

GHXH-12 环保气体绝缘环网柜系列

GHXH-12 Environmental Protection Gas Insulated Ring Main Unit Series



产品概述 Outline

GHXH-12 环保气体绝缘环网柜系列系 12kV，三相交流 50Hz，单母线及单母线分段系统的成套配电装置。该产品具有结构简单、操作灵活、联锁可靠、安装方便等特点，对各种不同应用场合，不同用户能提供满意的技术方案。传感技术、信息化技术的采用，加上技术性能及简便灵活的配置方案，可以满足市场不断变化的需求，并适用于电网智能化要求。

该 GHXH-12 环保气体绝缘环网柜系列适用于工业及民用电缆环网及配网终端工程。作为电能的接受和分配之用，特别适用于城市居民区配电、小型二次变电所、开闭所、电缆分支箱、箱式变电站、工矿企业、商场、机场、地铁、风力发电、体育场、铁路、隧道等场所使用。

GHXH-12 环保气体绝缘环网柜系列满足相关国家标准，电力行业标准等标准要求。其开关及主要电器元件为集成模块，相间导电部位间为固体绝缘封装，向外接线采用屏蔽式电缆接头，功能单元连接母线采用屏蔽式绝缘母线。因此，使用安全性大大提高，操作机构采用弹簧机构，机械寿命为 10000 次以上。其运行数据及设备状况都可实现远程监控监测，可以无人值守。实为一种性能的配电装置。

GHXH-12 environmental protection gas insulated ring main unit series is a complete set of power distribution devices for 12kV, three-phase AC 50Hz, single busbar and single busbar segmented system. The product has the characteristics of simple structure, flexible operation, reliable interlocking, convenient installation, etc. It can provide satisfactory technical solutions for various application occasions and different users. The adoption of sensing technology and information technology, coupled with technical performance and simple and flexible configuration schemes, can meet the ever-changing needs of the market and are suitable for the requirements of grid intelligence.

The GHXH-12 environmental protection gas insulated ring main unit series is suitable for industrial and civil cable ring network and distribution network terminal projects. As the acceptance and distribution of electric energy, it is especially suitable for power distribution in urban residential areas, small secondary substations, opening and closing stations, cable branch boxes, box-type substations, industrial and mining enterprises, shopping malls, airports, subways, wind power generation, stadiums, railways, tunnels and other places use.

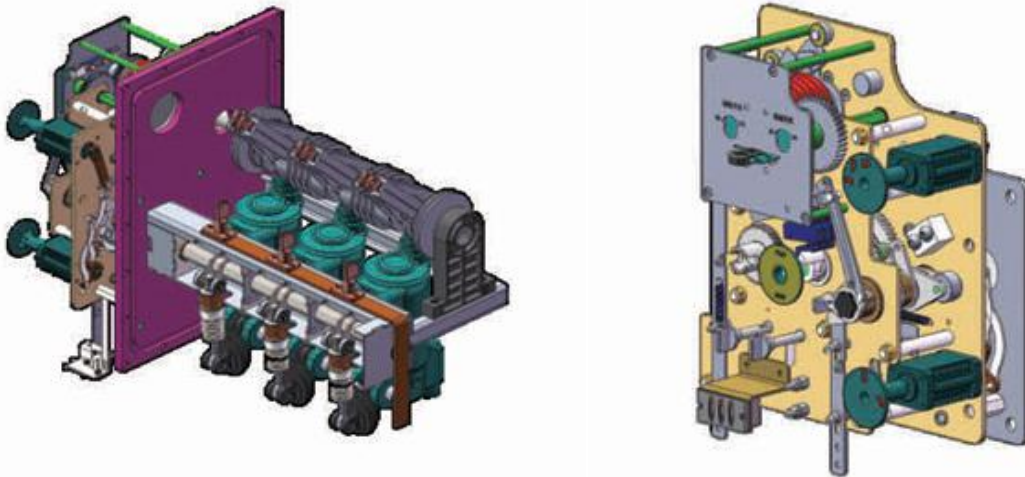
GHXH-12 environmental protection gas-insulated ring main unit series meets relevant national standards, power industry standards and other standards. Its switches and main electrical components are integrated modules, the conductive parts between phases are solid insulation packages, the external wiring adopts shielded cable joints, and the functional unit connection bus adopts shielded insulated busbars. Therefore, the safety of use is greatly improved, the operating mechanism adopts a spring mechanism, and the mechanical life is more than 10,000 times. Its operation data and equipment status can be remotely monitored and monitored, and it can be unattended. It is a power distribution device with a kind of performance.

柜内可选用以下单元组成经济实用的供电单元:

The following units can be selected in the cabinet to form an economical and practical power supply unit:

真空断路器单元 (630A, 20-25kA) Vacuum circuit breaker unit (630A, 20-25kA)

真空负荷开关单元 (630A, 20-25kA) Vacuum load switch unit (630A, 20-25kA)



产品特点 Product Features

■ 环保 Environmental protection

产品制造中所选用的材料全部是无毒无害物质，使用 N2 或干燥空气作为绝缘介质，减少温室效应气体排放，达到环保目的，使用中也不会排出任何有毒有害物质，材料经寿命周期后可以再回收利用，决定了使用的环保性。

All materials used in product manufacturing are non-toxic and harmless substances. N2 or dry air is used as an insulating medium to reduce greenhouse gas emissions and achieve environmental protection purposes. No toxic and harmful substances are discharged during use. It can be recycled and reused, which determines the environmental protection of the use.

■ 适用范围广 Wide range of application

不使用任何有毒有害气体，决定了使用环境的安全性。无论是地下室、隧道内、船舶上以及内外各种环境。高压仓内部可填充干燥空气或氮气，适应恶劣条件下如：高海拔、强风沙、低温、严寒、高环保要求、频繁操作场所、安全防爆场所、高盐雾、凝露条件下的安全使用性。全绝缘全封闭，适用于设备短时间进水后，采用一些清洁干燥措施后即可继续运行。

Do not use any toxic and harmful gases, which determines the safety of the use environment. Whether in basements, in tunnels, on ships, and in various environments inside and out. The interior of the high-pressure chamber can be filled with dry air or nitrogen, which is suitable for harsh conditions such as:

high altitude, strong wind and sand, low temperature, severe cold, high environmental protection requirements, frequent operation sites, safe explosion-proof sites, high salt fog, and safe use under condensation conditions. Fully insulated and fully enclosed, it is suitable for the equipment to continue to operate after taking some cleaning and drying measures after a short period of water inflow.

