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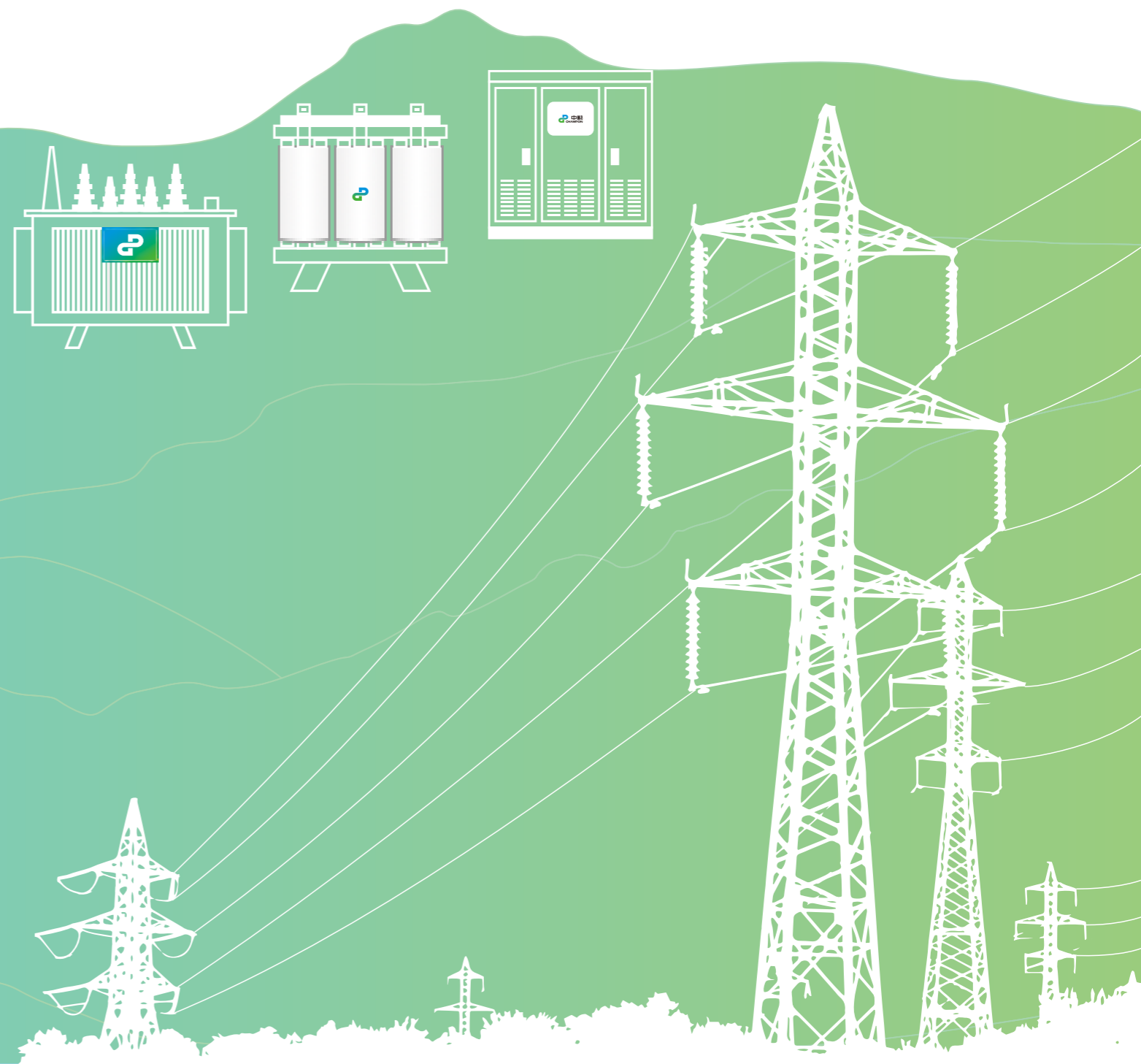
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INNOVATING FOR
A SMARTER FUTURE



PRODUCT



CONTENTS

02

COMPANY PROFILE

03

PHILOSOPHY

04

PARTNER

05

INNOVATION

06

QUALIFICATION

07

PRODUCTION
PROCESS

10

OIL IMMERSED
TRANSFORMER

17

DRY TYPE
TRANSFORMER

25

PAD-MOUNTED
TRANSFORMER

28

SWITCHGEAR

33

POWER QUALITY
PRODUCTS



COMPANY PROFILE

PHILOSOPHY

Located in Foshan, Guangdong CHAMPON is a scientific and technological enterprise specialized in technical innovation and promotion of distribution field. After years of development, the company has built two major production bases, the leading standardization and automation production lines and large-scale modern production workshops successfully.

CHAMPON is committed to providing customers with new distribution products and optimized distribution solutions based on new materials and technologies, including energy-saving new distribution transformers, box-type substations, switchgears, power quality improvement devices, intelligent distribution solutions and so on. Sales network covers most provinces, municipalities and autonomous regions in the country, and constantly expands to overseas markets. With the persistent pursuit of quality and service, CHAMPON has become a long-term cooperative supplier of well-known enterprises such as China Southern Power Grid Corporation, State Grid, Country Garden and Times Property.

CHAMPON insists on taking innovation as the driving force, establishes strategic partnership with famous multinational giants such as DuPont, Cooper and Wiedemann and famous universities such as Xi'an Jiaotong University, set up the first global dual-temperature aging laboratory for the research and development of distribution technology, and becomes one of the members of National Transformer Technical Committee of Standardization.

CHAMPON establishes a perfect quality, environment and occupational health safety management system by transformation and upgrading and introduction of modern management mode, and passes the ISO9001, ISO14001 and OHSAS18001 systems successively. As the first transformer manufacturer to join the China Energy Conservation Association, CHAMPON has been awarded the honorary titles of "National High-tech Enterprise", "Guangdong Provincial Enterprise Technology Center" and "National High-tech Zone Gazelle Enterprise", and grown into a high-growth enterprise with great innovation vitality and development potential. In the future, CHAMPON will continue to make unremitting efforts to become a leading scientific and technological enterprise in the global distribution industry and create higher value for employees, customers, society and China's distribution industry.



Mission

To focus on the challenges and pressures in the field of distribution, and provide customers with competitive solutions and good services through continuous technological innovation.

Sense of worth

Customer orientation, professionalism and trustworthy, hard work, learning and innovation, collaboration and sharing.

Vision

To become a leading scientific and technological enterprise in global distribution industry.

Idea

To insist on scientific and technological innovation, and serve customers efficiently.



49

Patent

12

High-tech Products

STRATEGIC
PARTNERS

Scientific research partners such as DuPont, Cooper and Wiedemann and famous universities such as Xi'an Jiaotong University



PARTNER



INNOVATIONG



- Member of national transformer technical committee of standardization.
- Set up the first global dual-temperature aging laboratory for the research and development of distribution technology.
- Member of national electrical Insulation system and Insulation system technical committee of standardization.

STANDARD



- 49 patents 12 high-tech products 8 team standards 3 industrial standards and 3 national standards.
- CHAMPON attends the annual meeting of IEC power transformer technical commission in 2018.
- CHAMPON attends the meeting of IEEE 19th International dielectric liquid (ICDL 2017).

