

## 35kv Arc Extinction Cabinet



Rongzhi Electric Power is a large-scale 35kv arc extinction cabinet manufacturer and supplier in China. We have been specialized in High voltage equipment for many years. Our products have a good price advantage and cover most of the South America, Middle East, Africa, Southeast Asia markets. We look forward to becoming your long-term partner in China.

## Rongzhi 35kv arc extinction cabinet Introduction

Most of the 3~35kV power supply systems in China are neutral ungrounded systems. When the single-phase grounding occurs in this system, the power grid can still run with fault, which greatly reduces the operation cost and improves the reliability of the power supply system. However, this power supply mode is prone to arc grounding overvoltage and phase short circuit when the single-phase grounding current is large, which causes great harm to the power supply equipment. In the past, the solution was to add the elimination coil to compensate the capacitive current at the neutral point to suppress the occurrence of arc light at the fault point. Obviously, the purpose of this method is to eliminate arc light, but due to many characteristics of arc suppression coil, it is difficult to effectively compensate capacitor current, especially the harm caused by high frequency components to power supply equipment can not be overcome. Intelligent short arc device, the device in arc grounding, through a group of vacuum contactor can be divided phase control, so that the fault contact ground, to achieve the purpose of eliminating arc light completely.



7. The voltage transformer in this device can provide the voltage signal of the system for the metering instrument and relay protection device, which can replace the conventional PT cabinet.
8. Can measure the single-phase grounding capacitance current of the system.
9. The equipment is simple, small size, easy to install and debug. that is suitable for substation and dry power plant high voltage factory power system; It is suitable for both new construction and transformation of old power station.
10. high cost performance, compared with arc suppression coil system, the performance and price is more excellent .

## **Rongzhi 35kv arc extinction cabinet Main components and functions of the device**

Combined overvoltage protector composed of large capacity ZNO nonlinear elements.

TBP is a special high energy capacity zinc oxide overvoltage protector, and the general zinc oxide arrester (MOA) phase, has the following advantages:

TBP combined overvoltage protector adopts a large capacity ZNO nonlinear resistor and discharge gap phase combination structure.

Due to the coordination of gap element and ZNO valve plate, the problem of charge rate and power frequency aging of protector is solved.

The impact coefficient of TBP combined overvoltage protector is 1, the discharge value under various voltage waveform is equal, and it is not influenced by overvoltage wave shape. The overvoltage protection value is accurate, and the protection performance is excellent.

TBP combined over-voltage protector adopts four-star connection method, which can greatly reduce the over-voltage between phases.

Compared with the conventional lightning arrester, the over-voltage between phases is reduced by 60-70%, and the protection reliability is greatly improved. TBP combined overvoltage protector is the equipment to limit all kinds of overvoltage in this device, mainly used to limit atmospheric overvoltage and operating overvoltage.

## **Rongzhi 35kv arc extinction cabinet High-pressure vacuum contactor with split-phase control (KA-KC)**

This is a special high voltage vacuum AC contactor, which is divided into three phases. One end of each phase is connected to the bus, and the other end is grounded. During normal operation, the vacuum switch is in the open state, controlled by the microcomputer controller, the phases are locked. When one phase is closed so that the phase bus is grounded, any phase of the other two phases will not be closed.

## Rongzhi 35kv arc extinction cabinet Multi-function microcomputer controller WZK (core technology)

The multi-function microcomputer controller is the technical core part of the device, it takes the PIC single chip microcomputer with high anti-interference ability as the core sub-processor, the core fire processor is composed of two single chip microcomputer, the fault processing speed is very fast, mainly has the following functions and characteristics: High degree of automation. All functions of the microcomputer controller are performed automatically without manual operation, easy to maintain and operate.

Anti - 10 shen teaching, high quality. Microcomputer control beam with secondary power supply technology, the mouth support group and magnetic interference, all interfaces are optical/electrical isolation, can be in addition to the electrical source and a secondary system control

Perfect protection function. Because the microcomputer controller uses two processors as processing unit, it can simultaneously complete the comprehensive control of arc elimination, harmonic elimination and line selection, and the speed is very fast. And the device can

The function of high voltage insurance fusing alarm and secondary voltage signal circuit fault alarm can be completed.

4)Voltage measurement function. The microcomputer controller can measure the voltage of the system and display it in digital form.

Data remote transmission function. The microcomputer controller is equipped with RS485/232 communication interface, which can report the real-time fault information of the system and the working condition of the device to the control center.

Fault record query function. Microcomputer controller with memory, can system fault information (including fault type \ fault time and so on information) long-term storage, users can according to the need to query the system fault records

Accurate line selection function. Several controllers of WZK microcomputer designed the line selection module, which can complete the single-phase grounding line selection of multiple outgoing lines (each section of bus 32), and adopted the line selection principle of "incremental mutation method".

No matter waht the grounding of the system is , the grounding line can select well .

