

# 安徽格绿电气有限公司

Anhui Green Energy Electric Co., Ltd.



Cindy Wang  
Sales Manager



*Anhui Green Energy Electric Co., Ltd*

[www.ge-ele.com](http://www.ge-ele.com)

Transformer, Substation, Voltage Stabilizer/Regulator, UPS, etc.



+86 0551-65879669

+86 18715017448(Wechat/Whatsapp)



[cindywang@anhuienergy.com](mailto:cindywang@anhuienergy.com)



Room 2103 Building No.A Jiaqiao International Square  
Baohe District, Anhui Province, China



**PRODUCT  
GUIDE**

安徽格绿电气有限公司

Anhui Green Energy Electric Co., Ltd.



GREEN ENERGY

## COMPANY PROFILE

GREEN ENERGY ELECTRIC Group, is located in Hefei City, Anhui Province where close to Shanghai, , the business scope includes production and sales of high and low voltage electric power transformer, box-type substation, power electrical complete sets of equipment integrated installation, maintenance and testing of power facilities, power engineering construction, production and sales of cable, etc. Which can meet the basic requirements of most markets and are deeply loved by customers. More and more customers are willing to give orders to GE, which has laid a solid foundation for the rapid development of GE.

Our products fully comply with the national and industry standards required by the meet international IEC standards for key performance indicators, ensuring operational efficiency, safety, environmental protection and reliability of the products, favored by customers at home and abroad.



# CONTENTS

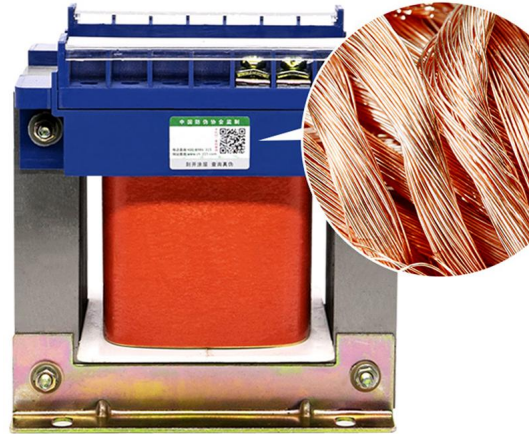


- 01 Low Voltage Transformer**
- 02 Voltage Stabilizer/Regulator**
- 03 UPS**
- 04 Portable Power Station**
- 05 Dry Type Transformer**
- 06 Oil Immersed Transformer**
- 07 Single Phase Pole Mounted Transformer**
- 08 Power Transformer**
- 09 Pad Mounted Transformer**
- 10 Compact Substation**
- 11 Switchgear/Switchboard**





GREEN ENERGY



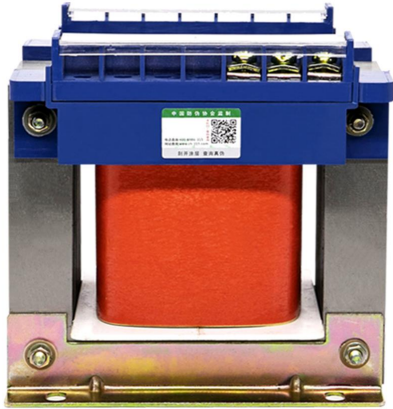
## > • Low Voltage Transformer





# Low Voltage Transformer

## BK Control Transformer



### Scope of application

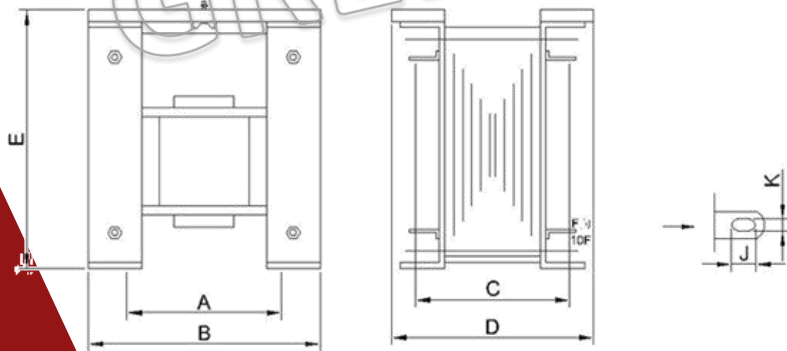
BK Series control transformer (hereinafter referred to as the transformer) 50-60Hz apply voltage to 500V circuit. usually used as a tool to control local electric lights and power indicator light

### Structure features

BK Series transformer can be classified according to the structure of the shell and, by the way the installation can be divided into vertical.

### Usage environment

1. Ambient air temperature  $-5^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ , 24 hour on average no more than  $+35^{\circ}\text{C}$ ;
2. Location to install an altitude of no more than 2000m;
3. Air relative humidity in the ambient air temperature  $+40^{\circ}\text{C}$  less than 50%, at a relatively low temperature can have a high relative humidity. wet on the monthly average maximum humidity was 90%, while the mean minimum temperature  $+25^{\circ}\text{C}$ , and taking into account the temperature changes occur as a result of the product on the surface of the Gel.



**Input voltage:** 2 phase 440V/415V 380V 360V

**Output voltage:** can customized 440V/12V/24V/36V/48V/60V/120V/220V special voltage please ask us.

**Electric strength:** Power frequency sinusoidal voltage

**Waveform distortion:** No additional waveform distortion

**Ambient temperature:**  $-15^{\circ}\text{C} \sim +40^{\circ}\text{C}$

**Relative humidity:**  $\leq 90\%$

**Insulation resistance:**  $\geq 50\text{M}\Omega$

**Efficiency:**  $\geq 98\%$

**Frequency:** 50Hz/60Hz

**Overload capacity:** Double rated current

Hold for one minute

# Low Voltage Transformer

## JBK Control Transformer

### Scope of application

JBK series single-phase machine tool control transformers are comprehensively used for AC 50-60HZ, and the input and output voltages do not exceed 1000V. They are often used in machine tool work as local lighting, indicator light power supply or machine tool control electrical appliances.

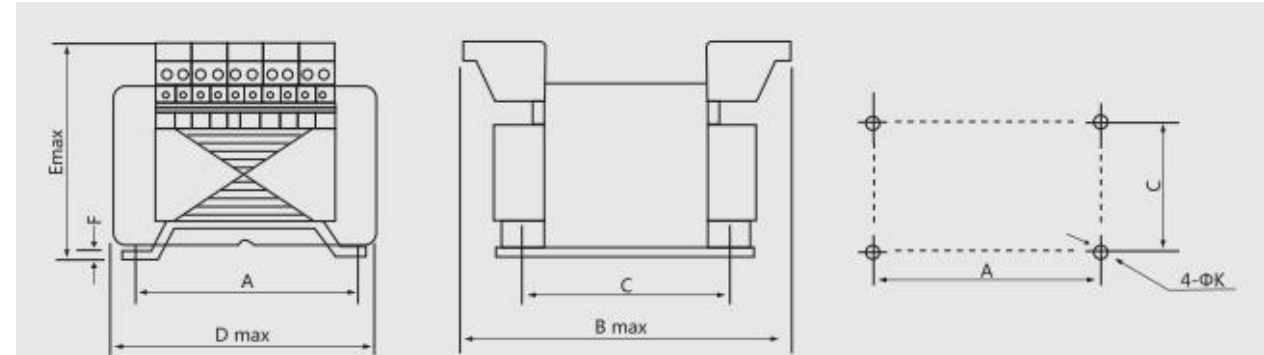
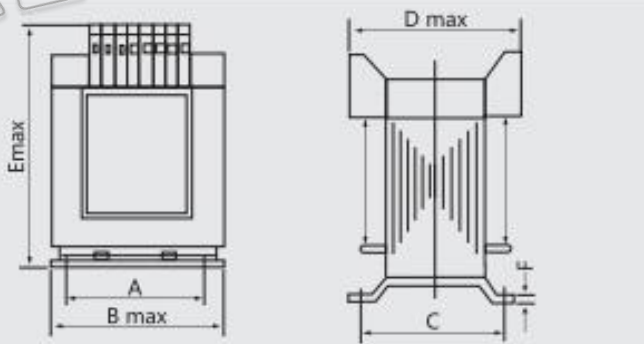
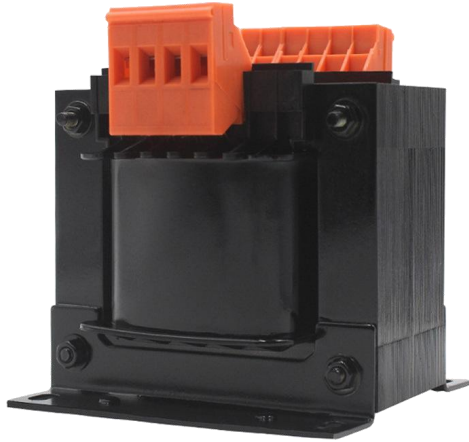
### Structure features

JBK5/6 series machine tool control transformers are suitable for AC 50~60Hz, input rated voltage not exceeding 500V, output rated voltage not exceeding 220V, used as mechanical equipment in all walks of life, general electrical control power supply and power supply for work and signal lights. In addition to a series of advantages of JBK5, JBK6 also has the following characteristics:

1. The wiring screw is bigger than JBK5, the wiring is more convenient and firmer;
2. Equipped with short circuit and thermal protection device, more reliable in use;
3. The transformer adopts integrated varnish dipping process, and the insulation material is imported from abroad, with stable insulation performance;

### Usage environment

1. Ambient air temperature:  $-5^{\circ}\text{C}$ ~ $+40^{\circ}\text{C}$ , the highest monthly mean temperature should not exceed  $+30^{\circ}\text{C}$ ;
2. Altitude for installing place should not exceed 2000 m;
3. When the ambient air temperature is  $+40^{\circ}\text{C}$ , the relative humidity should not exceed 50%, and it allows higher relative humidity under lower temperature. Max average humidity in the dampest month is 90%, meanwhile the lowest average temperature of this month is  $+25^{\circ}\text{C}$ , and condensation on the product surface caused by temperature change should be taken into consideration.



# Low Voltage Transformer

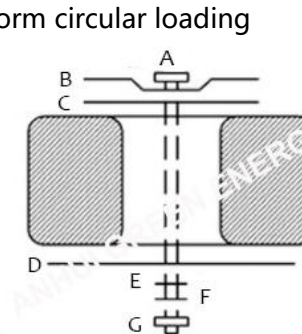
## Toroidal Transformer

GEOD ring power transformers are usually suitable for power transmission and voltage or current conversion in circuits. As a main soft magnetic electromagnetic component, they are widely used in power supply technology and power electronics. There are isolation transformers, autotransformers, lighting transformers, etc. It can also be used for special purposes, such as transformers, and transformers can be designed and produced according to customer requirements.

### FEATURE:

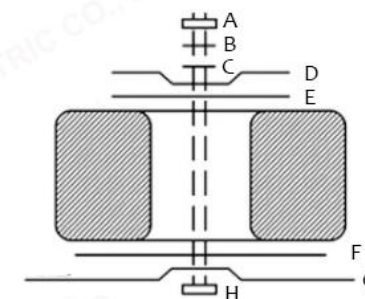
The cold-rolled oriented silicon steel sheet with a thickness of 0.27mm or 0.30mm, low iron loss and high magnetic permeability is used as the electromagnetic induction material, and the device is used to change the AC voltage by matching the primary winding and the secondary winding. Because the shape of the product is circular, it is called a toroidal transformer. . The product has the advantages of small size, high efficiency, low temperature rise, small magnetic flux leakage, and easy installation.

- ◆High efficiency: high-quality materials and compact structure are used to minimize the distance between the iron core and the winding, so the efficiency can reach more than 90%.
- ◆Small magnetic flux leakage: The iron core magnetic gap of the toroidal transformer is small and the winding is even.
- ◆Low noise and low heat generation: Since the toroidal transformer is made of high-quality low-loss materials, it has a uniform circular loading surface and continuous winding, so the resistance loss and heat generation are very low.



WITHOUT BASE INSTALLATION

- A: SCREW
- B: IRON COVER
- C: TOP RUBBER PAD
- D: BOTTOM RUBBER PAD
- E: FLAT PAD
- F: SPRING PAD
- G: NUT

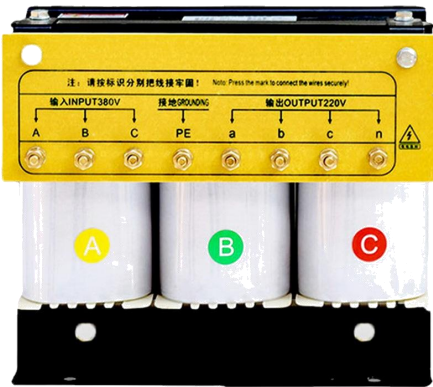


WITH BASE INSTALLATION

- A: NUT
- B: SPRING PAD
- C: FLAT PAD
- D: IRON COVER
- E: TOP RUBBER PAD
- F: BOTTOM RUBBER PAD
- G: INSTALL THE BASE
- H: SCREW



## SBK Control Transformer



### Scope of application

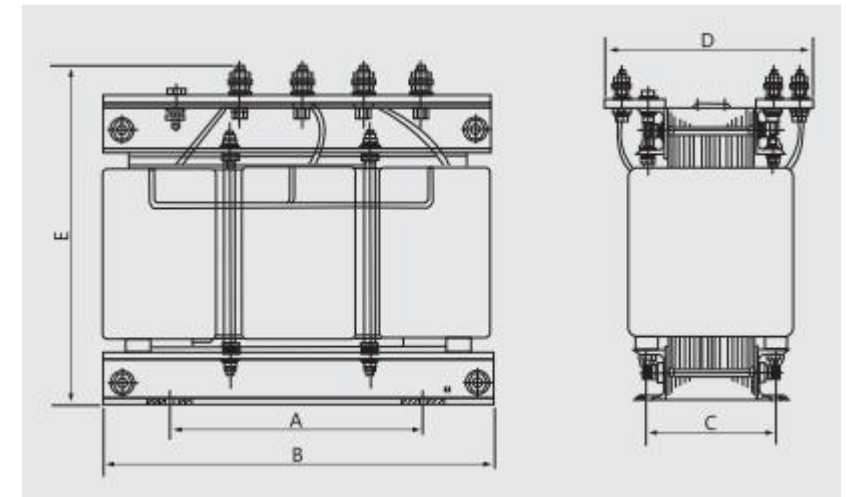
SBK series three-phase dry-type transformers are suitable for circuits with AC 50-60Hz and input voltage not exceeding 1000V. They can be used as control power supply, local lighting and indicator power supply for general electrical appliances such as various machine tools and mechanical equipment, and can also be used as small power supply.

### Structure features

SG, SBK series three-phase dry-type transformers can be made into open type or protective type, which have the advantages of low loss, low noise, good fire resistance and no pollution to the environment. Transformers are divided into control transformers and lighting transformers according to the purpose of the product; control transformers are fixed transformers; lighting transformers are movable transformers except for lighting transformers for machine tools. The iron core of the transformer is made of cold-rolled silicon steel sheets, and the two sides of the iron yoke are made of steel or steel plates as clamps, which are fastened by screws. According to the structure, the products are divided into two types: open type and protective type. The protective type is made of steel plate and processed into a box shell. The transformer is inside the box shell. If necessary, voltmeters, ammeters, temperature controllers, steering wheels, etc. can be added according to user requirements to facilitate movement.

### Usage environment

- Altitude: The altitude of the installation site does not exceed 2000m
- Temperature The ambient air temperature does not exceed +40°C, and the average temperature within 24 hours does not exceed +35°C, and the lower limit of the ambient air temperature is -5°C;
- Humidity: When the highest temperature is +40°C, the relative humidity of the air does not exceed 50%; at lower temperatures, higher relative humidity is allowed, for example, 90% at +20°C;
- Install in a place without severe vibration and impact vibration
- In a non-explosive medium, and there is no place where there is no gas that corrodes metal, destroys insulation, or conductive dust.
- Input and output voltage can be customized according to customer needs





# Low Voltage Transformer

## QSG/SG



QSG/SG three-phase dry type isolation transformer is a new generation energy-saving power transformer developed by our factory based on international similar products and combined with China's national conditions, from 300VA to 1600KVA, in line with international and national standards such as IEC439 and GB5226. The winding adopts the method of winding out the hole row. The transformer is vacuum-impregnated, so that the insulation grade of the transformer reaches F class or H class, and the product performance reaches the advanced level at home and abroad. QSG/SG series three phase dry type isolation transformer is widely used in circuits with AC 50Hz to 60Hz and voltage below 2000V. all can be specially customized as per different requirements of the end users.

Capacity	Size(cm)	Size(cm)	Weight(kg)
0.5 KVA	27/25/25	18/14/18	8
1 KVA	27/25/25	18/16/18	11
2 KVA	30/26/27	24/16/21	18
3 KVA	35/30/41	24/17/23	25
4 KVA	40/35/45	30/17/29	47
5 KVA	40/35/45	30/18/29	57
8 KVA	45/40/52	36/18/35	67
10 KVA	50/40/53	36/19/35	90
12 KVA	50/40/53	36/19/38	95
15 KVA	50/40/53	42/20/41	115
20 KVA	55/45/58	48/22/45	145
30 KVA	55/45/59	48/25/45	180
40 KVA	60/50/63	54/26/50	215
50 KVA	60/50/63	54/28/50	255
60 KVA	75/50/75	60/26/55	290
65 KVA	75/50/76	60/26/56	300
70 KVA	75/50/75	60/28/55	320
80 KVA	75/50/75	60/30/55	360
100 KVA	85/50/85	78/30/62	350
150 KVA	95/60/95	85/35/73	460
200 KVA	95/60/96	87/35/75	
300 KVA	100/70/105	98/38/82	

# Low Voltage Transformer

## DZS Transformer

The inverter power supply after AC→DC→AC conversion is called single-phase to three-phase power supply/transformer, which is different from the variable used for motor speed regulation. Frequency control controller. The main function of the single-phase to three-phase power supply is to convert the existing AC grid 220V into three-phase 380V power. Electric sine wave power supply. The ideal AC power supply is characterized by stable frequency, stable voltage, internal resistance equal to zero, and pure voltage waveform. Sine wave (no distortion). The inverter power supply is very close to the ideal AC power supply, so it can completely replace the remote area or cannot apply. Please ask for the three-phase area, but the output power of the single-phase to three-phase power supply is determined by the 220V current of the three mains. DZS series Phase-to-phase three-phase power supply, with microprocessor as the core, MPWM mode, designed with active component IGBT module, adopted Digital frequency division, D/A conversion, instantaneous value feedback, sinusoidal pulse width modulation and other technologies, so that the stand-alone capacity can reach 400KVA, isolation transformer output to increase the stability of the whole machine, with strong load adaptability, good output waveform quality, easy operation and volume Small, light weight and other features, with short circuit, over current, overload, overheating and other protection functions to ensure reliable operation of the power supply.