► QUALIFICATION



KEMA

ISO 9001

ISO 14001

OHSAS18001

TEST REPORT



Dry Type Transformer

Oil-immersed Transformer

Combined Transformer

Prefabricated Substation

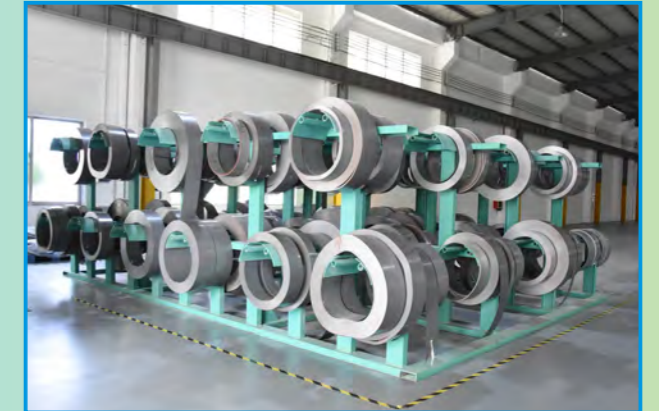
HONOR



▼ EQUIPMENT



CRGO slitting line



CRGO rack



CRGO cross shear line



Automatic stacking production line



Winding machine



Foil winding machine

EQUIPMENT & LAB



Vacuum oil filling



Dry oven



Vacuum cast resin



Dual temperature aging lab



Dry transformer lab



Oil-immersed transformer lab

WAREHOUSE & SERVICE



Raw materials warehouse



Product warehouse 1



Product warehouse 2



Product warehouse 3



Packaging and shipping



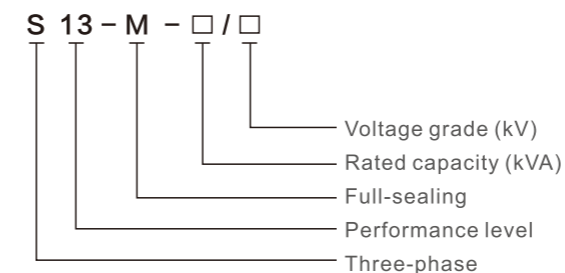
After sales service

OIL IMMERSED TRANSFORMER



S11, S13 Oil-immersed Transformer

Model



Features

- Vacuum filtering and oil injection process, fully-enclosed structure.
- Hard to damp, long in service life and free of maintenance.
- Compact in design structure and low in noise.
- Small in corrugated tank and artistic in appearance.



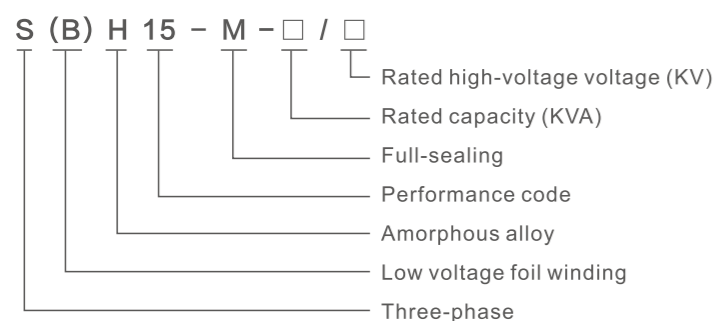
Technical Parameters

Technical Parameters Of S11/13-M-30-2500/10 Series Oil-immersed Distribution Transformer

Rated Capacity kVA	Voltage combinations and tapping ranges			Grade Mark Of Connection Group	Voltage combinations and tapping ranges			Short-circuit Impedance (%)	
	High Voltage (kV)	Tap (%)	Low Voltage (kV)		No-load Loss (P0)		Load (Pk) (75°C)		
					S11	S13			
30	6	±5	0.4	Dyn11 Yzn11 Yyn0	100	80	630/600	4.0	
50					130	100	910/870		
63					150	110	1090/1040		
80					180	130	1310/1250		
100					200	150	1580/1500		
125					240	170	1890/1800		
160					280	200	2310/2200		
200					340	240	2730/2600		
250					400	290	3200/3050		
315					480	340	3830/3650		
400					570	410	4520/4300		
500					680	480	5410/5150		
630					810	570	6200		
800					980	700	7500		
1000					1150	830	10300		4.5
1250					1360	970	12000		
1600	1640	1170	14500						
2000	1940	1550	18300						
2500	2290	1830	21200	5					

S(B)H15 Amorphous Alloy Oil Transformer

Model



Features

- Low loss:** the core of transformer is coiled by amorphous alloy, and the no-load loss ratio is about 75% lower than that of S9 transformer.
- Resistant to short-circuit:** the transformer low voltage is made of copper foil coil to increase the capacity for undertaking short-circuit.
- Optimize the power quality:** the connection group of transformer is Dyn11 to reduce the influence of harmonic on grid and improve the power quality.
- Maintenance-free:** the tank and cover are an integrated fully-enclosed structure, long in service life and free in maintenance.
- Good insulating property:** the transformer is filled with oil in a vacuum mode to completely eliminate the bubbles in coil and ensure the stable insulating property.

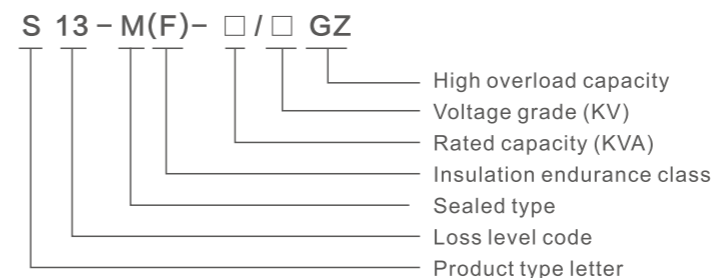
Technical Parameters

Rated Capacity kVA	Voltage combinations and tapping ranges			Grade Mark Of Connection Group	Voltage combinations and tapping ranges		Short-circuit Impedance (%)	No-load current (%)	Sound level LpA (dB)					
	High Voltage (kV)	Tap (%)	Low Voltage (kV)		No-load Loss (P0)	Load (Pk) (75°C)								
30	6	±5	0.4	Dyn11	33	630/600	4.0	1.50	52					
50					43	910/870		1.20	53					
63					50	1090/1040		1.10	53					
80					60	1310/1250		1.00	55					
100					75	1580/1500		0.90	55					
125					85	1890/1800		0.80	59					
160					100	2310/2200		0.60	59					
200					120	2730/2600		0.60	61					
250					140	3200/3050		0.60	61					
315					170	3830/3650		0.50	64					
400				200	4520/4300	0.50	64							
500				240	5410/5150	0.50	66							
630				320	6200	0.30	66							
800				380	7500	0.30	68							
1000				450	10300	0.30	68							
1250				11	±2×2.5	0.4	Dyn11	530	12000	4.5	0.20	72		
1600	630	14500	0.20					72						
2000	750	18300	0.20					73						
2500	33	±2×2.5	0.4					Yzn11	900		21220	5	0.20	73
									Yyn0					