## Rongzhi 35kv arc extinction cabinet High voltage current limiting fuse FU2

1. The high voltage current limiting fuse is the backup protection device of the whole device and has the following special functions.
2. Large breaking capacity, up to 63KA

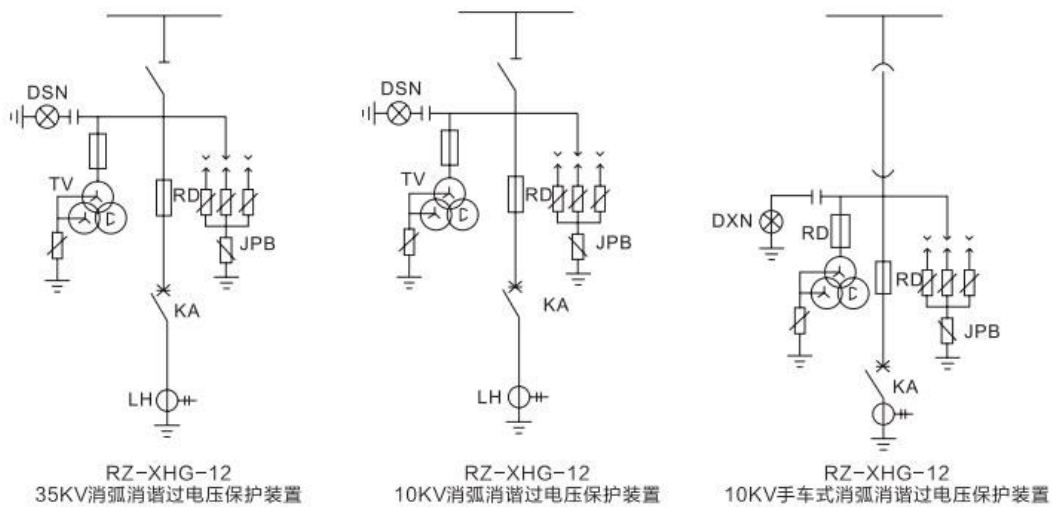
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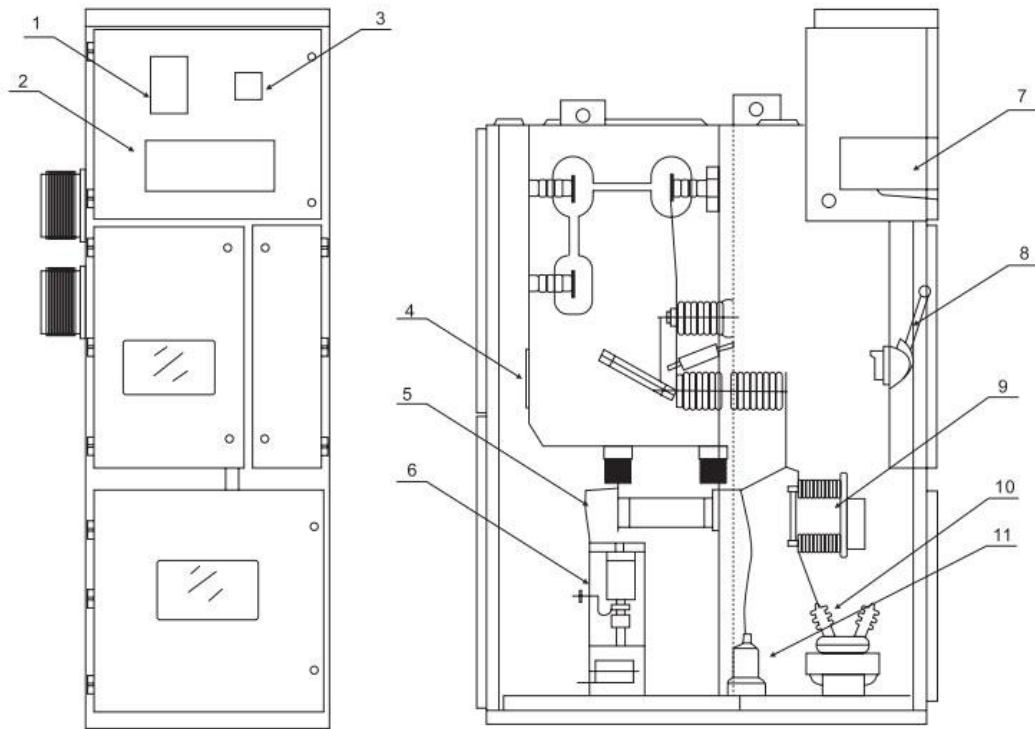
E-mail: rz\_start@vip.163.com

3. Current limiting effect is good, can make the fault current limit in the maximum short-circuit current impact current 1/5 below.
4. Breaking arc voltage is low, the arc voltage is very low during the fuse breaking process, and the arc voltage will be further reduced when used in a system below rated voltage, so a 12Kv fuse can be used in a 7. 2kV system without the risk of damage to the system insulation.

## Rongzhi 35kv arc extinction cabinet Schematic Diagram



## Rongzhi 35kv arc extinction cabinet Structure Drawing



1. Switch status indicator    2. Arc extinction controller    3. Voltmeter    4. observation window    5. High voltage current limiting fuse    6. vacuum contactor
7. Controller    8. Operating Handle    9. High voltage fuse    10. Voltage Transformer
11. Overvoltage protector