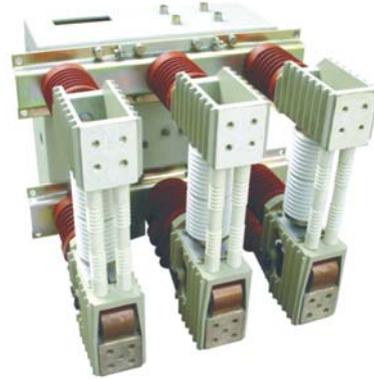


ZN12-12(40.5) Indoor AC High Voltage Vacuum Circuit Breaker

Summary

ZN12(3AF) vacuum circuit breaker is a type of indoor HV electric apparatus of rated voltage 12/40.5kV, three-phase AC 50/60Hz, produced by using the technic of Siemens.

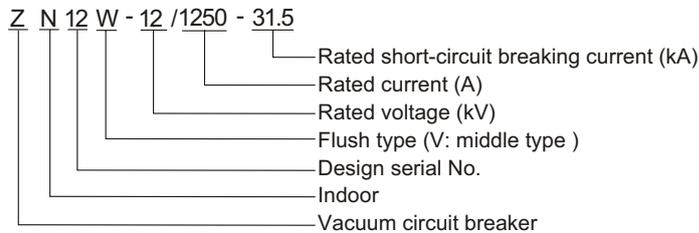
The VCB features with simple structure, long mechanical life, strong breaking capability, multiple functions and convenient maintenance. It is safe from explosion, thus applicable in power house and substation to control and protect electricity distribution systems. In addition, it is especially applicable at essential position and in occasions with frequent operation.



Ambient condition

1. Altitude: $\leq 1000\text{m}$;
2. Ambient temperature: $-25^{\circ}\text{C}\sim+40^{\circ}\text{C}$;
3. Relative humidity: daily average $\leq 95\%$, monthly average $\leq 90\%$;
4. Earthquake intensity: ≤ 8 degree;
5. Applicable occasions should free from inflammables, explosives, corrosives and severe vibration.

Model



Product feature

Spring operation mechanism links to switchgear, and operate both by manual and motor. The mechanism is equipped with operation recorder, power charging display, on-off indicator and anti-bounce device. The propeller mechanism is fabricated on two pieces of sideboards and reliably interlocked with VCB. The mechanism and the cubicle body is grounded firmly.

Technical specification

ZN12-12 Vacuum Circuit Breaker

No.	Item	Unit	Data				
1	Rated voltage	kV	12				
2	Rated current	A	630,1250,1600	1250,1600,2000,2500,3150	2000,2500,3150,4000		
3	Rated short-circuit breaking current	kA	20	25	31.5	40	50
4	Dynamic stable current	kA	50	63	80	100	125
5	4s thermal current	kA	20	25	31.5	40/3s	50/3s
6	Rated short-circuit making current	kA	50	63	80	100	125
7	Breaking times of short-circuit	Times	30				12
8	Operation sequence		O-0.3s-CO-180s-CO			O-180s-CO-180s-CO	
9	Breaking times of rated current		10000 times			6000 times	
10	Mechanical life		10000 times			6000 times	
11	Rated lightning impulse withstand voltage(full-wave)		75kV				
12	Rated short-time P.F withstand voltage		42kV/min				
13	Closing time		$\leq 75\text{ms}$				
14	Opening time		$\leq 60\text{ms}$				
15	Storage motor power frequency		75W \simeq 110V \simeq 220V				
16	Power-storage time		<15s				
17	Rated voltage of closing-electromagnet		$\simeq 110\text{V} \simeq 220\text{V}$				
18	Rated voltage of opening-electromagnet		$\simeq 110\text{V} \simeq 220\text{V}$				
19	Rated voltage of lock-electromagnet		$\simeq 110\text{V} \simeq 220\text{V}$				
20	Rated current of auxiliary switch		~10A -5A				

ZN12-40.5 Vacuum circuit breaker

No.	Item	Unit	Data						
			1250	1600	2000	1250	1600	2000	2500
1	Rated voltage	kV	40.5						
2	Rated current	A	1250	1600	2000	1250	1600	2000	2500
3	Rated short-circuit breaking current	kA	20		25		31.5		
4	Dynamic thermal stable current (peak)	kA	50		63		80		
5	3s thermal stable current	kA	20		25		31.5		
6	Rated short-circuit making current	kA	50		63		80		
7	Rated short-circuit current breaking times	Times	30			20			
8	Rated operating sequence		O-0.3s-CO-180s-CO						
9	Lightning impulse withstand current	kV	185						
10	Rated short-time power frequency withstand voltage	kV	95						
11	Closing time	ms	≤75						
12	Opening time	ms	≤60						
13	Mechanism life	Times	10000			6000			
14	Rated current breaking time	Times	10000			6000			
15	Rated fuse-bank breaking current	A	630						
16	Storage motor power frequency	W	275						
17	Storage motor rated voltage	V	≤110 ≤220						
18	Storage time	s	≤15						
19	C/O magnet rated voltage	V	≤110≤220						
20	Over-current tripper rated current	A	5						
21	Auxiliary switch rated current	A	~10 -5						

Outline dimension

