



Company Address:

Seven Stars Industrial Park, Jiangnan High-tech Development Zone, Licheng District, QUANZHOU, FUJIAN

Tel: Mr. Wang 15005059589 Mr. Zhu 18850161727 Mr. Wang 13959908615

Web: <https://www.tianchielectric.com>

E-mail: tcdq@tianchidq.com

P.C: 362000

公司地址：福建省泉州市鲤城区江南高新技术开发区七星工业园

电话：王先生 15005059589 朱先生 18850161727 王先生 13959908615

网址：<https://www.tianchielectric.com>

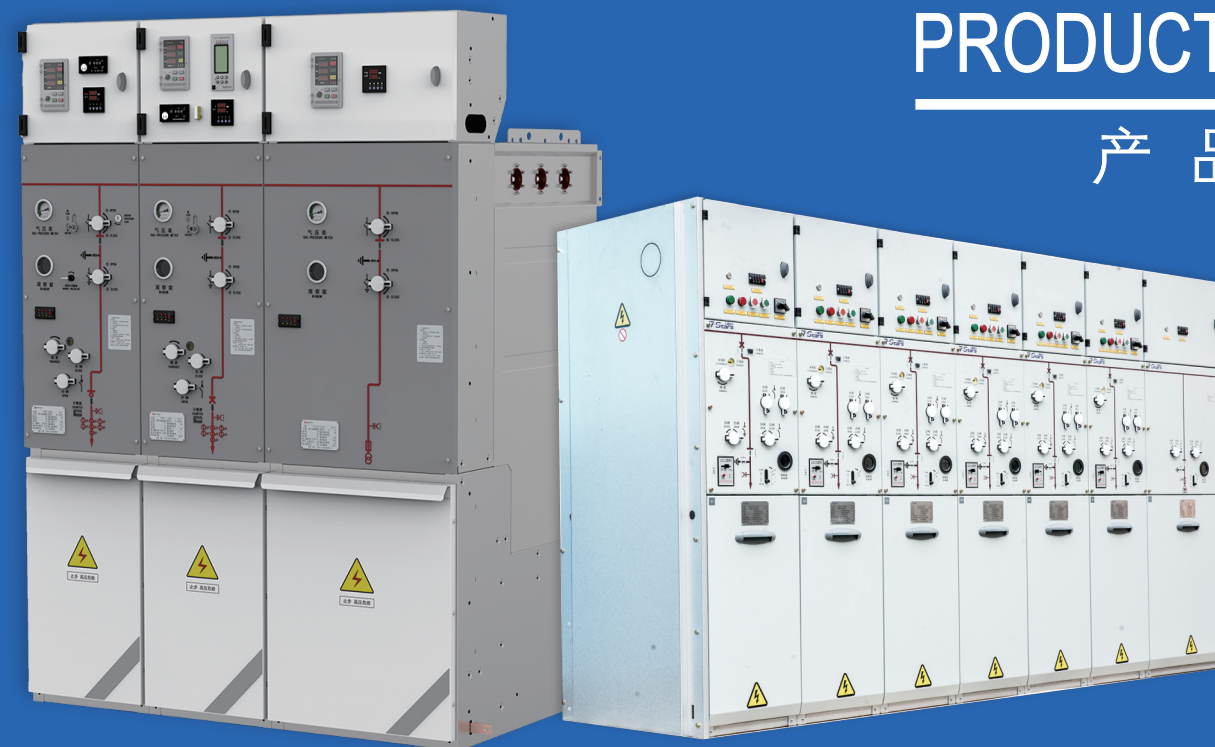
邮箱: tcdq@tianchidq.com

邮编：362000



PRODUCTS SALES MANUAL

产品销售手册



COMPANY INTRODUCTION

Quanzhou Tianchi Electric Import and Export Trade Co., Ltd. is the designated import and export sales cooperative unit of Quanzhou Seven Stars Electric Co., LTD, and is also specializing in the electric equipment, mechanical and electrical equipment, intelligent transmission and distribution and control equipment, electrical instruments and meters products production and trade as one of the enterprises. The company is located in Sevenstars Industrial Park, Jiangnan High-tech Development Zone, Licheng District, Quanzhou, Fujian, China. Companies adhering to the "innovation, pragmatic, win-win" business philosophy, as well as the diversified development of related products, can be better provide comprehensive quality products for domestic and foreign enterprises.

Our company has the right to import and export, It's cooperative unit quanzhou Seven Stars Electric Co., Ltd. is a national key high-tech enterprise focusing on the technical research, product development, equipment manufacturing and technical service in the field of power insulation and distribution switch and its automation. It's advanced concept, strict technology, perfect detection means and quality service to build a scientific management system, and has obtained ISO9001:2000 quality management certificate system and ISO14000:2004 environmental management system certificate. It has been awarded as "High-tech Enterprise", "Superior Enterprise" and "Excellent New Product" in Fujian Province successively and got "honoring contract and keeping promise" enterprise, "High voltage Insulation Engineering Technology Research Center", "Top ten Scientific and technological Innovation Products", "Advanced Collective", "tax payer" in Quanzhou, etc., is recommended by the State Economic and Trade Commission of the national urban and rural power grid renovation of the main equipment manufacturers. And it has set up an electrical insulation technology center in Beijing; Power Electronics Technology Center in Fuzhou; and also in Quanzhou and Xiamen has established a perfect high voltage insulation workshop, sheet metal processing workshop, power distribution switch workshop and power electronics workshop. With a number of Germany 2KM, DESMA, Taiwan FuYuan injection machine and clamping fixture as the main assembly line production equipment of electrical insulation products, sheet metal processing production line composed of the CNC punch press of FINN POWER, as well as physical and chemical materials, electrical and mechanical tensile properties, high voltage insulation, high and low temperature, electromagnetic compatibility and equipped laboratory. The company has formed a complete R & D, production and testing system for 500kV voltage grade and below high-voltage insulation products, distribution switches and automation products.

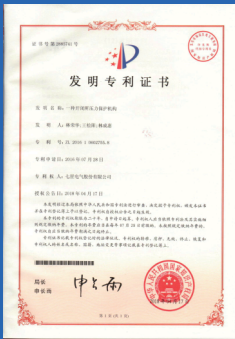
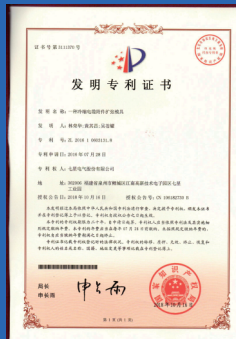


<https://www.tianchielectric.com>



<https://www.tianchielectric.com>

SERVICE 服务
INNOVATION 创新
PRAGMATIC 务实
WIN-WIN 双赢



MV Cabling Set Series 中压电缆化成套设备

10kV ring main unit 10kV环网柜	02
10kV cable branch box 10kV电缆分支箱	03

High-Low Voltage Set Series 高低压成套设备

SVQC intelligent reactive power compensation and voltage optimization equipment set for substation 变电站用SVQC智能无功补偿及电压优化成套装置	05
10kV KYN28 HV switch cabinet 10kV KYN28 高压开关柜	06
GGD LV switchgear sets GGD低压成套开关柜	07
GCK LV switchgear sets GCK低压成套开关柜	08
XGZ Intelligent LV integrated power distribution box XGZ智能低压综合配电箱	09
SMC box (special fiber reinforced polyester box) SMC箱体（特种纤维增强聚酯箱体）	10

Distribution Automation Series 配网自动化设备

10Kv ZW20□-user demarcation circuit breaker 10Kv ZW20□用户分界断路器	12
10Kv FZW28□-user demarcation load switch 10Kv FZW28□用户分界负荷开关	13
10kV QXZWI□-10/630 user demarcation permanent magnet circuit breaker 10kV QXZWI□-10/630 用户分界永磁断路器	14
10Kv ZW32 vacuum circuit breaker 10Kv ZW32 真空断路器	15
35Kv ZW7 vacuum circuit breaker 35Kv ZW7 真空断路器	16
10kV FLW□ SF ₆ load switch 10kV FLW□ SF ₆ 负荷开关	17
10Kv FZW32 vacuum load disconnect switch 10Kv FZW32 真空负荷隔离开关	18
10Kv FZW28 vacuum load switch 10Kv FZW28 真空负荷开关	19
10kV SSOD-12 outdoor disconnect switch 10kV SSOD-12 隔离开关	20
10kV drop out fuse 10kV 跌落式熔断器	21
35kV drop out fuse 35kV 跌落式熔断器	22

Insulation Product Series 绝缘产品系列

0.22-220kv Lightning arrester 0.22-220Kv 避雷器	25
10-550kV high-voltage composite insulator 10-550Kv 高压复合绝缘子	26



MV Cabling Set Series 中压电缆化成套设备

10kV ring main unit 10kV环网柜

SS series SF₆ Gas Insulated RMU、SSR series Eco-friendly Gas Insulated RMU、Solid Insulated RMU (SSC common box type, SSU expandable unit combination type) is widely used in indoor and outdoor switch stations, box type substations, residential areas, various office buildings, commercial centers, buildings, workshops and other 12 / 24kV distribution networks. The product is fully sealed, fully insulated and maintenance free.