### Main Technical Parameters

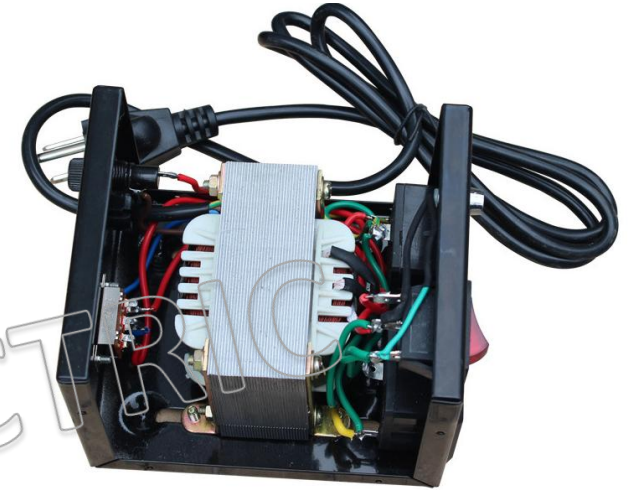
- Input voltage: single phase 220V±15%
- Input frequency: 50HZ
- Output voltage: 380V
- Output frequency: 50HZ
- Output power: 1.5KVA~60KVA
- Load regulation rate:  $\leq \pm 1\%$

### Technical Characteristic

- Ordinary City Electricity Import, Ministry of Application T Three-phase Electric Prosperity Procedures and Various Artificial Compositions
- Three-phase electricity for industrial use, but single-phase electricity for civil use ■ The core of the machine, the performance, the service life length
- Safely available, import single-phase electricity supply and export three-phase electricity complete gas isolation
- Import and pressure design, applicable area
- Various types of protection, such as export protection, perfection of transport, overpressure, overload, overheating, short circuit, self-determination protection, etc.
- Power supply simultaneous power control, electric power, dry performance, good performance, excellent power supply One equipment update, more power supply environment

# Low Voltage Transformer

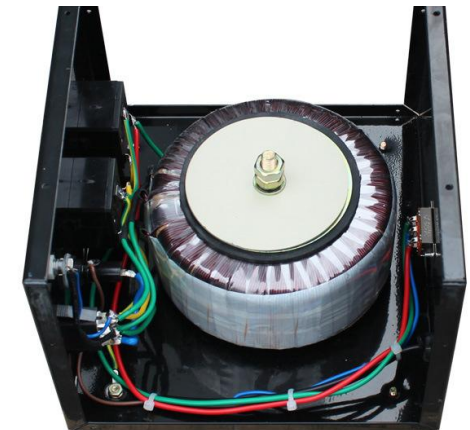
## ST Voltage Convert



### Introduction

Step-up & Step-down series transformer is an AC voltage converting device. Using it is to convert the multi-kind net voltages into a general output voltage under which all the electronic units are safe for use within the rated power ranger.

- Input voltage: 90V/100V/110V/125V/220V
- With fuse protector or with over current protector
- Output voltage: 90V/100V/110V/125V/220V
- With Metal handle
- Built-in AC 110V/220V voltage selector switch



# Low Voltage Transformer

## GEST Voltage Convert



### Introduction

Toroidal transformer is a large type of electronic transformers, has been widely used in home appliances and other technical requirements of higher electronic equipment, its main purpose is as a power transformer and isolation transformer. Ring transformer in foreign countries have a complete series, widely used in computers, medical equipment, telecommunications, equipment and lighting, and so on. China's ring transformer in recent years from scratch, has so far formed a considerable scale of production, in addition to meet domestic demand, but also a large number of exports. China is mainly used for home appliances and audio equipment and automatic control equipment, and quartz lighting and so on. Small vibration noise The core does not have the air gap can reduce the iron core to induce the vibration noise, the winding evenly wraps tightly the annular core, effectively reduces the magnetostriction to cause "buzzing" the sound. Low operating temperature As the iron loss can be MW 1 kg, iron loss is very small, core temperature is low, the windings in the lower temperature of the core cooling in good condition, so the transformer temperature is low.

### Scope of application

It is mainly suitable for 220V or 110V electrical appliances. The output voltage with dual output sockets can be selected! Nikko rice cookers, hair dryers, horse figurines, American juicers, speakers and more!

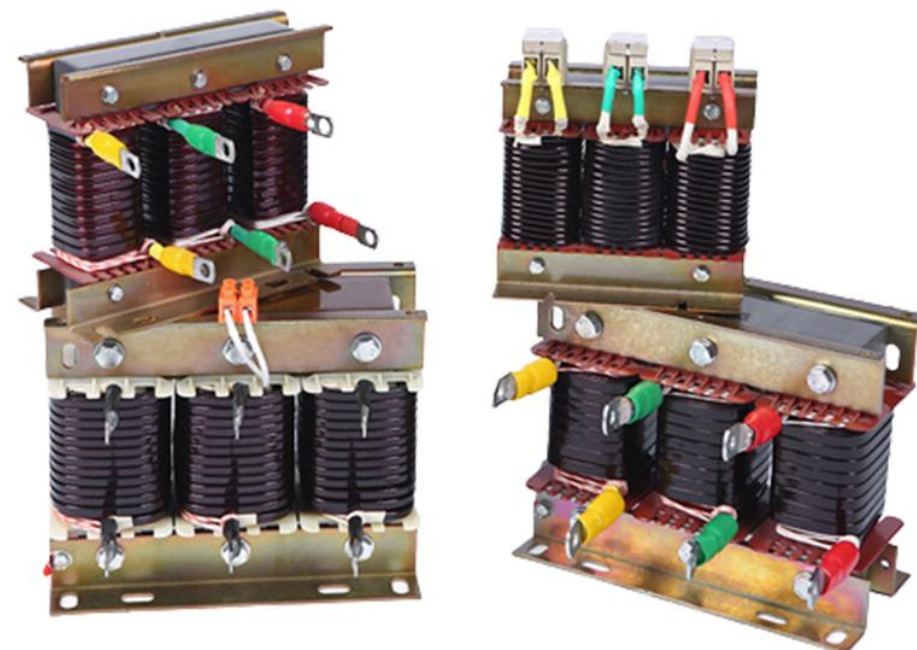
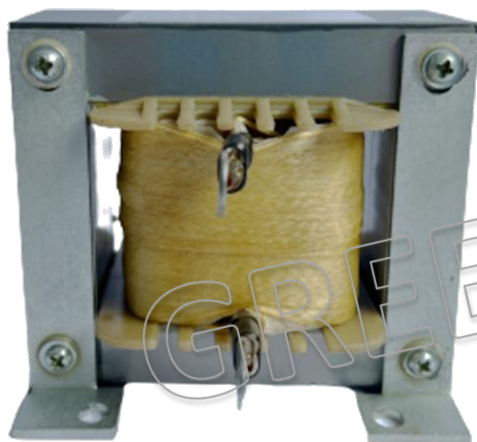




# Low Voltage Transformer

## Reactor / Inductor

There are a large number of harmonic sources such as rectifiers, converters, and frequency converters in the power grid, and the high-order harmonics generated by them will seriously endanger the safe operation of the main transformer and other electrical equipment in the system. Filter reactors are widely used in high and low voltage filter cabinets. They are connected in series with filter capacitors and tuned to a certain resonant frequency to absorb harmonic currents of corresponding frequencies in the power grid. The reactance rates are 1%, 5.67%, 6%, 12%, 13%, etc., can eliminate 3, 5, 7, 11, 13 and higher harmonics. After the filter reactor is connected in series with the capacitor, it can not only effectively absorb the harmonics of the power grid, but also improve the power factor of the system, which plays a greater role in the safe operation of the system.



### Applicable environment

1. The altitude does not exceed 2000m;
2. The ambient temperature is  $-25 \sim +45(^{\circ}\text{C})$ , and the relative humidity does not exceed 90%;
3. The waveform of the power supply voltage is similar to a sine wave;
4. There is no harmful gas, no flammable and explosive materials around;
5. The surrounding environment should have good ventilation conditions. If the filter reactor is installed in the cabinet, ventilation equipment should be installed.



**GREEN ENERGY**



## > • Voltage Stabilizer/Regulator

# Voltage Stabilizer/Regulator

TNS

Model	Voltage Regulation Range	Product Size	Package Size	N.W.(kg)	G.W.(kg)
TNS-1500VA	260V-450V	485*320*170mm	530*355*225mm	13	15.5
TNS-3000VA	260V-450V	485*320*170mm	530*355*225mm	17.5	20
TNS-4500VA	260V-450V	485*320*170mm	530*355*225mm	18	20.6
TNS-6KVA	260V-450V	275*307*673mm	330*360*760mm	26.1	30.8
TNS-10KVA	260V-450V	310*330*760mm	375*385*850mm	37	43
TNS-15KVA	260V-450V	340*360*855mm	400*420*950mm	46	53
TNS-20KVA	260V-450V	460*422*880mm	470*505*970mm	92.8	102
TNS-30KVA	260V-450V	460*422*880mm	470*505*970mm	102	111
TNS-40KVA	260V-450V	460*422*880mm	470*505*970mm	114.5	123.5
TNS-50KVA	260V-500V	550*455*1160mm	610*510*1310mm	141	150
TNS-60KVA	260V-500V	550*455*1160mm	610*510*1310mm	11	172
TNS-80KVA	260V-500V	620*520*1330mm	680*580*1470mm	185	195
TNS-100KVA	260V-500V	620*520*1330mm	680*580*1470mm	205	215



TNS Series single and three phase high precision automatic AC voltage regulator is composed of contact type auto voltage regulator, servo motor and automatic control circuit. When the grid voltage is unstable for the load changes, the automatic sampling control circuit sends a signal to drive the servo motor, adjust the position of the auto-coupler carbon brush, adjust the output voltage to the rated value and reach a steady state.

# Voltage Stabilizer/Regulator

TNS<sub>6</sub>

Model	Product Size(mm)	Package Size(mm)	G.W.(kg)
TNS6-15KVA	460*440*880	470*505*970	
TNS6-20KVA	460*440*880	470*505*970	100
TNS6-30KVA	460*440*880	470*505*970	107
TNS6-40KVA	460*440*880	470*505*970	119
TNS6-50KVA	550*455*1160	610*510*1310	157
TNS6-60KVA	550*455*1160	610*510*1310	171
TNS6-80KVA	620*540*1350	670*600*1450	211
TNS6-100KVA	620*540*1350	670*600*1450	227
TNS6-120KVA	620*540*1350	670*600*1450	241

TNS series high-precision AC voltage regulator has the function of direct power supply. It has many advantages such variety, fully specifications and beautiful appearance. It has the advantages of no waveform distortion, high efficiency, reliable performance, long-term operation, etc. It has short delay, overvoltage and other protection functions. It can add long delay and undervoltage protection according to the needs of users. The product can be widely used in any place of electricity, it is an ideal regulated power supply to ensure the normal operation of your electrical equipment.

TNS series high-precision automatic three phase AC regulated power supply is composed of single phase TND series high precision automatic regulated power supply. Three phase and phase to phase adjustment ensures stable and safe voltage of each phase. The grid input is three phase four wire system. Star(Y-shaped) connection, the output can be used three-phase four wire system or three phase three wire system.





# Voltage Stabilizer/Regulator

SJW<sub>3</sub>

Model	Voltage Range	Product Size	Package Size	G.W.(KG)
SJW3/TNS-1500VA	260V-450V	480*320*170	540*370*240	14.5
SJW3/TNS-3000VA	260V-450V	480*320*170	540*370*240	19.5
SJW3/TNS-4500VA	260V-450V	480*320*170	540*370*240	21
SJW3-6KVA	260V-450V	270*310*670	360*330*750	30
SJW3-10KVA	260V-450V	320*320*760	390*430*900	41
SJW3-15KVA	260V-450V	340*380*820	510*470*980	51.5
SJW3-20KVA	260V-450V	460*420*880	510*470*980	100
SJW3-30KVA	260V-450V	460*420*880	510*470*980	105
SJW3-40KVA	260V-450V	460*420*880	510*470*980	118
SJW3-50KVA	260V-500V	550*450*1160	600*500*1310	157
SJW3-60KVA	260V-500V	550*450*1160	600*500*1310	166
SJW3-80KVA	260V-500V	620*520*1310	670*600*1450	203
SJW3-100KVA	260V-500V	620*520*1310	670*600*1450	217
SJW3-120KVA	260V-500V	620*520*1310	670*600*1450	233



# Voltage Stabilizer/Regulator

## TND

Model	Voltage Regulation Range	Product Size(mm)	Package Size(mm)	G.W.(kg)
TND-1000VA	140V-260V	210*200*170	260*260*200	5.8
TND-1500VA	140V-260V	210*200*170	260*260*200	6.1
TND-2000VA	140V-260V	260*240*200	300*280*250	8.2
TND-3000VA	140V-260V	290*230*230	340*290*270	11.8



TND Series single-phase high precision automatic AC voltage regulator is composed of contact type auto-coupling voltage regulator, servo motor and automatic control circuit. When the grid voltage is unstable for the load changes, the automatic sampling control circuit sends a signal to drive the servo. The motor adjusts the position of the auto-coupler carbon brush to adjust the output voltage to the rated value and reach a steady state.

# Voltage Stabilizer/Regulator

**TND<sub>3</sub>**

Model	Voltage Regulation Range	Product Size(mm)	Package Size(mm)	G.W.(kg)
TND3-10KVA	140V-220V	312*340*540	390*365*620	38.5
TND3-10KVA	90V-260V	312*340*540	390*365*620	42
TND3-15KVA	140V-300V	350*400*610	450*400*700	53.5
TND3-15KVA	90V-300V	350*400*610	450*400*700	57
TND3-20KVA	140V-300V	350*400*610	450*400*700	57
TND3-20KVA	90V-260V	350*400*780	450*400*870	80.5
TND3-30KVA	140V-300V	350*400*780	450*400*870	73
TND3-30KVA	90-260V	350*400*780	450*400*870	89.5
TND3-40KVA	140V-300V	350*400*780	450*400*870	84.5
TND3-40KVA	110V-260V	550*450*1040	600*500*1200	130
TND3-50KVA	110V-260V	550*450*1040	600*500*1200	141
TND3-60KVA	110V-260V	550*450*1040	600*500*1200	157



TND3 series high-precision AC voltage regulator has the function of direct power supply. It has many advantages such variety, fully specifications and beautiful appearance. It has the advantages of no waveform distortion, high efficiency, reliable performance, long-term operation, etc. It has short delay, overvoltage and other protection functions. It can add long delay and undervoltage protection according to the needs of users. The product can be widely used in any place of electricity, it is an ideal regulated power supply to ensure the normal operation of your electrical equipment. Suitable for office equipment, test equipment, medical equipment, industrial automatic equipment, household appliances, lighting systems, communication system, etc.

# Voltage Stabilizer/Regulator

Model	Input Voltage	Product Size(mm)	Package Size(mm)	G.W.(kg)
TKR-1500VA	105V-270V	230*190*110	270*260*160	3
TKR-2000VA	105V-270V	230*190*110	270*260*160	4
TKR-3000VA	140V-260V	280*210*160	340*270*200	9
TKR-5000VA	140V-260V	280*210*160	340*270*200	10.6

**TKR**



Product	Model	Rated output capacity(VA)	Rated output current(A)	Rated output voltage(V)	The output voltage
Desk type relay automatic AC regulator (Input voltage:AC105-270V)	TKR-1500VA	1500	7.0	AC105-270V	220V±3%
	TKR-2000VA	2000	9.1		
Hanging type relay automatic AC regulator (Input voltage:AC105-270V)	TKR-3000VA	3000	13.6		
	TKR-5000VA	5000	22.7		



# Voltage Stabilizer/Regulator

SBW

Model	Product Size(mm)	Package Size(mm)	G.W.(kg)
SBW-50KVA	750*600*1250	790*650*1400	235
SBW-60KVA	750*600*1250	790*650*1400	250
SBW-80KVA	850*620*1400	890*670*1580	290
SBW-100KVA	850*620*1400	890*670*1580	320
SBW-120KVA	850*620*1400	890*670*1580	340
SBW-150KVA	1000*700*1600	1040*760*1810	470
SBW-200KVA	1000*700*1600	1040*760*1810	510
SBW-250KVA	1100*800*1900	1140*860*2110	660
SBW-300KVA	1100*800*1900	1140*860*2110	720
SBW-350KVA	1100*800*1900	1140*860*2110	800
SBW-400KVA	1100*1250*2000	1140*132*2210	970
SBW-500KVA	1100*1250*2000	1140*132*2210	1180
SBW-600KVA	1100*1250*2000	1140*132*2210	1300
SBW-800KVA	1700*1300*2000	1750*1360*2220	1900
SBW-1000KVA	1700*1300*2000	1750*1360*2220	2200
SBW-1250KVA	1700*1300*2000	1750*1360*2220	2550



SBW high-power voltage stabilizer is designed and manufactured with international advanced compensation technology. When the grid voltage fluctuates or the load current changes, it can automatically keep the programmed voltage stable to ensure the normal operation of the electrical equipment. Compared with other types of rental voltage stabilizers, It has large capacity, high efficiency, no waveform distortion, easy to use and maintain, reliable operation, and can still output at full capacity when the input voltage range is low. With over voltage, over current, start up phase sequence and other protection.

# Voltage Stabilizer/Regulator

JJW/JSW series precision AC purification and stabilized power supply is a new type of power supply product that adopts international advanced sinusoidal energy distribution voltage stabilization technology and integrates voltage stabilization and city power purification functions. It has the advantages of high voltage stabilization accuracy, fast dynamic response speed, small distortion, strong load adaptability, and strong anti-electromagnetic interference ability.

It is mainly used in computers, precision instruments, test instruments, communication and broadcasting equipment, medical equipment, laboratories, automatic control systems, etc. that require high power quality.

## JJW/JSW

### Main Technical Parameters

**Input voltage:** single phase 170-265V; three phase: 304-456V

**Output voltage:** single phase: 220V±1%; three phase: 380V±1%

**Voltage regulation accuracy:** ±1%;

**Frequency:** 50/60Hz;

**Spike absorption:** input 1000V, 3US spike, output ≥5V

**Full load efficiency:** >92%

**Response speed:** 41s (when the external voltage change is greater than 10%)

**Electrical strength:** power frequency sinusoidal voltage 200V for 1 minute without breakdown and flashover phenomenon;

**Applicable load:** any load;

**Waveform distortion:** ≤5%.

**Insulation resistance :** single phase >5MΩ, three phase >2MΩ

**Audionoise:** ≤60dB Distance: 1m

**Overvoltage protection value:** single phase: 246V±4V; three phase: 426V±7V

Model	Product Size(mm)	G.W.(kg)
JJW-1KVA	355*175*300	11
JJW-2KVA	390*185*335	16
JJW-3KVA	410*195*355	18
JJW-5KVA	460*255*395	24
JJW-10KVA	485*260*495	43
JJW-15KVA	560*290*560	51
JJW-20KVA	560*290*560	60
JSW-3KVA	650*330*950	42
JSW-6KVA	650*330*950	55
JSW-10KVA	650*330*950	65
JSW-15KVA	750*380*780	79
JSW-20KVA	750*380*780	106
JSW-30KVA	750*380*780	136
JSW-45KVA	800*450*880	151
JSW-60KVA	800*450*880	176



# Voltage Stabilizer/Regulator

ZBW Three-phase non-contact regulator is a new generation of intelligent fast energy-saving regulated power supply designed by our company to introduce and absorb foreign advanced technology and combine with China's national conditions to stabilize AC voltage. The central control system of the voltage regulator adopts intelligent control of single-chip microcomputer and is equipped with multi-language liquid crystal display, which highlights the safety, stability, energy saving and humanized human-machine interface of the device. Compared with traditional compensation regulators, ZBW series non-contact regulators have three significant advantages: intelligent control and display, fast voltage regulation, and quiet energy saving.

ZBW Three-phase non-contact regulator is mainly composed of compensation transformer (controllable transformer), thyristor non-contact switch, high-speed AD sampling and intelligent processor composed of single-chip microcomputer. No carbon brush, no contact, No mechanical transmission, digital intelligent control. 12-bit high-speed AD acquisition, 128 points per week, single-chip digital processing and true RMS calculation, accurate control, large-scale programmable logic device and microcontroller. User-friendly human-machine interface: You can view and set various indicators of the regulator through the touch panel of the operation panel.

ZBW



Stable Range	Conventional three-phase 304V-456V or wide range special customized
Frequency	50Hz/60Hz
Rated Voltage	Line Voltage 380V
Voltage Regulation Accuracy	$\pm(1-7)\%$ Optional (conventional is $\pm 2.5\%$ , high-precision customization)
Response Time	< 10 ms
Stable Time	$\leq 100\text{ms}$
Waveform Distortion	No additional waveform distortion (static)
Effectiveness	50KVA and below $\geq 97\%$ , 50KVA above $\geq 99\%$
Three-Phase Unbalance	Three-phase point voltage automatic balance
Delayed Output	Regulate the voltage first and then output (to protect the equipment from shock)
Overvoltage	Output phase power higher than 10% (245V)
Undervoltage	Output phase power is lower than 10% (195V)



# Voltage Stabilizer/Regulator

TNSJA



Oil-type voltage stabilizer is also called intelligent voltage stabilizer, also known as inductive voltage stabilizer. The oil-type voltage stabilizer is composed of a voltage regulation and transformer SSTS (including the oil tank, the stator, the rotor top cover, the transmission control motor M, the handwheel mechanism and the control circuit board voltage regulation and control secondary circuit components). Rotation and voltage regulation are realized through motor drive or handwheel mechanism and gear coupling, the rotation range is within 180°, and the upper end of the fuel tank is provided with electric SS limit and mechanical limit. The mechanical limit is blocked by the protection bolt to block its rotation limit. The stator winding and rotor winding are fixed by the bottom frame and put into the oil tank. The box is equipped with 10# transformer oil. When the load generates heat, it is cooled by oil immersion and dissipated through the heat dissipation pipe. , The main circuit of overcurrent protection has the characteristics of no contact adjustment, no mechanical wear, no spark, no interference, and low failure rate; and it has the advantages of strong impact resistance, super instantaneous overload capacity, long service life, and no maintenance.