■ 免维护 Maintenance-free

GHXH-12 环保气体绝缘环网柜系列除操动机构，高压开关部位处于全封密状态中，这样就可以做到免于清扫和维护，减少了运行维护的成本。

开关柜的自动化程度很高，在线检测功能会实时把设备的运行情况通知用户，更有利于配网的自动化，减少人工运营成本，降低电力企业的生产成本。

In addition to the operating mechanism, the GHXH-12 environmental protection gas-insulated ring main unit series is in a fully sealed state, the high-voltage switch part is completely sealed, so that cleaning and maintenance can be avoided, and the cost of operation and maintenance can be reduced.

The degree of automation of the switchgear is very high, and the online detection function will notify the user of the operation of the equipment in real time, which is more conducive to the automation of the distribution network, reduces labor operating costs, and reduces the production cost of power companies.

■ 安全性高 High security

完善的联锁互锁系统，三相隔离断口清晰可见，避免了误操作事故的发生。取消了 SF6 气体的应用，强化相间隔离结构，避免相间或多回路短路而扩大或引发爆炸事故。采用具有防爆性环保气体柜真空能的真空灭弧室，固封极柱对开关具有进一步防护性能。

Perfect interlocking and interlocking system, the three-phase isolating distance is clearly visible, avoiding the occurrence of misoperation accidents. The application of SF6 gas is cancelled, and the interphase isolation structure is strengthened to avoid the expansion or explosion accident caused by short circuit between phases or multiple circuits. The vacuum interrupter with the vacuum energy of the explosion-proof environmental protection gas cabinet is adopted, and the solid-sealed pole has further protection performance for the switch.

■ 易操作性 Easy to operate

隔离开关接地开关只有一个操作手柄，无需识别及担心失误，断路器运行的时候，隔离开关接地开关的操作手柄都无法进行操作，无需进行复杂的技术培训，这样就使操作变得异常简单，杜绝发生操作错误。

The disconnecter and earth switch with only one operating handle, and there is no need to identify and worry about mistakes. When the circuit breaker is running, the operating handle of the disconnecter and earth switch cannot be operated, and complex technical training is not required, which makes the operation extremely simple, to avoid operating errors.

■ 固封极柱采用环氧树脂 APG 工艺成型，具有优良的电气性能和机械性能，固封极柱是开关的关键部件，它既是绝缘件又是承力件。同时满足耐热，耐寒，抗开裂，机械强度高，绝缘强度好等技术要求。

The solid-sealed pole is formed by epoxy resin APG process, which has excellent electrical and mechanical properties. The solid-sealed pole is the key component of the switch, which is both an insulating part and a load-bearing part. At the same time, it meets the technical requirements of heat resistance, cold resistance, crack resistance, high mechanical strength and good insulation strength.

■ 单体柜结构，采用专业电缆附件厂商生产的通用绝缘母线和电缆插拔头。开关柜可现场组合，随意扩展，

避免了多组组合柜带来的运输及安装不便。当然按要求也可提供组合柜。

Single cabinet structure, using general insulated busbars and cable connectors produced by professional cable accessory manufacturers. The switchgear can be combined on site, and can be expanded at will, to avoid the inconvenience of transportation and installation caused by multiple groups of combined cabinets. Of course, combined cabinets can also be provided upon request.

- 清晰可见真实隔离断口。 Clearly visible real isolating distance
- 全系列产品统一设计，提供用户需求的多种柜型（断路器，负荷开关，PT，母线，母联等），而且外形几何尺寸一致。

The whole series of products are designed in a unified manner, providing various cabinet types (circuit breaker, load switch, PT, busbar, busbar connection, etc.) required by users, and the shape and geometric dimensions are the same.

- 开关柜留有智能化接口和传感器安装位置，配置智能化设备后可以满足智能电网的要求。

The switch cabinet has intelligent interfaces and sensor installation positions, which can meet the requirements of the smart grid after the configuration of intelligent equipment.

- 主母线采用标准硅橡胶干式母线。 The main busbar adopts standard silicon rubber dry busbar.
- 隔离开关采用三工位隔离开关，安装在母线侧。

The disconnecter adopts three-working position disconnecter, which is installed on the busbar side.

- 替换 SF6 负荷开关环网柜。 Replace SF6 load switch ring main unit.

主要技术参数 Main Technical Parameter

断路器柜 Circuit Breaker Switchgear				
项目 Items			单位 Unit	参数 Values
额定电压 Rated voltage			kV	12
额定频率 Rated frequency			Hz	50
额定绝缘水平 Rated insulation level	1min 工频耐受电压 1min power frequency withstand voltage	对地，相间 To earth, phase-to-phase	kV	42
		隔离断口 Across isolating distance		48
	雷电冲击耐压（峰值） Lightning impulse withstand voltage (peak)	对地，相间 To earth, phase-to-phase		75
		隔离断口 Across isolating distance		85
	辅助/控制回路 1min 工频耐压（对地）Auxiliary/control circuit 1min power frequency withstand voltage (to earth)			2
	额定电流 Rated current			A
额定短时耐受电流（有效值） Rated short time withstand current (RMS)	主回路/接地开关 Main circuit/earth switch		kA	25/4s
	接地连接回路 Grounding connection circuit			21.7/4s
额定短时耐受电流（峰值） Rated short time withstand current (peak)	主回路/接地开关 Main circuit/earth switch			63
	接地连接回路 Grounding connection circuit			54.5

额定短路开断电流及次数 Rated short circuit breaking current and number		kA/times	25/30
额定短路关合电流（峰值） Rated short circuit making current (peak)		kA	63
额定电缆充电开断电流 Rated cable charging breaking current		A	25
断路器的额定操作顺序 Rated Operating sequence of circuit breaker			O-0.3s-CO-180s-CO
机械寿命 Mechanical life	断路器/隔离开关 Circuit breaker/disconnector	次 times	10000/3000
防护等级 Protection degree	密封箱体 Sealed gas tank		IP67
	开关设备外壳 Switchgear enclosure		IP4X
气体压力 gas pressure	气体额定充入水平（20℃，表压） Gas rated fill level (20°C, gauge pressure)	Mpa	0.02
	气体最低充入水平（20℃，表压） Gas min. fill level (20°C, gauge pressure)		0
密封性能 sealing property	年泄漏率 Annual leakage rate	%/year	≤0.05

