

FZN25-12D Indoor AC High Voltage Vacuum Load Break Switch

Summary

This product applies vacuum arc-extinguishing chamber. It features with reliable operation, long electric life and easy maintenance, breaking and making power supply frequently. The operation mechanism is inside switch gear combining disconnecter, load break switch and earthing switch into one. It has compactable dimension and small weight.

The disconnect gap lies in a serial with the vacuum arc-extinguishing chamber. The large dynamic stable current and thermal stable current, the interlinked procedures assure the operation coherently.

Busbar and load break switch are separated fully by taper fixed contact, insulating cover and valve. Vacuum circuit break switch, earthing switch, valve and cubicle door are interlocked according to "5 protections" to prevent from miss-operation. The spring storage operation mechanism can both operate by dependent manual and power to realize remote control. The CO operating power can be AC or DC source.

Manual operation is generally on the right of switch, but can be changed to the left or obverse according to user's requirement.



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.

Technical specification

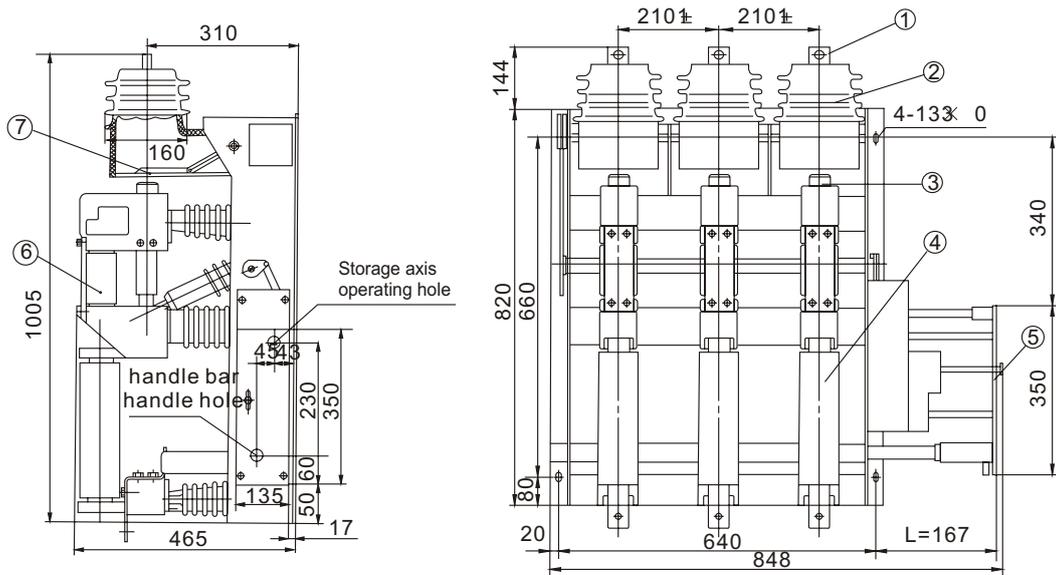
FZN25-12D Vacuum load break switch and FZRN-12D Combination

No.	Item		Unit	FZN25-12D/T630-20	FZRN25-12D/T200-31.5
1	Rated voltage		kV	12	
2	Rated current		A	630	≤ 200
3	Rated frequency		Hz	50/60	
4	Rated insulating level	1min. PF withstand voltage	kV	arcing chamber gaps:30, phase to earth, phase to phase:42, across open contacts:48	
5		lightning impulse withstand voltage(peak)	kV	phase to phase:75, across open contacts:85	
6	Rated short-time withstand current(thermal stable current)		kA	20	-
7	Rated short-circuit duration		s	4	-
8	Rated peak withstand current(dynamic stable current)		kA	50	-
9	Rated active load breaking current		A	630	-
10	Rated breaking current of closed-loop		A	630	-
11	Rated breaking current of charging cable		A	10	-
12	Rated breaking no-load transformer capacity		kVA	1600	
13	Rated short-circuit breaking current		kA	-	31.5
14	Rated transfer current		A	-	2000
15	Fuse model			-	SDLAJ-12 SFLAJ-12
16	Output power of impinger		J	-	2-5
17	Rated short-circuit making current		kA	50	-
18	Rated short-time withstand current of earthing switch(thermal stable current)		kA	20	
19	Rated short-circuit duration of earthing switch		s	2	
20	Rated voltage of auxiliary loop		V	$\leq 220, 110$	
21	Mechanical life		Times	10000	

Mechanical specification of FZN25-12D and FZRN25-12D

No.	Item	Unit	FZN25-12D/T630-20	FZRN25-12D/T200-31.5
1	Clearance between electrified parts/ to earth	mm	≥ 125	
2	The thickness of conducting tube inject into fixed contacting base	mm	≤ 18	
3	Clearance between fixed and moving contact	mm	6^{+1}_0	
4	Spring decrement under contact pressure	mm	2^{+1}_0	
5	Average closing speed of arc-extinguishing chamber	m/s	0.9 ± 0.2	
6	Average opening speed of arc-extinguishing chamber	m/s	0.6 ± 0.2	
7	Opening spring time	ms	≤ 2	
8	Three poles C/O asynchronous	ms	≤ 3	
9	Main circuit resistance	μΩ	≤ 150	≤ 300
10	Maximum moment of manual operation	N·m	≤ 160	
11	Opening time actuated by fuse	ms	-	30-40
12	Opening time actuated by release	ms	40-45	

Outline diagram



- 1.Fixed contact
- 2.Insulating cover
- 3.Conducting tube
- 4.Fuse
- 5.Plate
- 6.Vacuum arc-extinguishing chamber
- 7.Valve the normal length of left handle and right handle are 167, optional cubicle depth 900,width 650, height 2000(optional selection L=192, 207, 217)