**GREEN ENERGY**



**> • UPS**

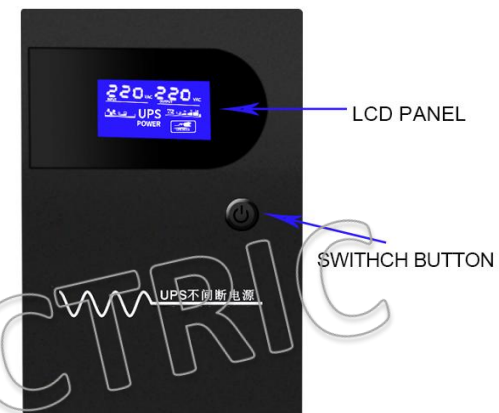


## Specifications GE33- 10-300KVA Series

30-40KS  
Appearance



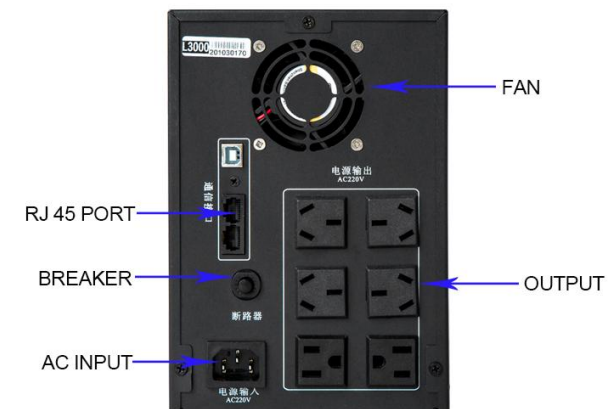
Front



100-120KS  
Appearance




Back



MODEL	GE33-10~20KS	GE33-30~40KS	GE33-60~80KS	GE33-100~120KS	GE33-160~200K	GE33-250~300K
Capacity	10/15/20Kva	30/40Kva	60/80Kva	100/120Kva	160/200Kva	250/300Kva
UPS Size	402x660x880	412x813x1121	505x960x1321	555x1060x1421	1043x1160x1748	1600x1182x1962
Pack Size	505x800x1030	515x926x1270	603x990x1486	653x1190x1586	1303x1180x2076	1760x 1301x2168
UPS Weight	153/168/194	223/256	382/434	535/580	1120/1320	1540/1745
Temperature	0-40°C					
Relative Humidity	0-95%, non condensing					
Nosie	<60db at 1.5m from surface of unit					
Altitude	1000m (high rises every 100m, power decreases 1%, maximum height is 4000m)					
Efficiency	Power saving mode>98%, Inverter>92%, AC-AC>91%					
Transference	0ms cutless					
Technology	True double-conversion online technology, conversion performed by IGBT					
<b>INPUT</b>						
Voltage	3×220/380VAC ±25%					
Frenquency	50Hz ± 15%					
Conductors	Three phases+N+E					
<b>OUTPUT</b>						
Voltage(Customized)	3×220/380VAC ±1%(More voltage can be selected)					
Frenquency	50Hz ± 0.1%					
Waveform	Pure sine wave generated by high frequency PWM inverter					
Harmonic Distortion	<2% Linear load		<5% Nonlinear load			
Crest Factor	3:1					
Power Factor	0.8 or 0.9					
Overload recuperation	Automatic transfer to normal					
Voltage regulation	Load balance: ± 1%					
Overload capacity	125% for 12 minutes		150% for 1 minute			
Conductors	Three phases+N+E					

MODEL	GE33-10~20KS	GE33-30~40KS	GE33-60~80KS	GE33-100~120KS	GE33-160~200K	GE33-250~300K
<b>Battery</b>						
Type	Maintenance-free sealed lead-acid battery, 12V*32 batteries					
Full load autonomy	3 to 15 minutes. extended-range capability					
Typical recharge time	4-8 hours, 90%					
Battery behavior	Autotest. Transfer Point Adjustable battery and alarm setting					
Battery protection	Fuse protection, battery switch, temperature compensation, regular inspection, software protection, overvoltage tripping					
Rectification	Software protection, input switch, over current protection, temperature protection					
<b>Protection</b>						
Hardware protections	Breaker for input, output battery and bypass. Fast acting fuses in DC, fans, redundant power suppliers, temperature sensors, on-o switch and audible alarms					
Bypass	Static solid state, automatic and manual operation without interruption for maintenance. External Bypass(optional)					
Emergency switch	Remote and/or local EPO					
<b>Supervisory control and communication</b>						
Frontal panel	Interactive LCD display(Touchscreen)					
Alarms	Audible and visual alarm for abnormal conditions					
Communications	RS232, SNMP-RJ45, GPRS(RS232&RJ45 standard, the other is optional)					
<b>*Product specifications are subject to change without notice.</b>						






**Application:**

Its advanced battery charging system enables the UPS to supply a long backup time while the charging time is rather short, and its temperature compensation system can help to prolong the service life of the battery. Also, its circuit is simple, which reduces the number of components and makes the machine more compact and more reliable.

Its true double-conversion online technology provides pure and safe power supply to all appliances, communication equipment and important loads connected to the Internet and the DSP technology responds quickly to different power supply problems, making sure its load will work uninterruptedly.

It is compatible to all kinds of loads and widely used in the fields of energy sources, transportation, office, medical equipment, engine-room, data center, toll station and so on.



Energy sources    Enterprise    Data center    Electronics    Scientific research    Engine-room

## Online Low Frequency UPS

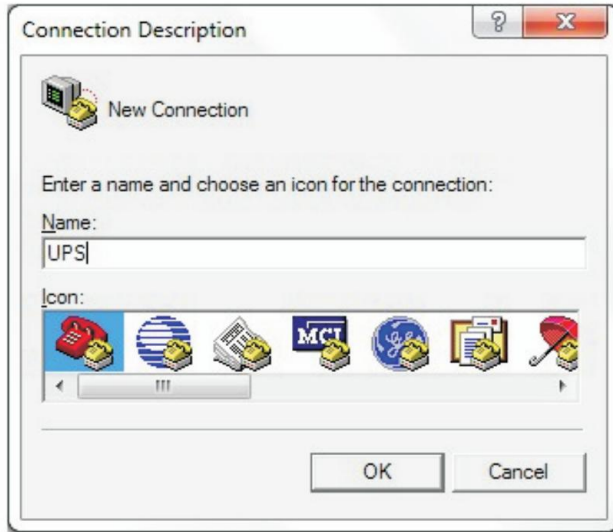
GE33 - 10 -300KVA Series

### Function and Feature

- Range from 10kva to 300kva
- True double-conversion online technology
- DSP 100% micro controlled
- N+1 parallel redundant connection
- High efficiency > 92%
- Dual power supply (selectable)
- Accept 100% unbalanced load
- Cold start
- Intelligent battery control
- Compatible with generators
- Powerful communication system (RS232, SNMP, GPRS)



30-40KS  
Appearance



The window of running this program is shown as the graph on the right

## Advanced Communication Function

With the use of communication interface and monitoring software, you can monitor this UPS on your computer which simplifies the management of power supply. You can also choose to buy a SNMP card, which is compatible to all kinds of operating system, and supports TCP/IP, SNMP, HTTP Protocol, so as to monitor the UPS through internet. Moreover, it will be easier to achieve central management even users are scattered in different places and it can also diagnose network and maintain the system remotely, realizing global management in a very real sense.

### 1. Software monitoring through RS232

There is a RS232 interface on the back panel of the UPS, which can be used to connected the UPS to a computer by a communication line so as to monitor the UPS. The distance between the UPS and its monitoring equipment is better to be less than 10 meters and better to use the USB cable which is called trend net tu-s9. The hyper terminal in the computer will monitor the UPS and this software is already installed in "Window's" and "Window xp" system or you can download a newer edition from Internet.

### 2. Monitoring through network adapter

With the use of network adapter, information can be exchanged through local area network or internet, so a network adapter can monitor a UPS at a time or many UPS simultaneously depending on user's wishes.

2.1 Thanks to http server, UPS will become a small server so any computer can do the monitoring job by entering the IP address of the UPS.

2.2 The other way is to use SNMP. Our company will provide a software that can drive SNMP (Net Agent Utility) to monitor the UPS in real time.

### 3. Monitoring through GPRS

Specifications of the UPS can be monitored or set by exchanging information through MODEM GPRS. As long as users register information of the UPS on the Internet, he will be able to check information of the UPS on the website and he will also be able to schedule for the UPS as well. As a result, no matter what happen to the UPS, an email or a message will be sent to the user's mobile phone. This way can be very helpful in the area, which has no LAN, Internet or is far away.

◇ All the network information, operating process and software CD will be sent to the user along with the product.

Product number	PT-1K	PT-1KL	PT-2K	PT-2KL	PT-3K	PT-3KL
Rated Capacity	1KVA/1000W		2 KVA /2000W		3 KVA /3000W	
enter						
Input system	L+N+PE					
Rated input voltage	208/220/230/240VAC					
voltage range	110-300VAC ( 110-176VAC、 280-300VACPower limit)					
Frequency Range	50/60HZ ± 6Hz (default) , ± 10Hz (Can be set)					
Input power factor	≥0.99					
Input total harmonic distortion	≤3% linear load; ≤5% non-linear load (PF=0.8)					
Output						
Output format	L+N+PE					
The output voltage	208/220/230/240VAC					
Output accuracy	±1%					
Output frequency	Online mode: follow the mains frequency, battery mode: 50/60Hz±0.1%					
Output harmonic distortion	≤1% linear load; ≤3% non-linear load (PF=0.8)					
Output power factor	1.0					
Switching time	0ms from mains mode to battery mode, 4ms from inverter mode to bypass mode					
Overload capacity	Mains mode: load30s @ 130%~150% load Battery mode:30min @102%~110% load 1min@102%~110% load10min @110%~130% load 10s@110%~130% load 3s@ 130%~150% load200ms @>150% load 200ms@>150% load					
Overall efficiency						
Mains mode	Full load94.5%@220VAC		Full load95.5%@220VAC		Full load95.5%@220VAC	
Battery mode	Full load89.5%@36VDC		Full load91.5%@72VDC		Full load91.5%@96VDC	
Battery mode	Full load89.5%@24VDC		Full load91.5%@48VDC		Full load91.5%@72VDC	
Battery						
Section number	7Ahx2	36V	7Ahx4	72V	7Ahx6	96V
Backup time	Depends on user needs and configuration					
recharging current	1.0A (default) 1~2AdjustableExternal battery pack	5.0A (default) 1-12A (Adjustable)	1.0A (default) 1~2AdjustableExternal battery pack	5.0A (default) 1-12A (Adjustable)	1.0A (default) 1~2AdjustableExternal battery pack	5.0A (default) 1-12A (Adjustable)
Environmental parameters						
Operating environment temperature	0-40°C					
Operating environment temperature	20%~95% (No condensation)					
Storage temperature	-15-60°C (Battery: 0-40°C)					
Altitude	The altitude should not exceed 1000m, derating above 1000m, up to 4000m, refer to IEC62040					
show						
Support LCD	Support operating mode/load/power/input/output, etc.					
Standards and certifications						
Standards and certifications	EN/IEC 61000,EN/IEC 62040,GB/T7260,GB/T4943,YD/T1095,TLC					
Physical characteristics						
Length X Width X Height (mm)	285*144*225		395*144*225		450*195*352	395X144*225
Weight (KG)	9.5	4.5	19	10	23.5	11
Communication Interface						
port	USB一个、RS232 一个、EPO一个					

Product number	PT-6K	PT-6KL	PT-10K	PT-10KL
Rated Capacity	6KVA/1000W		10KVA /10000W	
enter				
Input system	L+N+PE			
Rated input voltage	208/220/230/240VAC			
voltage range	110-300VAC ( 110-176VAC、 280-300VACPower limit)			
Frequency Range	50/60HZ ± 6Hz (default) , ± 10Hz (Can be set)			
Input power factor	≥0.99			
Input total harmonic distortion	≤3% linear load; ≤5% non-linear load (PF=0.8)			
Output				
Output format	L+N+PE			
The output voltage	208/220/230/240VAC			
Output accuracy	±1%			
Output frequency	Online mode: follow the mains frequency, battery mode: 50/60Hz±0.1%			
Output harmonic distortion	≤1% linear load; ≤3% non-linear load (PF=0.8)			
Output power factor	1.0			
Switching time	0ms from mains mode to battery mode, 4ms from inverter mode to bypass mode			
Overload capacity	Mains mode: load30s @ 130%~150% load    Battery mode: 30min @102%~110% load 1min@102%~110% load 10min @110%~130% load 10s@110%~130% load 3s@ 130%~150% load 200ms @ >150% load    200ms@ >150% load			
Overall efficiency				
Mains mode	Full load94.5%@220VAC		Full load95.5%@220VAC	
Battery mode	Full load89.5%@36VDC		Full load91.5%@72VDC	
Battery mode	Full load89.5%@24VDC		Full load91.5%@48VDC	
Battery				
Section number	7Ahx16	16-20PCS	7Ahx1672V	16-20PCS
Backup time	Depends on user needs and configuration 用户需求 and 配置			
recharging current	1.0A (default) 1~2AdjustableExternal battery pack	5.0A (default) 1-12A (Adjustable)	1.0A (default) 1~2AdjustableExternal battery pack	5.0A (default) 1-12A (Adjustable)
Environmental parameters				
Operating environment temperature	0-40°C			
Operating environment temperature	20%~95% (No condensation)			
Storage temperature	-15-60°C (电池: 0-40°C)			
Altitude	The altitude should not exceed 1000m, derating above 1000m, up to 4000m, refer to IEC62040			
show				
Support LCD	Support operating mode/load/power/input/output, etc.			
Standards and certifications				
Standards and certifications	EN/IEC 61000,EN/IEC 62040,GB/T7260,GB/T4943,YD/T1095,TLC 等			
Physical characteristics				
Length X Width X Height (mm)	461*200*800	450*192*352	461*200*800	450*192*352
Weight (KG)	69.5	13.6	70	14.2
Communication Interface				
port	USB一个、RS232一个、EPO一个			



Product number		PT-3C10K	PT-3C10K	PT-3C15K	PT-3C15KL	PT-3C20K	PT-3C20KL
rated power	VA/W	10kVA/9kW		15kVA/13.5kW		20kVA/18kW	
Machine architecture		Double conversion online UPS					
Number of input and output phases		Three-phase input/single-phase output					
enter	Input line number	Single-phase two-wire (L, N) + protective ground or three-phase four-wire (L1, L2, L3, N) + protective ground					
	Input voltage range	Single-phase zero-fire phase voltage: 90~300VAC /Three-phase line voltage: 150~500VAC					
	Input frequency range	40Hz-70Hz					
	Input power factor	≥0.99					
Output	Number of output lines	Single-phase two-wire (L, N) + protective ground					
	Rated voltage	208/220/230/240VAC					
	Output voltage accuracy	±1%					
	Output frequency	50/60±4Hz (Phase lock mode)			50/60Hz±0.1% (Fixed frequency mode)		
	Output waveform	Pure sine wave					
	Input distortion (THDV%)	<2% (Linear load) <6% (Non-linear load)					
	Overload capacity	Mains mode, Electrical transient (240VDC) :10 minutes@105%~125 rated load30 seconds@126%~150% rated load 0.5 seconds@>150% rated load					
		Battery mode (192VDC): 10 seconds@102%~110% rated load 0.5 seconds@>110% rated load					
efficient	Mains mode	94%					
	Battery mode	192VDC: 92% / 240VDC: 93%					
Battery and charger	Battery voltage/number	92VDC16节 (internal)	192/240VDC16/20节 (外部)	192VDC32节 (internal)	92/240VDC16/20节 (external)	92VDC32节 (internal)	192/240VDC16/20节 (external)
	battery capacity	12V/7AH	External battery decision	12V/7AH	External battery decision	12V/7AH	External battery decision
	Backup time	Half load> 6 minutes		Half load> 8 minutes		Half load> 6 minutes	
	recharging current	Standard machine (built-in battery): 1A long-term machine (external battery): 4A					
	HMI	LCD display	Display input and output voltage, frequency, load percentage, working mode, machine status				
Communication Interface		Standard RS232, Ethernet card					
Extension bit		USB, MODBUS					
Environmental parameters	range of working temperature	-20~45°C					
	Working humidity range	0-98% (No condensation)					
	noise	<55dB @ 1 meters					
Physical appearance	Size (mm)	3C10KS: 238(W)x528(H)x540(D) 3C15KS, 3C20KS: 238(W)x528(H)x540(D)					
	Weight (kg)		17.0		25.6		26.1



**GREEN ENERGY**



## > • Portable Power Station

# Portable Power Station

216Wh/350W



## Main Specifications

### Output:

1\*AC 100V (US) / 1\*AC 100V (Japan) / 1\*AC 200-240V (Europe) / 1\*AC 220V (China)

2\*USB-A Total 36W

1\*USB-C Max 60W

1\*DC 12V 5A

1\*LED light

### Input:

DC: 12-30V (7A max & 60W max)

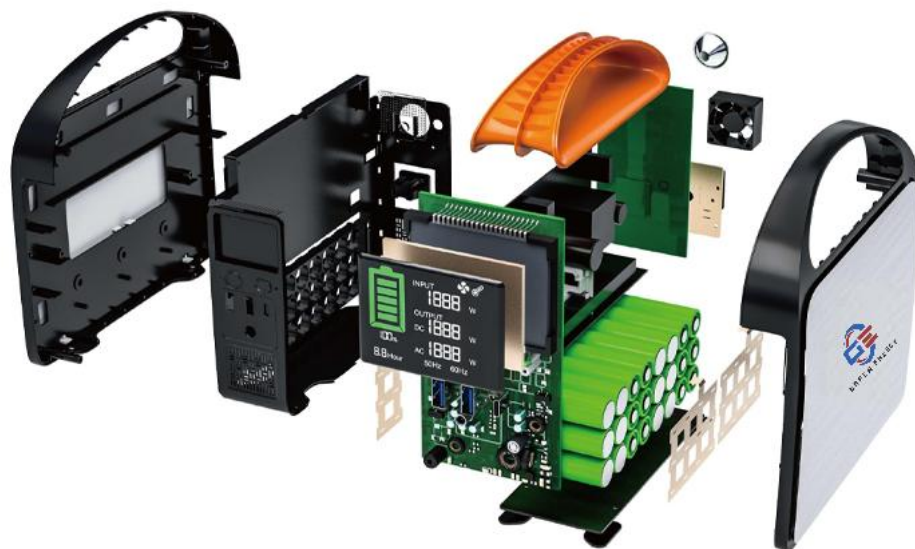
Solar charging: 12-30V/MPPT

Car charging: 12V 5A

**Net Weight:** 2.3KG

**Size:** 246mm\*78mm\*238mm

The battery capacity is 216Wh, 350W high-power pure sine wave AC output, continuous power 350W, peak value up to 500W, compatible with various digital devices, small appliances, etc., such as drones, game books, cameras, handheld gimbals, car refrigerators, etc.



# Portable Power Station

505.44Wh/600W

Battery capacity 505.44Mh, 600W high-power pure sine wave AC output, continuous 4 600W, peak value up to 1200W, compatible with various digital devices, small appliances, etc., such as drones, game books, cameras, handheld gimbals, car refrigerators Wait.