负荷开关柜 Load Switch Switchgear			
项目 Items		单位 Unit	参数 Values
额定电压 Rated voltage		kV	12
额定频率 Rated frequency		Hz	50
额定绝缘水平 Rated insulation level	1min 工频耐受电压 1min power frequency withstand voltage	对地，相间 To earth, phase-to-phase	42
		隔离断口 Across isolating distance	48
	雷电冲击耐压（峰值） Lightning impulse withstand voltage (peak)	对地，相间 To earth, phase-to-phase	75
		隔离断口 Across isolating distance	85
	辅助/控制回路 1min 工频耐压（对地） Auxiliary/control circuit 1min power frequency withstand voltage (to earth)		2
额定电流 Rated current		A	630
额定短时耐受电流（有效值） Rated short time withstand current (RMS)	主回路/接地开关 Main circuit/earth switch	kA	25/4s
	接地连接回路 Grounding connection circuit		21.7/4s
额定短时耐受电流（峰值） Rated short time withstand current (peak)	主回路/接地开关 Main circuit/earth switch		63
	接地连接回路 Grounding connection circuit		54.5
额定短路关合电流（峰值） Rated short circuit making current (peak)	负荷开关/接地开关 Load switch/earth switch	kA	63
额定有功负载开断电流 Rated active load breaking current		A	630
额定闭环开断电流 Rated closed loop breaking current		A	630
5%额定有功负载开断电流 5% rated active load breaking current		A	31.5
额定电缆充电开断电流 Rated cable charging breaking current		A	2510
额定有功负载开断次数 rated active load breaking number		A	100

接地故障电流开断 Grounding fault current breaking		A/times	31.5/10
接地故障条件下的线路和电缆充电电流开断 Circuit and cable charging current breaking under grounding fault condition		A/times	17.4/10
机械寿命 Mechanical life	负荷开关/接地开关 Load switch/earth switch	次 times	10000/3000
防护等级 Protection degree	密封箱体 Sealed gas tank		IP67
	开关设备外壳 Switchgear enclosure		IP4X
气体压力 gas pressure	气体额定充入水平 (20℃, 表压) Gas rated fill level (20℃, gauge pressure)	Mpa	0.02
	气体最低充入水平 (20℃, 表压) Gas min. fill level (20℃, gauge pressure)		0
密封性能 sealing property	年泄漏率 Annual leakage rate	%/year	≤0.05

执行标准 Standards

- GB/T11022 高压开关设备和控制设备标准的共用技术要求
GB/T11022 Common specifications for high-voltage alternating-current switchgear and controlgear standards
- GB/T3906 3.6-40.5kV 交流金属封闭开关设备和控制设备
GB/T3906 Alternating-current metal-enclosed switchgear and controlgear for rated voltages above 3.6 kV and up to and including 40.5 kV
- GB/T1985 高压交流隔离开关和接地开关
GB/T1985 High-voltage alternating-current disconnectors and earthing switches
- GB/T38043.6-40.5kV 交流高压负荷开关
GB/T3804 High-voltage alternating current switches for rated voltage above 3.6 kV and less than 40.5 kV
- GB/T1984 高压交流断路器 GB/T1984 High-voltage alternating-current circuit-breakers
- GB/T4208 外壳防护等级 IP 代码 GB/T4208 Degrees of protection provide by enclosure (IP code)
- GB/T7354 局部放电测量 GB/T7354 High-voltage test techniques—Partial discharge measurements
- GB/T311.1 绝缘配合第 1 部分:定义、原则和规则
GB/T311.1 Insulation co-ordination - Part 1: Definitions, principles and rules

正常使用条件 Use Conditions

- 温度: -25~+45℃; Temperature: -25~+45℃;
- 上限温度: (24 小时平均) +35℃; Maximum temperature: (24h average) +35℃;
- 平均相对湿度(24 小时): ≤95%; Average relative humidity (24h): ≤95%;
- 海拔高度: ≤1500 米; Altitude: ≤1500m;
- 抗震能力: 8 度; Seismic ability: 8 degrees;
- 防护等级: 带电体密封 IP67, 开关柜外壳 IP4X;
Protection degree: IP67 for live body sealing, IP4X for switchgear enclosure;
- 周围空气应不受腐蚀性可燃气体、水蒸气等明显污染;

The surrounding air should not be obviously polluted by corrosive flammable gas, water vapor, etc.;

- 无经常性的剧烈震动场所，严酷条件下严酷度设计满足各类要求；

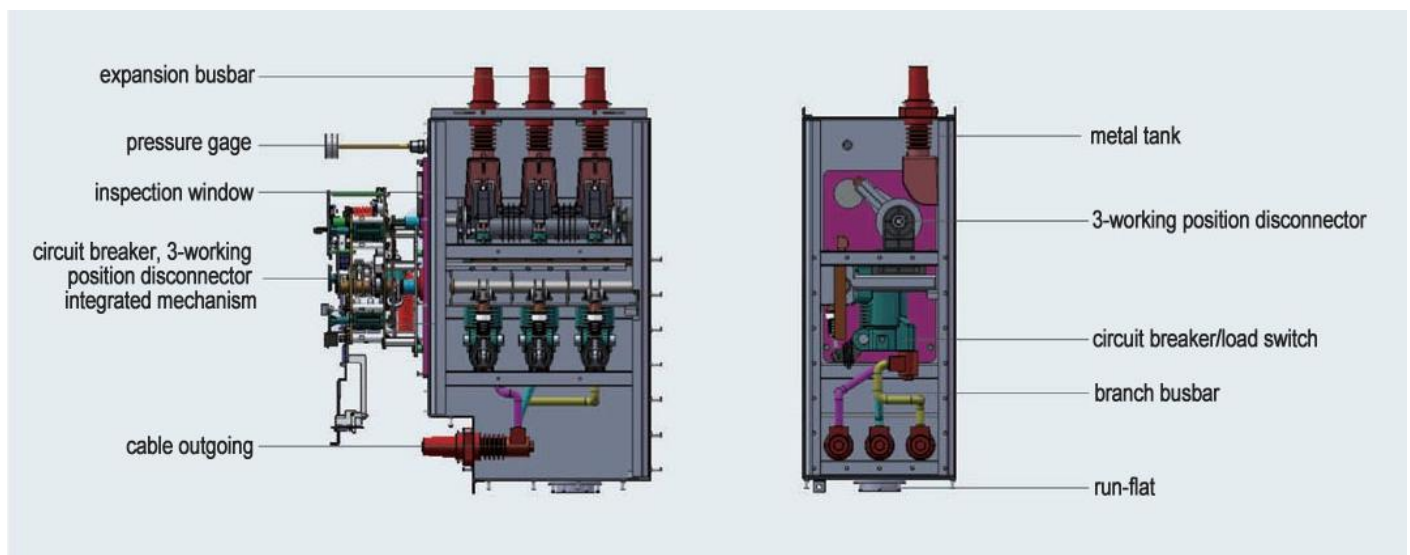
Places without frequent violent vibration, and the severity design meets various requirements under severe conditions;

