

## ZW37-40.5 Outdoor Vacuum Circuit Breaker

### Summary

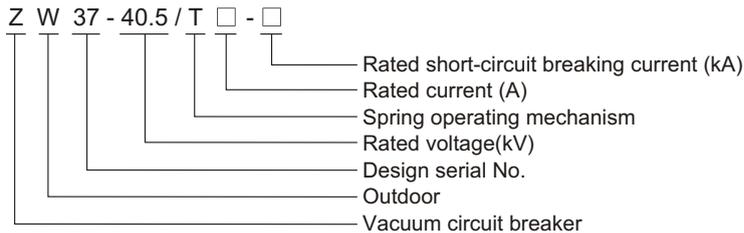
ZW37-40.5 model outdoor vacuum circuit breaker is high voltage switch of rated voltage 40.5kV and three-phase. It applies to make and break big current, overload current and short-circuit current in power system. The applicable occasion includes substations, industry and mining, urban and rural electricity power networks, functioning as electric protection and control apparatus; it is especially applicable in occasions with frequent operation and automatic power distribution network. This product is qualified in type test executed in Beijing electric power research institute and conforms with IEC 62271-100 standards.



### Ambient condition

1. Altitude:  $\leq 1000\text{m}$ ;
2. Ambient temperature:  $-35^{\circ}\text{C}\sim+40^{\circ}\text{C}$ ;
3. Wind speed:  $\leq 34\text{m/s}$ ;
4. Earthquake intensity: 8 degree;
5. Relative humidity: monthly average  $\leq 90\%$ , daily average  $\leq 95\%$ ;
6. Ice thickness: 20mm;
7. Ambient pollution: IV;
8. Applicable occasions should be free from inflammables, explosives, corrosives and severe vibrations.

### Model



### Product feature

1. General structure: The epoxy bushing supporting porcelain insulator consists of epoxy bushing, vacuum arc extinguish chamber, supporting porcelain insulator, insulating bar and connecting bar, three supporting porcelain insulators are mounted on the same mechanism-box. The moving terminal of arc extinguish chamber is linked with output shaft by insulating bar.
2. The enclosure of vacuum arc extinguish chamber is epoxy resin, which is sealed in accordance with advanced foreign technology. Anti-moist, anti-ageing, withstand high temperature in outdoor, free charging oil and gas.
3. Convenient for adjustment and maintenance, the moving terminal of arc extinguish chamber are linked with output shaft by insulating bar.
4. The mechanism and connection rod are mounted in a waterproof box, a heater can be used to avoid damp.
5. Current transformer can be chosen by customer.
6. New structure, small volume, light weight( whole weight:700kg)
7. It can be used in automatic distribution network and self-service substation by assembling control terminal interface.

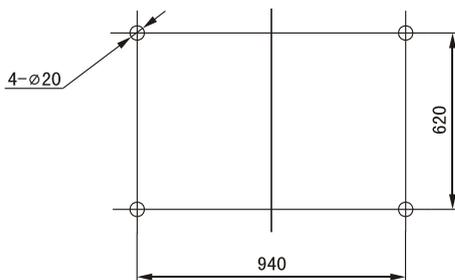
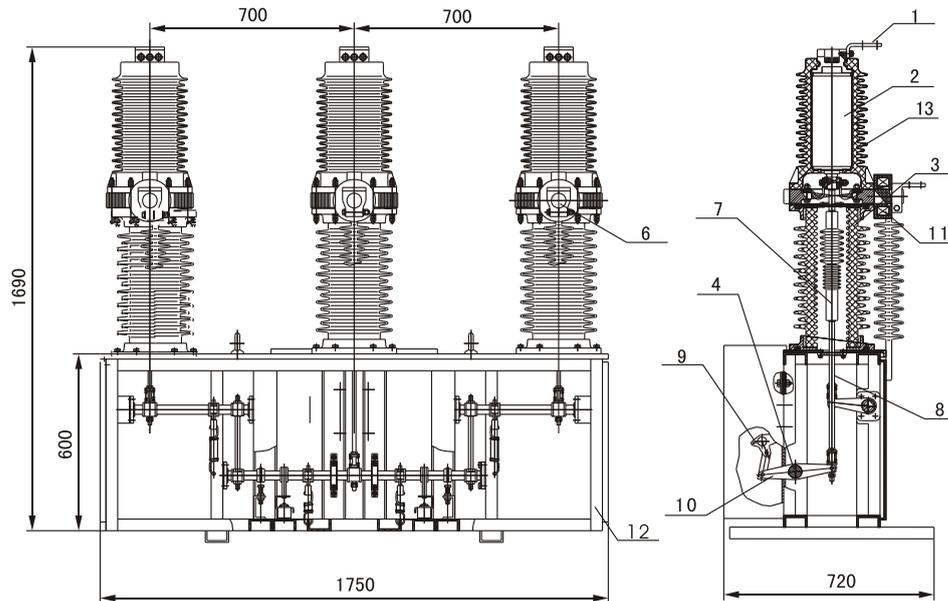
### Technical specification

No.	Item	Unit	Data		
1	Rated voltage	kV	40.5		
2	Rated current	A	630, 1250, 1600, 2000		
3	Rated short-circuit breaking current	kA	20	25	31.5
4	Rated short-circuit making current	kA	50	63	80
5	Rated short-time withstand current	kA	20	25	31.5
6	Rated peak withstand current	kA	50	63	80
7	Rated short-circuit duration current	s	4		
8	Rated insulate level	kV	95		
	1min P.F withstand voltage Lightning impulse withstand voltage(peak)		185/215		

No.	Item	Unit	Data
9	Rated operating sequence		O-0.3s-CO-180s-CO
10	Rated short-circuit breaking current breaking times	Times	20
11	Mechanical life	Times	10000
12	Rated operating voltage	V	220(DC,AC)

Note: the insulation level should be rectified accordingly when the altitude is higher than 1000m.

## Product structure



ZW37-40.5 Outline dimension and installation drawing

1. Outgoing copper bar
2. Vacuum arc-extinguish chamber
3. Post insulator
4. Main shaft
5. Open spring
6. Bottom outgoing pad
7. Insulate bar
8. Long draw bar
9. Operation mechanism
10. Crutch arm
11. Rogowski coil
12. Frame
13. Solid sealed-in pole

### Basic equipments:

1. Motor spring operating mechanism DC220V.

### Optional equipments:

1. Inner and outer current transformer, metering protection cores 2-6 pieces for each, 50-2000/5 or /1.
2. Outer voltage transformer 1-2 pieces.
3. Reclosing controller and series FTU and RTU.