## Main Specifications

### Output:

2\*AC 100V (US) / 2\*AC 100V (Japan) / 2\*AC 200-240V (Europe) / 2\*AC 220V (China)

2\*USB-A Total 36W

2\*USB-C Max 60W

1\*DC 12V 5A

1\*Car charging 120W max

1\*LED light

### Input:

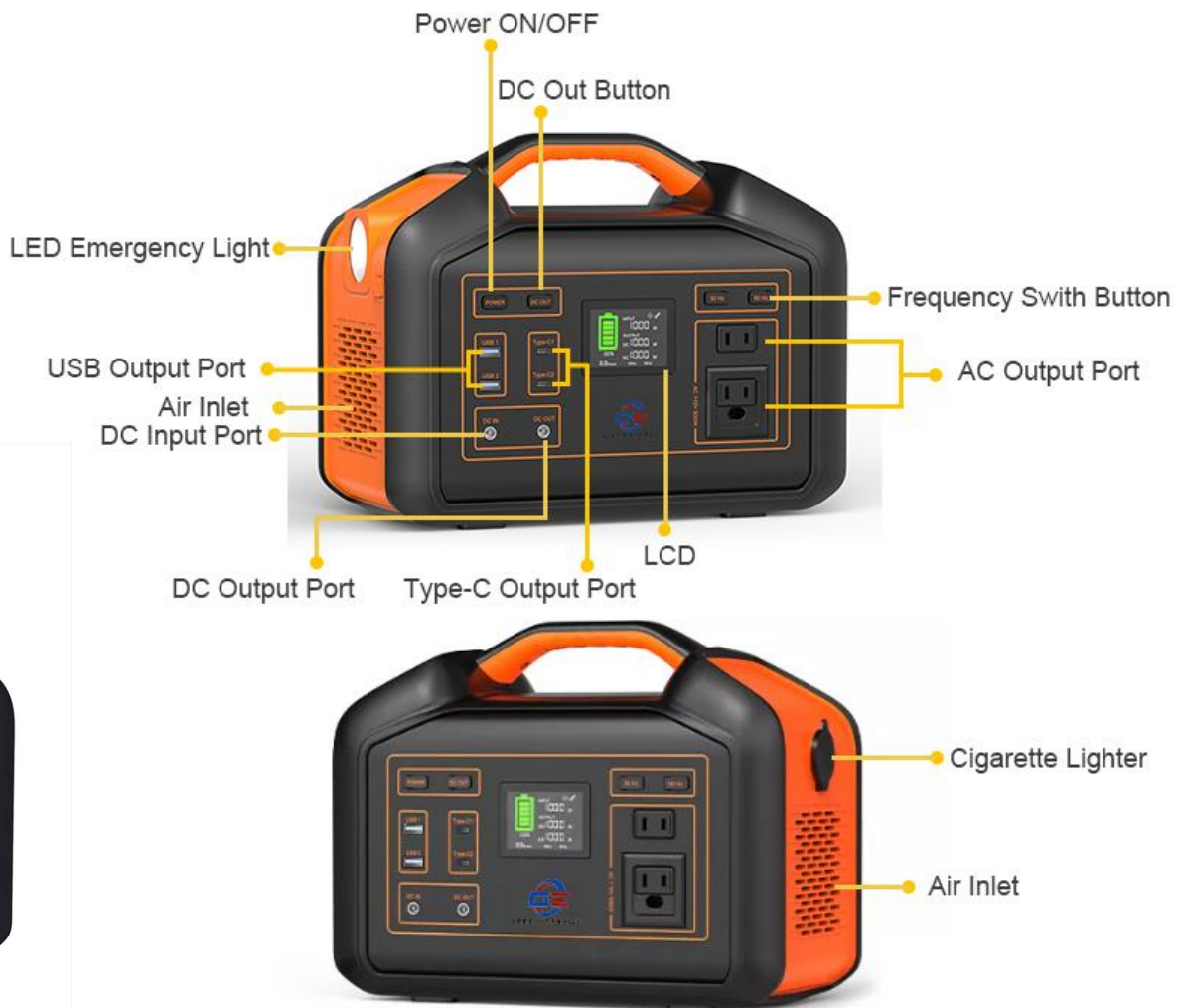
DC: 12-30V (7A max & 140W max)

Solar charging: 12-30V/MPPT

Car charging: 12V 10A

**Net Weight:** 5.5KG

**Size:** 300mm\*160mm\*237mm





# Portable Power Station

1226.4Wh/1500W

Battery capacity 808.08Wh, 1000W high-power pure sine wave AC output, continuous power 1000W, peak value up to 1600W, suitable for home emergency, small household appliances, digital products, long-distance self-driving tour, outdoor camping, environmental monitoring, geological survey, car power supply, medical equipment and other scenarios.

## Main Specifications

### Output:

2\*AC 100V (US) / 2\*AC 100V (Japan) / 2\*AC 200-240V (Europe) / 2\*AC 220V (China)

2\*USB-A Total 36W

2\*USB-C Max 60W

1\*DC 12V 5A

1\*Car charging 120W max

1\*LED light

### Input:

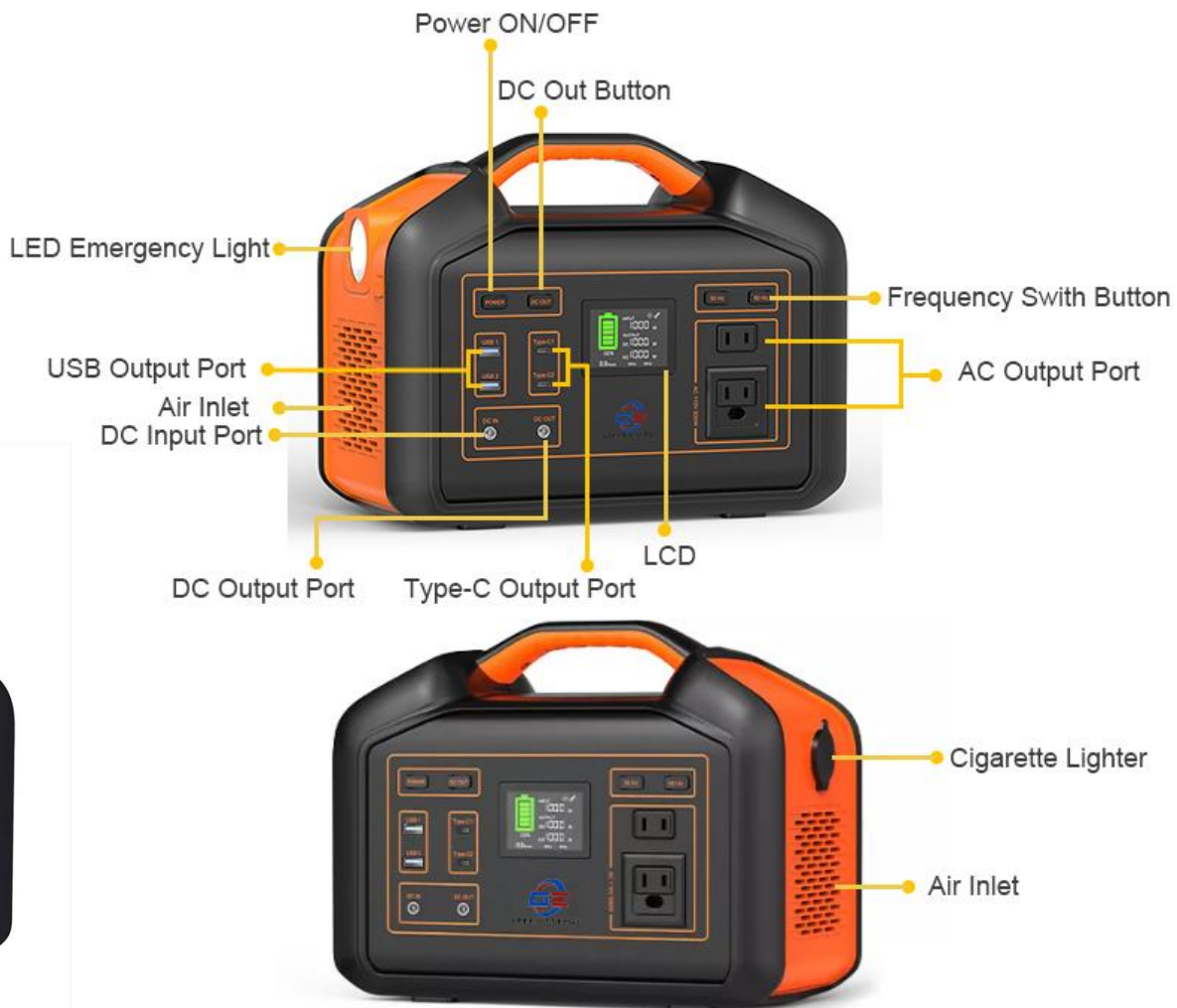
DC: 12-30V (7A max & 160W max)

Solar charging: 12-30V/MPPT

Car charging: 12V 10A

**Net Weight:** 8.0KG

**Size:** 350mm\*170mm\*240mm



# Portable Power Station

298.62Wh/500W

The battery capacity is 298.62Wh, 500W high-power pure sine wave AC output, 500W continuous power, the peak value can reach 600W, suitable for home emergency, small home appliances, digital products, long-distance self-driving tours, outdoor camping, environmental monitoring, geological survey, car power supply Wait for the scene.

## Main Specifications

### Output:

2\*AC 100V (US) / 2\*AC 100V (Japan) / 2\*AC 200-240V (Europe) / 2\*AC 220V (China)

2\*USB-A Total 36W

1\*USB-C Max 60W

1\*DC 12V 5A

1\*Car charging 120W max

1\*LED light

### Input:

DC: 12-30V (7A max & 140W max)

Solar charging: 12-30V/MPPT

Car charging: 12V 10A

**Net Weight:** 4.5KG

**Size:** 271mm\*135mm\*213mm



# Portable Power Station



613.2Wh/700W

Battery capacity 613.2Wh, 700W high-power pure sine wave AC output, continuous power 700W, peak value up to 1200W, suitable for home emergency, small household appliances, digital products, long-distance self-driving tour, outdoor camping, environmental monitoring, geological survey, car power supply Wait for the scene.

## Main Specifications

### Output:

2\*AC 100V (US) / 2\*AC 100V (Japan) / 2\*AC 200-240V (Europe) / 2\*AC 220V (China)

3\*USB-A Total 54W

1\*USB-C Max 60W

1\*USB-C Max 18W

1\*DC 12V 5A

1\*Car charging 120W max

1\*LED light

### Input:

DC: 12-30V (7A max & 140W max)

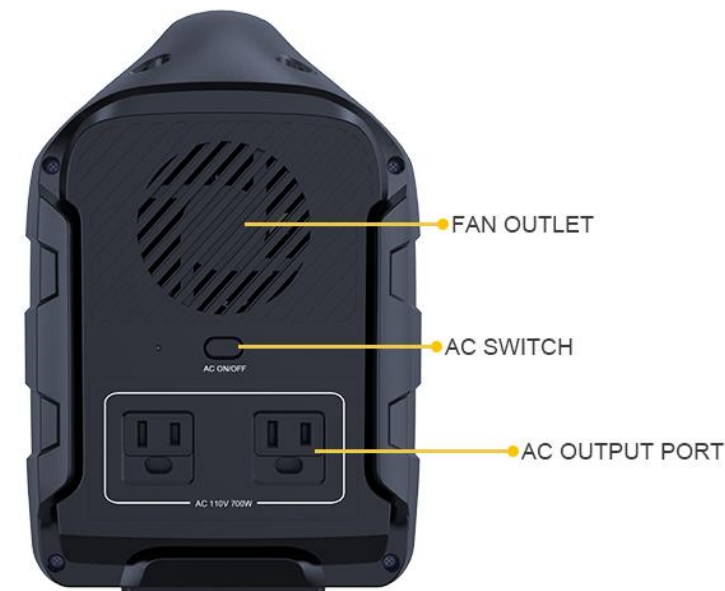
Solar charging: 12-30V/MPPT

Car charging: 12V 10A

USB-C charging: Max 60W

**Net Weight:** 7.2KG

**Size:** 320mm\*150mm\*238mm



# Portable Power Station

1226.4Wh/1500W

Battery capacity 1226.4Wh, 1500W high-power pure sine wave AC output, continuous power 1500W, peak value up to 3000W, suitable for home emergency, small appliances, digital products, long-distance self-driving tour, outdoor camping, environmental monitoring, geological survey, car power supply, Scenarios such as medical equipment.

## Main Specifications

### Output:

3\*AC 100V (US) / 3\*AC 100V (Japan) / 3\*AC 200-240V (Europe) / 3\*AC 220V (China)

2\*USB-A Total 15W

2\*USB-A Max 36W

1\*USB-C Max 100W

1\*USB-C Max 18W

2\*DC 12V 5A

1\*Car charging 120W max

1\*LED light

### Input:

DC: 12-30V (7A max & 160W max)

Solar charging: 12-30V/MPPT

Anderson charging: CC-CV 29.4V 20A

**Net Weight:** 13.0KG

**Size:** 385mm\*175mm\*283mm







**GREEN ENERGY**



## > • Dry Type Transformer



# Dry Type Transformer

## SCB10, SCB11, SCB13

Epoxy-resin Insulation Dry-type Transformer



### SCB10、 SCB11、 SCB13 Series epoxy-resin insulation dry-type transformer Product Features

Security, flame retardant fire prevention, no pollution, can directly mounted in load center.

Maintenance free, easy installation, integrated operation cost is low.

Moisture-proof performance is good, can be in 100% humidity, after the normal operation of the action can be put into operation gets.

Low loss, low partial discharge, low noise, strong heat dissipation, and can run at 150% rated load under forced air cooling.

Equipped with perfect temperature protection control system for transformer, provide a reliable guarantee safe operation.

High reliability, according to the product to have already been put into operation, the operation reliability of products has reached the International advanced level.

### SCB10、 SCB11、 SCB13 series epoxy-resin insulation dry-type transformer Structure characteristics

**Box coil:** low voltage winding adopts segmental copper foil, along with F grade in the low-pressure foil insulation turns on special around around the system. Foil type coils has solved the low voltage, large current coil short-circuit stress around the product, Ann circle imbalance, cooling effect is poor, exist around the system spiral Angle, artificially welding quality unstable outstanding problems. At the same time I company winding ends potting with resin, curing forming, moisture-proof anti-fouling. Fuses copper platoon diameter argon arc welding automatic welding.

**Temperature control device:** transformer USES BWDK series temperature sensor signal thermometer, buried in the low-pressure coil, upper automatic detection and touring show phase of their respective working temperature coil and over temperature alarm and tripped function.

# Dry Type Transformer

## Technical Data of SCB 10 Series 10kV Epoxy-resin Insulation Dry-type Transformer

Rated Capacity(KVA)	Voltage Combined			Vector-group	No-load Loss(W)	75°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance(%)
	HV(kV)	Tapping Ranges	LV(kV)					
30	6 6.3 6.6 10 10.5 11	±5% ±2×2.5%	0.4	Dyn11 Yyn0	190	710	2.4	4
50					270	1000	2.4	
80					370	1380	1.8	
100					400	1570	1.8	
125					470	1850	1.6	
160					540	2130	1.6	
200					620	2530	1.4	
250					720	2760	1.4	
315					880	3470	1.2	
400					980	2990	1.2	
500					1160	4880	1.2	
630					1340	5880	1.0	
630					1300	5960	1.0	
800					1520	6960	1.0	
1000					1770	8130	1.0	
1250					2090	9690	1.0	
1600					2450	11730	1.0	
2000					3050	14450	0.8	
2500					3600	17170	0.8	
1600					2450	12960	1.0	
2000	3050	15960	0.8					
2500	3600	18890	0.8					
							8	

## Technical Data of SCB 10 Series 20kV Epoxy-resin Insulation Dry-type Transformer

Rated Capacity(KVA)	Voltage Combined			Vector-group	No-load Loss(W)	75°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance(%)
	HV(kV)	Tapping Ranges	LV(kV)					
50	20 22 24	±5% ±2×2.5%	0.4	Dyn11 Yyn0	380	1300	2.4	6
100					600	2100	2.2	
160					750	2600	1.8	
200					820	3100	1.8	
250					940	3600	1.6	
315					1080	4300	1.6	
400					1280	5100	1.4	
500					1500	6100	1.4	
630					1700	7200	1.2	
800					1950	8700	1.2	
1000					2300	10300	1.0	
1250					2650	12150	1.0	
1600					3100	14600	1.0	
2000					3600	17250	0.8	
2500					4300	20400	0.8	
2000					3600	18800	0.8	
2500					4300	22400	0.8	

# Dry Type Transformer

## Technical Data of SCB 13 Series 10kV Epoxy-resin Insulation Dry-type Transformer



Rated Capacity(KVA)	Voltage Combined			Vector-group	No-load Loss(W)	Load loss under different insulation and heat resistance grades(W)			No-load Current(%)	Short-circuit Impedance(%)
	HV(kV)	Tapping Ranges	LV(kV)			B(100°C)	P(120°C)	H(145°C)		
30	6 6.3 6.6 10 10.5 11	±5% ±2×2.5%	0.4	Dyn11 Yyn0	135	605	640	685		4.0
50					195	845	900	965		
80					265	1160	1240	1330		
100					290	1330	1415	1520		
125					340	1565	1665	1780		
160					385	1800	1915	2050		
200					445	2135	2275	2440		
250					515	2330	2485	2665		
315					635	2945	3125	3355		
400					705	3375	3591	3850		
500					835	4130	4390	4705		
630					965	4975	5290	5660		
630					935	5050	5365	5769		6.0
800					1095	5895	6265	6715		
1000					1275	6885	7315	7885		
1250					1505	8190	8720	9335		
1600					1765	9945	10555	11320		
2000					2195	12240	13005	14005		
2500					2590	14535	15455	16605		
1600	1765	11050	11660	12510	8.0					
2000	2195	13520	14360	15400						
2500	2950	15980	17000	18260						



## SCB Soliding Winding Iron Core Transformer

### Product Usage

The product has the following features: good insulation properties, high mechanical strength, moisture resistant, pollution-free, easy to install, and almost no need for maintenance. Can be applied for high rise buildings, wind power generation, solar energy, hospital, hotel, tunnel, station, wharf, airport, subway, petroleum, chemical industry, laboratory, combined power plant, shopping mall and other important places etc.