- 在超过 GB/T3906 规定的正常的环境条件下使用时，由用户和我公司协商。

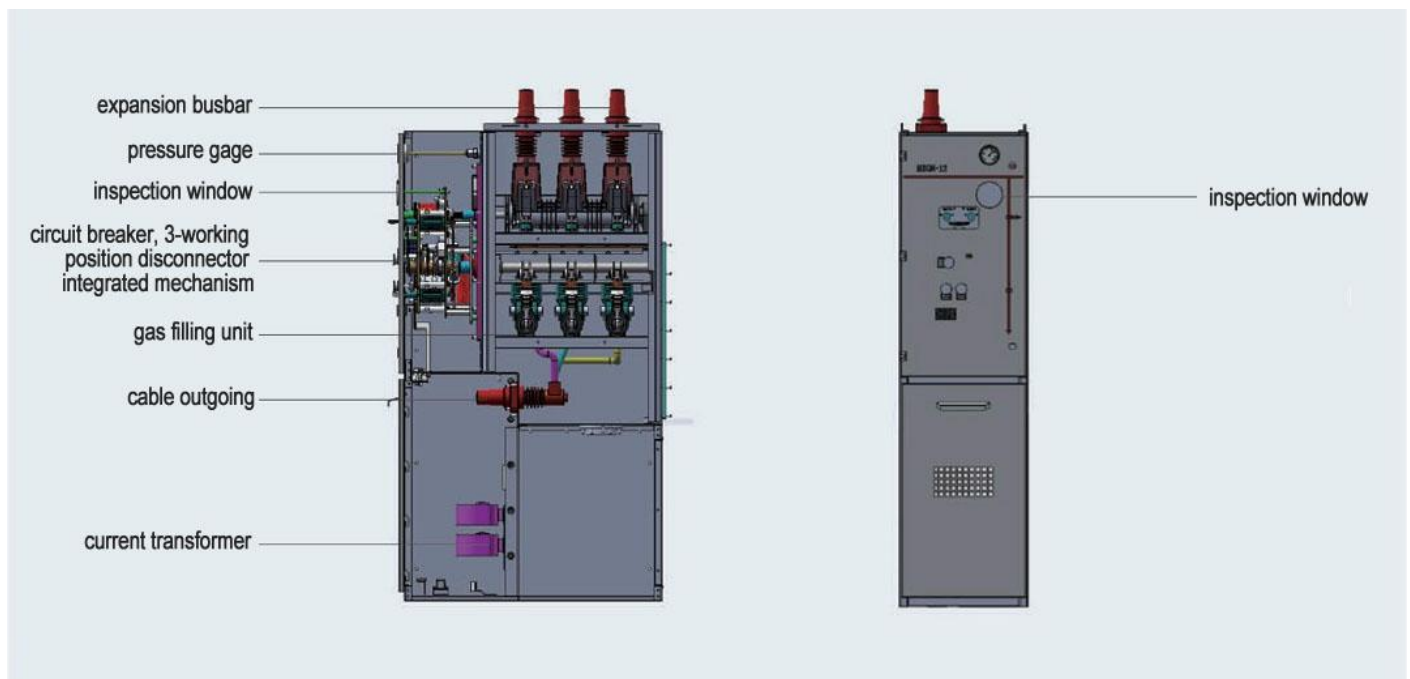
When used under normal environmental conditions exceeding GB/T3906, needs negotiation.

产品结构 Product Structure

■ 内部结构 Internal structure



■ 整体结构 Overall structure



配置方案 Configurations

CL 650mm

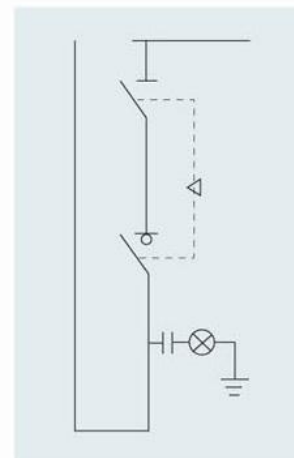
■ Basic equipment

- ☐ Load switch
- ☐ 2-working position disconnecter
- ☐ Charged display
- ☐ Standard busbar
- ☐ Operating handle
- ☐ Connecting busbar

■ Optional accessories

- ☐ Electric mechanism
- ☐ Digital instruments
- ☐ DC power supply
- ☐ Electromagnetic lock
- ☐ Pointer instrument
- ☐ Three-in-two mechanical interlock
- ☐ Arrester online monitoring
- ☐ LV room
- ☐ Digital instruments
- ☐ Lifting seat

- ☐ Passive protection
- ☐ Lifting seat
- ☐ Rectifier module
- ☐ LV room
- ☐ Two-in-one mechanical interlock
- ☐ Arrester
- ☐ DC power supply (12h-24Ah)
- ☐ Pointer instrument
- ☐ Electromagnetic lock



