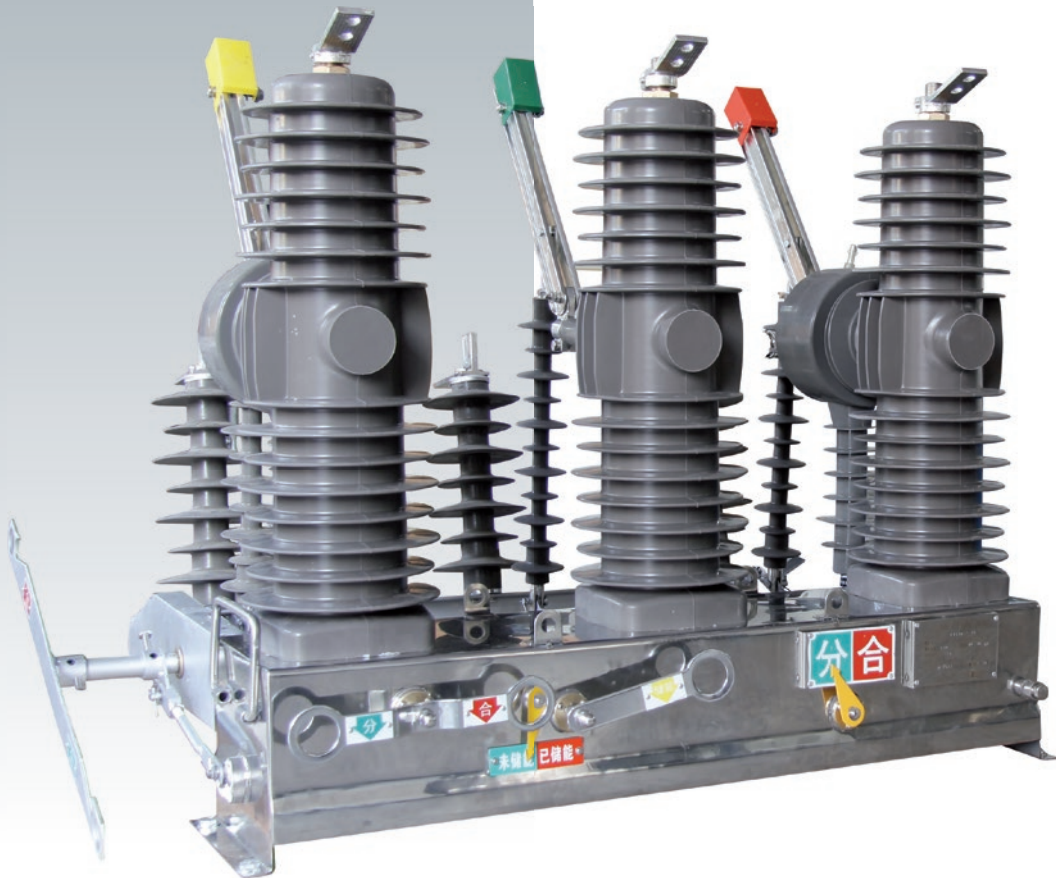


ZW32-24

Outdoor Vacuum Circuit Breaker



Overview

ZW32-24 outdoor MV vacuum circuit breaker (Hereinafter referred to as the circuit breaker) is outdoor distribution equipment with rated voltage 24KV, three phase AC 50Hz. It is mainly used for breaking and closing the load current, overload current and short circuit current of power system. Applied to substation and industrial and mining enterprises in power system for protection and control use, more suitable for rural power grid and the frequent operation place.

ZW32-24

Outdoor Vacuum Circuit Breaker

Model meaning

ZW	32	-	24	/	T	630	-	20	G	-	□
↓	↓		↓		↓	↓		↓	↓		↓
Outdoor Vacuum Circuit Breaker	Design sequence number		Rated voltage (kV)		Ammunition handling mechanism	Rated current (A)		Rated short circuit breaking current (kA)	Tape isolation		S hand exercise D electric exercise

Quoted standard

- ◆ GB 1984-2003 AC high voltage circuit breaker
- ◆ GB 3309-1989 Mechanical test of high voltage switchgear at room temperature
- ◆ GB 5582-1993 The pollution level of insulating high voltage electric power equipment
- ◆ GB 1985-2004 AC high voltage isolation switch and earthing switch
- ◆ GB/T 11022-1999 Common technical requirement for high voltage switch equipment and control equipment standard
- ◆ GB 16927.1-1997 The first part of high voltage test techniques: General test requirements
- ◆ DL/T 402-2007 Technical conditions for AC high voltage circuit breaker order
- ◆ DL/T 593-2006 The common technical specification of high voltage switch equipment and control equipment standards

