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Indoor Type AC Medium Voltage Vacuum Circuit Breaker

ZN63A(VS1)-12

CNHK® 黄华集团
HUANGHUA GROUP



Functional Features

ZN63A (VS1)-12 indoor AC medium -voltage vacuum circuit breaker is a three-phase AC 50Hz, rated voltage 7.2~12kV indoor switchgear, which can be used for control and protection of industrial and mining enterprises, power plants and substations, electrical facilities, and is suitable for places with frequent operations. The VET operating mechanism is integrated with the circuit breaker body, and the design can be used as a fixed installation unit, or it can be equipped with a special propulsion mechanism to form a trolley unit. The main circuit part can use an integral sealed pole to achieve miniaturization, high reliability, and maintenance-free circuit breaker. It can be equipped with KYN28A-12 (GZS) and other mid-mounted trolley switch cabinets, and can also be used with XGN fixed switch cabinets.

This circuit breaker complies with relevant domestic and international standards such as GB1984-2014, GB/T11022-2011, DL/T403-2001, and IEC62271-100:2003.

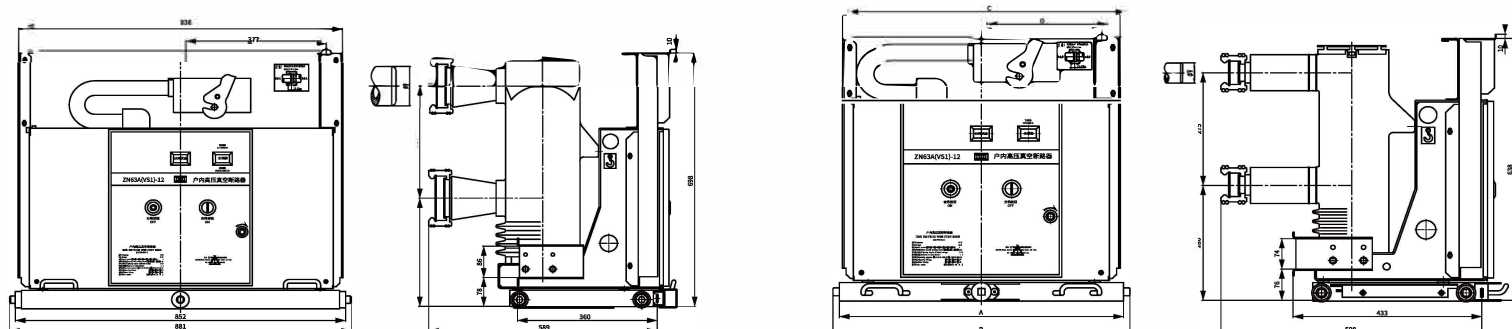
Technical Parameters

Number	Characteristic	Unit	Value			
			20KA	25KA	31.5KA	40KA
1	Rated Voltage	kV	12			
2	Maximum Operating Voltage	kV	12			
3	Rated Current	A	630/1250	630/1250	630/1250/ 1600/2000/ 2500	1250/1600/ 2000/2500/ 3150/4000
4	Rated Short-circuit Breaking Current	kA	20	25	31.5	40
5	Rated Short-circuit Making current	kA	50	63	80	100
6	Rated Peak Withstand Current	kA	50	63	80	100
7	4s Rated Short-Circuit Withstand Current	kA	20	25	31.5	40
8	1min Power Frequency Withstand Voltage	kV	42(phase-to-phase, phase-to-earth)/48(across the break) RMS 75(phase-to-phase, phase-to-earth)/85(across the break) Peak			
	Lightning Impulse Withstand Voltage					
9	Rated Operating Sequence		Open-0.3s-close and open-180s-close and open			I
10	Mechanical Life	Times	10000			10000
11	Number of Interruptions at Short-Circuit Breaking Current	t	30 Times			
12	Rated Closing Voltage of Operating Mechanism	V	AC/DC110, 220			
13	Rated Opening Voltage of Operating Mechanism	V	AC/DC110, 220			
14	Contact Gap	mm	11±1			
15	Contact Spring Compression Length	mm	3.5±0.5			
16	Three-phase Opening/Closing Asynchronism	ms	≤ 2			
17	Contact Closing Bounce Time	ms	≤ 2			≤ 3
18	Average Opening Speed	m/s	0.9~1.3			
19	Average Closing Speed	m/s	0.5~0.8			
20	Opening Time	ms	≤ 50			
			≤ 80			
21	Closing Time	ms	≤ 100			
22	Main Circuit Resistance per Phase	μΩ	≤ 50			≤ 45
23	II	mm	3			

I 40kA Open-180s-Close and Open -180s -Close and Open

II Permissible Cumulative Wear Thickness of Moving/Stationary Contacts

Dimensions



Rated Current	Breaking Current	Phase	W
1600A、2000A	25KA	Space	Φ79
2500A、3150A	31.5KA	275	Φ109
4000A	40KA		Φ109

Rated Current	Breaking Current	A	B	C	D
1600A、2000A	25KA	150	502	532	490
2500A、3150A	31.5KA	210	652	682	638
4000A	40KA	275	852	881	838

Rated Current A	
630A	Φ35
1250A	Φ49
1600A	Φ55

Note: The travel of the trolley in the cabinet is 200mm.