PTC 500mm

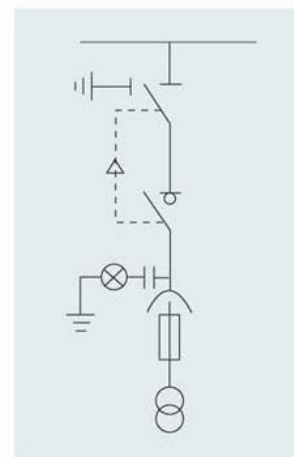
■ Basic equipment

- ☐ Load switch
- ☐ 3-working position disconnecter
- ☐ Charged display
- ☐ Standard busbar
- ☐ Operating handle
- ☐ PT
- ☐ PT fuse
- ☐ Elbow cable connector (with cable)

■ Optional accessories

- ☐ Electric mechanism
- ☐ Digital instruments
- ☐ DC power supply
- ☐ Electromagnetic lock
- ☐ Pointer instrument
- ☐ Three-in-two mechanical interlock
- ☐ Arrester online monitoring
- ☐ LV room
- ☐ Digital instruments
- ☐ Lifting seat

- ☐ Passive protection
- ☐ Lifting seat
- ☐ Rectifier module
- ☐ LV room
- ☐ Two-in-one mechanical interlock
- ☐ Arrester
- ☐ DC power supply (12h-24Ah)
- ☐ Pointer instrument
- ☐ Electromagnetic lock



PTi 500mm

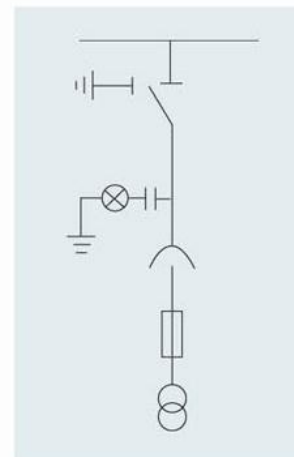
■ Basic equipment

- ☐ 3-working position disconnecter
- ☐ Charged display
- ☐ Standard busbar
- ☐ Operating handle
- ☐ PT
- ☐ PT fuse
- ☐ Elbow cable connector (with cable)

■ Optional accessories

- ☐ Electric mechanism
- ☐ Digital instruments
- ☐ DC power supply
- ☐ Electromagnetic lock
- ☐ Pointer instrument
- ☐ Three-in-two mechanical interlock
- ☐ Arrester online monitoring
- ☐ LV room
- ☐ Digital instruments
- ☐ Lifting seat

- ☐ Passive protection
- ☐ Lifting seat
- ☐ Rectifier module
- ☐ LV room
- ☐ Two-in-one mechanical interlock
- ☐ Arrester
- ☐ DC power supply (12h-24Ah)
- ☐ Pointer instrument
- ☐ Electromagnetic lock



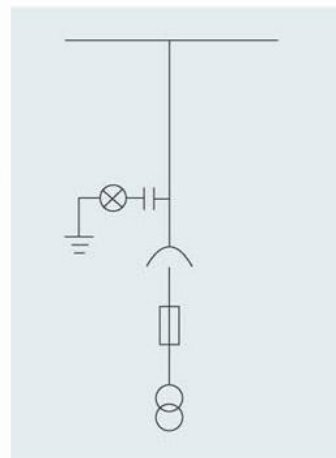
PT 500mm

■ Basic equipment

- ☐ Charged display
- ☐ Standard busbar
- ☐ PT
- ☐ PT fuse
- ☐ Elbow cable connector (with cable)

■ Optional accessories

- ☐ Electric mechanism
- ☐ Digital instruments
- ☐ DC power supply
- ☐ Electromagnetic lock
- ☐ Pointer instrument
- ☐ Three-in-two mechanical interlock
- ☐ Arrester online monitoring
- ☐ LV room
- ☐ Digital instruments
- ☐ Lifting seat
- ☐ Passive protection
- ☐ Lifting seat
- ☐ Rectifier module
- ☐ LV room
- ☐ Two-in-one mechanical interlock
- ☐ Arrester
- ☐ DC power supply (12h-24Ah)
- ☐ Pointer instrument
- ☐ Electromagnetic lock



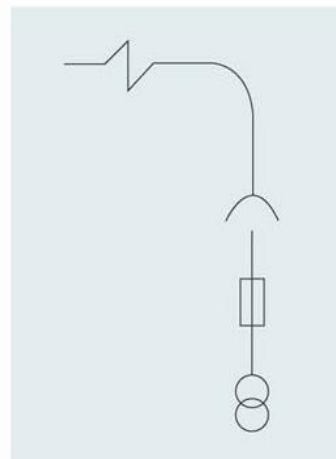
PTS 500mm

■ Basic equipment

- ☐ PT
- ☐ PT fuse
- ☐ Elbow cable connector (with cable)

■ Optional accessories

- ☐ Arrester
- ☐ Arrester online monitoring
- ☐ DC power supply (12h-24Ah)
- ☐ LV room
- ☐ Pointer instrument
- ☐ Digital instruments
- ☐ Electromagnetic lock
- ☐ Lifting seat



M 650mm

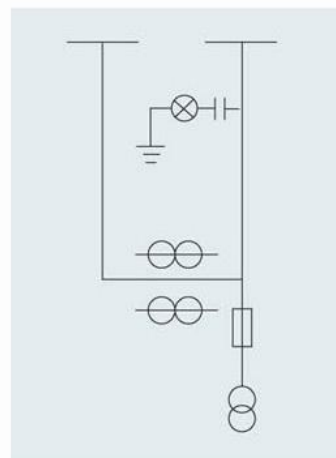
■ Basic equipment

- ☐ Charged display
- ☐ Long and short busbar
- ☐ Transfer bus
- ☐ CT
- ☐ PT fuse
- ☐ Metering box
- ☐ PT (supplied by electric utility)

■ Optional accessories

- ☐ LV room
- ☐ Pointer instrument
- ☐ Digital instruments
- ☐ Electromagnetic lock
- ☐ Lifting seat
- ☐ Temperature and humidity controller

Note: If a front-mounted disconnector is installed in the front of the PT, the width of the cabinet needs to be changed to 1000mm, and the other dimensions remain unchanged.