### Product Usage Conditions

1. Altitude  
Not more than 1000m
2. Cooling air temperature  
Max.Temp.:40°C  
Max.monthly mean temp:30°C  
Max.annual mean temp.:20°C  
lowest temp:-25°C(suitable for outdoor transformer)  
lowest temp.: -5°C(suitable for indoor transformer)
3. Humidity  
Ambient air relative humidity should be less than 93%. no water drop on the coil surface. If usage condition exceeds above requirements,should adjust running parameters(e.g.output current etc.)properly and adopt proper protecting measures to ensure the product service life and safety reliability

### Transformer Model Description

S C (B) □ -RL- □ / □

- High voltage level(kV)
- Rated capacity(kVA)
- Solid winding iron core
- Product feature level
- Coil
- Solid Casting
- Three phase Transformer



## SCB Soliding Winding Iron Core Transformer

Model	Rated Capacity(kVA)	Rated Voltage			Vector-group	No-load Loss(W)	120°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance(%)	Noise Level (dB)
		HV(kV)	Tapping Ranges	LV(kV)						
SC10-30/10	30	6 6.3 6.6 10 10.5 11	±5% ±2×2.5%	0.4	Dyn11 or Yyn0	190	710	0.9	4.0	50
SC10-50/10	50					270	1000	0.9		50
SC10-80/10	80					370	1380	0.9		50
SC10-100/10	100					400	1570	0.6		50
SC10-125/10	125					470	1850	0.6		50
SCB10-160/10	160					540	2130	0.6		50
SCB10-200/10	200					620	2530	0.5		50
SCB10-250/10	250					720	2760	0.5		50
SCB10-315/10	315					880	3470	0.5		50
SCB10-400/10	400					980	3990	0.4		50
SCB10-500/10	500					1160	4880	0.4	50	
SCB10-530/10	630					1340	5880	0.3	6.0	55
SCB10-630/10	630					1300	5960	0.3		55
SCB10-800/10	800					1520	6960	0.3		55
SCB10-1000/10	1000					1770	8130	0.3		55
SCB10-1250/10	1250					2090	9690	0.25		55
SCB10-1600/10	1600					2450	11730	0.25		55
SCB10-2000/10	2000					3050	14450	0.2		55
SCB10-2500*10	2500					3600	17170	0.2		55

# Dry Type Transformer

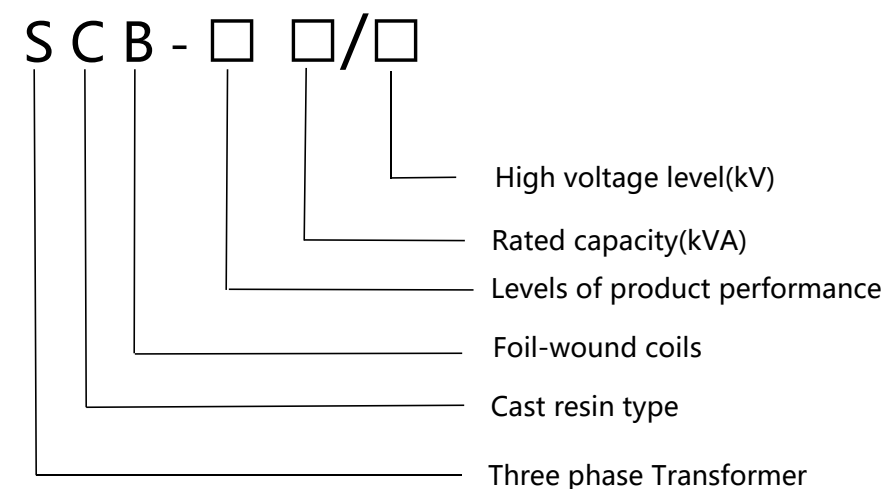
## SCB10,SCB11,SCB13

### Technical Data of SCB 10 Series 35kV Epoxy-resin Insulation Dry-type Transformer

Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	120°C Load Loss(W)	No-load Current(%)	Short-circuit Impedance(%)
	HV(kV)	Tapping Ranges	LV(kV)					
50	35-38.5	±5% ±2×2.5%	0.4	Dyn11 Yyn0	500	1500	2.8	6
100					700	2200	2.4	
160					880	2960	1.8	
200					980	3500	1.8	
250					1100	4000	1.6	
315					1310	4750	1.6	
400					1530	5700	1.4	
500					1800	7000	1.4	
630					2070	8100	1.2	
800					2400	9600	1.2	
1000					2700	11000	1.0	
1250					3150	13400	0.9	
1600					3600	16300	0.9	
2000					4250	19200	0.9	
2500					4950	23000	0.9	

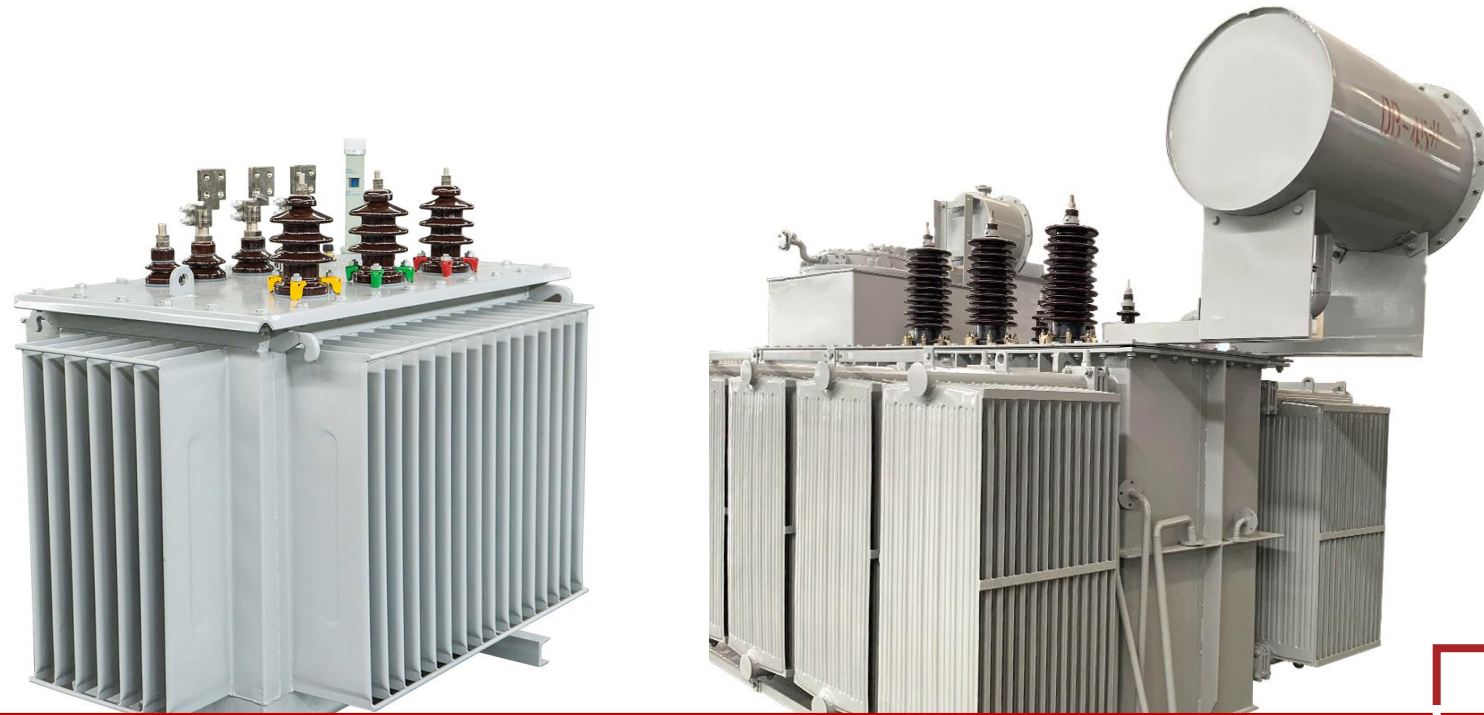


### Transformer Model Description





**GREEN ENERGY**



## > • Oil Immersed Transformer





## Three Dimensional Volume Core

### Performance advantage of solid winding iron wound core

Solid winding iron core transformer breaks the traditional planar structure, adopts solid triangle structure, making more reasonable combination of the iron cores by piecing three completely same single frames. The three phase magnetic circuits are perfect symmetry and same in length, ensure three phase power supply balance, decrease the magnetic resistance greatly, and reduce field current, no-load loss significantly. Thus the mechanical strength is higher, structure is more stable.



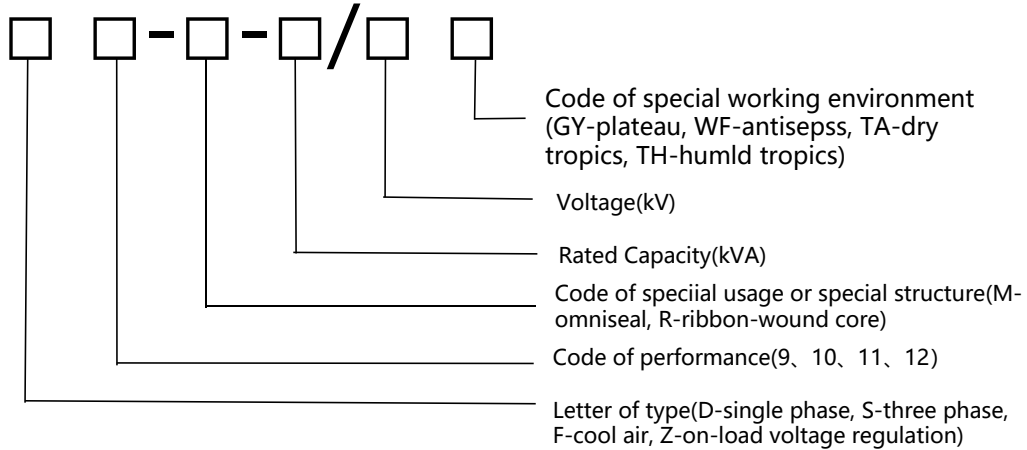
### Features Advantages as below:

- 1.Reduce no-load current and loss greatly
- 2.Three phase magnetic circuit is balanced, no third harmonic,output waveform is sinusoidal, and ensure the quality of power supply waveform.
- 3.Low noise:iron core is wound constantly and precisely on special winding machine by several trapezoid strips whose width change constantly No seam,can solve noise of laminated core caused by magnetic circuit incoherence.
- 4.Has good heat dispersion:because of small no-load current, low no-load loss. calorific value of iron core is low. Adopt D type semicircle iron yoke and pie - wound continuous high - voltage winding. formed highly efficient self-circulation heat dissipation structure with vertical ventilation and internal & external heat dissipation.
- 5.Small size:high space utilization coefficient, transformer adopts triangle structure, thus the volume is smaller than ordinary transformer, compact in structure, beautiful in out looking,covering a small area.
- 6.Iron core and coil of solid winding iron core transformer are a whole, iron core will not come loose, and the coil cannot be taken out,has good anti-theft performance.



# Oil Immersed Transformer

## Transformer Model Description



## High Quality Material

Because we use oxygen-free copper lines of lower resistivity, which will become smoother and burr-free after series of additional surface treatment, so the load loss of our transformer is lower and the electric performance is better.

We use high-quality silicon-steel plates which are of lower unit loss, and the no-load of the transformers is lower.

We use high quality wooden laminating insulation pieces, which won't split or move even under the influence of short circuit

We use thoroughly filtrated transformer oil containing less water, gas and impurities, which makes our transformers work better.

We use high quality rubber sealing material, which can prevent the transformers from aging or leakage.

All raw materials has passed the quality testing, and all the raw material factories has pass through the national standard ISO9000 inspection.

## Transformer Normal Use Conditions

The height above sea level is below 1000m;

Ambient temperature:  
Highest air temperature +40°C;  
Highest dally average air temperature +30°C;  
Highest annual average air temperature +20°C;  
Lowest outdoor air temperature -25°C.

## Transformer Special Use Conditions

The height above sea level is above 1000m;

Ambient temperature:  
Highest air temperature +40°C;  
Lowest air temperaturo -45°C;  
( defines in detail when placing an order )



# Oil Immersed Transformer

## S11 SERIES OF WOUND CORE LOSS METER

## S13 SERIES OF WOUND CORE LOSS METER

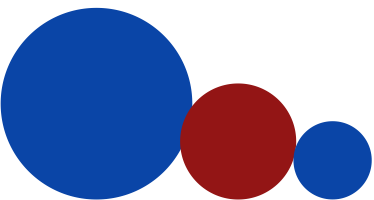
Rated Capacity(kVA)	No-load Loss(W)	120°C Load Loss(W)
30	100	630/600
50	130	910/870
63	150	1090/1040
80	180	1310/1250
100	200	1580/1500
125	240	1890/1800
160	280	2310/2200
200	340	2730/2600
250	400	3200/3050
315	480	3830/3650
400	570	4520/4300
500	680	5410/5150
630	810	6200
800	980	7500
1000	1150	10300
1250	1360	12000
1600	1640	14500



Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	120°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance(%)
	HV(kV)	Tapping Ranges	LV(kV)					
30	6 6.3 6.6 10 10.5 11	±5%	0.4	Dyn11 Yzn11 Yyn0	80	630/600	0.30	4.0
50					100	910/870	0.24	
63					110	1090/1040	0.23	
80					130	1310/1250	0.22	
100					150	1580/1500	0.21	
125					170	1890/1800	0.20	
160					200	2310/2200	0.19	
200					240	2730/2600	0.18	
250					290	3200/3050	0.17	
315					340	3830/3650	0.16	
400				410	4520/4300	0.16		
500				480	5410/5150	0.16		
630				570	6200	0.15	4.5	
800				700	7500	0.15		
1000				830	10300	0.14		
1250				970	12000	0.13		
1600	1170	14500	0.12					

### TIPS:

1. According to the needs of users, transformers with a high-voltage tap range of  $\pm 2 \times 2.5\%$  can be provided.
2. According to user needs, transformers with low voltage of 0.69kv can be provided.
3. Other loss values can also be selected according to user needs.



# Oil Immersed Transformer

S11~S13

10kV-35kV Low-Loss and Non-exciting Regulation Power Transformer

## Product introduction

This product implements national standards GB1094-1996 the power transformer "and GB/T6451-2008 the three-phase oil-immersed power transformer technical parameters and requirements". S11 series transformer is the latest series of low loss copper windings products the products using high-quality materials in coil implement body and insulation, using new craft. new material thus made racing. load loss reduced significantly, and performance and structure more reliable and superior.

## Features

### Good Economic Performance

The S11~S13 series products are based on the S9 series, the no-load loss is reduced by 30% on average, and the no-load current is reduced by 70%-85% compared with the S9 series.

### Long Lasting

The transformer oil tank adopts a fully sealed structure. The oil tank and the tank edge can be connected by bolts or welded to death. The transformer oil does not come into contact with the air, which prolongs the service life.

### High Operational Reliability

The relevant parts of the fuel tank seal are improved to increase the reliability and improve the technological level to ensure the reliability of the seal.

### Small Footprint

S11-M, S13-M series transformer oil tank adopts corrugated plate radiator. When the oil temperature changes, the corrugated plate thermal expansion and contraction can replace the role of the oil conservator. The corrugated plate oil tank has a beautiful appearance and small footprint.





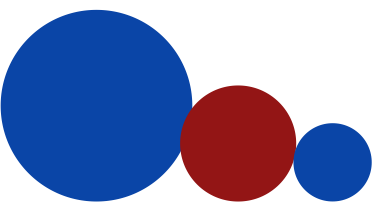
# Oil Immersed Transformer

Technical Data of S11 Series 10kV Low-Loss and Non-Exciting Regulation Power Transformer

Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	120°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance (%)
	HV(kV)	Tapping Ranges	LV(kV)					
30	6 6.3 10 10.5 11	±5% ±2×2.5%	0.4	Dyn11 Yyn0	100	630/600	0.80	4.0
50					130	910/870	0.75	
63					150	1090/1040	0.75	
80					180	1310/1250	0.70	
100					200	1580/1500	0.65	
125					240	1890/1800	0.65	
160					280	2310/2200	0.60	
200					340	2730/2600	0.50	
250					400	3200/3050	0.50	
315					480	3830/3650	0.45	
400					570	4520/4300	0.45	
500					680	5410/5150	0.40	
630					810	6200	0.40	4.5
800					980	7500	0.35	
1000					1150	10300	0.35	
1250					1360	12000	0.30	
1600					1640	14500	0.30	

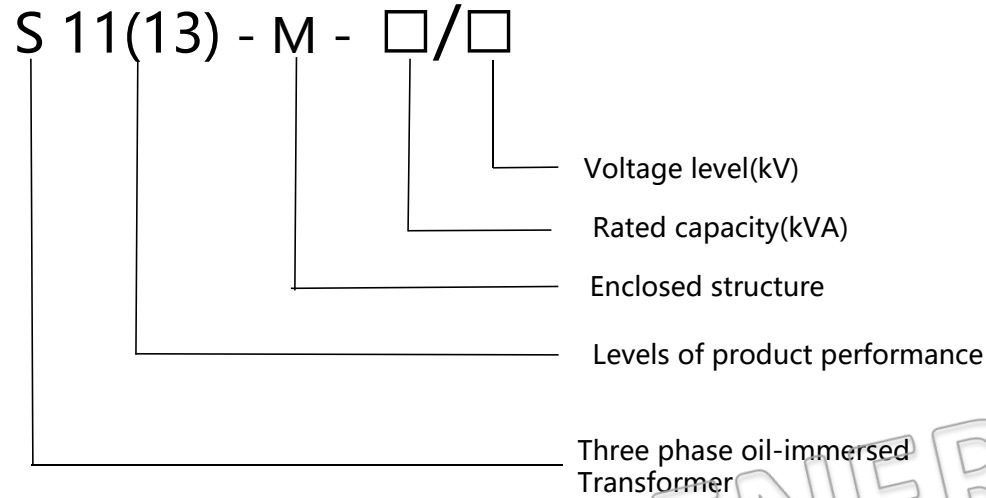
Technical Data of S11 Series 20kV Low-Loss and Non-Exciting Regulation Power Transformer

Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	120°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance (%)
	HV(kV)	Tapping Ranges	LV(kV)					
30	20	±5% ±2×2.5%	0.4	Dyn11	90	660	2.1	5.5
50					130	960	2.0	
63					150	1145	1.9	
80					180	1370	1.8	
100					200	1650	1.6	
125					240	1980	1.5	
160					290	2420	1.4	
200					330	2860	1.3	
250					400	3350	1.2	
315					480	4010	1.1	
400					570	4730	1.0	
500					680	5660	1.0	
630					810	6820	0.9	6.0
800					980	8250	0.8	
1000					1150	11330	0.7	
1250					1350	13200	0.7	
1600					1630	15950	0.6	
2000					1950	19140	0.6	
2500					2340	22220	0.5	



# Oil Immersed Transformer

## Transformer Model Description



## S11~S13 Series 10kV-35kV Low-loss And Non-exciting Regulation Power Transformer Product Features

Good economic performance

S11~S13 series product in the S9 series based on average reduced 30% no-load loss than idle current S9 70%-85% will. Long service life

Transformer tank adopts full seal structure, the tank along with box available bolt connection or welding die, transformer oil not contact with air and prolong the life.

Running high reliability

Tank sealing parts were concerned, increased reliability improvements to ensure and improve technology level of reliability of sealing.

Field area is small

S11-M, S13-M series transformer tank adopts wave plate radiator, when the oil temperature change corrugated plate heat bilges cold shrink can replace storage cabinet role, corrugated plate appearance tank, cover an area of an area small.



# Oil Immersed Transformer

Technical Data of S11 Series 35kV Low-Loss and Non-Exciting Regulation Transformer

Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	70°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance(%)
	HV(kV)	Tapping Ranges	LV(kV)					
630	35	±5%	3.15 6.3 10.5	Yd11	830	7870	1.10	6.5
800					980	9410	1.00	
1000					1150	11540	1.00	
1250					1410	13940	0.90	
1600					1700	16670	0.80	
2000					2180	18380	0.70	
2500					2560	19670	0.60	
3150	35 ~ 38.5	±5%	3.15 6.3 10.5	Yd11	3040	23090	0.56	7.0
4000					3620	27360	0.56	
5000					4320	31380	0.48	
6300					5250	35060	0.48	
8000	35 ~ 38.5	±2×2.5%	3.15 3.3 6.3 6.6 10.5 11	Ynd11	7200	38480	0.42	7.5
10000					8700	45320	0.42	8.0
12500					10080	53870	0.40	
16000					12160	65840	0.40	
20000					14400	79520	0.40	
25000					17020	94050	0.32	
31500					20220	112860	0.32	

Technical Data of S13 Series 10kV Low-Loss and Non-Exciting Regulation Transformer

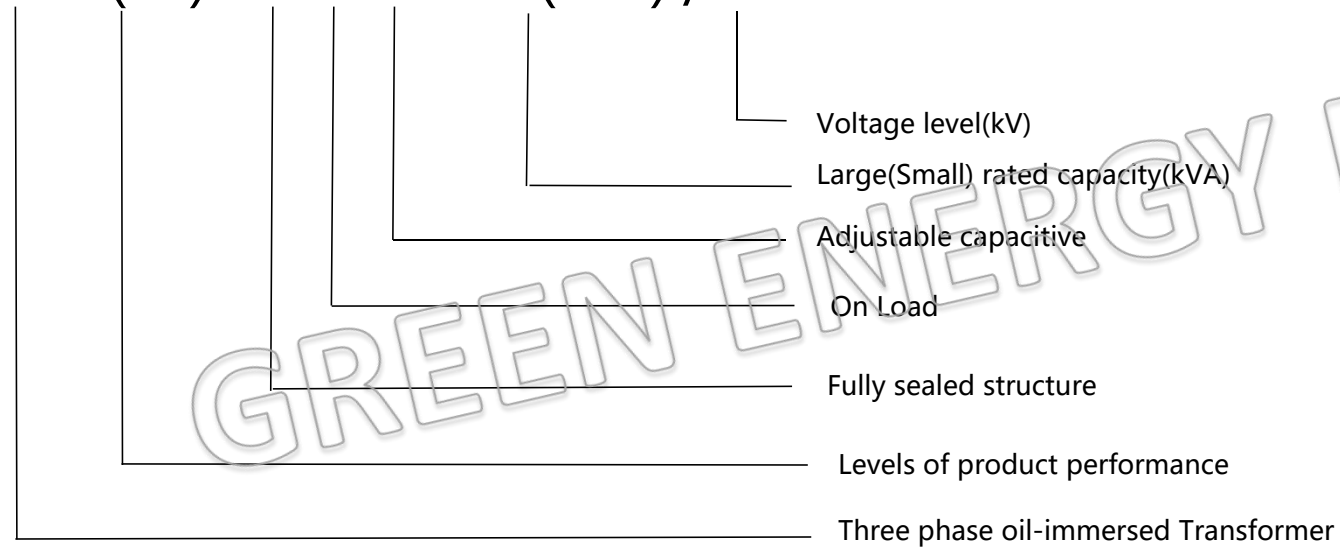
Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	75°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance(%)	
	HV(kV)	Tapping Ranges	LV(kV)						
30	6 6.3 10 10.5 11	±5% ±2×2.5%	0.4	Dyn11 Yyn0	80	630/600	0.80	4.0	
50					100	910/870	0.75		
63					110	1090/1040	0.75		
80					130	1310/1250	0.70		
100					150	1580/1500	0.65		
125					170	1890/1800	0.65		
160					200	2310/2200	0.60		
200					240	2730/2600	0.50		
250					290	3200/3050	0.50		
315					340	3830/3650	0.45		
400					410	4520/4300	0.45		
500					480	5410/5150	0.40		
630					570	6200	0.40		4.5
800					700	7500	0.35		
1000					830	10300	0.35		
1250					970	12000	0.30		
1600	1170	14500	0.30						
2000	1550	18300	0.25						
2500	1830	21200	0.25						

# Oil Immersed Transformer

## S11(13)-M.ZT Distribution Transformer On-load Automatic Tuning Capacitor

### Transformer Model Description

S 11(13) M. Z T 630(200) / 10





# Oil Immersed Transformer

## S11(13)-M.ZT distribution transformer on-load automatic tuning capacitor applicable scope

This product is fit for on-load automatic capacity distribution transformer voltage regulator rated frequency 50Hz, voltage class 10kv, three-phase rated capacity 100(30)kVA~630(200)kVA.