This product conforms to the standards of GB11022, GB3906, GB3804 and IEC60420.

SS系列SF₆绝缘环网柜、SSR系列环保气体绝缘环网柜、固体绝缘环网柜（SSC共箱型、SSU可扩展的单元组合型）广泛应用于户内、户外开关站，箱式变电站、住宅小区、各种办公楼、商业中心、大楼、厂房等12/24kv配电网。产品为全密封，全绝缘，免维护设计。

本产品符合GB11022、GB3906、GB3804、IEC60420等标准。

Main features

- ★The operating mechanism is spring operating mechanism
- ★Automatic interface
- ★It is equipped with shielded detachable connector
- ★It has "five prevention" function
- ★The cable room has an observation window
- ★It is equipped with safety pressure relief device
- ★The panel type short circuit / ground fault indicator is optional
- ★The outer box is made of high quality stainless steel and can be painted with corresponding patterns

主要功能特点

- ★操作机构为弹簧操作机构
- ★具备自动化接口
- ★配有屏蔽型可分离连接器
- ★具有可靠的“五防”功能
- ★电缆室带有观察窗
- ★设有安全泄压装置
- ★可选配面板式短路/接地故障指示器
- ★外箱采用优质不锈钢材质制作，外箱表面可绘制相应图案



10kV ring main unit 10kV环网柜

10kV cable branch box 10kV电缆分支箱



10kV cable branch box

10kV电缆分支箱

It is developed and produced by introducing German advanced technology and used for the cable connection of 10kV Transmission and distribution system to distribute electric energy. The connection mode is simple, convenient and flexible to meet various wiring requirements. The product has the characteristics of full insulation, full sealing, corrosion resistance, maintenance free, safe and reliable, small floor area and so on. The product has strong environmental adaptability, and can be widely used for cable matching in industrial parks, residential areas, commercial areas, mining areas and both sides of streets.

引进德国先进技术研制生产，用于10kV输配电系统的电缆配接处，用于分配电能。其连接方式简单、方便，组合灵活，满足多种接线需求。产品具有全绝缘、全密封、耐腐蚀、免维护、安全可靠、占地面积小等特点。产品的环境适应能力强，可广泛用于工业园区、住宅小区、商业区、矿区及街道两旁等场所的电缆配接。

Main features

- ★It is equipped with shielded detachable connector
- ★It is dust-proof, moisture-proof, flood resistant and corrosion-resistant, suitable for various operating environments
- ★It has compact structure, convenient installation and disassembly, strong expansibility and beautiful appearance
- ★With live display
- ★Short circuit / ground fault indicator is optional
- ★The lightning arrester is optional
- ★It can be equipped with SF6 load switch and combined electric appliance
- ★The function of ring network can be realized

Ordering instructions

- ★Model, number of branches and nominal section of each branch cable of cable branch box
- ★Is short circuit / ground fault indicator and arrester selected
- ★If SF6 load switch is selected, primary wiring diagram and switch model shall be provided
- ★Material and appearance requirements of box body

主要功能特点

- ★配置屏蔽型可分离连接器
- ★防尘，防潮，抗洪水，耐腐蚀，可适用各种运行环境
- ★结构紧凑，安装拆卸便捷，扩展性强，外形美观
- ★配有带电显示器
- ★可选配短路/接地故障指示器
- ★可选配避雷器
- ★可选配SF₆负荷开关和组合电器
- ★可实现环网功能

订货须知

- ★电缆分支箱的型号、分支数、各分支电缆标称截面
- ★是否选配短路/接地故障指示器和避雷器
- ★若选配SF₆负荷开关，需提供一次接线图及开关型号
- ★箱体材质及外观要求



High-Low Voltage Set Series 高低压成套设备

SVQC intelligent reactive power compensation and voltage optimization equipment set for substation 变电站用SVQC智能无功补偿及电压优化成套装置

10kV KYN28 HV switch cabinet 10kV KYN28高压开关柜

GGD LV switchgear sets GGD低压成套开关柜

GCK LV switchgear sets GCK低压成套开关柜

XGZ Intelligent LV integrated power distribution box XGZ智能低压综合配电箱

SMC box (special fiber reinforced polyester box) SMC箱体（特种纤维增强聚酯箱体）



SVQC intelligent reactive power compensation and voltage optimization equipment set for substation 变电站用SVQC智能无功补偿及电压优化成套装置

The product is a new type of intelligent compensation device developed to solve the problems existing in traditional non-moving compensation switching high voltage shunt capacitor banks. Devices to high voltage permanent magnet switch, switch phase Angle control, filter voltage reactive power compensation technology, control technology and the advanced communication technology, the combination of concentrated compensation is mainly used in substation, which can effectively solve the capacitor Banks operating over-voltage, impact current, real-time reactive power compensation, harmonic, voltage fluctuation and so on.

By precisely controlling the turn-on time of three single-phase permanent magnet vacuum circuit breakers, the device realizes the casting of capacitor bank at voltage crossing zero without impulse current and over-voltage. When the current crosses zero, the capacitor bank is disconnected, without overvoltage and small arc burning. Due to the realization of zero-crossing switching, frequent action can be supported, and the electrical life of the switch is greatly extended. At the same time, the device can adopt tuning design or detuning design to suppress or absorb harmonics and eliminate the adverse effects of harmonics on the compensation device and system.

该产品是为解决传统无功补偿投切高压并联电容器组存在的问题而开发研制的新型智能补偿装置。装置将高压永磁开关技术、开关相角控制技术、滤波补偿技术、电压无功控制技术 & 先进的通讯技术相结合，主要应用于变电站的集中补偿，可有效解决电容器组操作过电压、冲击电流、无功补偿实时性差、谐波、电压波动等问题。

装置通过精确控制三只单相真空永磁断路器的导通时刻，实现在电压过零点投入电容器组，无冲击电流和过电压；在电流过零点断开电容器组，无过电压、燃弧小。由于实现了过零投切，可支持频繁动作，开关电气寿命大大延长。同时装置可针对系统谐波情况，采用调谐设计或失谐设计，抑制或吸收谐波，消除谐波对补偿装置和系统的不良影响。

Main features

- ★Automatic capacity and voltage regulation function
- ★Capacitor bank zero crossing switching monitoring function
- ★Capacitor bank microcomputer protection function
- ★Event recording, storage and statistics functions
- ★Operation mode adaptive function
- ★Meet the functional requirements of "five defenses"
- ★The bus-bar in the cabinet is heat-shrinkable

主要功能特点

- ★自动调容、调压功能
- ★电容器组过零投切监控功能
- ★电容器组微机保护功能
- ★事件记录、存储及统计功能
- ★运行方式自适应功能
- ★满足“五防”功能要求
- ★柜内母线采用热缩处理



10kV KYN28 HV switch cabinet 10kV KYN28高压开关柜

KYN28A-12 armored shifting AC metal closed switchgear is a complete set of power distribution equipment for 3.6-12kV three-phase AC 50HZ single bus and bus section system. Mainly used for power plants, small and medium-sized generator power transmission, industrial and mining enterprises distribution and power system substation power receiving, power transmission and large high voltage motor starting, etc., to achieve control protection, monitoring.