C 420mm

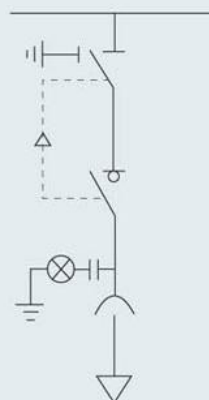
■ Basic equipment

- ☐ 3-working position disconnecter
- ☐ Charged display
- ☐ Standard busbar
- ☐ Operating handle
- ☐ Load switch

■ Optional accessories

- ☐ Electric mechanism
- ☐ Arrester
- ☐ Comprehensive protection device
- ☐ Digital instruments
- ☐ DC power supply
- ☐ Electromagnetic lock
- ☐ Zero sequence transformer
- ☐ Fault indicator
- ☐ (with temperature measurement)
- ☐ Pointer instrument
- ☐ Three-in-two mechanical interlock

- ☐ Cable accessories
- ☐ Arrester online monitoring
- ☐ Passive protection
- ☐ Lifting seat
- ☐ Rectifier module
- ☐ Straight-through current transformer
- ☐ Fault indicator EKL-4
- ☐ LV room
- ☐ Two-in-one mechanical interlock
- ☐ Incoming line grounding blocking device



V 420mm

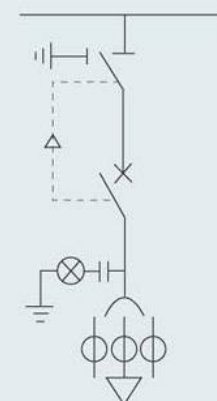
■ Basic equipment

- ☐ 3-working position disconnecter
- ☐ Charged display
- ☐ Standard busbar
- ☐ Operating handle
- ☐ Circuit breaker
- ☐ CT

■ Optional accessories

- ☐ Electric mechanism
- ☐ Arrester
- ☐ Comprehensive protection device
- ☐ Digital instruments
- ☐ DC power supply
- ☐ Electromagnetic lock
- ☐ Zero sequence transformer
- ☐ Fault indicator
- ☐ (with temperature measurement)
- ☐ Pointer instrument
- ☐ Three-in-two mechanical interlock

- ☐ Cable accessories
- ☐ Arrester online monitoring
- ☐ Passive protection
- ☐ Lifting seat
- ☐ Rectifier module
- ☐ Straight-through current transformer
- ☐ Fault indicator EKL-4
- ☐ LV room
- ☐ Two-in-one mechanical interlock
- ☐ Incoming line grounding blocking device



VL 650mm

■ Basic equipment

- ☐ 2-working position disconnect
- ☐ Charged display
- ☐ Standard busbar
- ☐ Operating handle
- ☐ Circuit breaker
- ☐ CT
- ☐ Connection busbar

■ Optional accessories

- ☐ Electric mechanism
- ☐ Comprehensive protection device
- ☐ LV room
- ☐ Pointer instrument
- ☐ Digital instruments
- ☐ Lifting seat

- ☐ Passive protection
- ☐ Rectifier module
- ☐ Electromagnetic lock
- ☐ Two-in-one mechanical interlock
- ☐ Three-in-two mechanical interlock
- ☐ DC power supply



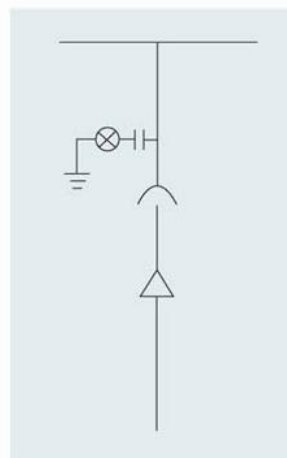
D1 420mm

■ Basic equipment

- ☐ Charged display
- ☐ Standard busbar

■ Optional accessories

- ☐ Cable accessories
- ☐ Arrester
- ☐ Arrester online monitoring
- ☐ Electromagnetic lock
- ☐ Lifting seat
- ☐ Fault indicator EKL-4
- ☐ Fault indicator (with temperature measurement)



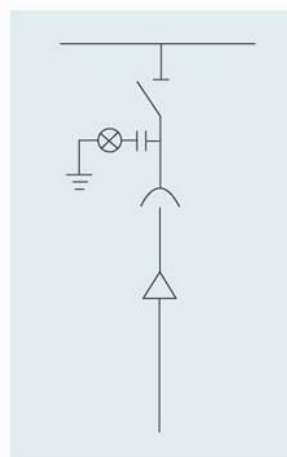
D2 420mm

■ Basic equipment

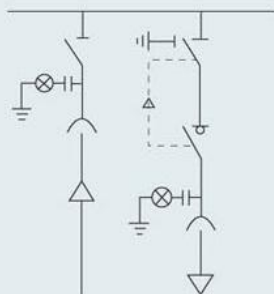
- ☐ Charged display
- ☐ Standard busbar
- ☐ Operating handle
- ☐ 2-working position disconnector

■ Optional accessories

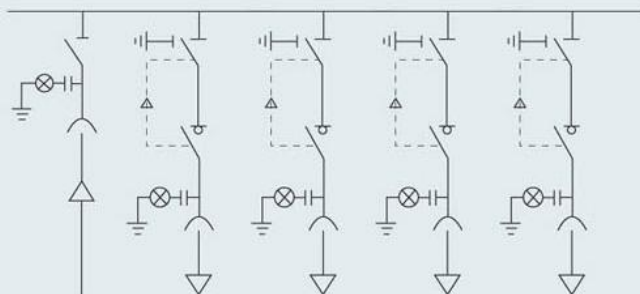
- ☐ LV room
- ☐ Two-in-one mechanical interlock
- ☐ Three-in-two mechanical interlock
- ☐ Electromagnetic lock
- ☐ Lifting seat