Note: 1: When the iron core is three-phase and three-column, Yyn0 connection group can be used according to the need.
 2: For the transformer with the rated capacity of 500KVA and below, the load loss above the inclined line of table is applicable to Dyn11 connection group, and the load loss below the inclined line is applicable to Yyn0 connection group.
 3: Other loss values can be used if the user needs.
 4: Other high voltage tapping three-phase transformers can be provided according to the user's need

High-temperature Resistant High Overload Oil-immersed Transformer

Model



Example: 10kV fully-enclosed high-temperature resistant high overload distribution transformer with three-phase, oil-immersed, self-cooling, duplex winding, non-excitation voltage regulation; insulation endurance class: F; loss level code: 13; rated capacity: 100kVA; model: S13-M(F)-100/10GZS13-M(F)-100/10GZ

Features

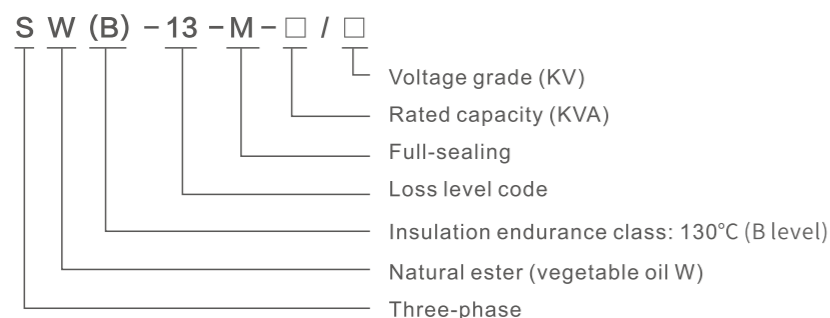
- Strong overload capacity:** undertake the overload (6h 1.5 times, 3h 1.75 times and 1h 2 times) based on rated temperature rise without influencing the service life.
- Overload without service life loss:** with the only DuPont Nomex T910 insulating paper certified by UL, the B-level insulation system and higher temperature rise limit, while the insulation system of ordinary transformer is A level.
- Safe performance with high reliability:** the ignition point and flash point of high overload transformer oil imported from the United States are much higher than that of ordinary transformer oil, and it has higher safety performance under high temperature.
- Superior comprehensive economic operation benefits:** the high overload transformer has higher comprehensive economic benefits in using area.
- The performance level is consistent with that of ordinary transformer:** with the same parameters as that of ordinary transformer, i.e., the transformer can achieve high overload capacity without affecting other electrical performances.

Technical Parameters

S/N	Item	Standard parameters list							
		Level B/F							
1	Rated voltage	10/0.4 kV							
2	High-voltage phases	Three-phase							
3	Low-voltage phases	Three-phase four-wire							
4	Grade mark of connection group	Dyn11							
5	Core structure	Laminated/coiled core							
6	Insulation endurance class	Level B/F							
7	Rated capacity kVA	50	100	200	315	400	500	630	
8	High-voltage tapping range (%)	±2×2.5							
9	Rated frequency (Hz)	50							
10	No-load loss (W)	100	150	240	340	410	480	570	
11	Load loss (W)	910	1580	2730	3830	4520	5410	6200	
12	Total losses (W)	1010	1730	2970	4170	4930	5890	6770	
13	No-load current (%)	1.3	1.1	1.0	0.9	0.8	0.8	0.6	
14	Short-circuit impedance (%)	4	4	4	4	4	4	4.5	
15	Noise level (sound power level) (dB)	50	52	56	58	58	59	59	
16	Noise level (sound pressure level) (dB)	41	41	42	44	44	46	47	

High-temperature Resistant Vegetable Oil Distribution Transformer

Model



Example: 10kV fully-enclosed high-temperature resistant vegetable oil distribution transformer with three-phase, natural ester, self-cooling, duplex winding, non-excitation voltage regulation; insulation endurance class: B; loss level code: 13; rated capacity: 100kVA; model: SW(B)13-M-100/10

Features

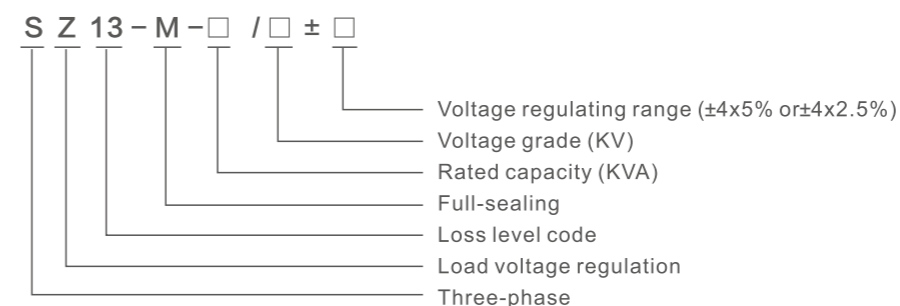
- **Environment protection:** the vegetable oil of vegetable oil transformer is renewable and biodegradable compared with common mineral oil. The degradation rate within 21 days exceeds 98%, and it will not pollute the environment and endanger the human health really.
- **Safety:** with high flame retardancy. The traditional mineral oil transformer may be blasted due to low ignition point (150-200°C), while the ignition point of vegetable oil is up to 360 and the flash point is up to 330.
- **High overload:** the temperature rise of high overload transformer is increased by 10K to ensure its overload capacity based on normal service life and fully meet the overload requirement of distribution network.
- **Low noise:** the noise of vegetable oil transformer is more than 2dB lower than that of mineral oil transformer and about 10dB lower than that of dry type transformer.
- **Long service life:** compared with mineral oil, the vegetable oil can reduce the ageing time of insulating paper by 5-8 times significantly and prolong the service life of transformer by 33% (up to 30-40 years)
- **Good moisture resistivity:** the voltage withstand level can be reduced only when the water content in vegetable insulating oil is more than 800mg/kg, which is increased by several times compared with the critical point (40mg/kg) of mineral insulating oil.

Technical Parameters

S/N	Item	Standard parameters list						
1	Rated voltage	10/0.4 kV						
2	High-voltage phases	Three-phase						
3	Low-voltage phases	Three-phase four-wire						
4	Grade mark of connection group	Dyn11						
5	Core structure	Laminated/coiled core						
6	Insulation endurance class	Level B/F						
7	Rated capacity kVA	100	200	315	400	500	630	
8	High-voltage tapping range (%)	±2×2.5						
9	Rated frequency (Hz)	50						
10	No-load loss (W)	150	240	340	410	480	570	
11	Load loss (W)	1580	2730	3830	4520	5410	6200	
12	Total losses (W)	1730	2970	4170	4930	5890	6770	
13	No-load current (%)	1.1	1.0	0.9	0.8	0.8	0.6	
14	Short-circuit impedance (%)	4	4	4	4	4	4.5	
15	Noise level (sound power level) (dB)	52	56	58	58	59	59	
16	Noise level (sound pressure level) (dB)	41	42	44	44	46	47	