## S11(13)-M.ZT distribution transformer on-load automatic tuning capacitor product introduction

S11(13)-M.ZT distribution transformer on-load automatic tuning capacitor is the distribution transformer with large and small rated capacity automatic tuning controller automatically detect judgment according to the user load size and trough a special load capacity regulating switch to auto switch two kinds of transformer capacity under the transformer is not the state of the power outage to realize automatically adjust size in the process of running transformer capacity.

## S11(13)-M.ZT distribution transformer on-load automatic tuning capacitor usages and applicable scope

S11(13)-M.ZT distribution transformer on-load automatic tuning capacitor is suitable for the occasion with electricity strong seasonality, big load fluctuation, power of concentration and low annual average load rate. In China's rural, electricity mainly concentrated in summer and autumn and the rest of the season is primarily a lighting electricity. However.in the busy farming season transformer overload running phenomenon is serious. in the off-season, electricity load rate is low. So the on-load adjustable capacity distribution transformer is especially suitable for in the rural electric reform and also suitable for day and night electricity load differences of residential quarters and often day enterprises and institutions.



# Oil Immersed Transformer

## S11-M.ZT Distribution Transformer On-load automatic tuning capacitor

## S11-M.ZT Distribution Transformer On-load automatic tuning capacitor

Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	120°C Load Loss(W)	No-load Current(%)	Short-circuit Impedance(%)
	HV (kV)	Tapping Ranges	LV (kV)					
160(50)	10	±2×2.5%	0.4	Dyn11 (Yyn0)	280(130)	2310(870)	1.6(0.8)	4.0(4.0)
200(63)					340(150)	2730(1040)	1.5(0.7)	
250(80)					400(180)	3200(1250)	1.4(0.7)	
315(100)					480(200)	3830(1500)	1.4(0.7)	
400(125)					570(240)	4520(1800)	1.3(0.6)	
500(160)					680(280)	5410(2200)	1.2(0.6)	
630(200)					810(340)	6200(2600)	1.1(0.5)	

Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	120°C Load Loss(W)	No-load Current(%)	Short-circuit Impedance(%)
	HV (kV)	Tapping Ranges	LV (kV)					
160(50)	10	±2×2.5%	0.4	Dyn11 (Yyn0)	280(130)	2310(870)	1.6(0.8)	4.0(4.0)
200(63)					340(150)	2730(1040)	1.5(0.7)	
250(80)					400(180)	3200(1250)	1.4(0.7)	
315(100)					480(200)	3830(1500)	1.4(0.7)	
400(125)					570(240)	4520(1800)	1.3(0.6)	
500(160)					680(280)	5410(2200)	1.2(0.6)	
630(200)					810(340)	6200(2600)	1.1(0.5)	

Note: 1. to small capacity parameters within the parentheses.

2. for other groups and the corresponding technical parameters of connection for non-optimal parameters, please consult with me.

Note: 1. to small capacity parameters within the parentheses.

2. for other groups and the corresponding technical parameters of connection for non-optimal parameters, please consult with me.

### S11(13)-M.ZT distribution transformer on-load automatic tuning capacitor fundamental principles

When the distribution transformer on-load automatic tuning capacitor is at the large capacity three-phase high voltage windings into delta connection with low voltage winding parallel structure ;When at the small capacity.Three-phase high voltage windings in y connection with low voltage winding tandem structure.

Transformation of angle joint and star joint of high voltage windings and transformation of series connection and parallel connection of low voltage windings are finished by on-load capacity switch which is decided by automatic controller according to the size of load of detection.

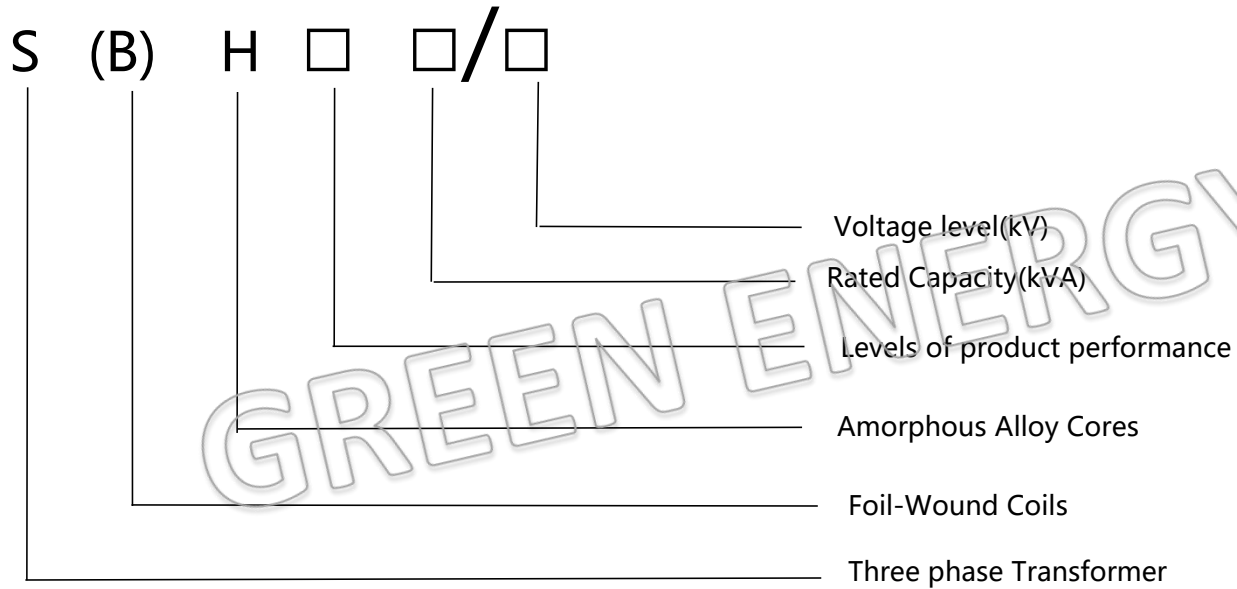
When the large capacity transforms into the small capacity of transformer the core magnetic flux density slash,loss of silicon steel sheet smaller and no-load loss and no-load current also fell sharply which lead to greatly reduces the transformer no-load reactive power loss and wattful loss in the result of reaching reducing consumption.

# Oil Immersed Transformer

**S(B)H15-M**

Sealed Non-Crystaling alloy Power Transformer

## Transformer Model Description



# Oil Immersed Transformer

**Technical Data of SH15-M Series Non-Crystalline Alloy Power Transformer**

Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	120°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance(%)
	HV(kV)	Tapping Ranges	LV(kV)					
30	6 6.3 10 10.5 11	±5% ±2×2.5%	0.4	Dyn11 Yyn0	33	600	1.70	4.0
50					43	870	1.30	
63					50	1040	1.20	
80					60	1250	1.10	
100					75	1500	1.00	
125					85	1800	0.90	
160					100	2200	0.70	
200					120	2600	0.70	
250					140	3050	0.70	
315					170	3650	0.50	
400					200	4300	0.50	
500					240	5150	0.50	
630					320	6200	0.30	4.5
800					380	7500	0.30	
1000					450	10300	0.30	
1250					530	12000	0.20	
1600					630	14500	0.20	
2000					750	17400	0.20	5
2500					900	20200	0.20	

**SH15-M sealed non-crystalline alloy power transformer product introduction**

The transformer is full oil-filled sealed type. Whose principle is the same with sealed type transformer. Basic elements of non-crystalline alloy consist of Fe, Ni, Co, Si, B, C, etc. It is a kind of homotropic soft magnetic material whose advantages of low magnetic susceptibility. No hindered divisional movement faults.





**GREEN ENERGY**



## > • Single Phase Pole Mounted Transformer

# Single Phase Pole Mounted Transformer

## D9-D13



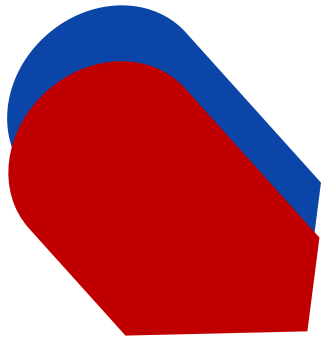
Oil-filled single-phase overhead transformers designed and produced by GE are normally used for stepping utility distribution voltages (ranging from 2400 to 34500 volts) down to lower utilization voltages. Although some are used for stepping down to commercial and industrial voltages such as 277, 240/480, 2400 and 4800, most are used for stepping down to the single-phase voltage of 120/240. These same transformers are also used for small substations, miscellaneous applications and can serve to step up voltages.

The transformer type describes the basic protective devices which are included as an integral part of the transformer package. Table defines each type as a function of the protective device(s) included. These protective devices and their functions are described later in this section.

### ACCESSORY

- 1.SURGE ARRESTERS
- 2.PROTECTIVE LINKS
- 3.CURRENT-LIMITING FUSES
- 4.LOW VOLTAGE CIRCUIT BREAKER
- 5.CIRCUIT BREAKER EMERGENCY CONTROL
- 6.SINGAL LIGHTS
- 7.PROTECT-COMBO
- 8.TAP CHANGERS
- 9.DUAL VOLTAGE SWITCH
- 10.TANK PRESSURE RELIEF

Type		CSP	CP	SP	S
Protective Devices	High Voltage Surge Arrester	Yes	No	Yes	No
	Low Voltage Circuit Breaker	Yes	Yes	No	No
	High Voltage Protective Link	Yes	Yes	Yes	No

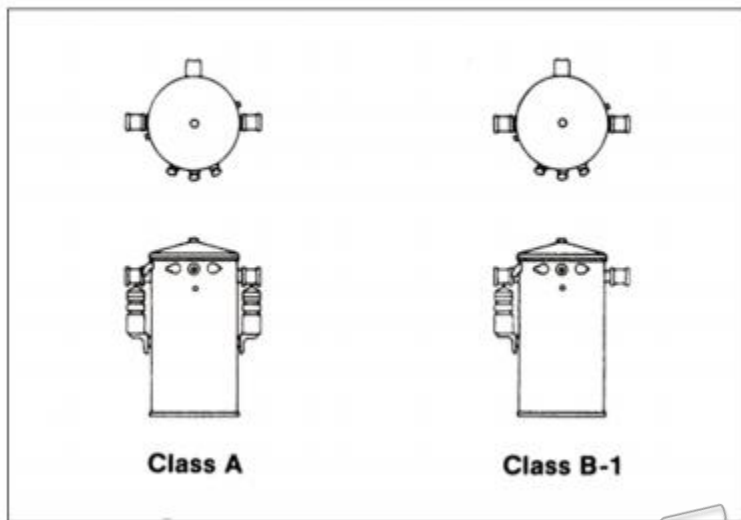


# Single Phase Pole Mounted Transformer



# Single Phase Pole Mounted Transformer

Type CSP, 5 kV and Below, 10-100 kVA



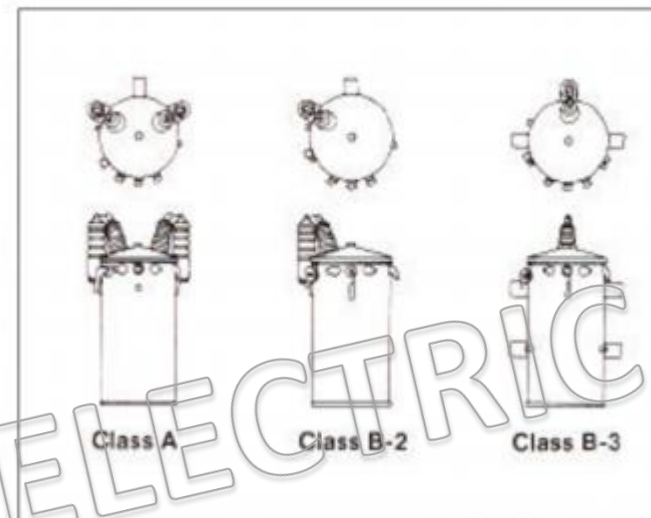
**Class A:** Two fully insulated high voltage bushings, two arresters, two protective links, and external breaker handle. Suitable for application on either wye or delta distribution systems. Single-position pole mounting in accordance with latest ANSI standards.

**Class B-1:** Two fully insulated high voltage bushings, one arrester, two protective links and external breaker handle. Normally applied on solidly grounded systems.

**Class B-2:** Not Available.

**Class B-3:** Not Available.

Type CSP, Above 5KV, 10-100 kVA

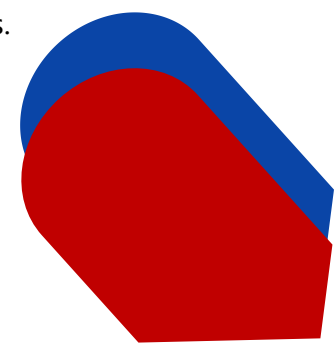


**Class A:** Two fully insulated high voltage bushings, two arresters, two protective links and external breaker handle suitable for application on either wye or delta distribution systems. Single-position pole mounting in accordance with latest ANSI standards.

**Class B-1:** Two fully insulated high voltage bushings, one arrester, two protective links and external breaker handle. Normally applied on solidly grounded systems.

**Class B-2:** One fully insulated high voltage bushing, one arrester, one protective link and external breaker handle suitable only for application on solidly grounded distribution systems. Single-position pole mounting in accordance with latest ANSI standards.

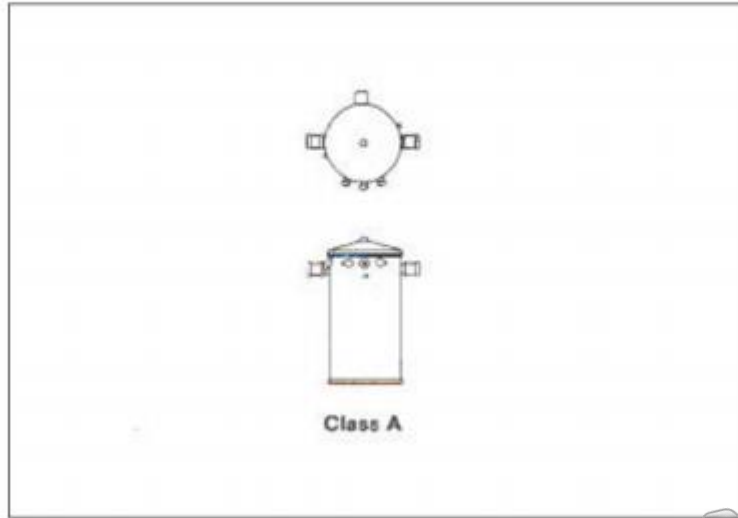
**Class B-3:** Same as Class B-2 except with two-position mounting.





# Single Phase Pole Mounted Transformer

Type S. 5kV and Below, 10-500 kVA



**Class A:** Two fully insulated high voltage bushings, suitable for application on either wye or delta distribution systems. Single position pole mounting in accordance with latest ANSI standards.

**Class B-1:** Not Available

**Class B-2:** Not Available

**Class B-3:** Not Available

Type S. Above 5 kV, 10-500 kVA

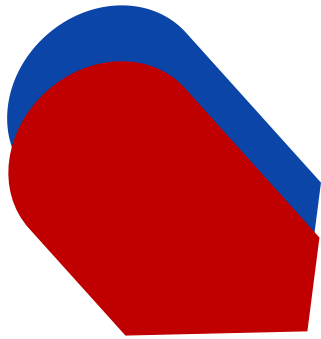


**Class A:** Two fully insulated high voltage bushings, suitable for application on either wye or delta distribution systems. Single-position pole mounting in accordance with latest ANSI standards.

**Class B-1:** Not Available

**Class B-2:** One fully insulated high voltage bushing, suitable only for application on solidly grounded distribution systems. Single-position pole mounting in accordance with latest ANSI standards.

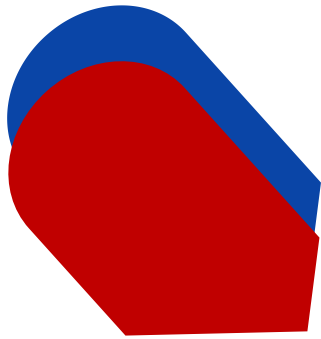
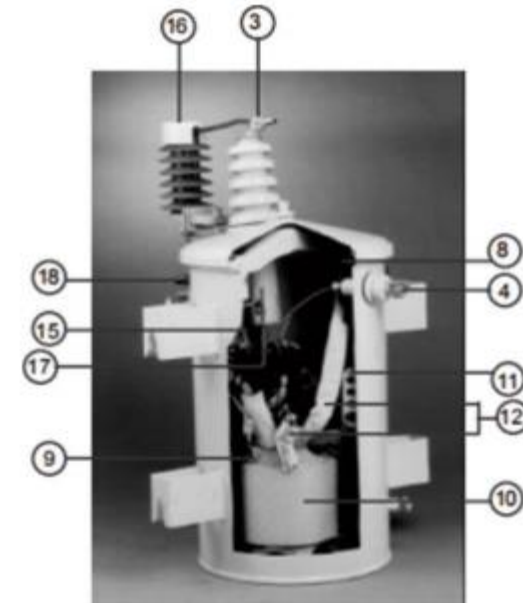
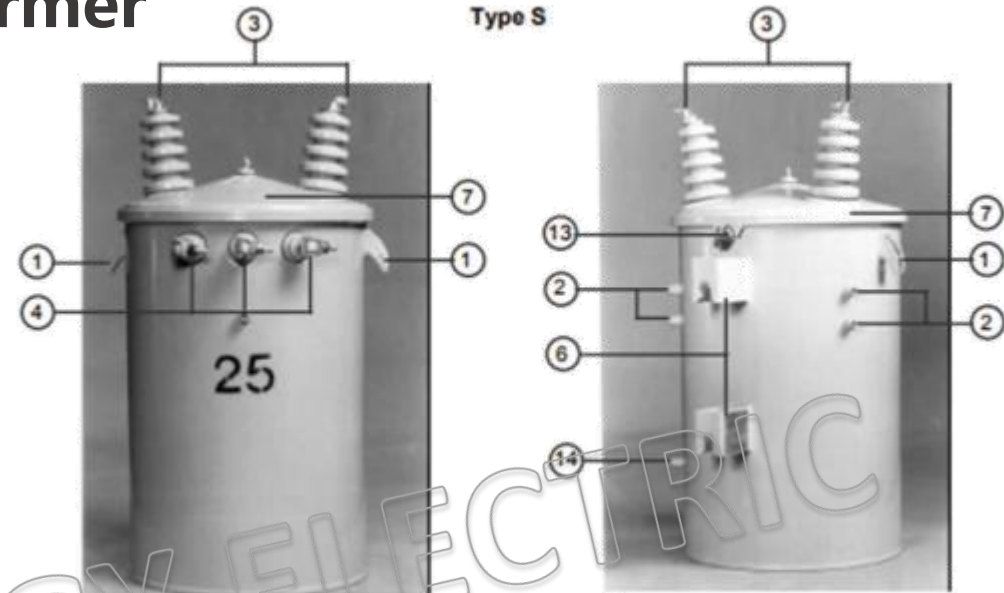
**Class B-3:** Same as Class B-2 except with two-position mounting.



