

Circuit Breaker Switches

As the professional manufacture, we would like to provide you high quality Timetric Circuit Breaker Switches. Although Wenzhou Shuyi Import and Export Co., Ltd. has many years of history and superb technology in Vacuum Circuit Breaker, we will continue to build our technical expertise through investment in equipment, processes, personnel and certification, and we look forward to a long term partnership with you.

Product Description

Timetric Circuit Breaker Switches Structure and working principle of circuit breaker

As the professional manufacture, we would like to provide you high quality Timetric Circuit Breaker Switches. There are many manufacturers of vacuum circuit breakers and their models are complicated. According to the conditions of use, there are two types: indoor (ZNx -- **) and outdoor (ZWx -- **). It is mainly composed of frame part, arc extinguishing chamber part (vacuum bubble), and operating mechanism part.

The body part of the circuit breaker consists of a conductive circuit, an insulating system, seals and a housing. The overall structure is three - phase common box type. The conductive circuit is composed of an inlet and outlet line conductive rod, an inlet and outlet line insulating support, a conductive clip, a soft connection and a vacuum arc extinguishing chamber.

The mechanism is electric energy storage, electric switching and closing, and has manual function. The whole structure is composed of closing spring, energy storage system, over current release device, closing coil, manual closing system, auxiliary switch, energy storage indicator and other components.

Working principle

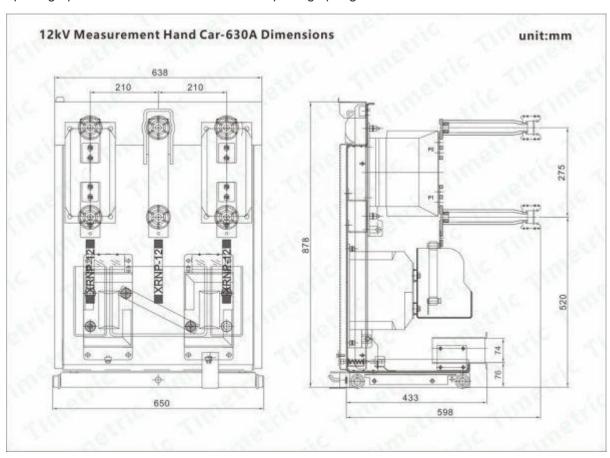
Vacuum circuit breaker uses plasma to diffuse rapidly and extinguish arc when current flows through zero point in high vacuum to complete the purpose of cutting off current. Principle of action

Energy storage process: When the energy storage motor 14 is switched on, the motor drives the eccentric wheel to rotate, and the roller 10 close to the eccentric wheel drives the swing arm 9 and connecting plate 7, and pushes the energy storage ratchet paw 6 to swing, so that the ratchet 11 rotates. When the pin on the ratchet 11 rests against the plate of the energy storage shaft sleeve 32, the two move together. Elongate the closing spring 21 hanging on the energy storage shaft sleeve 32. The energy storage shaft sleeve

32 is fixed by the positioning pin 13 to maintain the state of energy storage. Meanwhile, the crank arm on the energy storage shaft sleeve 32 drives the stroke switch 5 to cut off the power supply of the energy storage motor 14, and the energy storage pawl is lifted to reliably disconnect from the ratchet.

Closing operation process: When the mechanism receives the closing signal (the switch is disconnected and stored energy), the iron core of the closing electromagnet 15 is sucked downward, and the positioning part 13 is pulled to rotate counterclockwise to release the energy storage maintenance. The closing spring 21 drives the energy storage shaft sleeve 32 to rotate counterclockwise, and its CAM presses the transmission shaft sleeve 30 to drive the connecting plate 29 and rocker arm 27 to move. Make the rocker arm 27 buckle the semi-axis 25, so that the mechanism is in the closing state. At this time, the interlocking device 28 locks the positioning part, so that the positioning bull cannot rotate counterclockwise, so as to achieve the purpose of mechanism joint pin and ensure that the mechanism cannot be closed at the closing position.

Opening operation process: after the circuit breaker is closed, the opening electromagnet receives the signal, the iron core is drawn, the top rod in the opening trip 19 moves upward, so that the trip shaft 16 rotates, driving the top rod 18 moves upward, pushing the bending plate 26 and driving the half shaft 25 to rotate in the counterclockwise direction. The semi-shaft 25 and rocker arm 27 are unbuckled, and the circuit breaker completes the opening operation under the action of the opening spring.



Timetric Circuit Breaker Switches Parameter (Specification)

Silver gray、Red	
Combination	
customized	
12/24KV	
630A,1250A,2000A,3150A	
3	
Safe and Stable	
Iron,Red copper,Epoxy resin	
Plastic spraying	

Timetric



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Timetric Circuit Breaker Switches Use environment

- a) Ambient air temperature shall not exceed +40oC, the lower limit; -25oC,
- b) The altitude is not more than 2000M
- c) humidity; The daily mean value of relative humidity is less than 95% and the monthly mean value is less than 90%. The average daily vapor pressure is not more than 2. 2KPA, monthly mean not greater than 1.8KPA
- d) The surrounding air should not be significantly polluted by corrosive or flammable gases and water vapor
- e) No regular strenuous exercise
- f) When the contactor is running, the dip Angle between the installation plane and the horizontal shall not be greater than 50
- g) Beyond the requirements of the above conditions, the user and the manufacturer shall agree.

Timetric Circuit Breaker Switches company