KYN28A-12型铠装移开式交流金属封闭开关设备，系3.6-12kV三相交流50HZ单母线及母线分段系统的成套配电设备。主要用于发电厂、中小型发电机送电、工矿企业事业配电以及电力系统的变电所的受电、送电及大型高压电动机起动等，实现控制保护、监测。

Main features

- ★High sealing degree of cabinet shell, protection class IP4X, protection class IP2X when the circuit breaker chamber door is fully open
- ★Meet the requirements of five defense
- ★Flexible installation mode
- ★Cabinet shell adopts aluminum zinc steel plate, high mechanical strength, impact resistance, corrosion resistance

主要功能特点

- ★柜壳密封度高，防护等级IP4X，断路器室门完全打开时的防护等级为IP2X
- ★符合“五防”要求
- ★安装方式灵活多变
- ★柜壳采用覆铝锌钢板，机械强度高、抗冲击、耐腐蚀

Ordering instructions

- ★Main wiring scheme drawing no., usage and single wire system drawing, rated parameters
- ★Distribution room layout and switch cabinet arrangement and configuration
- ★Control, measurement and protection function requirements
- ★Model, specification and quantity of main internal electrical components
- ★If bus-bar bridge connection is required, the rated load, span, ground height and other parameters of bus-bar bridge should be provided
- ★Use in special circumstances, should be detailed
- ★Other Special requirements

订货须知

- ★主接线方案图编号、用途和单线系统图、额定参数
- ★配电室平面布置图及开关柜的排列配置图
- ★控制、测量及保护功能要求
- ★内部主要电气元件的型号、规格及数量
- ★如需母线桥连接，应提供母线桥的额定载流量、跨度、离地高度等参数
- ★使用在特殊环境时，应详细说明
- ★其它特殊要求



GGD LV switchgear sets

GGD TYPE AC low-voltage power distribution cabinet is suitable for transformer substation, power plant, factories and mining enterprises and other power users of ac 50Hz, rated working voltage 380V distribution system, as power, lighting and power distribution equipment for the conversion, distribution and control. The cabinet body is in the form of universal cabinet, and the frame is assembled by local welding of 8MF cold-formed steel, and has 20-mode mounting holes, with good versatility.

GGD型交流低压配电柜适用于变电站、发电厂、厂矿企业等电力用户的交流50HZ，额定工作电压380v的配电系统，作为动力、照明及发配电设备的电能转换、分配与控制之用。

柜体采用通用柜形式，构架用8MF冷弯型钢局部焊接组装而成，并有20模的安装孔，通用性好。

Main features

- ★High breaking ability, good dynamic thermal stability
- ★The scheme is flexible, convenient and serialized
- ★Good heat dissipation, beautiful and generous
- ★The protection level is IP30

Ordering instructions

- ★Switchgear arrangement plan and distribution room layout plan
- ★Main circuit single wire system drawing and usage
- ★Schematic diagram of auxiliary circuit
- ★Model, specification and quantity of electrical components
- ★Other Special requirements

GGD低压成套开关柜

主要功能特点

- ★分断能力高，动热稳定性好
- ★方案灵活、组合方便，系列性强
- ★散热性好、美观大方
- ★防护等级为IP30

订货须知

- ★开关柜的排列图和配电室的平面布置图
- ★主电路单线系统图及用途字样
- ★辅助电路原理图
- ★电器元件的型号、规格及数量
- ★其它特殊要求



GCK LV switchgear sets

GCK low-voltage pull-out switchgear consists of two parts: power distribution center (PC) cabinet and motor control center (MCC). The product is suitable for ac 50(60)Hz, rated working voltage is less than or equal to 660V, rated current 4000A and below the control distribution system, as power distribution, motor control and lighting and other power distribution equipment.

The whole cabinet adopts assembling type combination structure, modular hole installation, parts and components have strong versatility, good applicability and high degree of standardization. The upper part of the cabinet is the bus room, the front part is the electrical room, the rear part is the cable in and out of the line room, the top can be installed according to the electricity needs of the bus bridge. Each room is isolated by steel plate or insulation board to ensure safety

The door of the MCC cabinet drawer compartment is mechanically interlocked with the operating handle of the circuit breaker or disconnecter so that the door can be opened only when the handle is in the disconnecting position. The receiving switch, contact switch and the drawer of the MCC cabinet have three positions: on position, test position and off position. This product conforms to the standards of 1EC60439-1, GB7251.1, GB/14048.1, etc.

GCK低压抽出式开关柜由动力配电中心(PC)柜和电动机控制中心(MCC)两部分组成。该产品适用于交流50(60)HZ、额定工作电压小于等于660V、额定电流4000A及以下的控配电系统，作为动力配电、电动机控制及照明等配电设备使用。

整柜采用拼装式组合结构，模数孔安装，零部件通用性强，适用性好，标准化程度高。柜体上部为母线室、前部为电器室、后部为电缆进出线室，顶部根据受电需要可装母线桥。各室间有钢板或绝缘板隔离，保证安全。

MCC柜抽屉小室的门与断路器或隔离开关的操作手柄设有机械联锁，只有手柄在分断位置时门才能开启。受电开关、联络开关及MCC柜的抽屉具有三个位置：接通位置、试验位置、断开位置。产品符合IEC60439-1, GB7251.1, GB/T14048.1等标准

Main features

- ★High breaking ability, good dynamic thermal stability
- ★Advanced and reasonable structure, flexible electrical scheme
- ★Seriality and versatility
- ★Small footprint, high protection level
- ★Safe and reliable, convenient maintenance

主要功能特点

- ★分断能力高、动热稳定性好
- ★结构先进合理、电气方案灵活
- ★系列性、通用性强
- ★占地面积小、防护等级高
- ★安全可靠、维修方便

Ordering instructions

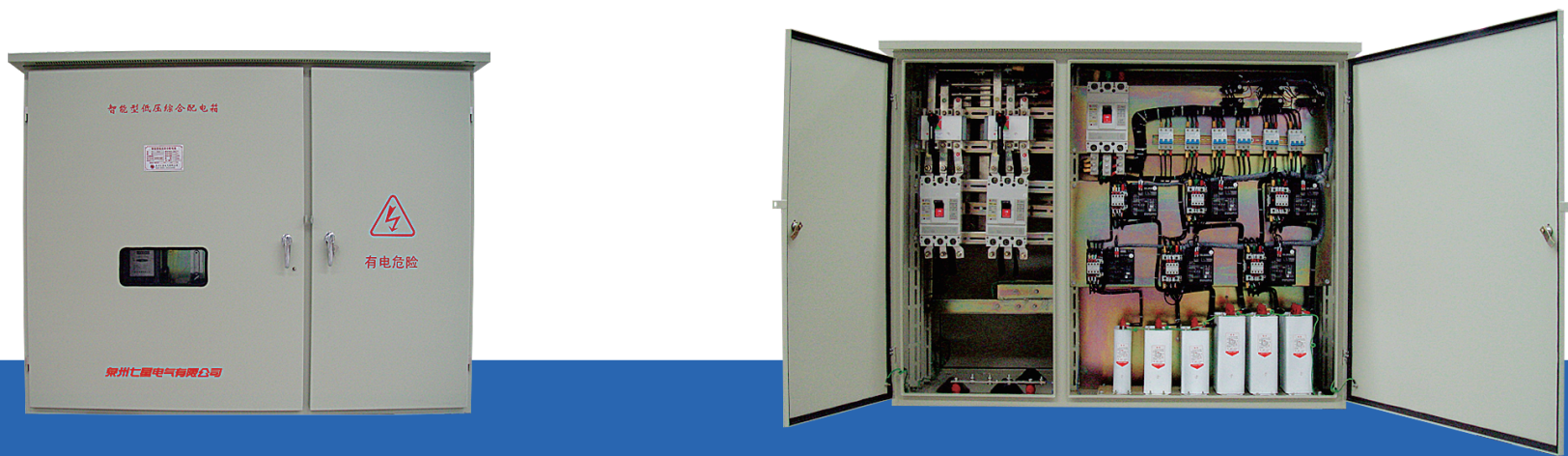
- ★Primary loop scheme No., equipment model, capacity and single line system drawing
- ★Schematic diagram of secondary loop
- ★Switchgear arrangement and distribution room layout
- ★Main bus specifications
- ★Switch cabinet surface color
- ★Other Special requirements

GCK低压成套开关柜



订货须知

- ★一次回路方案编号、设备型号、容量及单线系统图
- ★二次回路原理图
- ★开关柜的排列图和配电室平面布置图
- ★主母线规格
- ★开关柜表面颜色
- ★其它特殊要求



XGZ Intelligent LV integrated power distribution box XGZ智能低压综合配电箱

The product integrates low-voltage distribution, electric energy distribution, distribution protection, data acquisition, electric energy measurement, load monitoring, low-voltage lightning protection, harmonic analysis, event recording, street lamp control, reactive power compensation, with stable and reliable performance. It can be widely used in intelligent upgrading and transformation of general low-voltage integrated distribution box of urban and rural low-voltage power grid, low-voltage distribution, reactive power compensation, electricity metering, operation management, load assessment and so on in municipal, garden residential district and automatic distribution and transformation project of distribution network. This product conforms to the standards of GB7251.1, IEC60439-1 and other standards.