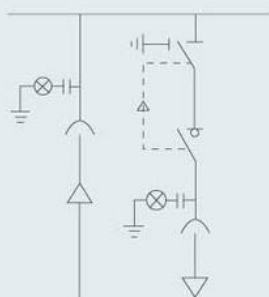
典型方案组合 Typical Plan Combination



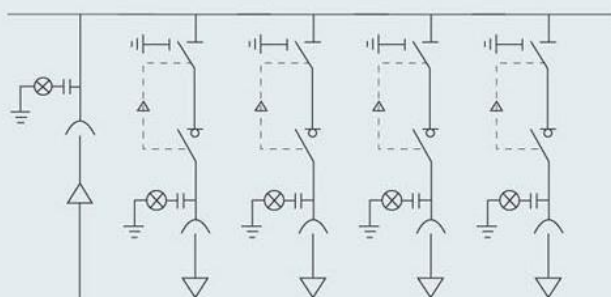
D2+C



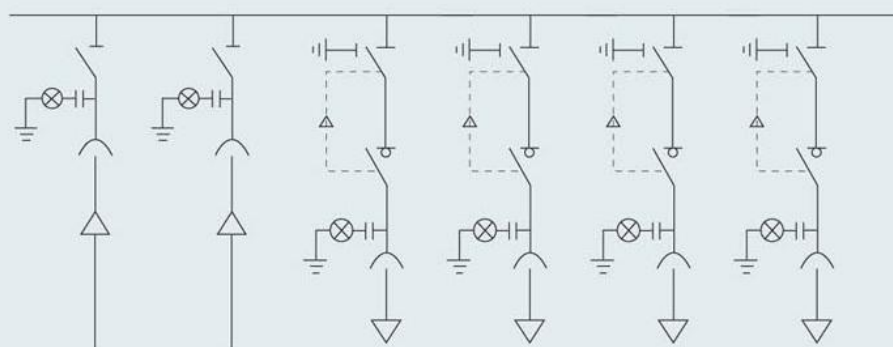
D2+C+C+C+C



D1+C



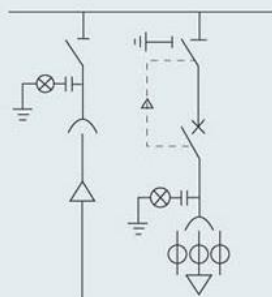
D1+C+C+C+C



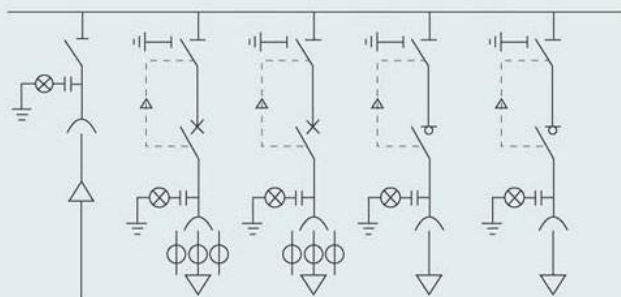
D2+D2+C+C+C+C

注：以上典型组合参考方案，可以根据用户需要进行多种组合。

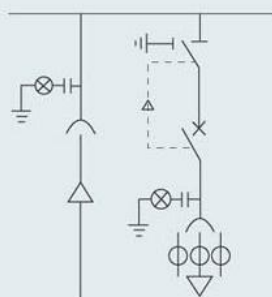
Note: The above typical combination reference scheme can be combined according to user needs.



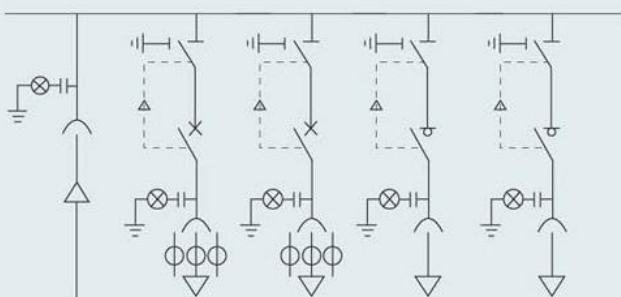
D2+V



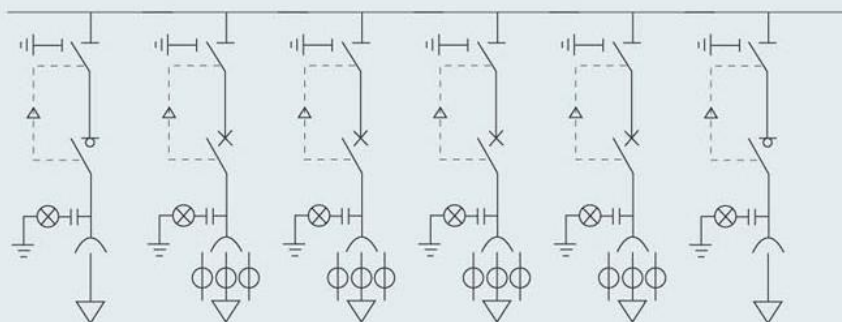
D2+V+V+C+C



D1+V



D1+V+V+C+C

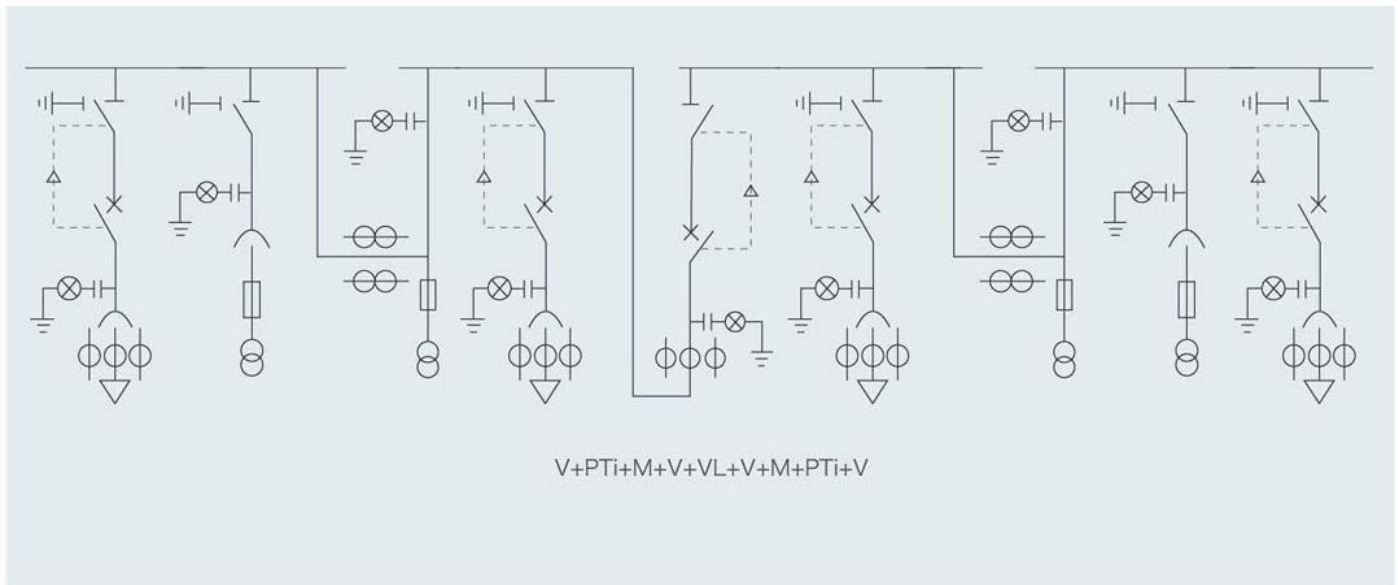


C+V+V+V+V+C

注：以上典型组合参考方案，可以根据用户需要进行多种组合。

Note: The above typical combination reference scheme can be combined according to user needs.