# Single Phase Pole Mounted Transformer

## STANDARD FEATURES

1. LIFTING LUGS
2. ARRESTER MOUNTING PADS
3. COVER-MOUNTED HIGH VOLTAGE PORCELAIN BUSHING(S) WITH EYEBOLT TERMINAL
4. LOW VOLTAGE BUSHINGS WITH EYEBOLT TERMINALS
5. LOW VOLTAGE NEUTRAL GROUNDING STRAP (NOT SHOWN) (10-50 KVA CLASS B-2 AND B-3 ONLY)
6. ANSI SUPPORT LUGS (HANGER BRACKETS) WITH LASER INSCRIBED NAMEPLATE ON LOWER BRACKET
7. POLYESTER INSULATED COVER
8. SELF-VENTING AND RESEALING COVER ASSEMBLY
9. CORE
10. COIL
11. CENTERLINE CORE/COIL ASSEMBLY SUPPORT BRACKETS
12. LOW VOLTAGE LEADS
13. OIL FILL PLUG WITH COVER GROUND STRAP
14. TANK GROUND PAD THE FOLLOWING ADDITIONAL FEATURES ARE ALL STANDARD ON SELF-PROTECTED TYPE CSP UNITS ONLY
15. PRIMARY PROTECTIVE LINK (MOUNTED IN HIGH VOLTAGE BUSHING)
16. SURGE ARRESTER
17. SECONDARY CIRCUIT BREAKER
18. SECONDARY BREAKER OPERATING HANDLE WITH EMERGENCY OVERLOAD RESET AND OVERLOAD SIGNAL LIGHT



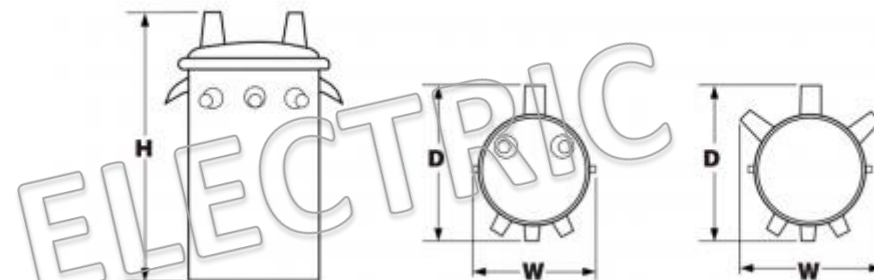
# Single Phase Pole Mounted Transformer

## Technical Data for Single-phase Overhead Conventional Distribution Transformer

Rated Capacity (KVA)	HV(V)	LV(V)	Loss(W)		Dimension(mm)			Weight(kg)	
			No-load Loss (W)	On-load Loss(W)	W	D	H	Oil Weight	Total Weight
5	34500/19920 13800/7957 13200/7620 12470/7200 Customized	120-240 240-480 347 600	19	75	465	485	855	15	92
10			36	120	500	525	885	22	150
15			50	195	520	565	905	30	210
25			80	290	560	590	935	45	258
37.5			105	360	610	625	935	50	340
50			135	500	635	675	1035	62	395
75			190	650	745	840	1035	88	480
100			210	850	770	965	1135	94	530
167			350	1410	795	890	1335	138	680

\*Note: The above data is only subject to our standard design, special requirement can be customized.

## Single Phase Overhead Conventional Transformer

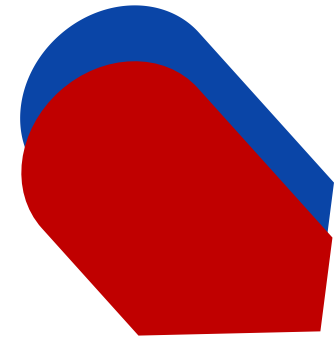


Product Scope:

kVA: 5-167

Primary Voltage: 2400-19,920 V

Secondary Voltage: 120-600 V



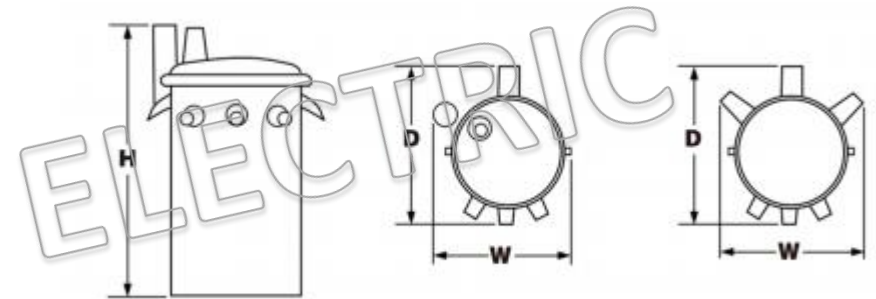
# Single Phase Pole Mounted Transformer

## Technical Data for Single-phase Overhead Completely Self Protected(CSP) Distribution Transformer

Rated Capacity (KVA)	HV(V)	LV(V)	Loss(W)		Dimension(mm)			Weight(kg)	
			No-load Loss (W)	On-load Loss(W)	W	D	H	Oil Weight	Total Weight
5	34500/19920 13800/7957 13200/7620 12470/7200 Customized	120-240 240-480 347 600	35	75	400	530	960	30	115
10			50	120	430	530	980	45	150
15			65	195	480	580	1000	55	205
25			105	290	500	580	1030	66	245
37.5			140	360	560	640	1080	78	335
50			180	500	560	640	1130	85	370
75			250	650	780	800	1170	138	505

\*Note: The above data is only subject to our standard design, special requirement can be customized.

## SINGLE-PHASE OVERHEAD COMPLETELY SELF PROTECTED (CSP) TRANSFORMER



Product Scope:

kVA: 5-75

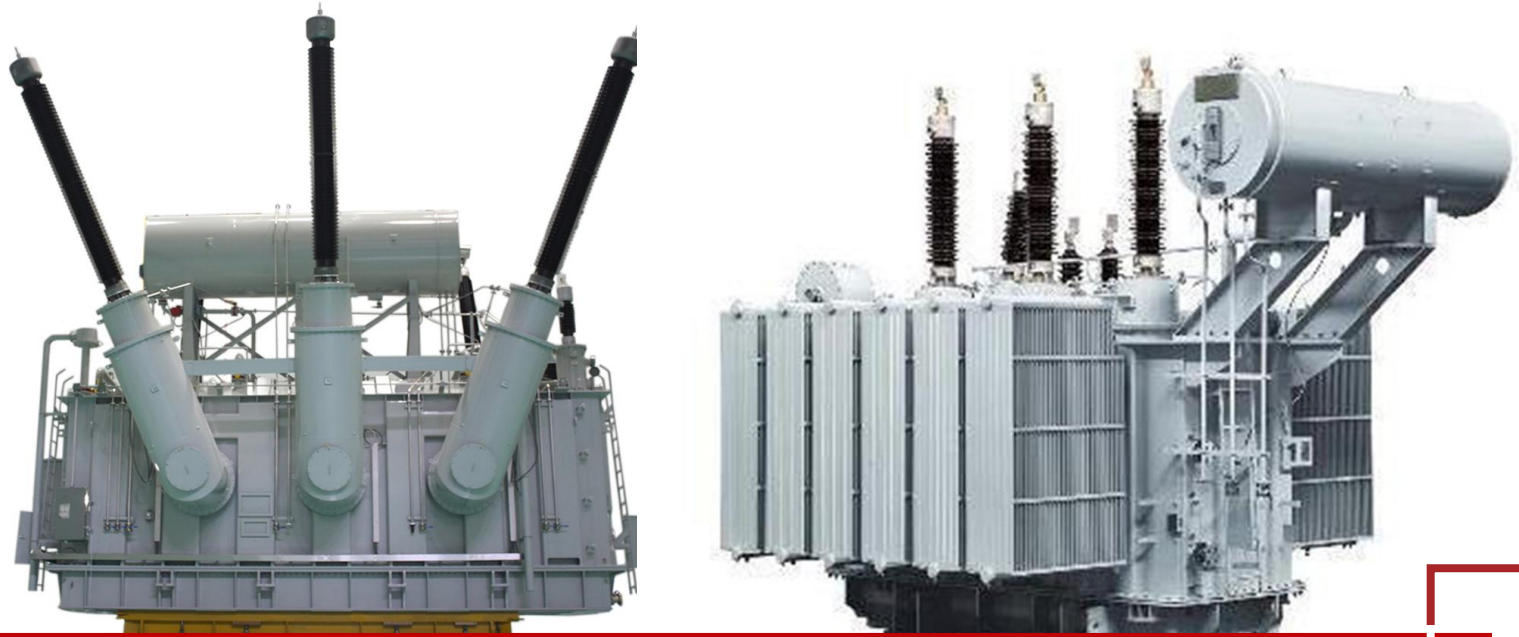
Primary Voltage: 2400-19,920 V

Secondary Voltage: 120-600 V





**GREEN ENERGY**



## > • Power Transformer



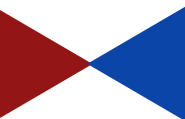
## 110kV-220kV Oil-Immersed Power Transformer

### 110kV~220kV Oil-immersed Power Transformer Product Introduction

1.High pressure transformer,use Japanese Toshiba analysis software and our company special calculation and validation procedures to the transformer core, winding, implement body, lead, fuel tanks, etc. Parts of the optimal design and carry on the omni -directional validation, ensure product performance. Superior process equipment, elaborate material selecting and efficient manufacturing making the transformer has small volume, light weight, low loss, low partial discharge, low noise characteristics.the product quality is superior energy conservation and environmental protection. easy installation and maintenance, reliable operation and effectively reduced products running costs.

2.the company product SSZ11-40,000/110 through national transformer quality supervision and inspection center short-circuit withstand ability and all type test routine.

3.this product is stable,reliable,economic,environmental protection,applicable to the characteristics of generator, transformer substation, large mining petrochemical enterprise etc.



# Power Transformer

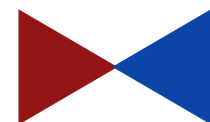
## Technical Data of 3 Phase 2 Winding Power Transformer On-Load Changer

Rated Capacity(kVA)	Rated Voltage		Vector-group	No-load Loss(W)	75°C Load Loss(W)	No-load Current(%)	Short-circuit Impedance(%)
	HV(kV)	LV(kV)					
6300	110±8 ×1.25%	6.3 6.6 10.5 11	YNd11	10.0	36	0.80	10.5
8000				12.0	45	0.80	
10000				14.2	53	0.74	
12500				16.8	63	0.74	
16000				20.2	77	0.69	
20000				24.0	93	0.69	
25000				28.4	110	0.64	
31500				33.8	133	0.64	
40000				40.4	156	0.58	
50000				47.8	194	0.58	
63000	56.8	234	0.52				

## Technical Data of 3 Phase 3 Winding Power Transformer On-Load Changer

Rated Capacity(kVA)	Rated Voltage			Vector-group	No-load Loss(W)	75°C Load Loss(W)	No-load Current (%)	Short-circuit Impedance (%)
	HV(kV)	HV(kV)	LV(kV)					
6300	110±8 ×1.25 5%	35 37 38.5	6.3 6.6 10.5 11	YNd11	12.0	47	0.95	HV-M V 10.5
8000					14.4	56	0.95	
10000					17.1	66	0.89	
12500					20.2	78	0.89	
16000					24.2	95	0.84	
20000					28.6	112	0.84	
25000					33.8	133	0.78	
31500					40.2	157	0.78	
40000					48.2	189	0.73	
50000					56.9	225	0.73	
63000	67.7	270	0.67					

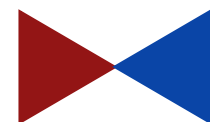
- 10 type products: no-load loss dropped 10%; Load loss by 5%
- 11 type products: no-load loss dropped 20%; Load loss by 5%



# Power Transformer

Technical Data of 3 Phase 3 Winding Non-Filed Excitation Changer Self Coupling Power Transformer

Rated Capacity(kVA)	Rated Voltage			Vector-group	Step-up Combination			Step-down Combination			Short-circuit Impedance(%)	
	HV(kV)	HV(kV)	LV(kV)		No-load Loss(W)	Load Loss(W)	No-load Current(%)	No-load Loss(W)	Load Loss(W)	No-load Current(%)	Step-up	Step-down
31500	220±2 ×2.5%	115	6.6 10.5 11 35 37 38.5	YNa0d 11	25	117	0.57	22	99	0.50	HV-MV 12-14	HV-MV 8-10
40000					29	144	0.57	26	121	0.50		
50000					34	170	0.50	30	144	0.43		
63000					40	201	0.50	36	171	0.43		
90000					50	276	0.43	46	234	0.36		
120000					62	340	0.43	56	288	0.36		
150000					73	405	0.36	66	342	0.33		
180000					84	463	0.36	76	387	0.33		
240000					99	595	0.33	89	504	0.25		



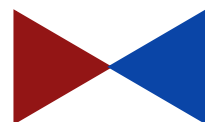


Technical Data of 3 Phase 2 Winding Power Transformer On-Load Changer

Rated Capacity(kVA)	Rated Voltage		Vector-group	No-load Loss(W)	75°C Load Loss(W)	No-load Current(%)	Short-circuit Impedance(%)
	HV(kV)	LV(kV)					
31500	220±8 ×1.25%	6.3 6.6 10.5 11 35 37 38.5	YNd11	38	135	0.70	12-14
40000							
50000							
63000							
90000							
120000							
150000							
180000							
120000							
150000							
180000							
180000							
180000							
180000							

Technical Data of 3 Phase 3 Winding Power Transformer On-Load Changer

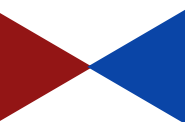
Rated Capacity(kVA)	Rated Voltage			Vector-group	No-load Loss(W)	75°C Load Loss(W)	No-load Current(%)	Capacity Assignment	Short-circuit Impedance(%)
	HV(kV)	HV(kV)	LV(kV)						
31500	220 ±8× 1.25 %	69 115 121	YNyn 0d11	10.5 11 35 37 38.5	44	162	0.77	100/100/ 100 100/50/1 00 100/100/ 50	HV-M V 10.5 HV-LV 17.5-18.5 MV-LV 6.5
40000					52	189	0.70		
50000					60	225	0.63		
63000					70	261	0.63		
90000					92	351	0.56		
120000					115	432	0.56		
150000					135	513	0.49		
180000					156	630	0.49		
240000					193	780	0.45		



## Technical Data of 3 Phase 3 Winding Power Transformer On-Load Changer

Rated Capacity(kVA)	Rated Voltage			Vector-group	No-load Loss(W)	75°C Load Loss(W)	No-load Current(%)	Capacity Assignment	Short-circuit Impedance(%)
	HV(kV)	HV(kV)	LV(kV)						
31500	220±8× 1.25%	115 121	6.3	YNa0d11	25	108	0.56	100/100/50	HV-M V 8-10  HV-LV 28-34  MV-LV 18-24
40000			6.6		30	132	0.56		
50000			10.5		36	157	0.49		
63000			11		42	189	0.49		
90000			35		51	247	0.42		
120000			37		64	307	0.42		
150000			38.5		76	365	0.35		
180000			10.5		85	419	0.35		
240000			11		104	540	0.30		
						35			
			37						
			38.5						

1. 10 type products: no-load loss dropped 10%; Load loss by 5%
2. 11 type products: no-load loss dropped 20%; Load loss by 5%





**GREEN ENERGY**



## > • Pad Mounted Transformer

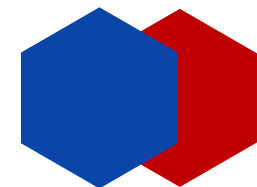


## ZGS11-H(Z) Combined Transformer

### ZGS11-H(Z) Combined Transformer Product Introduction

ZGS11 series combined transformer is a new type of power distribution equipment (also called American box variable), is will high-voltage switch plug-in fuse, high-pressure current limiting fuse installed in transformer, the insulation and cooling with mineral oil, with reasonable structure compact, small volume, installation flexible, convenient operation, cover an area of an area small, etc. Combined transformer is especially applicable to the load center city grid, to reduce the consumption, improve the quality of power supply.

This series of products has been widely used in communities across the country, and public places, industrial mining enterprises etc distribution sites.





# Pad Mounted Transformer



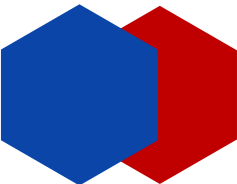
**radial feed**

## ZGS11-H(Z) Combined Transformer Product Features

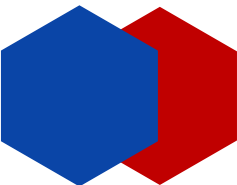
1. Compact structure and easy installation.
2. Sealed and fully insulated structure to ensure personal safety.
3. It can be used for radial feed and loop feed, which is convenient for conversion and improves the reliability of power supply.
4. Low loss, low noise and superior performance.
5. The cable connector adopts the plug-in form, which has the characteristics of isolation switch, convenient operation and flexibility.
6. High voltage double welding wire protection, the inserted welding wire has temperature and current dual sensitive protection performance
7. Transformer fault backup welding wire and second-line fault protection.
8. The box adopts anti-theft structure.
9. low temperature, strong overload capacity
10. Due to the special structure of the transformer body, its outstanding advantages are high quality and small neutral point voltage offset.