Wide On-load Voltage Regulation Transformer

Model



Example: 10kV wide on-load voltage regulation distribution transformer with three-phase, self-cooling, duplex winding, on-load voltage regulation, voltage regulating range: 4x2.5%; loss level code: 13; rated capacity: 630kVA; model: SZ13-M-630/10±4x2.5%

Features

- **Multi-position and wide voltage regulation:** 9 voltage regulation positions; voltage regulating range: ±10% and ±20%.
- **Primary and secondary fusion of transformer:** The transformer not only realizes automatic voltage control, but also expands the monitoring of operating condition (current, voltage, oil temperature and pressure, etc.) to realize the primary and secondary fusion.
- **"Three-remote" function:** support GPRS wireless communication and RS485 serial port communication, monitor the operating condition of transformer remotely, check and modify the parameters, and realize automation of distribution network area.
- **Good man-machine interface:** The controller is provided with a Chinese LCD screen and a built-in WIFI module so that the maintenance personnel can check the working condition of transformer through LCD screen or mobile phone APP without the need of outage and improve the maintenance efficiency.
- **Miniaturized design, small volume and convenient installation:** the on-load tap switch is of a combination structure to realize miniaturized design. The switch is installed horizontally without independent oil chamber, and the vacuum pipe is arc-extinguishing and simple in structure. The transformer is compact in volume and convenient to install.
- **Free of maintenance and long in service life:** oil filtration is unnecessary during operation, periodic maintenance is not needed, and the service life of tap switch is 50,000 times, and the mechanical service life is 100,000 times.

Technical Parameters

Rated capacity (kVA)	High voltage (kV)	High-voltage tapping range (%)	Low voltage (kV)	Grade mark of connection group	No-load loss (W)	Load loss (W)	Short-circuit impedance (%)	No-load current (%)
100	11	±4×2.5	0.4	Dyn11	150	1580	4	1.1
200					240	2730		1.0
315	10.5	或 ±4×5	0.4	Dyn11	340	3830	4	0.9
400	6.3				410	4520		0.8
500	6				480	5410		0.8
630					570	6200		4.5

Note: other connection group and technical parameters are non-preferential parameters and shall be determined after negotiation of the user and the manufacturer.

On-load Regulating Capacity And Voltage Transformer

Model

SZ 13 - M · ZT □ (□) / □

Voltage grade (KV)

Rated capacity (small capacity)

Rated capacity (large capacity)

Load capacity regulation

Sealed type

Loss level code

S: three-phase; Z: on-load voltage regulation



Example: SZ13-M-ZT-400(125)/10 indicates a 10kV on-load regulating capacity and voltage transformer (three-phase, oil-immersed, self-cooling, duplex winding, loss level code: 13; fully enclosed, maximum capacity: 400kVA; minimum capacity: 125kVA).

Features

- **Regulate voltage automatically and improve the voltage quality:** detect the line voltage in real time, and control the tap switch to realize automatic voltage control of transformer according to the preset logic and algorithm and the line voltage fluctuation.
- **Regulate capacity automatically, save energy and reduce consumption:** detect the line current in real time, identify whether the transformer works in light load or heavy load automatically, and complete the capacity adjustment of transformer within 40ms according to preset logic and algorithm; reduce the no-load loss greatly in small capacity gear, and achieve the purpose of energy saving and consumption reduction.
- **"Three-remote" function:** support GPRS wireless communication and RS485 serial port communication, monitor the operating condition of transformer remotely, check and modify the parameters, and realize automation of distribution network area.
- **Good man-machine interface:** the controller is provided with a Chinese LCD screen and a built-in WIFI module so that the maintenance personnel can check the working condition of transformer through LCD screen or mobile phone APP without the need of outage and improve the maintenance efficiency.
- **Miniaturized design, small volume and convenient installation:** the on-load tap switch is of a combination structure to realize miniaturized design. The switch is installed horizontally without independent oil chamber, and the vacuum pipe is arc-extinguishing and simple in structure. The transformer is compact in volume and convenient to install.
- **Free of maintenance and long in service life:** oil filtration is unnecessary during operation, periodic maintenance is not needed, and the service life of tap switch is 50,000 times, and the mechanical service life is 100,000 times.

Technical Parameters

Rated capacity (kVA)	High voltage (kV)	High-voltage tapping range (%)	Low voltage (kV)	Grade mark of connection group	No-load loss (W)	Load loss (W)	Short-circuit impedance (%)	No-load current (%)
100 (30)	10 10.5	±5	0.4	Dyn11 (Yyn0)	150(80)	1580(600)	4.0	1.1 (0.6)
200 (63)					240 (110)	2730 (1040)		1.0 (0.5)
400 (125)					410 (170)	4520 (1800)		0.8 (0.4)
500 (160)					480 (200)	5410 (2220)		0.8 (0.4)
630 (200)					570 (240)	6200 (2600)		4.5

Note 1: the content in bracket is the parameter in small capacity.

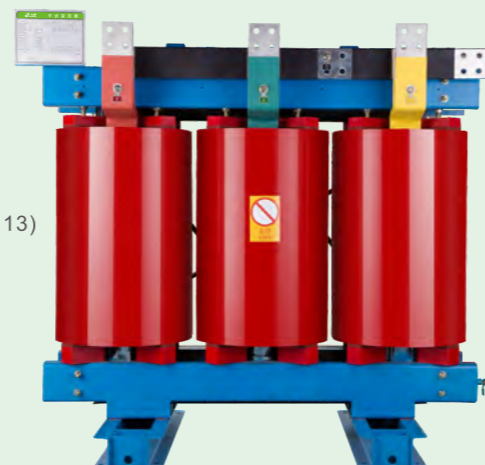
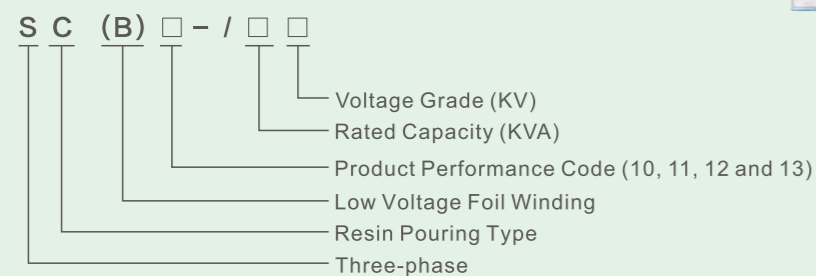
Note 2: other connection group and technical parameters are non-preferential parameters and shall be determined after negotiation of the user and the manufacturer.





SC(B)10/11/12/13 Cast Resin Transformer

Model



Features

- **Safety:** hard to ignite, fireproof, pollution-free, good in corrosion resistance and able to install in the load center directly.
- **Damp-proof:** it could normally operate under 100% humidity.
- **Maintenance-free:** convenient to install and low in comprehensive operation cost.
- **Good performance:** low in loss, partial discharge quantity and noise, high in mechanical strength, strong in short-circuit resistance and cooling capacity, and able to operate in 130% rated load under the forced air cooling.
- **Temperature control guarantee:** it is equipped with temperature protection control system to provide reliable protection for the transformer's safe operation. According to the operation research for the products that have been put into operation, the reliability index of the product has reached internationally advanced level.

