

## ZW53-12 Outdoor AC High Voltage Vacuum Circuit Breaker

### Summary

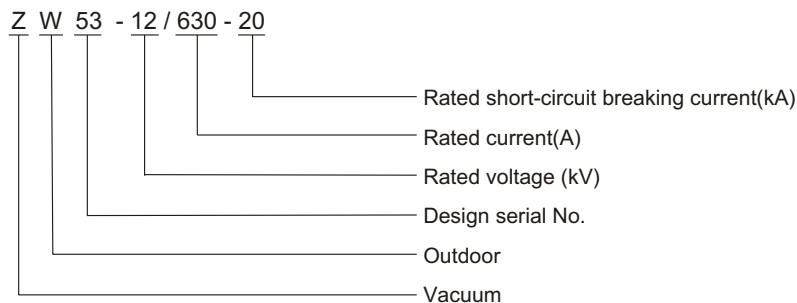
ZW53-12 model outdoor AC vacuum circuit breaker is used to make and break load current, overload current and short-circuit current in rated voltage 12kV, three phase AC 50/60Hz power system. It is applicable for substations, industry and mining, urban and rural electricity power networks. It accords with the standard of IEC62271-100 & GB1984: AC high voltage circuit breaker, IEC60694 & GB/T11022: HV General technical requirement of switch and control apparatus.



### Ambient condition

1. Ambient temperature: -40°C~+40°C;
2. No altitude limitation;
3. Wind speed: ≤34m/s;
4. Earthquake intensity: 8 degree;
5. Ambient pollution: IV.

### Model



### Product feature

1. EPDM rubber insulation  
The inner HV elements are enclosed, insulated and isolated, EPDM rubber are specially processed, and anti-oxidation processing ensures stable performance of the advices.
2. Vacuum arc-extinguishing chamber  
Mini vacuum arc-extinguish chamber is equipped with good features, high parameters and low main circuit resistance.
3. Insulating bar  
The insulating bar connects spring operation mechanism to continue actor of vacuum arc-extinguishing chamber, special high electric medium and silicon rubber sealed technical takes the place of traditional SMC insulating bar and endow it with good insulation effect.
4. Impact and light structure  
The EPDM adopted enjoys better insulating capability than SF6, oil and air, and it has attracting characteristics of small structure and weight. This product is suitable for installing in cable channel. MVI sectioning device is mounted in random. The best connection and operation is assured.
5. Spring mechanism  
High dependability, mini spring operation mechanism, long mechanical duration with up to 20000 times.
6. Switch enclosure  
Stainless steel enclosure and airproof slot assure features of good corrosion-proof and air-proof features.
7. Complete air-proof and anti-water  
Pollution, rust and continue flood are not to influence the breaker, the stainless steel cover and EPDM rubber assures vacuum arc-extinguishing chamber are out of influence.
8. Free maintenance  
EPDM rubber of solid insulation avoids from pressure, cover protection.
9. Wide application  
This product is applicable in occasions like underwater(2m underwater, within 72 hours), severe pollution, wet environment. It can also be installed in outdoor prefabricated substation, under ground occasions, electric poles.

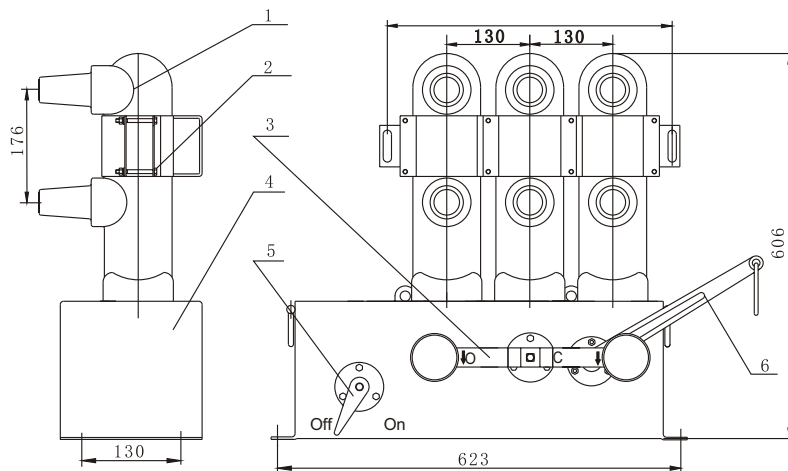
## 10. Convenient compounding

The compounding can be connected with standard cable connector, connects with current transformers, voltage transformers and fuse.

### Technical specification

No.	Item	Unit	Data
1	Rated voltage	kV	12
2	1min P.F withstand voltage (dry/wet)		42(across open contacts:49)/34
3	Lightning impulse withstand voltage (peak)		75(across open contacts:85)
4	Rated current	A	630
5	Rated short-circuit breaking current	kA	20
6	Rated short-circuit making current (peak)		50
7	4s rated short-time withstand current		20
8	Rated peak withstand current		50
9	Rated operating sequence		O -0.3s-CO-180s-CO
10	Rated short-circuit breaking current breaking times	Times	30
11	Mechanical duration		10000
12	Rated operating voltage	V	220(DC,AC)
13	Rated voltage of auxiliary circuit		220(DC,AC)
14	Operation method		Spring operation (manual/motor)
15	Dimension (length × width × height)	mm	568 × 222 × 606
16	Weight	kg	50

### Product structure



1. Complete sealed pole
2. Bracket
3. Manual On/off handle
4. Complete sealed stainless steel enclosure
5. On/off indicator
6. Manual storage handle

#### Basic equipments:

1. Motor spring operating mechanism AC220V.
2. Incoming and outgoing cable connector.

#### Optional equipments:

1. Outer current transformer, metering device, protection poles 3 pieces for each poles, 50-2000/5.
2. Outer voltage transformer 2 pieces(for control power supply and metering).
3. Reclosing controller and series FTU and RTU.
4. Motor spring operating mechanism AC/DC220/110/48/24V.