Main technical parameters

Item			Unit	Parameter
Rated voltage			kV	24
Rated insulation level	1min Power frequency withstand voltage	Dry test	kV	65/79 (isolation fracture)
		Wet test	kV	50/64 (isolation fracture)
		The auxiliary circuit and control circuit		kV
	Lightning impulse withstand voltage (peak)		kV	125/145 (isolation fracture)
Rated frequency			Hz	50
Rated current			A	630, 1250
Rated operating sequence				O-0.3s-CO-180s-CO
Rated short-circuit breaking current			kA	16 20 25
Rated short-circuit closing current (peak)			kA	40 50 63
Rated peak withstand current			kA	40 50 63
Rated short-time withstand current			kA	16 20 25
Rated short circuit duration			S	4
Rated short-circuit breaking current times			Times	20/25
Breaking Times of rated current			Times	10000
Closing time			ms	20~80
Opening time	Under maximum operating voltage		ms	20~80
	Under rated operation voltage		ms	20~80
	Under lowest operating voltage		ms	20~80
Full off time			Times	≤ 100
Mechanical life			J	10000
Switch on power			W	70
Energy storage motor rated input power			V	≤ 70
Rated operational voltage and auxiliary circuits rated voltage			V	DC, AC 220
Energy storage time under rated voltage			S	≤ 8
Overcurrent release	Rated current		A	5
	Tripping current accuracy		%	±10

ZW32-24

Outdoor Vacuum Circuit Breaker



Circuit breaker after assembly and adjustment should meet the requirements of Table 2

Item	Unit	Parameter
Open clearance between contacts	mm	13±1
Contact overtravel	mm	3±1
Average opening speed	m/s	1.5±0.2
Average closing speed	m/s	0.8±0.2
Contact closing bounce time	ms	≤ 3
Three-phase tripping over the same period of time	ms	≤ 2
DC resistance of circuit for every phase (with isolating switch)	μΩ	≤ 60(150)
Allowable wear thickness for dynamic and static contact	mm	3
Phase center distance	mm	380±1.5
The closing state rated contact spring pressure	N	2000±200

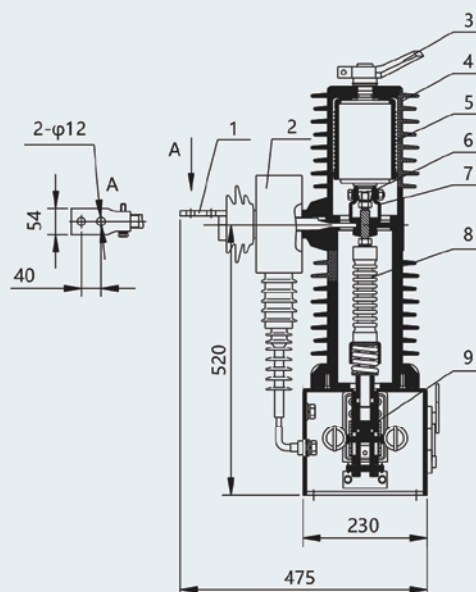
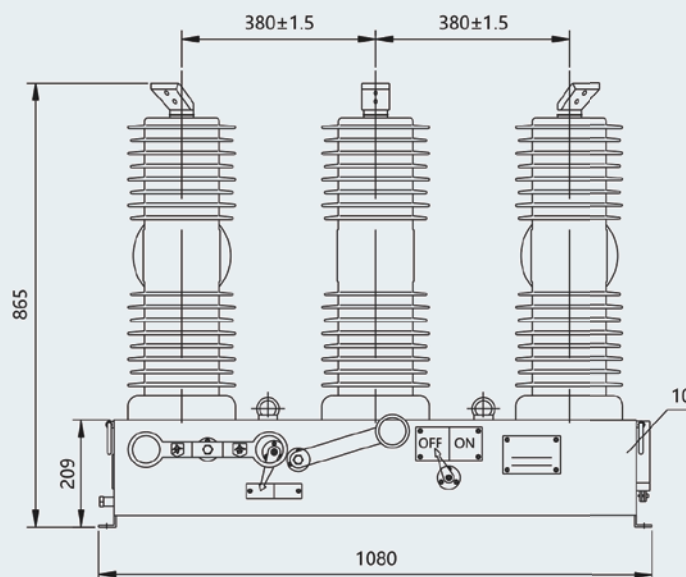
Circuit breaker equipped isolation switch rated parameters

Item		Unit	Parameter
Rated voltage		KV	24
Rated frequency		Hz	50
Rated current		A	1250
Rated peak withstand current		kA	50
Rated short-time withstand current		kA	20
Rated short circuit duration		s	4
Mechanical life		Times	2000
Isolation switch fracture operation torque		N*m	≤ 300
Contact blade spring pressure		N	300±30
Rated terminal static mechanical load	Horizontal longitudinal load	N	500
	Horizontal transverse load	N	250
	Vertical force	N	300

Operating conditions

- ♦ Ambient air temperature: The daily temperature variation: -40℃ ~+40℃ diurnal variation of temperature less than 25℃ ;
- ♦ Altitude: no more than 2000 meters
- ♦ Wind speed is no more than 35m/s (equivalent to 700Pa on the surface of the cylindrical);
- ♦ Ice cover thickness no more than 10mm;
- ♦ The intensity of sunshine not more than 1000W/m²
- ♦ Pollution degree no more than GB 5582 IV class
- ♦ Seismic intensity does not exceed 8 class
- ♦ No flammable, explosive, chemical corrosion and severe vibration place
- ♦ the conditions of use exceed the above-mentioned regulations, it shall be determined through consultation between the user and the manufacturer.

Dimensions and mounting dimensions (mm)



- | | | | |
|-----------------------|--------------------------|--------------------------|----------|
| 1.lower outlet | 4.insulating pillar | 7.flexible connection | 10. case |
| 2.current transformer | 5.the vacuum interrupter | 8.insulated tension pole | |
| 3.upper inlet | 6.wire guides | 9.actuator | |