Technical Parameters

SC(B)10-30~2500/10 Series Resin Pouring Distribution Transformer

Rated Capacity kVA	Voltage Combinations (kV)			Grade Mark Of Connection Group	No-load Loss (W)	Load Loss (W) (Level F/H)	Short-circuit Impedance (%)
	High Voltage (kV)	Tap (%)	Low Voltage (kV)				
30	6	± 2.5 ± 5	0.4	Dyn11 Yyn0	190	710/760	4.0
50					270	1000/1070	
80					370	1380/1480	
100					400	1570/1690	
125					470	1850/1980	
160		540			2130/2280		
200		620			2530/2710		
250		720			2760/2960		
315		880			3470/3730		
400		980			3990/4280		
500	11	± 5	0.4	Dyn11 Yyn0	1160	4880/5230	6.0
630	33	± 2×25			1340	5880/6290	
630	35				1300	5960/6400	
800	1520				6960/7460		
1000	1770				8130/8760		
1250	2090				9690/10300		
1600	2450	11730/12500					
2000	3050	14440/15500					
2500	3600	17100/18400					

Note: the value above the inclined line of table is load loss of F (120°C) grade, and the value below the inclined line is the load loss of H (145°C) grade.

SC(B)11-30~2500/10 Series Resin Pouring Distribution Transformer

Rated Capacity kVA	Voltage Combinations (kV)			Grade Mark Of Connection Group	No-load Loss (W)	Load Loss (W) (Level F/H)	Short-circuit Impedance (%)
	High Voltage (kV)	Tap (%)	Low Voltage (kV)				
30	6	± 2.5 ± 5	0.4	Dyn11 Yyn0	170	710/760	4.0
50					240	1000/1070	
80					330	1380/1480	
100					360	1570/1690	
125					420	1850/1980	
160		480			2130/2280		
200		550			2530/2710		
250		640			2760/2960		
315		790			3470/3730		
400		880			3990/4280		
500	10.5	± 5	0.4	Dyn11 Yyn0	1040	4880/5230	6.0
630	11	± 2×25			1200	5880/6290	
630	33				1170	5960/6400	
800	1360				6960/7460		
1000	1590				8130/8760		
1250	1880				9690/10300		
1600	2200	11730/12500					
2000	2740	14440/15500					
2500	3240	17100/18400					

Note: the value above the inclined line of table is load loss of F (120°C) grade, and the value below the inclined line is the load loss of H (145°C) grade.

SC(B)12-30~2500/10 Series Resin Pouring Distribution Transformer

Rated Capacity kVA	Voltage Combinations (kV)			Grade Mark Of Connection Group	No-load Loss (W)	Load Loss (W) (Level F/H)	Short-circuit Impedance (%)
	High Voltage (kV)	Tap (%)	Low Voltage (kV)				
30	6	±2.5 ±5	0.4	Dyn11 Yyn0	150	710/760	4.0
50					215	1000/1070	
80					295	1380/1480	
100					320	1570/1690	
125					375	1850/1980	
160					430	2130/2280	
200					495	2530/2710	
250					575	2760/2960	
315					705	3470/3730	
400					10.5	±5 ±2×25	
500	930	4880/5230					
630	1070	5880/6290					
630	1040	5960/6400					
800	1210	6960/7460					
1000	1410	8130/8760					
1250	1670	9690/10300					
1600	1960	11730/12500					
2000	2440	14440/15500					
2500	2880	17100/18400					

Note: the value above the inclined line of table is load loss of F (120°C) grade, and the value below the inclined line is the load loss of H (145°C) grade.

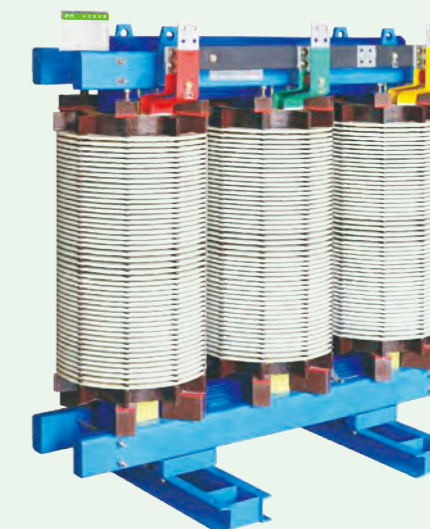
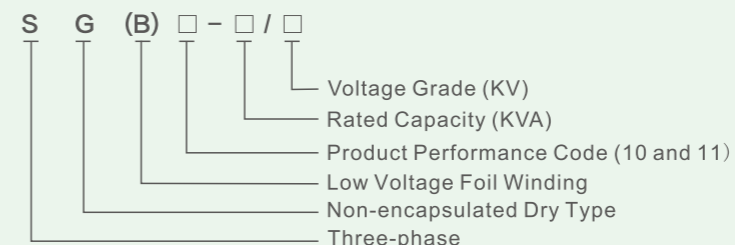
SC(B)13-30~2500/10 Series Resin Pouring Distribution Transformer

Rated Capacity kVA	Voltage Combinations (kV)			Grade Mark Of Connection Group	No-load Loss (W)	Load Loss (W) (Level F/H)	Short-circuit Impedance (%)
	High Voltage (kV)	Tap (%)	Low Voltage (kV)				
30	6	±2.5 ±5	0.4	Dyn11 Yyn0	135	640/685	4.0
50					195	900/965	
80					265	1240/1330	
100					290	1410/1520	
125					340	1660/1780	
160					385	1910/2050	
200					445	2270/2440	
250					515	2480/2660	
315					635	3120/3350	
400					705	3590/3850	
500	10.5	±5 ±2×25	0.4	Dyn11 Yyn0	835	4390/4700	6.0
630	965				5290/5660		
630	935				5360/5760		
800	1090				6260/6710		
1000	1270				7310/7880		
1250	1500				8720/9330		
1600	1760				10500/11300		
2000	2190				13000/14000		
2500	2590				15400/16600		

Note: the value above the inclined line of table is load loss of F (120°C) grade, and the value below the inclined line is the load loss of H (145°C) grade.

SG(B)10/11 Non-encapsulated Transformer

Model



Features

- **Level H insulation:** the insulation endurance class of dry type transformer includes F, H and C. The product takes the DuPont NOMEX paper as the main insulating material, the insulation grade is up to H, and the insulation grade of key part is up to C.
- **Safety:** all insulating materials of the product are not combustion-supporting, self-extinguishing and non-toxic, and there is hardly poisonous smoke after burning under 800°C for a long time.
- **Reliability:** excellent three-proofs performance (damp-proof, anti-poison and salt-spray proof), able to undertake heat shock and free of crack.
- **Environment protection:** no environmental pollution during manufacturing, transportation, storage and operation, and able to be decomposed or recycled after the service life is expired.
- **Strong overload capacity:** strong overload capacity, fast cooling, and work safely and reliably under 130% overload for a long time.