产品集低压配电、电能分配、配电保护、数据采集、电能计量、负荷监测、低压防雷、谐波分析、事件记录、路灯控制、无功补偿于一体，性能稳定、可靠。可广泛用于城农低压电网的普通型低压综合配电箱的智能化升级改造以及市政、花园住宅小区、配网自动化配变工程的低压配电、无功补偿、用电计量、运行管理、负荷考核等。产品符合GB7251.1、IEC60439-1等标准

Main features

- ★ With online real-time monitoring function
- ★ Strong breaking ability, good dynamic thermal stability
- ★ Low voltage lightning protection function
- ★ The shell is made of high quality stainless steel plate or cold rolled steel plate with good mechanical strength
- ★ The protection level is not lower than IP33
- ★ It can realize wireless or GPRS data transmission
- ★ Reactive power compensation can realize zero-crossing switching and complete functions of sub-complement and total complement
- ★ Can realize the leakage protection function

主要功能特点

- ★ 具有在线实时监测功能
- ★ 分断能力强、动热稳定性好
- ★ 低压防雷功能
- ★ 外壳采用优质不锈钢板或冷轧钢板，机械强度高
- ★ 防护等级不低于IP33
- ★ 可实现无线或GPRS数据传输
- ★ 无功补偿可实现过零投切，分补共补功能齐全
- ★ 可实现漏电保护功能



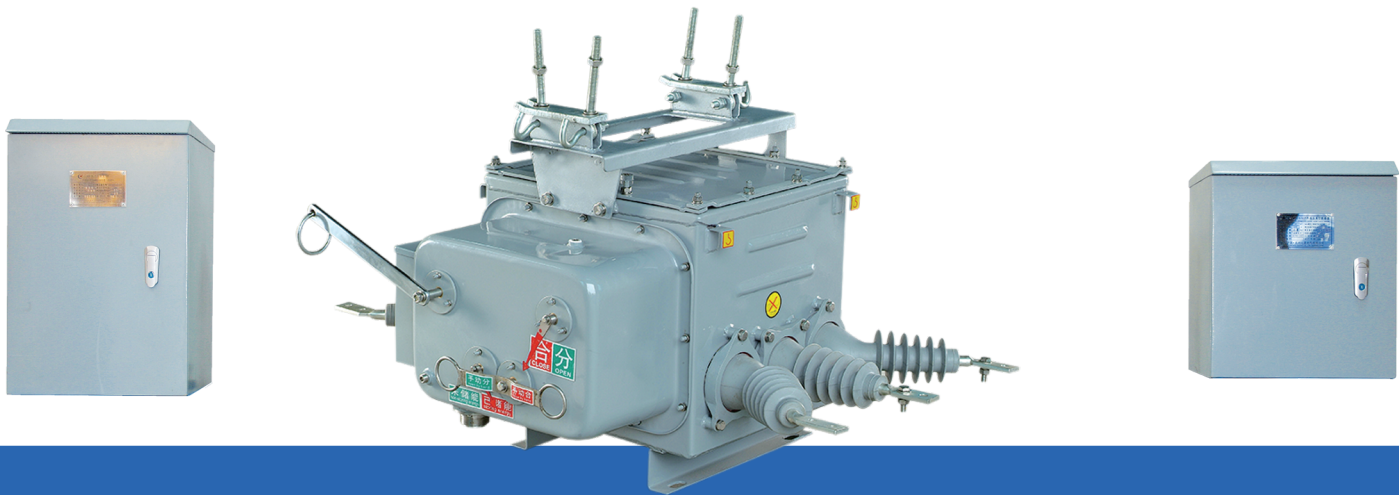
SMC box (special fiber reinforced polyester box) SMC箱体（特种纤维增强聚酯箱体）

This product is assembled by SMC plate components, with insulation, aging resistance, impact resistance, flame retardant, corrosion resistance and other advantages. Circuit breakers, copper busbar, fuse type isolation switch and other power distribution devices can be installed inside the power distribution box, safe and reliable, beautiful appearance, can be used for industrial power distribution system branch, section, control and protection

Internal power distribution devices such as circuit breakers and fuses can be installed to form indoor wall-mounted or embedded lighting boxes, which are used for office buildings, Residential distribution system branch, section, control and protection

采用SMC板材构件拼装而成，具有绝缘隔热、耐老化、抗冲击、阻燃、耐腐蚀等优点。

内部可安装断路器、铜母线、熔断器式隔离开关等配电装置组成户内壁挂式安装的动力配电箱，安全可靠，造型美观，可用于工业动力配电系统分支、分段、控制和保护。内部可安装断路器、熔断器等配电装置组成户内壁挂式或嵌入式安装的照明箱，用于办公楼、居民配电系统分支、分段、控制和保护。



Distribution Automation Series 配网自动化设备

10Kv ZW20□—user demarcation circuit breaker	10Kv ZW20□用户分界断路器
10Kv FZW28□—user demarcation load switch	10Kv FZW28□用户分界负荷开关
10kv QXZWI□—10/630 user demarcation permanent magnet circuit breaker	10kv QXZWI□-10/630 用户分界永磁断路器
10Kv ZW32 vacuum circuit breaker	10Kv ZW32 真空断路器
35Kv ZW7 vacuum circuit breaker	35Kv ZW7 真空断路器
10kv FLW□ SF ₆ load switch	10kv FLW□ SF ₆ 负荷开关
10Kv FZW32 vacuum load isolating switch	10Kv FZW32 真空负荷隔离开关
10Kv FZW28 vacuum load switch	10Kv FZW28 真空负荷开关
10kv SSOD—12 outdoor disconnect switch	10kv SSOD-12 隔离开关
10kv drop out fuse	10kv 跌落式熔断器
35kv drop out fuse	35kv 跌落式熔断器

10Kv ZW20□—user demarcation circuit breaker
10Kv ZW20□用户分界断路器

ZW20□-12/24 vacuum circuit breaker is an outdoor distribution equipment with rated voltage 12KV, three-phase AC 50HZ. It is mainly used to open and close the load current, overload current and short-circuit current in the power system, and also used as single-phase grounding protection of vacuum circuit breaker. The product is used with the control device to meet the requirements of distribution automation system.

The product is composed of switch body, control device and connecting cable.

The product conforms to GB1984, IEC62271-100 and other standards.

ZW20□-12/24型用户分界断路器为额定电压12 kV，三相交流50Hz的户外配电设备。主要用于开断，关合电力系统中的负荷电流、过载电流及短路电流，同时作为用户分界处的单相接地保护之用。本产品与控制装置配套使用，满足配电自动化系统要求。

产品由开关本体、控制装置、连接电缆三部分组成。产品符合GB1984、IEC62271-100等标准

Main functional features

- ★Three-phase common box structure
- ★Vacuum arc extinguishing, SF₆ gas insulation
- ★Adopting silica gel sleeve, high climbing point than distance
- ★CT ratio can be adjusted directly by transfer switch
- ★It can be either lifted or mounted
- ★Airline plug connection, with automatic interface
- ★Automatic excision of single-phase ground fault
- ★Automatic disconnection of phase-to-phase short circuit fault
- ★Quickly locate the fault line
- ★Real-time monitoring of user load

主要功能特点

- ★三相共箱式结构
- ★真空灭弧，SF₆气体绝缘
- ★采用硅橡胶套管，爬电比距高
- ★Ct变比通过转换开关直接调整
- ★既可吊装，也可座装
- ★航空插头连接，具备自动化接口
- ★自动切除单相接地故障
- ★自动断开相间短路故障
- ★快速定位故障线路
- ★实时监控用户负荷

Ordering instructions

- ★Number of products and rated parameters
- ★CT ratio
- ★Installation method
- ★Other special function configuration

订货须知

- ★产品的名称、型号、数量及额定参数
- ★CT变比
- ★安装方式
- ★其它特殊功能配置



10Kv FZW28□-user demarcation load switch
10Kv FZW28□用户分界负荷开关

10Kv FZW28-12□-user demarcation load switch is used at user boundary of overhead line, with manual and automatic operation functions. This switch adopts vacuum deactivation and SF₆ gas insulation. It is mainly used for switching on and off load current and switching short circuit current in power system. At the same time, it realizes high protection function of single-phase grounding fault with the former circuit breaker.

