Product Overview

With the continuous development and progress of society, China's urban power grid has undergone tremendous changes, and most cities have formed or are forming numerous areas with high electricity demand. The power supply from substations 12/24KV lines (or branch lines) to direct users in the past is no longer sufficient to meet the requirements of urban development. Therefore, a new power supply method has emerged, which supplies power to users through switching stations. However, with the intensification of urban density, some of the original civil construction type opening and closing stations have been limited by land and urban planning, thus a more advanced and practical DFW outdoor intelligent box type opening and closing station has emerged. This switchgear does not require civil construction and occupies a small area. Its configuration is very flexible and the power supply method is more reliable. The construction, installation, and commissioning time are greatly reduced, and the overall cost is lowered

Product Model Description

产品型号说明

DFW - □ □ □ K □

① ② ③ ④ ⑤ ⑥

①	带开关电缆分支箱
②	进线回路数
③	出线回路数
④	分支回路数
⑤	分支回路带开关
⑥	分支回路开关数：一台开关可省略不写

With the development of modern industry, the degree of automation and intelligence of electrical control equipment is increasing. Utilizing modern electronic technology, sensor technology, communication technology, and computer network technology to integrate monitoring, protection, control, and measurement of power equipment under normal and accident conditions, achieving good management, has become an inevitable trend and development direction. The DFW outdoor intelligent box type switching station installs and debugs 12/24kV switchgear, circuit breakers, load switches, current and voltage transformers, 12/24kV power supply PT, switching station FTU, RTU, communication control terminal (CCU), 12/24kV metering and automatic meter reading, USP power supply and indicator instruments, etc. into a movable, sealed and moisture-proof stainless steel box, thus achieving urban The integration and modular assembly of primary and secondary systems in the urban distribution network have shortened the construction period and greatly improved the reliability of urban power grid operation

Technical standards that the product complies with

This product meets the latest national standards, industry standards, and IEC standards. After consultation and agreement with the user, other higher performance standards can be used

The relevant provisions contained in the following standards constitute the provisions of this technical specification by reference. All standards will be revised, and this technical specification should comply with the requirements of the latest versions of the following standards

GB 16926-1997 AC High Voltage Load Switches - Fuse Combination Electrical Appliances

GB 3804-2004 3.6kV–40.5kV High Voltage AC Load Switches

GB 3906-2006 3.6kV–40.5kV AC Metal Enclosed Switchgear and Control Equipment GB/T 11022-1999 Common Technical Requirements for High Voltage Switchgear and Control Equipment Standards GB 4208-2008 Degrees of Protection Provided by Enclosures (IP Code)

IEC 420 Combination of High Voltage AC Load Switches and Fuses IEC 298 AC metal enclosed switchgear and control equipment for voltages above 1kV and below 52kV GB 1984-2003 High Voltage AC Circuit Breakers **Usage conditions**

Altitude: ≤ 1000 meters

Environmental temperature: maximum environmental temperature+40 ℃, minimum environmental temperature -25 ℃, maximum daily temperature difference of 25 ℃

Relative humidity: daily average ≤ 95%, monthly average ≤ 90%

Earthquake resistance: Ground horizontal acceleration of 0.2g; Simultaneously apply a vertical acceleration of 0.1g. Adopting resonance, sine, and beat wave test methods, exciting 5 times with 5 waves each time and an interval of 2 seconds, with a safety factor of not less than 1.67

The installation site should be free of gas vapor, chemical deposits, dust, pollution, and other explosive and corrosive media that seriously affect the insulation of the load switch

Used in ungrounded systems and 10kV systems grounded through small resistors or arc suppression coils

Note: If ordering this product exceeds the above conditions, please consult with our company

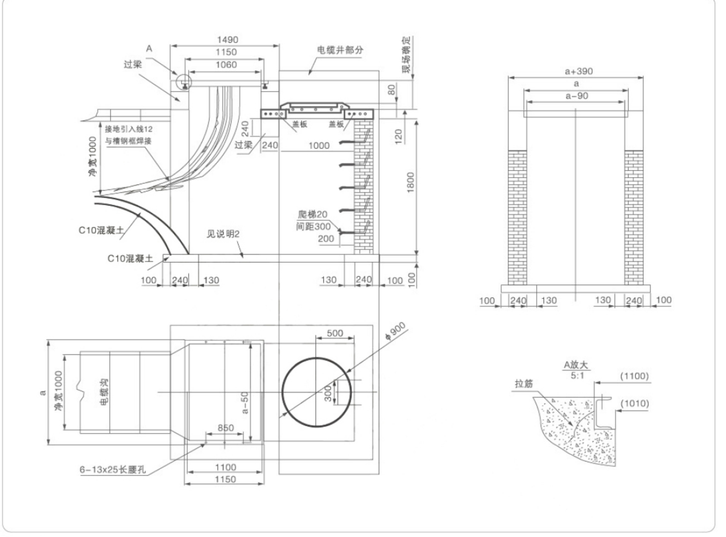
Technical Parameter

技术参数

序号	名称		单位	技术要求	
				负荷开关柜	组合电器柜
1	额定电压		kV	12	
2	额定频率		Hz	50	
3	额定电流		A	630	200
4	额定负荷开断电流		A	630	630
5	额定短时耐受电流（有效值）		kA	20kA	
6	额定短路持续时间		s	3s	
7	额定峰值耐受电流		kA	50 / 63	
8	闭环开断电流		A	630	
9	额定电缆充电开断电流		A	25	
10	额定空载变压器开断电流		A	16	
11	额定开断转移电流		A		1750
12	熔断器预期短路开断电流（有效值）		kA		63
13	接地开关短时耐受电流 / 持续时间		kA	25kA/1s	
14	额定电流开断次数		次	≥ 200	
15	机械寿命		次	≥ 2000	
16	SF6 气体年泄漏率			不大于 1%	
17	1min 工频耐受电压（有效值）	断口间	kV	48	
		相间	kV	42	
		相对地	kV	42	
	雷电冲击耐受电压（峰值）	断口间	kV	85	
		相间	kV	75	
		相对地	kV	75	
18	弹簧操作机构			手动，可升级为电动	
19	操作电压		V	DC 48V AC 220V	
20	外绝缘爬电比距		mm/kV	≥ 20	
21	分闸不同期性		ms	小于 5	
22	合闸不同期性		ms	小于 5	
23	主回路电阻		uΩ	小于 140	
24	柜壳防护等级			IP4X	

Installation foundation diagram (for reference)

安装基础图（供参考）



Description:

M5 cement mortar masonry for brick walls, with a 1:2.5 cement mortar plaster on the inside and outside of the ground

Waterproof treatment should be carried out when the bottom layer is below the groundwater level, otherwise seepage treatment should be carried out

The beam is made of medium 6 steel bars and concrete 20

After the processing and welding of the 8 # channel steel base, anti-corrosion treatment shall be carried out (the anti-corrosion method shall be determined by the user)

8 # channel steel base is placed in the foundation slot and fixed with tension bars and concrete

Users can choose not to make cable wells (within the dashed box) based on the specific situation of the construction site

Ordering Notice

The following information should be provided when placing an order:

Product model name, order quantity, rated voltage, and rated current

The model of the operating mechanism (K type, A type) should indicate the operating voltage when using electric operation

The models and specifications of fuses that can be selected in combination electrical appliances

Name and quantity of spare parts (one for every five loads of the operating handle)

Special requirements to be resolved through negotiation with the manufacturer