Technical Parameters

SG(B)10-30~2500/10 Series Non-encapsulated Dry Type Transformer

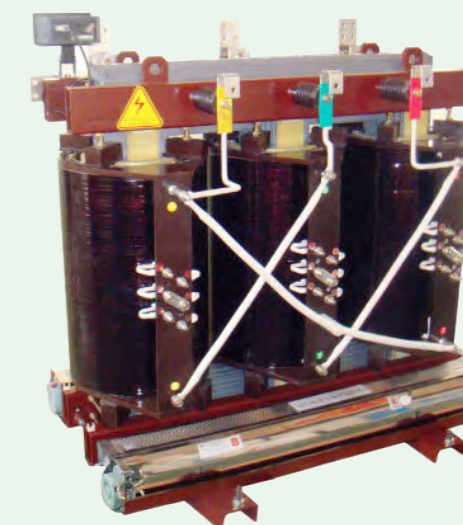
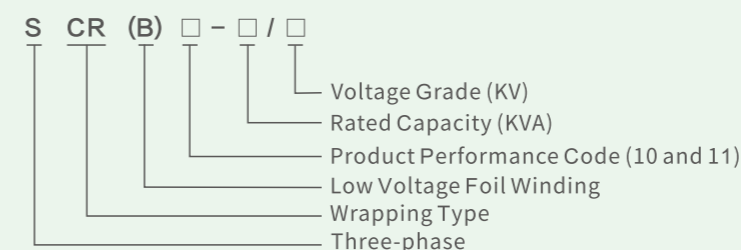
Rated Capacity kVA	Voltage Combinations (kV)			Grade Mark Of Connection Group	No-load Loss (W)	Load Loss (W) (Level F/H)	Short-circuit Impedance (%)
	High Voltage (kV)	Tap (%)	Low Voltage (kV)				
30	6	±2.5 ±5	0.4	Dyn11 Yyn0	190	760	4.0
50					270	1070	
80					370	1480	
100					400	1690	
125					470	1980	
160					540	2280	
200					620	2710	
250					720	2960	
315					10	880	
400		10.5			980	4280	
500		11			1160	5230	
630		±5 ±2×25			1340	6290	
630					1300	6400	
800					1520	7460	
1000					1770	8760	
1250					2090	10300	
1600					2450	12500	
2000		3050			15500	6.0	
2500	3600	18400					

SG(B)11-30~2500/10 Series Non-encapsulated Dry Type Transformer

Rated Capacity kVA	Voltage Combinations (kV)			Grade Mark Of Connection Group	No-load Loss (W)	Load Loss (W) (Level F/H)	Short-circuit Impedance (%)
	High Voltage (kV)	Tap (%)	Low Voltage (kV)				
30	6	±2.5 ±5	0.4	Dyn11 Yyn0	170	760	4.0
50					240	1070	
80					330	1480	
100					360	1690	
125					420	1980	
160					480	2280	
200					550	2710	
250					640	2960	
315					10	790	
400		10.5			880	4280	
500		11			1040	5230	
630		±5 ±2×25			1200	6290	
630					1170	6400	
800					1360	7460	
1000					1590	8760	
1250					1880	10300	
1600					2200	12500	
2000		2740			15500	6.0	
2500	3240	18400					

SCR(B)10/11 Semi-encapsulated Transformer

Model



Features

- **Dustproof and damp-proof:** the appearance is coated with special waterproof materials to form a dustproof, damp-proof and anti-pollution special protective layer.
- **Small size and light weight:** DuPont NOMEX paper is taken as the main insulating material, the volume and weight can be reduced by 20% compared with epoxy casting type transformer in same capacity.
- **Strong cooling capacity:** multi-layer cylindrical, longitudinal multi-air-channel structure, better in cooling effect compared with epoxy casting transformer.
- **Environment protection:** Reliable, free of combustion-supporting resin, non-toxic, able to be decomposed and recycled, and pollution-free.

Technical Parameters

SCR(B)10-30~2500/10 Series Semi-encapsulated Dry Type Transformer

Rated Capacity kVA	Voltage Combinations (kV)			Grade Mark Of Connection Group	No-load Loss (W)	Load Loss (W) (Level F/H)	Short-circuit Impedance (%)	
	High Voltage (kV)	Tap (%)	Low Voltage (kV)					
30	6	± 2.5 ± 5	0.4	Dyn11 Yyn0	190	760	4.0	
50					270	1070		
80					370	1480		
100					400	1690		
125					470	1980		
160					540	2280		
200		620			2710	6.0		
250		720			2960			
315		6.3			± 5 ± 2×25		880	3730
400		6.6					980	4280
500		10					1160	5230
630		10.5					1340	6290
630		11				1300	6400	
800		33				1520	7460	
1000		35			1770	8760		
1250					2090	10300		
1600					2450	12500		
2000					3050	15500		
2500		3600	18400					

SCR(B)11-30~2500/10 Series Semi-encapsulated Dry Type Transformer

Rated Capacity kVA	Voltage Combinations (kV)			Grade Mark Of Connection Group	No-load Loss (W)	Load Loss (W) (Level F/H)	Short-circuit Impedance (%)	
	High Voltage (kV)	Tap (%)	Low Voltage (kV)					
30	6	± 2.5 ± 5	0.4	Dyn11 Yyn0	170	760	4.0	
50					240	1070		
80					330	1480		
100					360	1690		
125					420	1980		
160					480	2280		
200		550			2710	6.0		
250		640			2960			
315		6.3			± 5 ± 2×25		790	3730
400		6.6					880	4280
500		10					1040	5230
630		10.5					1200	6290
630		11				1170	6400	
800		33				1360	7460	
1000		35			1590	8760		
1250					1880	10300		
1600					2200	12500		
2000					2740	15500		
2500		3240	18400					

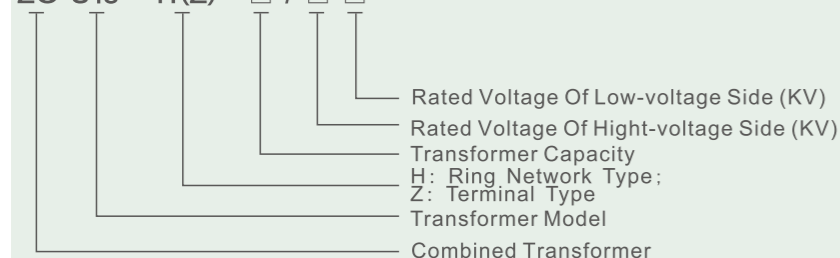


▶ PAD-MOUNTED
TRANSFORMER

Combined Transformer

Model

ZG S13 - H(Z) - □ / □ □



Features

- Small volume, compact structure, the floor area is only about 1/3-1/5 of that of domestic European box-type substation in the same capacity.
- Fully insulating structure, safe and reliable.
- S13 transformer with low loss and noise and strong overload capacity
- Flexible and reliable power supply mode, applicable to ring network and terminal.
- Various low voltage feed-out requirements can be satisfied and low-pressure measurement and outgoing line can be added as required by the customer.
- Strong in corrosion resistance due to special process treatment, made of ordinary steel sheet or stainless.