The product consists of switch body, control device and connecting cable.
The product conforms to GB3804 "3,6 kv-40.5 kV high voltage ac load switch" and GB11022 "high voltage switching equipment and control equipment standard common technical requirements"

F2W28-12□型用户分界负荷开关用于架空线路用户分界处，具有手动和自动操作功能。本开关采用真空灭和SF₆气体绝缘。主要用于开断、关合电力系统中的负荷电流及关合短路电流，同时与前级断路器配合实现单相接地故障隔离保护功能。
产品由开关本体、控制装置、连接电缆三部分组成。
产品行合GB3004《3.6kV-40.5KV高压交流负荷开关》及GB11022《高压开关设备和控制设备标准的共同技术要求》。

Main features

- ★Box top with explosion-proof device, high safety performance
- ★The operation mechanism is sealed in SF₆ gas, the mechanism is maintenance-free design
- ★The installation mode is flexible
- ★The high-precision zero-sequence current transformer is optional for lifting and mounting, which can accurately capture the single-phase grounding signal with the control device
- ★Automatically remove single-phase grounding faults
- ★Quickly locate faulty lines
- ★Monitor user load in real time
- ★Automatic power distribution interface

主要功能特点

- ★箱体顶部设有防爆装置，安全性能高
- ★操作机构密封在SF₆气体中，机构免维护设计
- ★安装方式灵活，吊装、座装可选
- ★配有高精度零序电流互感器，与控制装置配合准确捕捉单相接地信号
- ★自动切除单相接地故障
- ★快速定位故障线路
- ★实时监控用户负荷
- ★具有自动化配电接口

Ordering instructions

- ★Number of products and rated parameters
- ★CT ratio
- ★Installation method
- ★Wiring method
- ★Other special function configuration

订货须知

- ★名称、型号、数量及额定参数
- ★安装方式
- ★CT变比
- ★出线方式
- ★其它特殊功能要求

10Kv QXZWI□—10/630 user demarcation permanent magnet circuit breaker
10Kv QXZWI□-10/630 用户分界永磁断路器

The product is suitable for 10 kV neutral ungrounded (type I), grounding through arc suppression coil (type II) or grounding through low resistance (typeIII) system of 10 kV overhead distribution lines and users (including temporary users) at the boundary. It is mainly used for switching off load current, overload current and short circuit current in power system, and is used for single-phase grounding protection at user boundary.The product is compatible with the control device to meet the requirements of distribution automation system.

The product introduces foreign advanced monostable permanent magnet control technology, each phase is equipped with a separate drive device, three phase by synchronous shaft to realize the movement, mechanical moving parts are simple and compact, and reliability is greatly improved compared to spring-operated structures. Switch electrical life can reach more than 30,000 times.

The product conforms to GB1984, IEC62271-100 and other standards.
产品适用于10kV中性点不接地（I型）、经消弧线圈接地（II型）或经低电阻接地（III型）系统的10KV架空配电线路与用户（含临时用户）的分界处。主要用于开断，关合电力系统中的负荷电流、过载电流及短路电流，同时作为用户分界处的单相接地保护之用。本产品与控制装置配套使用，满足配电自动化系统要求。
产品引进国外先进的单稳态永磁控制技术，每相单独配置一套驱动装置，三相由同步轴实现联动，机械运动部件简单紧凑，可靠性较之弹簧操作结构大幅提高。开关电气寿命能达到3万次以上。
产品符合GB1984、IEC62271-100等标准。

Main features

- ★Excellent mechanical properties
- ★Long electrical life
- ★Aviation plug connection, with automatic interface
- ★Automatically remove single-phase grounding faults
- ★Automatic disconnection and short circuit fault
- ★Quickly locate faulty lines
- ★Monitor user load in real time
- ★Small size, light weight, maintenance-free

主要功能特点

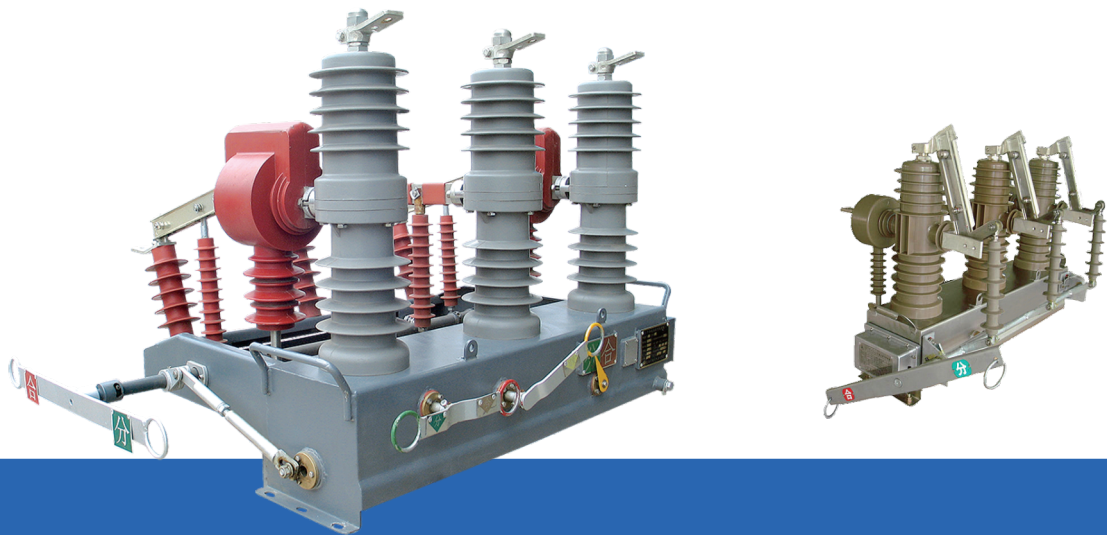
- ★机械性能优异
- ★电气寿命长
- ★航空插头连接，具备自动化接口
- ★自动切除单相接地故障
- ★自动断开相间短路故障
- ★快速定位故障线路
- ★实时监控用户负荷
- ★体积小、重量轻、免维护

Ordering instructions

- ★Number of products and rated parameters
- ★CT ratio
- ★Installation method
- ★Other special function configuration

订货须知

- ★名称、型号、数量及额定参数
- ★安装方式
- ★CT变比
- ★其它特殊功能要求



10Kv ZW32 vacuum circuit breaker

10Kv ZW32真空断路器

ZW32-12/T630-20 type outdoor vacuum circuit breaker is outdoor distribution equipment with rated voltage 12KV, rated current 630A, three-phase AC 50HZ. It is mainly used to open and close the load current, overload current and short-circuit current in the power system. It is suitable for frequent operation in agricultural network, urban network and industrial and mining enterprises.

ZW32-12(D)/T630-20 combination switch is a 12KV outdoor high-voltage switchgear composed of vacuum circuit breaker and isolation switch and its linkage mechanism. In addition to all functions of the circuit breaker, it can also meet the requirement that there should be obvious isolation break when the circuit breaker is overhauled, and the isolation knife has a reliable mechanical interlocking device with the body of the circuit breaker, which can ensure the personal safety of maintenance personnel.

ZW32-12/T630-20型户外真空断路器为额定电压12KV、额定电流630A、三相交流50HZ的户外配电设备，主要用于开断、关合电力系统中的负荷电流、过载电流及短路电流。适用于农网、城网及工矿企业等频繁操作的场所。

ZW32-12(D)/T630-20组合开关是由真空断路器和隔离开关及其联动机构组成的12kV户外高压开关设备。除具有断路器所有功能外，还可满足在断路器检修时应有明显隔离断口的要求，隔离刀与断路器本体有可靠的机械联锁装置，可保证检修人员的人身安全。

Main features

- ★ Vacuum arc extinguishing, stable opening and closing performance
- ★ Three-phase pillar type structure
- ★ Built-in miniaturized spring mechanism, low energy consumption for breaking and closing
- ★ Equipped with two-phase or three-phase core-penetrating transformer
- ★ Outdoor epoxy resin or silicone rubber casing, high and low temperature resistance, UV resistance, aging resistance
- ★ Can be matched with controller to realize distribution automation
- ★ Small volume, light weight, low maintenance, long life

主要功能特点

- ★ 真空灭弧，开断性能稳定
- ★ 三相支柱式结构
- ★ 内置小型化弹簧操作机构，分合闸能耗低
- ★ 装设二相或三相穿心式互感器
- ★ 户外环氧树脂或硅橡胶套管，耐高低温、耐紫外线、耐老化
- ★ 可与控制器配套实现配电自动化
- ★ 体积小、重量轻、低维护、寿命长

Ordering instructions

- ★ Quantity and rated parameters
- ★ Installation method
- ★ CT ratio
- ★ Other special requirements

订货须知

- ★ 名称、型号、数量及额定参数
- ★ 安装方式
- ★ CT变比
- ★ 其它特殊功能要求n

35Kv ZW7 vacuum circuit breaker

35Kv ZW7真空断路器

ZW7-40.5 type vacuum circuit breaker is outdoor high voltage electrical equipment with three-phase AC 50HZ and rated voltage of 40.5kV, mainly used for control and protection of outdoor 35kV transmission and distribution system.

The product is equipped with spring operating mechanism or electromagnetic operating mechanism, which can be remotely controlled electric opening and closing, and can also be manually stored in place, manually opening and closing. The overall structure is porcelain bottle pillar type, the upper porcelain bottle is equipped with vacuum isolation chamber, the lower porcelain bottle is the pillar porcelain bottle. Suitable for 35kV power transmission and distribution system frequency inspection operation place.

The product has the characteristics of good sealing, aging resistance, high pressure resistance, no combustion, no explosion, long service life, easy installation and maintenance.

