

PJG-Y | Mining Explosion Proof Intrinsically Safe Permanent Magnetic High-voltage Vacuum Distribution Device



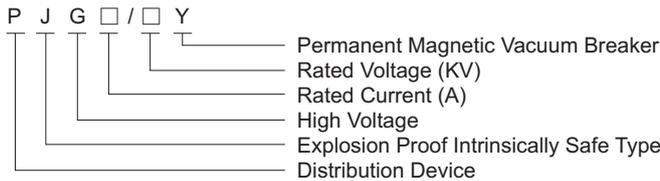
Use

This distribution device is used for high voltage motor direct start, control, protect and measure in the coal mine where is filled with explosive gas (methane mixture) in the neutral point ungrounded three-phase power supplying system of rated voltage 10KV, 6KV or 3.3KV, 50Hz, rated current range is 800A~1250A.

Technical Descriptions

1. Adopts permanent magnetism framework vacuum breaker, voltage(current) transformer, arrester integral installation. With reasonable structure, without additional track, strong with interconnectivity and simple for maintenance.
2. Adopts industrial level PLC protector which has high protection precision and fast response speed; has the protection functions of ground connection, under-voltage, over-voltage, three-phase imbalance, overload, short-circuit, phase break, insulation surveillance, electric latching, etc.
3. Indicates the updated power grid voltage, current, capacity and insulation resistance.
4. Adopts RS-485 or CAN communication interface (as per user's requirement), can communicate with the host computer, the device has "4 remote control" function to realize no person on duty in coal mine.
5. With self-check function of software and hardware, the malfunction information will be displayed.
6. Fast door-opening design with reliable mechanical and electric interlock, ensures the device is safe and reliable.
7. Distribution device can be used individually or with another one; when two devices are used together, flexible connection or non-flexible connection is available.
8. Function of manual switch on/off for emergency use.
9. The structure of this product is being applied for patent.

Meaning of Type



Updated Advantages

The framework adopts manual rolling chassis car, operates with shaft principle, the car moves steadily, achieves the functions of isolation switch on/off, compares to traditional structure, it has following advantages:

1. Part of operation: The speed of traditional framework is different changed according to different people's operation, which causes impact or switch on uncompleted; but for the manual rolling chassis operational framework, the car moves steadily, the speed of switch on/off the break is the same even if different people operates the isolated contacts.
2. Part of life expectancy: Due to fast speed the traditional framework operates in the process of switch on/off, big mechanical impact is effected on the moving contacts and fixed contacts, contact and contact box will be damaged, the life expectancy of contact isolation will be affected. Especially after a long time use, the connection part of contact will be mechanical transformed., the contacting resistance increases, vicious circulation will occur. Switch on/off progress of manual rolling chassis framework is even and steady, moving contact connects more smooth with fixed contact, the framework will not be transformed by people's operation, which ensures the equipments' life expectancy.
3. Part of connection: Contacts in the traditional framework connect by using inertia, especially after contacts connect with the complete contact, the contact false connection will occur, that would increase the resistance's temperature, burn the isolation part and bring disaster. But the new framework of manual rolling chassis car moves even and steadily, ensures the contacts can be reliable connected.
4. Part of linkage: Contacts in the traditional framework connect by using of inertia, when the break is closed or opened, it causes mechanical rebound, the small car couldn't be accurate located, mechanical linkage will be unreliable. Simultaneous linkage of accurate mechanical and electrical function is adopted in the manual framework with rolling classis, the framework could be operated safely in the mine substation.

The incandescent light source is replaced by LED light source for maintenance. For the present market, there is no specialized light source for maintaining the high voltage vacuum distribution device, only traditional incandescent light source is adopted, the life expectancy is short, light effect is bad, these will bring unnecessary maintenance work for the equipments; however, we choose LED light source because it has advantages of high effect and unnecessary for maintenance.

Technical Data

Type	Rated voltage (kV)	Rated current (A)	Rated breaking current (kA)	Rated breaking current (kA)	Duration of short circuit (S)	Mechanic life (T)	External diameter of cable(Φ mm)		Dimension W×H×D (mm)	Weight (kg)
							Main circuit	Control circuit		
PJG-□/3.3Y	3.3	800, 1000, 1250	31.5	80	4	20,000	42~78	8~13(3) 9~23(6)	1356×1238×1352	750
PJG-□/6Y	6									
PJG-□/10Y	10									