备等部分组成，各设备间通过电缆或其他传输介质紧密相连，构成一个高效稳定的电力系统。

It adopts the layout of the "mu" shape or the "pin" shape structure.

采用目字形或品字形结构进行布局。



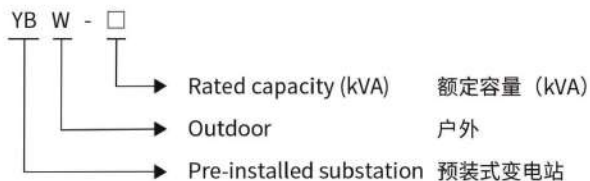
The box is not only equipped with conventional medium-voltage switchgear/ring main units and low-voltage boxes, but also installed with transformers, making the product relatively large in volume.

箱内不仅配备了常规的中压开关柜/环网柜、低压箱，还安装了变压器，使得产品体积相对较大。

▶ 执行标准 Enforce standards

- ◎ GB 1094.1-2013:Power transformers
GB 1094.1-2013:电力变压器
- ◎ GB/T 11022-2011:Common technical conditions for high-voltage switchgear and controls standards
GB/T 11022-2011:高压开关设备和控制设备标准的共同技术条件
- ◎ GB 7251.1-2013:Low voltage packages and controls
GB 7251.1-2013:低压成套设备和控制设备
- ◎ JG/T 10217-2013:Pad-mounted transformer
JG/T 10217-2013:组合式变压器

▶ 型号说明 Type description



▶ 正常使用条件 Normal service condition

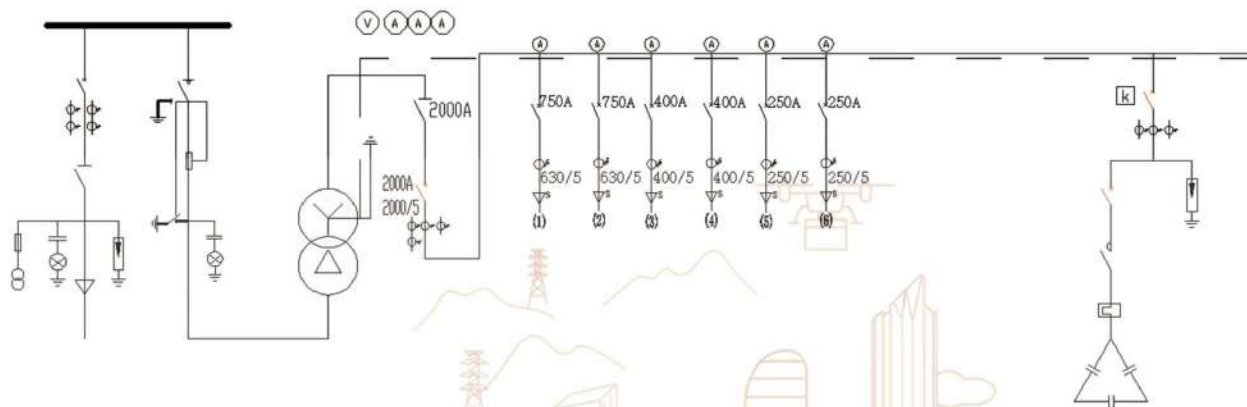
- It is used outdoors, and the specific operating conditions are related to the required operating environment of the transformers and switchgear it contains.

户外使用，具体使用条件与其所包含的变压器、开关柜所需使用环境有关。



► 性能参数 Performance parameter

No. 序号	Name 名称		Unit 单位	Data 数据
1	Rated voltage 额定电压	HV 高压侧	kV	10、20、35
		LV 低压侧	kV	0.315~0.5
2	Rated capacity 额定容量		kVA	630~5000
3	No-load voltage regulation 无载调压		$\pm 2 \times 2.5\%$	$\pm 2 \times 2.5\%$
4	Vector group 连接方式			Dyn11、Dyn11yn11、Yd11d11
5	Insulation level 绝缘水平	Lightning impulse withstand voltage 雷电冲击耐受电压	kV	75、125、200
		Power frequency withstand voltage (HV) 工频耐压(高压侧)	kV	35、55、85
		Power frequency withstand voltage(LV) 工频耐压(低压侧)	kV	5
		Secondary control loop 二次控制回路		2.0
6	Noise level 噪音等级		dB	60
7	Protection class 防护等级			Oil tank IP68, high and low voltage chamber IP54 油箱 IP68, 高低压室 IP54





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