单双电源分段方案 Double Power Supply Single Busbar Segment Plan

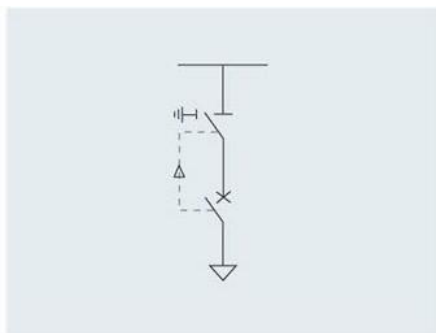


注：以上典型组合参考方案，可以根据用户需要进行多种组合。

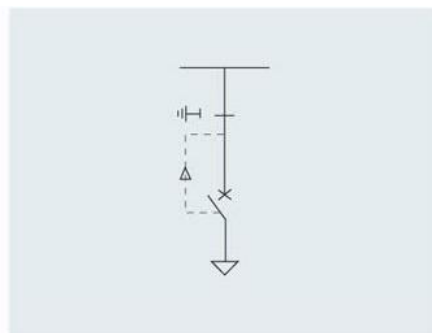
Note: The above typical combination reference scheme can be combined according to user needs.

开关操作说明 Switch Operation Instructions

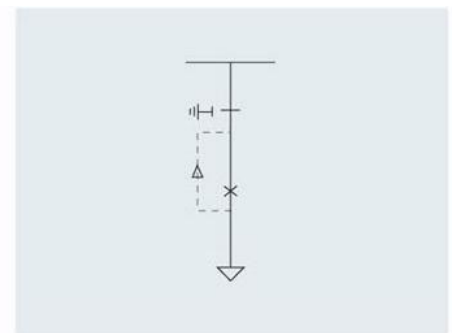
开关位置状态及联锁 Switch position conditions and interlocks



Earth switch is opened
Disconnecter is opened
Circuit breaker (load switch) is opened
Note: Now the circuit breaker (load switch) can be opened or closed



Earth switch is opened
Disconnecter is closed
Circuit breaker (load switch) is opened
Note: Now the circuit breaker (load switch) can be opened or closed, the earth switch cannot be closed



Earth switch is opened
Disconnecter is closed
Circuit breaker (load switch) is closed
Note: Now the disconnecter cannot be opened, the earth switch cannot be closed

操作步骤 Operation Procedures

送电：挂（关）上下门→分断路器（负荷开关）→分接地开关→合隔离开关→合断路器（负荷开关）→送电完成

停电：分断路器（负荷开关）→分隔离开关→合接地开关→合断路器（负荷开关）→卸（打开）下门→停电完成

Power transmission: Hanging up (close) the lower door → open the circuit breaker (load switch) → open the

earth switch → close the disconnect → close the circuit breaker (load switch) → power transmission completed

Power failure: Open the circuit breaker (load switch) → open the disconnect → close the earth switch → close the circuit breaker (load switch) → unloading (open) the lower door → power failure completed

安装说明 Installation Instructions

地基及外形尺寸 (mm) Foundation and overall dimensions

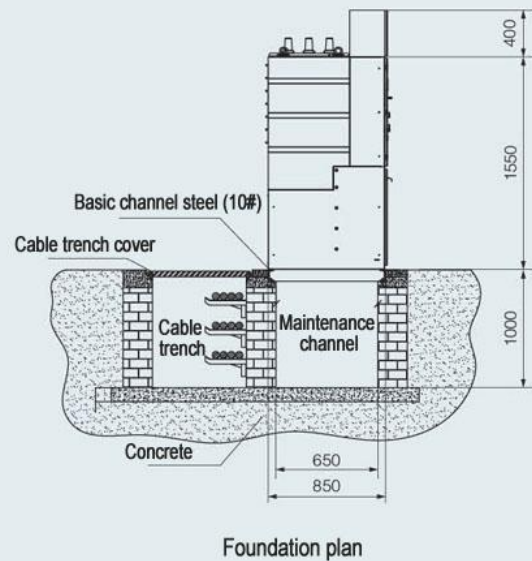
This product should be installed on the pre-buried channel steel of the concrete platform, and the platform should be enough to bear the total weight of the equipment.

Note:

The bas channel steel for secondary pouring is reversed, and the roughness is not more than 1mm per meter.

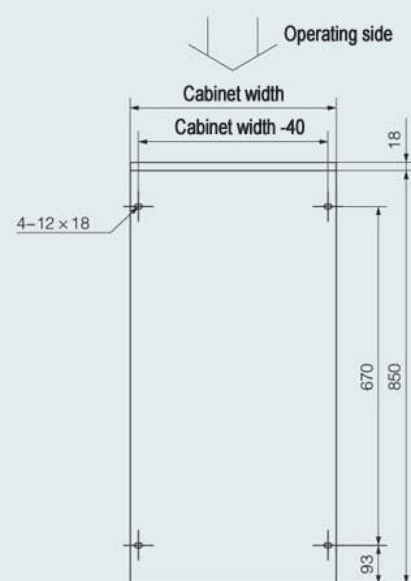
The switchgear is fixed on the bas channel steel.

The basic load of the welding switchgear is 500-700kg/unit.



开关柜及外形安装尺寸 (mm) Switchgear and Installation Dimensions

Switchgear height 1550mm (without independent instrument room)
If need an independent instrument room, the switchgear height is 1950mm
Standard configuration cabinet depth is 850mm



Switchgear bottom plan