The product conforms to GB1984 and 1EC62271-100 standard.

ZW7-40.5型真空断路器系三相交流50HZ，额定电压为40.5kV的户外高压电器设备，主要用于户外35kV输配电系统的控制与保护。

该产品配有弹簧操动机构或电磁操动机构，可以远控电动分、合闸，也可就地手动储能，手动分、合闸。总体结构为瓷瓶支柱式，上瓷瓶内装真空灭弧室，下瓷瓶为支柱瓷瓶。适用于35kV输配电系统频繁操作的场所。

产品具有密封性好、抗老化、耐高压、不燃烧、无爆炸，使用寿命长、安装维护方便等特点。产品符合GB1984和1EC62271-100标准。

Main features

- ★ Vacuum arc extinguishing, strong breaking ability, long electric life
- ★ Simple structure, long cycle without maintenance
- ★ Good insulation performance, strong anti-fouling ability
- ★ It can be equipped with bullet yellow or electromagnetic operation mechanism, reliable mechanical performance
- ★ The installation of current transformer, accuracy up to 0.2, can achieve three-phase interactive protection
- ★ Condensation controller is installed inside the mechanism

主要功能特点

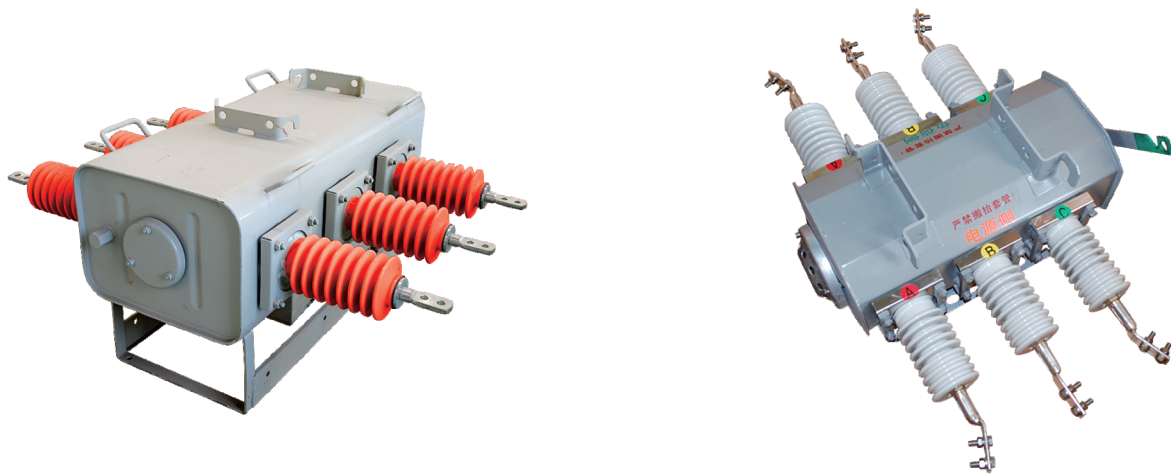
- ★ 真空灭弧，开断能力强，电气寿命长
- ★ 结构简单，免检修周期长
- ★ 绝缘性能好，防污秽能力强
- ★ 可选配弹黄或电磁操动机构，机械性能可靠
- ★ 安装有电流互感器，精度达0.2级，可实现三相互动保护
- ★ 机构室内装有凝露控制器

Ordering instructions

- ★ Quantity and rated parameters
- ★ Operating mechanism
- ★ CT ratio and accuracy
- ★ Other special requirements

订货须知

- ★ 名称、型号、数量及额定参数
- ★ 操作机构
- ★ CT变比及精度
- ★ 其它特殊功能要



10kV FLW□ SF₆ load switch 10kV FLW□ SF₆负荷开关

FIW□-12/□630-20 load switch is suitable for 10kV overhead distribution line, the product uses SF₆ gas as insulation and arc extinguishing medium, using pneumatic arc extinguishing principle and simple Toggle Mechanism operation Mechanism, simple structure, high reliability. It is mainly used for load current and short circuit current in power system on and off.

The product adopts fully sealed form, the operating mechanism is sealed in SF₆ gas, and the mechanical life is long.
The product has manual, electric, intelligent three configuration forms. The product conforms to GB3804 《3.6KV-40.5kV high voltage AC load switch》 and GB11022 《high voltage switching equipment and control equipment standard common technical requirements》.

FLW□-12/□630-20负荷开关适用于10kV架空配电线路中，产品采用SF₆气体作为绝缘和灭弧介质，利用压气式消弧原理及简单的Toggle Mechanism操作机构，构造简单，可靠性高。主要用于开断、关合电力系统中的负荷电流及关合短路电流。

产品采用全密封形式，操作机构密封于SF₆气体中，机械寿命长。
产品有手动、电动、智能三种配置形式。产品符合GB3804 《3.6kV-40.5kV高压交流负荷开关》及GB11022 《高压开关设备和控制设备标准的共同技术要求》。

Main features

- ★SF₆ pressurized arc extinguishing
- ★Quincunx shaped copper-tungsten contact
- ★Intelligent configuration with built-in CT and voltage sensor
- ★Quick separating and quick closing operation mechanism is simple and reliable
- ★With low pressure protection function
- ★High pressure explosion-proof protection function
- ★With electrical and mechanical locking function

主要功能特点

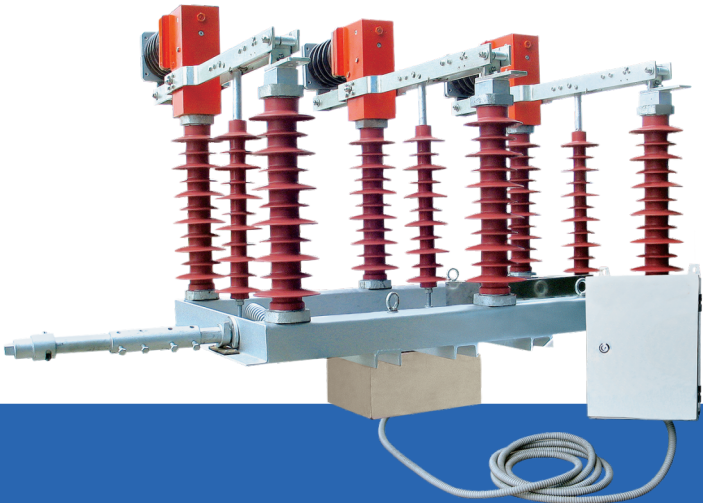
- ★SF₆压气式灭弧
- ★梅花瓣形铜钨合金触头
- ★智能型配置内置CT和电压传感器
- ★快分快合操作机构简单可靠
- ★具有低气压保护功能
- ★具有高气压防爆保护功能
- ★具有电气及机械闭锁功能

Ordering instructions

- ★Name, model, quantity and rated parameters
- ★installation
- ★The configuration form
- ★Other special requirements

订货须知

- ★名称、型号、数量及额定参数
- ★安装方式
- ★配置形式
- ★其它特殊功能要求



10Kv FZW32 vacuum load disconnect switch 10Kv FZW32真空负荷隔离开关

FZW32-12/630-20 vacuum load disconnect switch is outdoor power distribution equipment with rated voltage 12kV, rated current 630A, three-phase AC 50Hz, with manual and automatic operation functions.

The product adopts vacuum arc extinguishing and air insulation. It is mainly used for load current and short circuit current in power system on and off. There are two mounting methods of single rod and double rod.

The product conforms to GB3804 《3.6KV-40.5kV high voltage AC load switch》 and GB11022 《high voltage switching equipment and control equipment standard common technical requirements》.

