

QJGZ | Mining Explosion Proof Intrinsically Safe High Voltage Vacuum Electromagnetic Starter



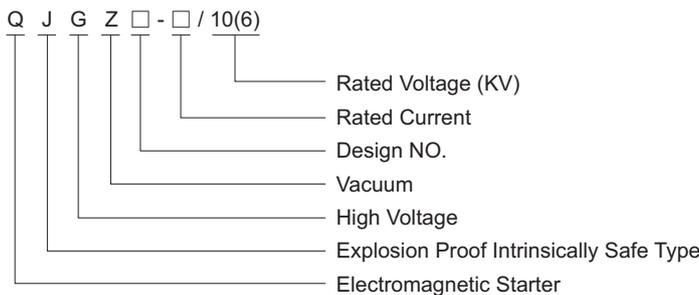
Use

The distribution device is used for high voltage motor direct start in coal mine where is filled with explosive gas(methane mixture) in the neutral point ungrounded three-phase power supplying system of rated voltage is 10KV, 6KV or 3.3KV, 50Hz, rated current range is 50A~630A.

Technical Descriptions

1. Adopts vacuum contactor, voltage (current) transformer and arrester integral installation. With reasonable structure, no additional track, strong with interconnectivity and simple for maintenance & installation.
2. Uses 32 bit microprocessor intelligent protector of 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 latch ,etc.
3. Indicates power grid voltage, current, capacity and insulation capability.
4. Uses RS-485 or CAN communication interface intrinsically safe type (as user's request) can communicate with the host computer, the device has "4 remote control" function to realize no person on duty in coal mine.
5. With software and hardware self-check function, 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 sets of device are used together, flexible connection or non-flexible connection is available .

Meaning of Type



Technical Data

Type	Rated voltage (KV)	Rated current (A)	Rated short circuit breaking current (A)	Rated short circuit connecting current (A)	Rated peak withstanding current (KA)	Duration of short circuit current (S)	Mechanic life (T)	External diameter of cable(Φ mm)		Dimension W×H×D (mm)	Weight (kg)
								Main circuit	Control circuit		
QJGZ-□/3.3	3.3	50,100, 160,200, 150,315, 400,500, 630	8le	10le	31.5	2	1,000,000	42~78	8~13(3) 9~23(6)	1336x1238x1220	690
QJGZ-□/6	6										
QJGZ-□/10	10										
QJGZ1-□/3.3	3.3	50,100, 160,200, 150,315, 400,500, 630	8le	10le	31.5	2	1,000,000	42~78	8~13(3) 9~23(6)	1522x1238x1220	750
QJGZ1-□/6	6										
QJGZ1-□/10	10										

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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, wechoose LED light source because it has advantages of high effect and unnecessary for maintenance.

Refer to the Specific Functions as Follows

Functions description	WZGC-T01HR
Protection for short circuit current	✓
Protection for overload current	✓
Over current(over load) protection	
Cable insulation surveillance	✓
Section I leakage protection	
Section II leakage protection	✓
Generally reverse time limited current protection	
Strong reverse time limited current protection	✓
Extreme strong reverse time limited current protection	
Power directional leakage protection	✓
Low voltage linkage type current protection	
Low(under) voltage protection(with or without time delay)	✓
Alarming with low voltage	✓
Simulated malfunction test function	✓
Infrared remoter operation	✓
Cabinet button operation	✓
System online communication	✓
Main remote measurement	Ia, Ic, Io, Uab, Ubc, P, Q,COSΦ, (insulated resistance)
Function of far direction remote closing control and opening control	
Protection for action latch	
Remote signal	✓
Wind and electricity latch(Choose open or close)	✓
Gas latch(Choose open or close)	✓
Electrical degree measurement	✓
Function of malfunction wave recording intelligent analysis	✓
Function of malfunction and accidents memory recording	✓
Real-time clock	
Second Zero differential protection	✓
Hour Zero limitation intelligent backup protection	✓
Self-motivated type different frequency leakage protection	
Remote maintenance and soft ware remote updated function	
Negative sequence, Phase break, Reverse protection	Phase inbalance
People-computer interface	128×64 Dot queue Chinese LCD
Precision of measurement displaying	Common