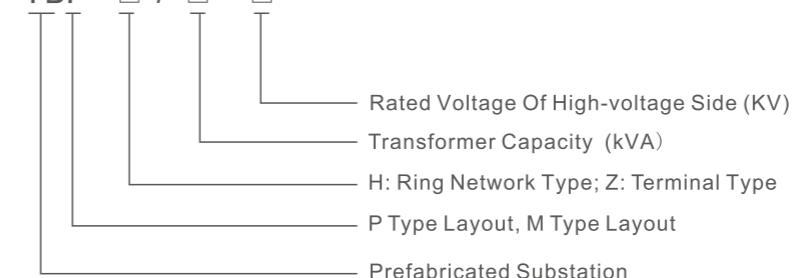
Technical Parameters

S/N	Item	Unit	Technical Parameters
1	Main Body Of The Transformer	Rated voltage of high-voltage side	kV 10, 10.5
2		Rated voltage of low-voltage side	kV 0.4
3		Rated capacity	kVA 30 ~ 1600
4		Wiring method	Dyn11, Yyn0
5		Rated frequency	Hz 50
6		Voltage regulation tap switch	kV ±5 ±2x2.5%
7		Noise level	dB 国标
8		Temperature rise of the oil level	K ≤55
9	Power frequency withstand voltage for 1min	High-voltage side	kV 35
		Low-voltage side	kV 5
10	Lightning impulse withstand voltage (peak)	Full wave	kV 75
		Chopped wave	kV 85
11	High Voltage Load Switch	Cooling mode	油浸自冷
12		Rated voltage	kV 12
13		Rated current	A 315 / 630
14		Rated short-time withstand current (4S)	kA 16 / 20
15		Rated short-circuit making current	kA 40 / 50
16		Full-load breaking times	次 100
17		Mechanical life	次 2000

Prefabricated Substation

Model

YBP- □ / □ - □



Features

- The box color can be selected so as to match with the surrounding environment. The case is made of SMC, stainless steel sheet and composite board to meet different customization requirements.
- The substation base is made of galvanized box iron or cement, so it is strong in corrosion resistance.
- The top cover of the box adopts a double-layer structure with good heat insulation, radiation protection and ventilation effects.
- There is an automatic exhaust device on the top of transformer room to regulate the indoor temperature.

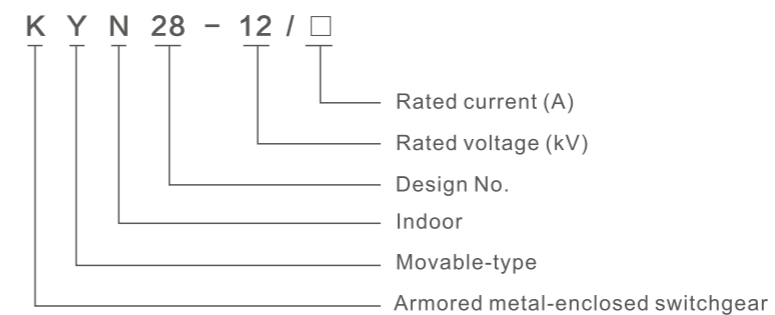
Technical Parameters

Item	Unit	Technical parameters	
High-voltage side	Rated voltage	kV 12	
	Rated insulation level	Short-duration power-frequency withstand voltage for 1min	kV 42
		Lightning impulse withstand voltage	kV 75
	Rated frequency	Hz 50	
	Rated busbar current	A 630, 1250	
	Rated short-time withstand current (4S)	kA 20	
Low-voltage side	Rated peak withstand current	kA 50	
	Rated short-circuit making current	kA 50	
	Rated voltage of the main circuit	V 380 (400)	
	Rated voltage of the auxiliary circuit	V 220(230), 380(400)	
	Rated frequency	Hz 50	
	Rated insulation voltage	V 600 (690)	
	Rated main busbar current	A ≤4000	
	Busbar rated short-time withstand current (1s)	kA 50	
	Rated busbar peak withstand current	kA 105	
	Power frequency test voltage (1min)	Main circuit	V 2500
Auxiliary circuit		V 2000	
Protection grade	IP4X		



KYN28-12 Indoor Metal Armoring Movable Switchgear

Model



Features

- Sufficient air insulating distance to avoid the probability of inter-phase accident.
- The protection grade of shell is IP4X to better prevent human body and external solid from approaching to the live part and ensure personnel safety and reliable operation of equipment;
- The key parts of large current equipment is made of non-permeability magnetic material to reduce the eddy-current loss effectively.

Applicable Place

S/N	Item	Unit	Technical parameters	
1	Rated voltage	kV	12	
2	Rated insulation level	Short-duration power-frequency withstand voltage for 1min	kV	42
3		Lightning impulse withstand voltage	kV	75
4	Rated frequency	Hz	50	
5	Rated busbar current	A	630、1250、1600、2000、2500、3150、4000	
6	Rated short-time withstand current (4S)	kA	20、25、31.5、40、50	
7	Rated peak withstand current	kA	50、63、80、100、125	
8	Rated short-circuit making current	kA	50、63、80、100、125	
9	Protection grade		The shell is IP4X (Compartment, and when the breaker chamber door opened, it is IP2X)	

XGN15-12 Box-type Stationary Metal Enclosed High Voltage Switchgear

Model

XGN 15 - 12 / □ □

- Operation mode D: electric operation, manual operation is not marked
- Rated current (A)
- Rated voltage (kV)
- Design No.
- Stationary loop-network switch cabinet



Features

- The unit modules can be combined and expanded freely without the need of charging and discharging, so as to facilitate scheme combination and high voltage metering design.
- The extensible busbar is provided with a pluggable silicon rubber connector which can realize fully-insulating and shielding and ensure the conduction reliability.
- It is convenient to install cable due to the front plugging.
- Detachable, fast to recover and convenient to install during overhaul.
- New semiconductor material is used as the shielding layer to prevent appearance from humidity, condensation, dust and dirt.

Technical Parameters

S/N	Name	Unit	Technical Parameters	
			Load switch cabinet	Load switch fuse combination electrical cabinet
1	Rated voltage	kV	12	
2	Rated frequency	Hz	50	
3	Rated current	A	630	125 (Max)
4	Rated insulation level	Short-duration power-frequency withstand voltage for 1min	42	
		Lightning impulse withstand voltage	75	
5	Rated short-circuit breaking current	kA	31.5	
6	Rated short-circuit making current	kA	50	80
7	Rated short time withstand current and duration	kA/s	20/3	
8	Rated peak withstand current	kA	50	
9	Transfer current	A	1700	
10	Protection grade		IP3X/IP4X	

Complete Set Of GGD Low-voltage Switchgear

Model

G G D □ - □

- Main circuit program code
- Design No.
- Power cabinet
- Stationary type
- AC low-voltage distribution cabinet



Features

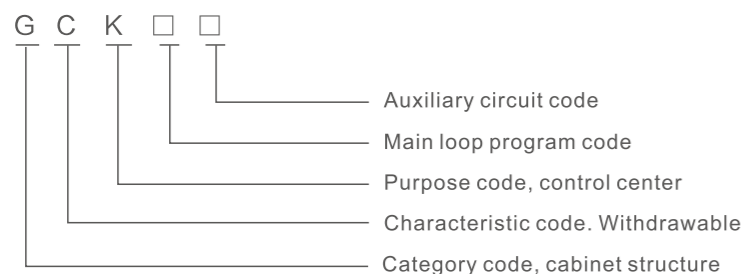
- There are several cooling slot holes on the upper and lower ends of cabinet for fully cooling.
- High in universal coefficient due to the adoption of universal cabinet.
- The whole cabinet is artistic and elegant since the cabinet shape and separate dimension are designed according to golden section ratio.
- The protection grade of cabinet is IP30, the user can choose between IP20-IP40 according to the environmental requirements.
- The cabinet door is connected with framework by rotary moveable hinge to facilitate installation and the removal.
- Some electrical appliances can realize closing door operation to facilitate maintenance.