FZW32-12/630-20型真空负荷隔离开关是额定电压12kV、额定电流630A、三相交流50Hz的户外配电设备，具有手动和自动操作功能。本开关采用真空灭弧、空气绝缘。主要用于开断、关合电力系统中的负荷电流及关合短路电流。有单杆和双杆两种安装方式。

产品符合GB3804 《3.6kV-40.5kV高压交流负荷开关》及GB11022 《高压开关设备和控制设备标准的共同技术要求》。

Main features

- ★Vacuum arc extinguishing, good breaking performance
- ★Three phase pillar structure
- ★There are obvious isolation fractures
- ★There are manual and electric operation modes
- ★Silicone rubber cover, high and low temperature resistance, uv resistance, aging resistance frequent operation

主要功能特点

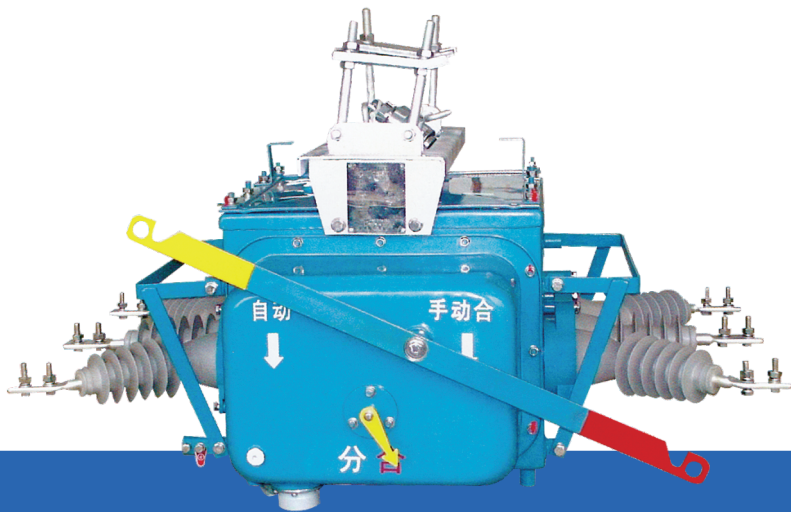
- ★真空灭弧，开断性能良好
- ★三相支柱式结构
- ★有明显隔离断口
- ★有手动、电动两种操作模式
- ★采用硅橡胶套，耐高低温、耐紫外线、耐老化
- ★可频繁操作

Ordering instructions

- ★Name, model, quantity and rated parameters
- ★installation
- ★Other special requirements

订货须知

- ★名称、型号、数量及额定参数
- ★安装方式
- ★其他特殊功能要求



10Kv FZW28 vacuum load switch 10Kv FZW28真空负荷开关

10Kv FZW28-12 vacuum load switch is used for rated voltage 12kV, rated current 630A, three-phase AC 50Hz overhead line, with manual and automatic operation function. This switch adopts vacuum arc extinguishing and SF₆ gas insulation. It is mainly used for load current and short circuit current in power system on and off.

The product consists of switch body, control device and connecting cable.

The product conforms to GB3804 "3,6 kv-40.5 kV high voltage ac load switch" and GB11022 "high voltage switching equipment and control equipment standard common technical requirements"

FZW28-12型真空负荷开关用于额定电压12kV、额定电流630A、三相交流50Hz架空线路，具有手动和自动操作功能。本开关采用真空灭弧和SF₆气体绝缘。主要用于开断、关合电力系统中的负荷电流及关合短路电流。

产品由开关本体、控制装置、连接电缆三部分组成。

产品行合GB3804《3.6kV-40.5kV高压交流负荷开关》及GB11022《高压开关设备和控制设备标准的共同技术要求》。

Main features

- ★Box top with explosion-proof device, high safety performance
- ★The operation mechanism is sealed in SF₆ gas, the mechanism is maintenance-free design
- ★The installation mode is flexible
- ★Automatic power distribution interface

主要功能特点

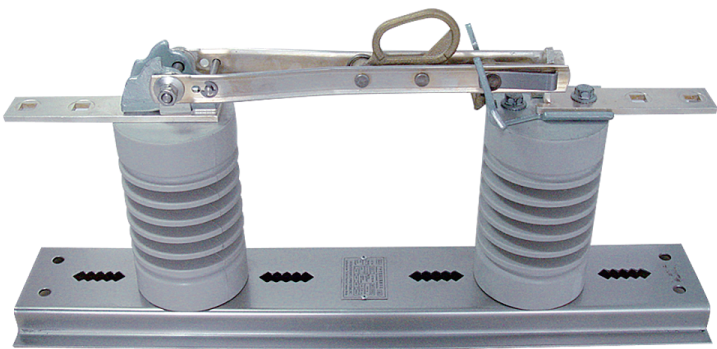
- ★箱体顶部设有防爆装置，安全性能高
- ★操作机构密封在SF₆气体中，机构免维护设计
- ★安装方式灵活，吊装、座装可选
- ★具有自动化配电接口

Ordering instructions

- ★Number of products and rated parameters
- ★CT ratio
- ★Installation method
- ★Other special function configuration

订货须知

- ★名称、型号、数量及额定参数
- ★安装方式
- ★出线方式
- ★其他特殊功能要求



10kV SSOD-12 outdoor disconnect switch 10kV SSOD-12 户外隔离开关

SSOD outdoor isolation switch is mainly used in AC 12KV/24KV, 50HZ power system for switching and isolation of load charged high-voltage lines, electrical isolation of high-voltage busbar, circuit breaker and other electrical equipment for maintenance, widely used in electric power, railroad, mining, oil field, enterprises and other fields.

The products conform to GB1985 "AC High-voltage Isolation Switch and Grounding Switch", GB/T11022 "Common Technical Requirements for High-voltage Switchgear", IEC282.2, IEC787 "High-voltage Isolation Switch" and other standards.

产品主要用于交流12kV/24kV、50Hz电力系统中，进行无负载带高压线路的换接及隔离，对检修的高压母线、断路器等电气设备进行电气隔离，广泛适用于电力、铁路、矿山、油田、企业等领域。

产品符合GB1985《交流高压隔离开关和接地开关》、GB/T11022《高压开关设备共用技术要求》、IEC282.2、IEC787《高压隔离开关》等标准。

Main functional features

- ★Self-locking single-phase structure is simple
- ★Easy and safe installation and operation
- ★Good corrosion resistance and long life
- ★large contact area, high through-flow and conduction capability
- ★Strong structure to ensure the stability of the main circuit resistance

主要功能特点

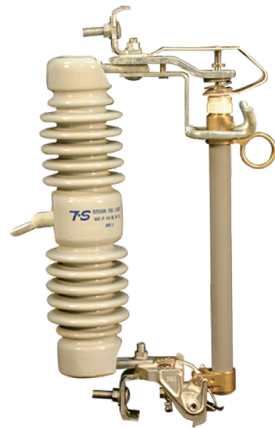
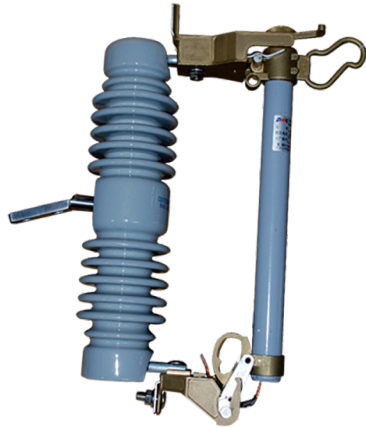
- ★自锁型单相结构
- ★户外环氧树脂绝缘支柱，绝缘性能好
- ★安装、操作简便
- ★寿命长

Order instructions

- ★Insulator and base material
- ★Rated current parameter

订货须知

- ★底座材料
- ★额定电流参数



10kV SSOC-12 drop out fuse 10kV SSOC-12 跌落式熔断器

SSOC series outdoor drop out fuses are mainly used in 10kV AC power system for overload and short circuit protection of transmission line and power transformer, capacitor bank and rated current of opening and closing, as well as outdoor load switch. The products provide safe and reliable over-current protection for primary distribution system with reasonable structure, excellent performance and reliable quality.

The products meet the standard of gb15166.3 (AC high voltage fuse, jet fuse).

SSOC型系列户外跌落式熔断器主要用于交流10kV 电力系统中，用作输电线路和电力变压器的过载和短路保护，电容器组及分合额定电流之用，也可作为户外负荷开关使用。产品以合理的结构、卓越的性能、可靠的质量为一次配电系统提供了安全可靠的过电流保护。

产品符合GB15166.3（交流高压熔断器、喷射式熔断器）标准。

Main features

- ★Step by step exhaust at the lower end
- ★Full range fault current protection
- ★Maintenance free
- ★Stable mechanism characteristics
- ★The fusion tube is designed to resist ultraviolet radiation
- ★The fuse is easy to install and disassemble
- ★The antifouling grade reaches grade IV

主要功能特点

- ★下端排气或逐级排气
- ★全范围的故障电流保护
- ★免维护
- ★机构特性稳定
- ★熔管为抗紫外线设计
- ★熔丝安装及拆卸简便
- ★防污等级达IV级

Ordering instructions

- ★Rated current
- ★Fuse specifications
- ★Creepage distance
- ★Exhaust mode

订货须知

- ★额定电流
- ★熔丝规格
- ★爬电比距
- ★排气方式

35kV drop out fuse 35kV 跌落式熔断器

35kV drop out fuse is widely used in 25kV, 40.5kV high voltage overhead line system. It is mainly used for short circuit and overload protection of distribution transformer. Under certain conditions, it can break and close no-load transformer and small load overhead line.