**loop feed**



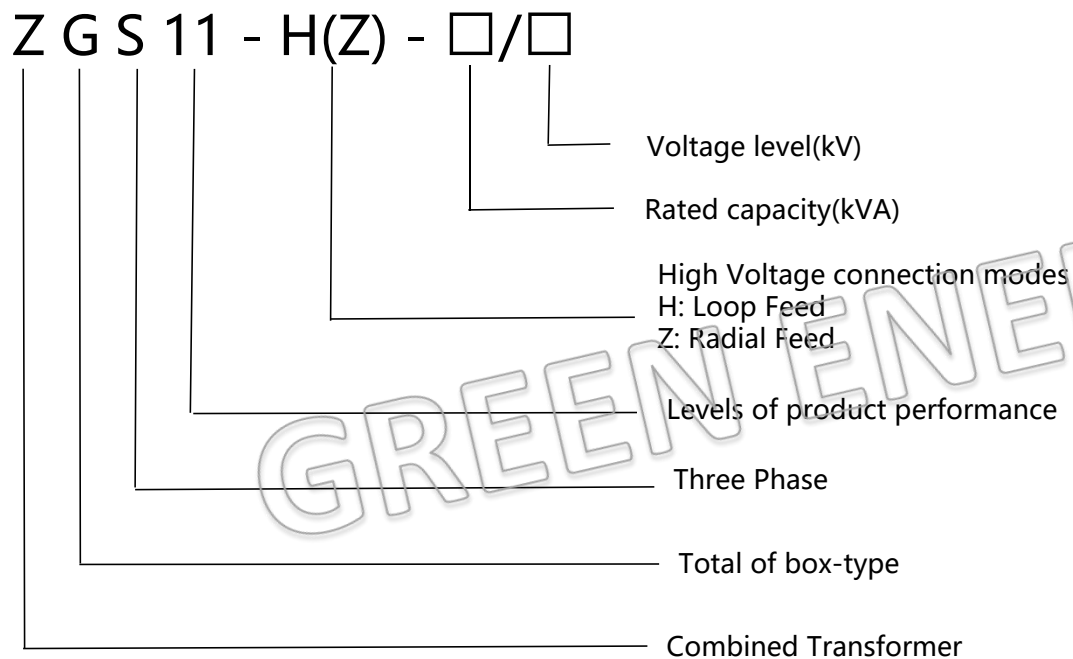
# Pad Mounted Transformer



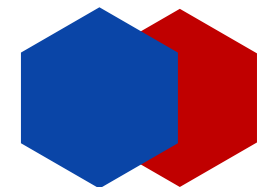
# Pad Mounted Transformer

Technical Data of ZGS11-H(Z) Combined Transformer

## Transformer Model Description



Rated Capacity (kVA)	Rated Voltage			Vector-group	No-load Loss(W)	75°C Load Loss(W)	No-load Current(%)	Short-circuit Impedance(%)
	HV (kV)	Tapping Ranges	LV (kV)					
100	6 6.3 10 10.5 11	±5% ±2×2.5%	0.4	Yyn0 Dyn11	200	1500	0.65	4.0
125					240	1800	0.65	
160					280	2200	0.60	
200					340	2600	0.50	
250					400	3050	0.50	
315					480	3650	0.45	
400					570	4300	0.45	4.5
500					680	5150	0.40	
630					810	6200	0.40	
800					980	7500	0.35	
1000					1150	10300	0.35	
1250					1360	12000	0.30	
1600					1640	14500	0.30	







GREEN ENERGY



## > • Compact Substation



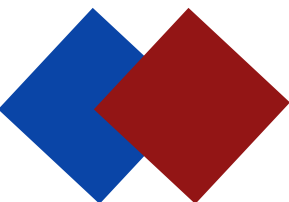
# Compact Substation

## YB-PRE Compact Substation(European box variable)

### YB-PRE Compact Substations Series (European Box Variable) Product Introduction

YB type compact substations and says Europe type box change, GB17467-1998 product conforms to the high and low voltage substation and IEC1330 preinstalled type, such as a new standard for power distribution equipment, it than conventional civil substation has many advantages. Because of its small volume, cover an area of an area small, compact structure, easy to move, thus greatly shorten the construction period and covers an area of, also reduced the infrastructure expenses. Meanwhile, the box-type converting stations on site installation is simple, rapid, equipment maintenance simple power substation, without special, especially it can further load centers, to improve the quality of power supply reduce power loss, enhance the reliability and power of distribution network re-election are important. Complete electricity transformation change box, the distribution, transmission, measurement, compensation, system control, protection and communications functions.

By high-voltage switchgear YB engineering-type substation, low-voltage distribution screen, distribution transformer and shell with a combination of four sections, high-voltage air load switch, transformer for dry type transformer or oil-immersed transformer Cabinet adopted good insulation ventilation structure, appearance beautiful generous, heat insulation performance is good, and the upper body sets, outdoor ventilated for every shot ducts and high or low voltage transformer room temperature can reduce the room caused to a minimum The cabinet to furnish temperature control forced ventilation device and automatic temperature control device sun. Each independent units installed perfect control, protection, charged display and lighting system.



# Compact Substation

## YB-PRE Compact Substations Series (European Box Variable) Application

### Scope

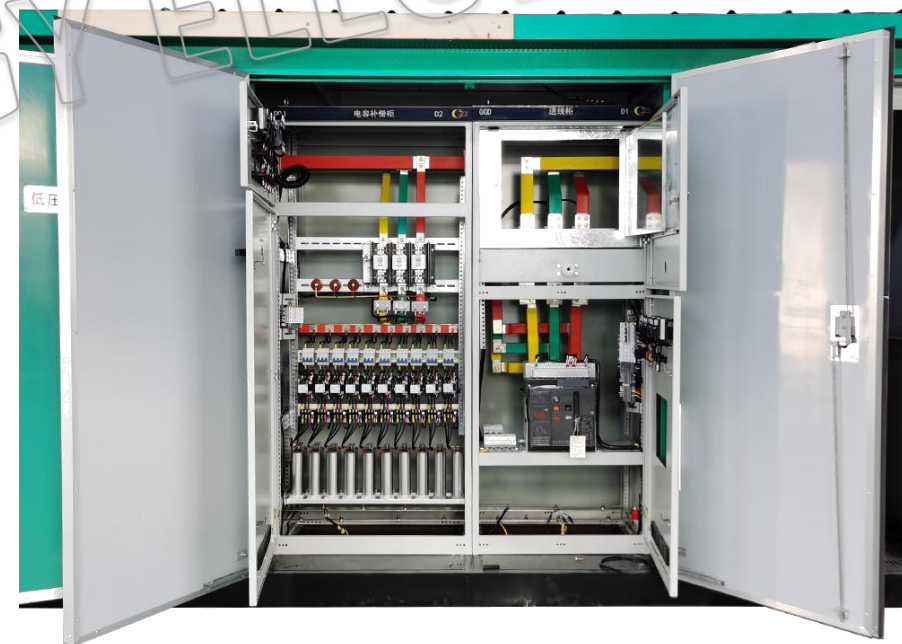
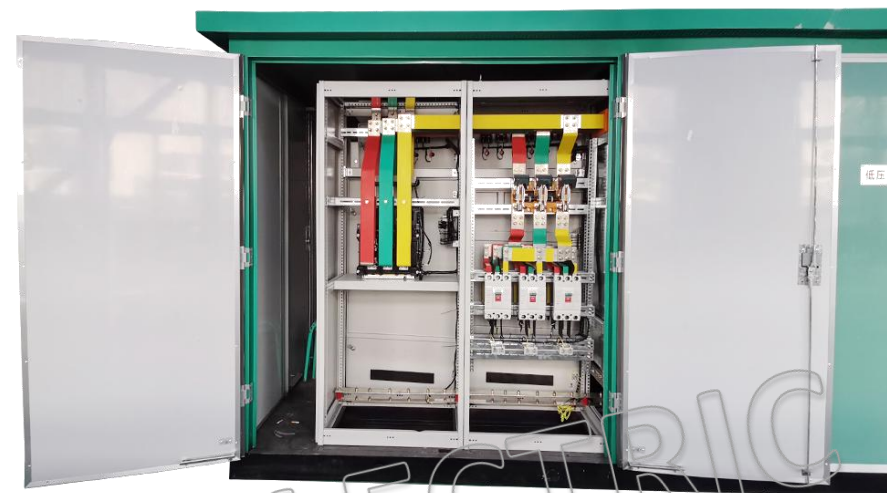
Applicable to below 35KV voltage, etc, the main transformer capacity 5000KVA and below small substations, widely used in substation halting city industry substation, consumers 10KV ring net system, rural 35KV substation and so on.

## YB-PRE Compact Substations Series (European Box Variable) Main Function

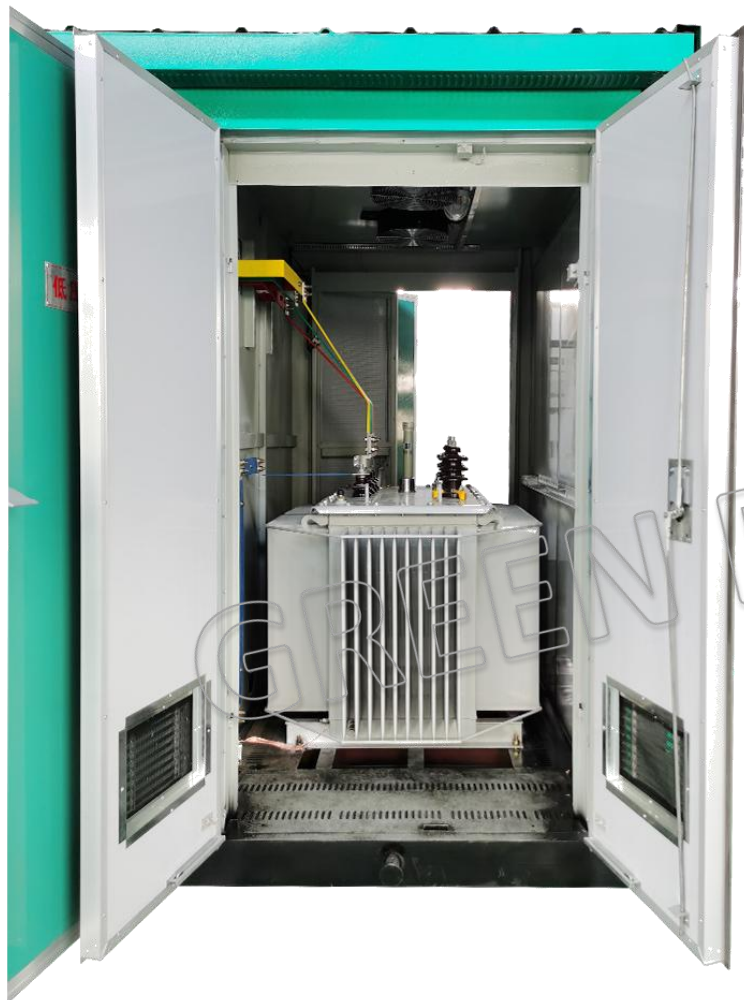
Complete electricity transformation, distribute, transmit, measurement, compensation, the system of control, protection and communications functions.

## YB-PRE Compact Substations Series (European Box Variable) Main Features

Will the primary and secondary equipment installed a portable sealed, temperature control, anti-corrosion moisture-proof anti-rust the cabinet, arriving at the just installed in cement basis. Has less investment, construction period is short, covers an area of less, easy and harmonious environment etc. Characteristics.



# Compact Substation



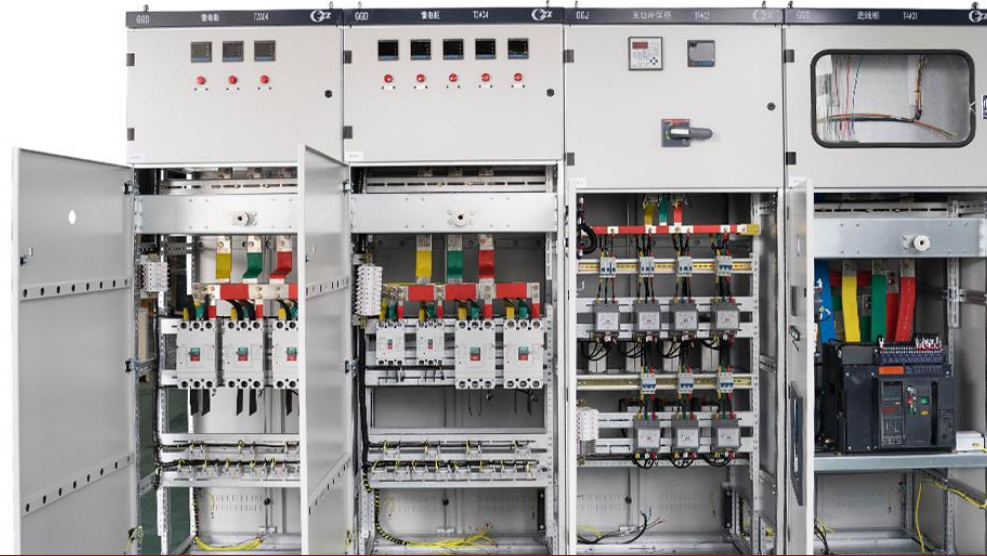
Technical Data of YB-Pre-installed Substation

Item		Unit	Data
HV	Rated Frequency	Hz	50
	Rated Voltage	kV	6 10 35
	Max Working Voltage	kV	6.9 11.5 40.5
	Industrial Frequency Voltage-Resisting Time/isolation Ballistic Voltage-Resisting	kV	32/36 42/48 95/118
	Thunder and Lighting Ballistic Voltage-Resisting Time/isolation Sectional Port	kV	60/70 75/85 185/215
	Rated Current	A	400 630
LV	Rated Brief-period Current-Resisting	kA	12.5(2s) 16(2s) 20(2s)
	Rated Crest Value Current-Resisting	kA	32.5 40 50
	Rated Voltage	V	380 220
	Rated Current of Major Return Circuit	A	100-3200
	Rated Short-Circuit Current-Resisting	kA	15 30 50
	Rated Crest Value Current-Resisting	kA	30 63 110
	Branch Circuit	A	10-800
	Quantity of Branch	Branch	1-12
Transforming	Compensation Circuit	kVAR	0-360
	Rated Capacity	kVA	50-2000
	Short-Circuit Impedance	%	4 6
	Scope of Branch Connection		$\pm 2 \times 2.5\%$ $\pm 5\%$
	Vector Group		Yyn0 Dyn11





**GREEN ENERGY**



## > • Switchgear/Switchboard



# Switchgear/Switchboard

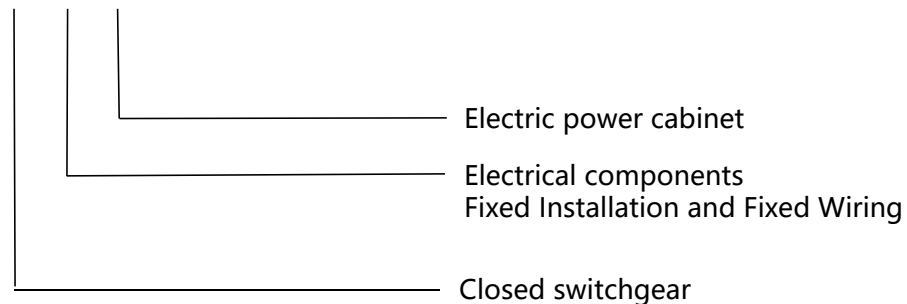
## GGD Low Voltage Fixed Equipment Set

GGD Low Voltage Fixed Set Equipment is suitable for AC 50Hz/60Hz, rated working voltage to 660V, rated current to 6300A and below power supply system. It is widely used in low voltage distribution systems in power plants, substations, industrial and mining enterprises, high-rise buildings and other fields as power receiving, feeding, reactive power compensation, energy metering, etc. Electric energy conversion, distribution and control, such as lighting and motor control center. Based on the principle of safety, economy, rationality and reliability, the product has the characteristics of high breaking capacity, good dynamic and thermal stability, flexible electrical scheme, convenient combination, strong seriality and practicability, novel structure, etc. This product meets IEC60439-1, GB7251 "Low Voltage Switchgear and Control Equipment" and other related standards.



### Transformer Model Description

GGD

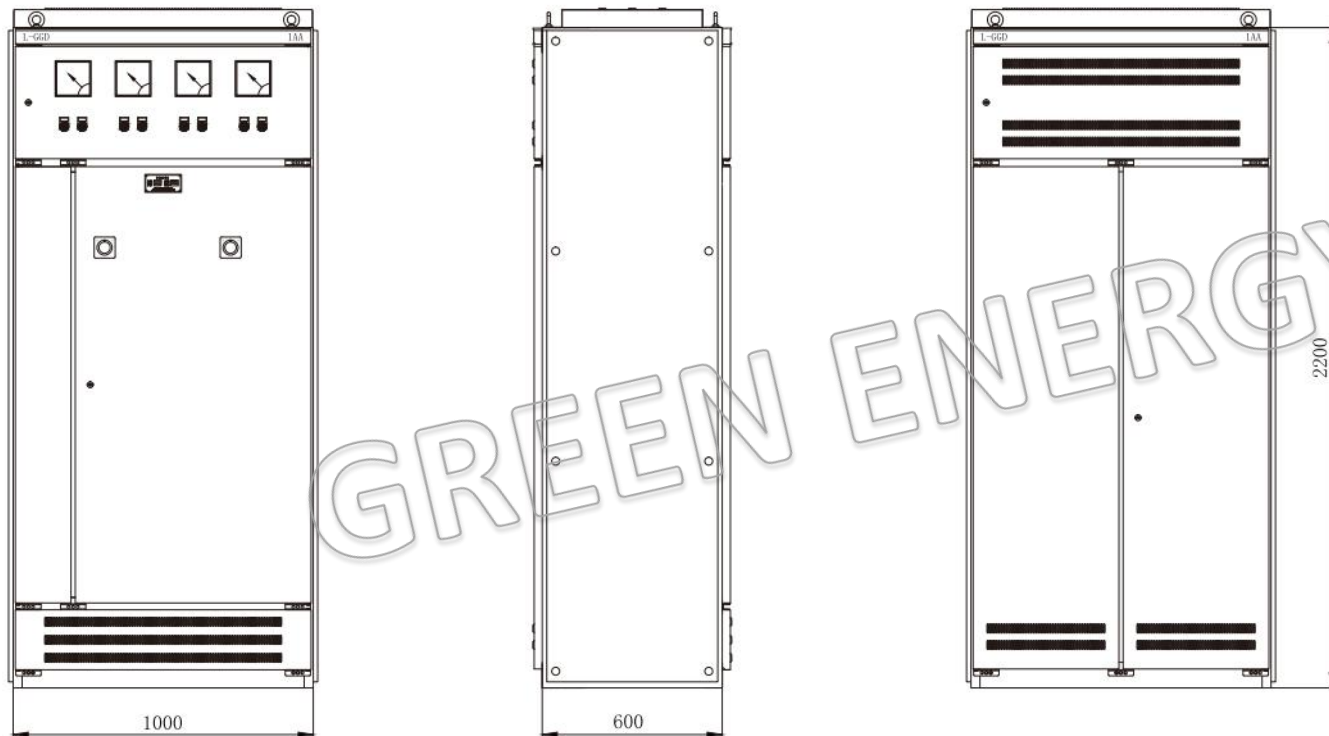




# Switchgear/Switchboard

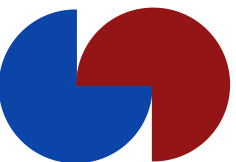
GGD

Low Voltage Fixed Equipment Set



## Normal Use Environmental Conditions

1. The ambient air temperature is not higher than  $+40^{\circ}\text{C}$ , not lower than  $-5^{\circ}\text{C}$ , and the average temperature is abused within 24 hours. If it is not higher than  $+35^{\circ}\text{C}$ , the capacity of the equipment should be reduced when it exceeds the above environment.
2. Relative humidity should not exceed 50% at the highest temperature of  $+40^{\circ}\text{C}$ . Higher relative humidity is allowed at lower temperatures, such as 90% at  $+20^{\circ}\text{C}$ . Consideration should be given to the occasional effect of condensation due to temperature variations.
3. Usually the altitude of the installation site does not exceed 2000m. For places over 2000m, the capacity should be reduced accordingly.
4. Installation without fire, explosion, serious dust and chemical corrosion. Places free from violent vibration and shock.
5. If the above-mentioned conditions of use are not satisfied, they should be settled through negotiation between the user and the manufacturer.



Serial Number	Project		Parameter
1	Rated insulation voltage		660V(1000V)/AC
2	Rated operating voltage		380V(660V)/AC
3	Overtoltage level		IV
4	Class of pollution		3
5	Rated Frequency		50(60)Hz
6	Rated impulse withstand voltage		8KV
7	Main Bus	Rated current	To 6300A
		icw	To 100KA
		Rated peak tolerable current	To 220KA
8	Protection Level		IP30
9	Equipment Height		2200mm
10	Equipment Width		600,800,1000,1200mm
11	Depth of equipment		600, 800mm
12	Depth of equipment		600,800,1000,1200mm

When ordering, the user should provide the following information:

1. Main circuit scheme diagram and primary system diagram.
2. Auxiliary circuit electrical schematic diagram, terminal arrangement diagram, such as no schematic diagram, terminal arrangement diagram, according to the manufacturer's standard.
3. Equipment Arrangement and Combination Diagram and Plane Arrangement Diagram.
4. Types, specifications and quantities of main electrical components in the equipment.
5. Data of bus span and height from ground should be provided for the mode and specifications of incoming and outgoing lines, such as bus connection between equipment or incoming units.
6. Surface color of equipment.
7. Other special requirements shall be settled through consultation with the manufacturer.