Technical Parameters

Model	Rated voltage (V)	Rated current (A)	Rated short-circuit breaking current (kA)	Rated short-time withstand current (kA/1s)	Rated peak withstand current (kA)
GGD1	380	A 1000	15	15	30
		B 600(630)			
		C 400			
GGD2	380	A 1500(1600)	30	30	63
		B 1000			
		C 600			
GGD3	380	A 3150	50	50	105
		B 2500			
		C 2000			
GGD4	380	A 4000	80	80	176
		B 3150			
		C 2500			

Complete Set Of GCK Low-voltage Switchgear

Model



Features

- Compact design, containing more functional units with smaller space.
- Flexible assembly, meeting the requirements of structural types, protection grades and using environments.
- Standard modular design, assembling freely according to the user's need.
- High safety, effectively strengthening the protection safety performance due to the adoption of high strength flame-retardant engineering plastic modules.
- High technical performance, the main parameters reach the current international technical level.
- Site saving and high in serialization, standardization and generalization, able to save the site for storing and transporting prefabricated parts.
- Convenient maintenance, without the need of special complicated tools.

Technical Parameters

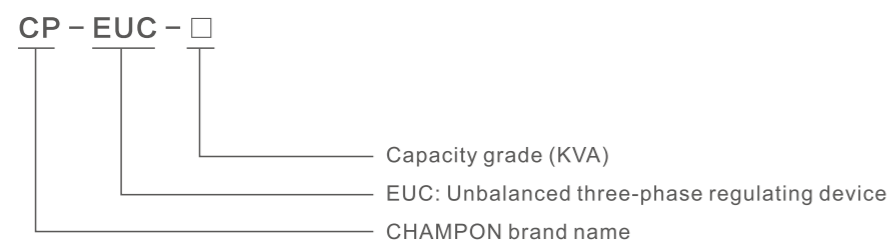
Item	Unit	Data	
Rated voltage of the main circuit	V	AC380 (400) 、660 (690)	
Rated voltage of the auxiliary circuit	V	AC220、380 (400) ; DC110、220	
Rated frequency	Hz	50 (60)	
Rated insulation voltage	V	660 (1000)	
Rated current	Horizontal busbar	A	≤4000
	Vertical busbar (MCC)	A	1000
Busbar rated short-time withstand current (1s)	kA	50、80	
Rated busbar peak withstand current	kA	105、176	
Power frequency test voltage (1min)	Main circuit	V	2500
	Auxiliary circuit	V	1760
Protection grade		IP30、IP40	



▶ **POWER QUALITY
PRODUCTS**

Unbalanced Three-phase Treatment Device

Model



Example: CP-EUC-60 refers to an unbalanced three-phase regulating device of CHAMPON Electric (rated capacity: 60kVA).

Features

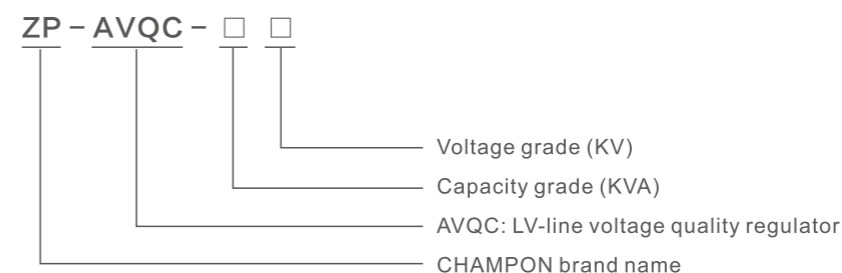
- **Unbalanced three-phase treatment:** with the application of advanced power electronics, the three-phase load power consumption can be redistributed, so that the three-phase current can be balanced on the low-voltage side of the transformer. Reactive power.
- **compensation:** capacitive & inductive reactive compensation better improves the effective output capacity of the distribution network.
- **Harmonic filtering:** the main harmonics and conventional (6n±1) sub-harmonics can be effectively eliminated, further improving the safety of distribution system.
- **Improvement on transformer load capacity:** settle the single-phase overload, and improve the load capacity.
- **High safety:** mini short-circuiter is provided in the module input for overcurrent protection.
- **High power density and small volume:** designed module by functional unit is characterized with high power density and small volume.

Technical Parameters

Functional module	Input voltage	320V~460V			
	Input frequency	47.5Hz~52.5Hz			
	Wiring method	3P4L+PE			
	Functional module capacity	25kVA	30kVA	35kVA	
	Functional module quality	10kg	11kg	12kg	
	Compensation function	Three-phase unbalance, harmonic and reactive compensation			
	Functional module size	425mm x 88mm x 400mm			
	Protection grade	IP54		IP44	
Complete machine	Noise	≤60dB		≤65dB	
	Equipment capacity	60kVA	90kVA	120kVA	140kVA
	Maintenance method	Pluggable functional modules for easy maintenance			

Low-voltage Transformer Under Automatic Voltage Control

Model



Example: ZP-AVQC-30/0.23 refers to LV-line automatic voltage regulator of CHAMPON Electric (rated capacity: 30kVA; voltage: 230V).

Features

- **Module by module, advantageous expansion:** designed module by module, the functional unit can realize multi-module parallel expansion.
- **Automatic voltage control:** installed at the end of the power user, the abnormal voltage can be detected and automatically adjusted in real time to ensure stable output voltage.
- **Large voltage regulating range:** with the increase of tapping voltage regulating, the single-phase voltage regulating range can reach 130V~280V, indicating strong pressure regulating capability.
- **Harmonic treatment:** supported by comprehensive control of voltage harmonic power quality within 13 times, the distortion factor of output voltage is ≤5%, reliably improving the power supply of distribution transformer.
- **Easy to maintain:** via pull-plug internal functional module, pole-mounted maintenance, easy equipment installation, convenient and efficient use and maintenance, as well as local and cooperative employment can be achieved.

Technical Parameters

Functional module	Input voltage	130V~280V
	Input frequency	47.5Hz~52.5Hz
	Wiring method	Single-phase (L-N) 、 PE
	Functional module capacity	200V~235V
	Functional module quality	≤ ± 3%
	Compensation function	≤5%
	Functional module size	≥2倍
	Protection grade	<10ms
Complete machine	Noise	10vKA
	Equipment capacity	Stable voltage, reactive compensation, and voltage harmonic treatment
	Maintenance method	Multi-module parallel expansion, easy realization of three-phase system by single phase