This product consists of insulator, fuse pipe and other parts. The insulator is made of silicon rubber material; the melting tube is made of new material and non organic pipe wall arc suppression material, and the surface of the melting tube is coated with a special anti ultraviolet coating to prevent the aging of the melting tube; the upper and lower contacts are made of bronze alloy, and the surface is silver plated to ensure the thermal diffusion area, and the conductive part is silver to silver contact. All spring parts of this product are made of stainless steel.

The fuse meets the standards of GB 15166.3, ESB 151-095 and ANSIC37.42.

35kV跌落式熔断器广泛用于25kV、40.5kV高压架空线路系统中，主要用于配电变压器短路和过负荷保护，在一定条件下可以分断和关合空载变压器和小负荷的架空线路。

本产品由绝缘子、熔管、按线端子及其它部分组成。绝缘子采用硅橡胶材料制成；熔管采用新型材料和非有机管壁消弧材料，熔管表面涂以抗紫外线的特殊涂层，防止熔管老化；上下端的触头采用青铜合金表面镀银，保证热扩散面积，导电部位是银对银的触头。本产品所有弹簧件均由不锈钢压簧组成。

本熔断器符合GB15166.3及ESB151-095，ANSIC37.42标准。

Main features

- ★One way gas jet structure
- ★Full range current protection
- ★Maintenance free design
- ★Stable mechanism characteristics
- ★The fusion tube is designed to resist ultraviolet radiation
- ★The fuse is easy to install and disassemble
- ★The antifouling grade is III

主要功能特点

- ★单向气体喷射式结构
- ★全范围电流保护
- ★免维护设计
- ★机构特性稳定
- ★熔管为抗紫外线设计
- ★熔丝安装及拆卸简便
- ★防污等级达III级

Ordering instructions

- ★Base material
- ★Rated current

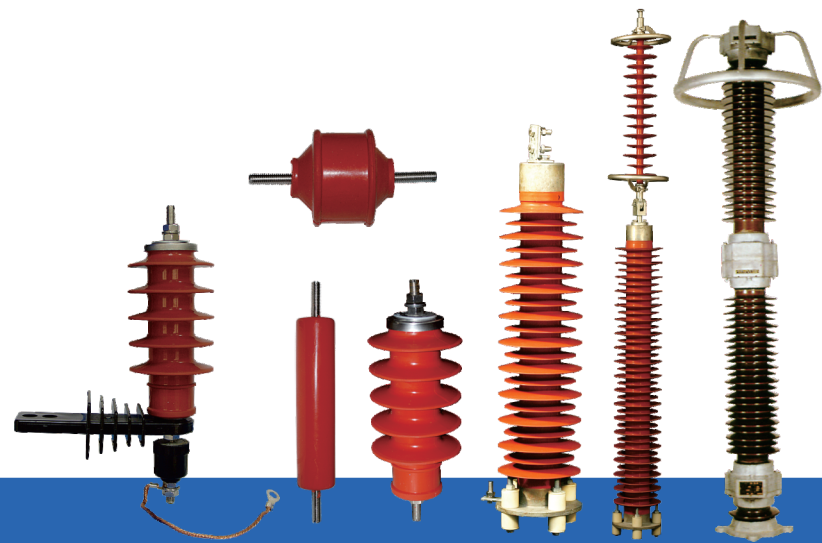
订货须知

- ★底座材料
- ★额定电流参数



Insulation Product Series 绝缘产品系列

- 0.22-220kv lightning arrester 0.22-220Kv 避雷器
- 10-550kV high-voltage composite insulator 10-550Kv 高压复合绝缘子



0.22-220kv lightning arrester 0.22-220kv避雷器

The composite oxide arrester is made of silicone rubber with high electrical resistance, aging resistance, good elasticity and high mechanical strength as the insulation jacket. The Zinc Oxide varistor with excellent nonlinear volt ampere characteristics is used as the core, and it is implemented by one-time injection molding, which concentrates the advantages of organic composite insulation and Zinc Oxide electrical resistance film. It is mainly used for over-voltage protection of power station, transmission and distribution lines, power distribution equipment, generator and generator, so as to protect equipment from lightning over-voltage and switching over-voltage. The product meets the standard of Gb11032.

复合外套氧化物避雷器采用耐电蚀、抗老化、弹性好、机械强度高的硅橡胶作为绝缘外套，非线性伏安特性优异的氧化锌电阻片作为芯体，实行一次性注射成型，集中了有机复合绝缘和氧化锌电阻片两者的优点。主要用于电站和输配电线路、配电设备、发电动机、的过电压保护，使设备免受雷电过电压和操作过电压的危害。产品符合GB11032标准。

Product category

- ★Power station type and distribution type arresters
- ★Line arrester
- ★Motor arrester
- ★Lightning arrester for parallel compensation capacitor
- ★Neutral point arrester

产品种类

- ★电站型和配电型避雷器
- ★线路用避雷器
- ★电机用避雷器
- ★并联补偿电容用避雷器
- ★中性点用避雷器

Main features

- ★Quick action, flat volt ampere characteristic, low residual voltage and reliable operation
- ★Large flow capacity
- ★Outstanding antifouling performance
- ★Light weight and easy installation
- ★Long service life

主要功能特点

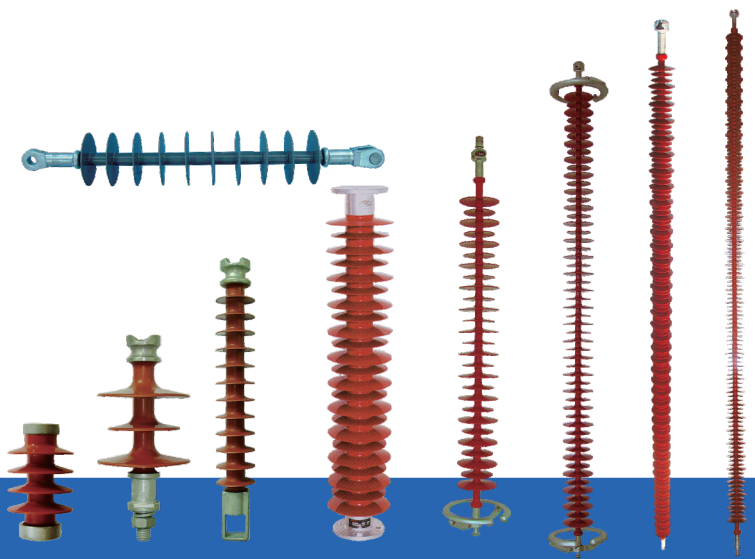
- ★动作快、伏安特性平坦、残压低、运行可靠
- ★通流容量大
- ★防污性能突出
- ★重量轻、安装简便
- ★使用寿命长

Ordering instructions

- ★Name, model and specification
- ★Requirements for discharge gap
- ★Separation device and on-line monitor are selected
- ★Other special requirements

订货须知

- ★名称、型号、规格
- ★放电间隙要求
- ★选配脱离器、在线监测仪
- ★其他特殊要求



10-550kV high-voltage composite insulator 10-550kV高压复合绝缘子

The high-voltage composite insulator is integrally injection molded with silicone rubber, which has good hydrophobicity and excellent insulation performance. Through synchronous crimping, the fittings produce uniform plastic deformation, and the interface characteristics are stable. Unique mandrel automatic positioning technology ensures uniform thickness of protective sleeve.

It is suitable for transmission and distribution lines in salt fog area, high altitude area, heavy pollution area, severe cold area, high temperature and high humidity area.

The product conforms to GB / t19519 standard.

高压复合绝缘子采用硅橡胶整体注射成型，具有良好的憎水性和优异的绝缘性能，通过同步压接使金具产生均匀的塑性变形，界面特性稳定。独特的芯棒自动定位工艺，确保护套厚度均匀。

适用于盐雾地区，高海拔地区，重污染地区，严寒地区，高温高湿地区的输配电线路。

产品符合GB/19519标准。

Product category

- ★10-550kV suspension composite insulator
- ★10-110kv cross arm composite insulator
- ★10-35kV post composite insulator
- ★10 kV pin composite insulator

产品种类

- ★10-550kV悬式复合绝缘子
- ★10-110kV横担复合绝缘子
- ★10-35kV支柱复合绝缘子
- ★10kV针式复合绝缘子

Main features

- ★Stable mechanical performance
- ★Long service life
- ★Light weight and easy installation
- ★Strong anti pollution flashover ability

主要功能特点

- ★机械性能稳定
- ★使用寿命长
- ★重量轻、安装简便
- ★防污能力强

Ordering instructions

- ★Name, model, specification and technical parameters
- ★Configuration requirements of grading ring
- ★Other special requirements

订货须知

- ★名称、型号、规格、技术参数
- ★均压环配置要求
- ★其他特殊要求

SERVICE
服务

INNOVATION
创新

PRAGMATIC
务实

WIN-WIN
双赢

