

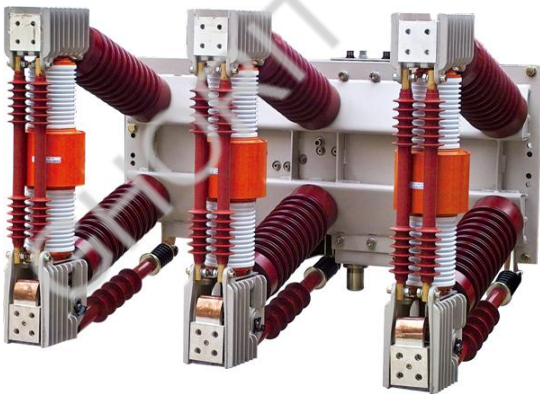
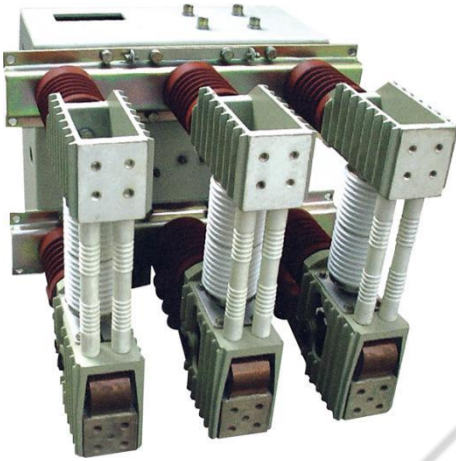


## **ZN12-12/40.5 Series**

### **Indoor High Voltage Vacuum Circuit Breaker**

ZN12-12/40.5 indoor HV vacuum circuit breaker is a 3-phase AC 50Hz 12kV/40.5KV indoor switch equipment.

- ◆ Installation way: withdrawable type, fixed type;
- ◆ Operating mechanism: spring operating mechanism;
- ◆ Application: switchgear GBC-35, JYN1-35.



## ※ Environmental Conditions

- ◆ Ambient temperature:  $-25^{\circ}\text{C}\sim+40^{\circ}\text{C}$ ;
- ◆ Altitude:  $\leq 1000\text{m}$ ;
- ◆ Relative humidity: daily average  $\leq 95\%$ , monthly average  $\leq 90\%$ ;
- ◆ Earthquake intensity:  $\leq 8$  level;
- ◆ Places without fire, explosion hazard, serious filthy, chemical corrosion, as well as intense vibration.

## ※ Main Technical Parameters

### ZN12-12

No	Item	Unit	Value				
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 stability current (peak)	kA	50	63	80	100	125
5	4s thermal stability current	kA	20	25	31.5	40/3s	50/3s
6	Rated short circuit making current	kA	50	63	80	100	125
7	Short circuit current breaking number	times	30				12
8	Rated operating sequence		CO-0.3S-CO-180S-CO			O-180S-CO-180S-CO	
9	Mechanical life	times	10000			6000	
10	Rated current breaking number	times	10000			6000	
11	Rated lightning impulse withstand voltage (full wave)	kV	75				
12	Rated short time power frequency withstand current (1min)	kV	42				
13	Closing time	ms	$\leq 75$				
14	Opening time	ms	$\leq 65$				
15	Power and rated voltage of energy storage motor	W/V	275W / 110V, 220V				
16	Energy storage time	s	$< 15$				

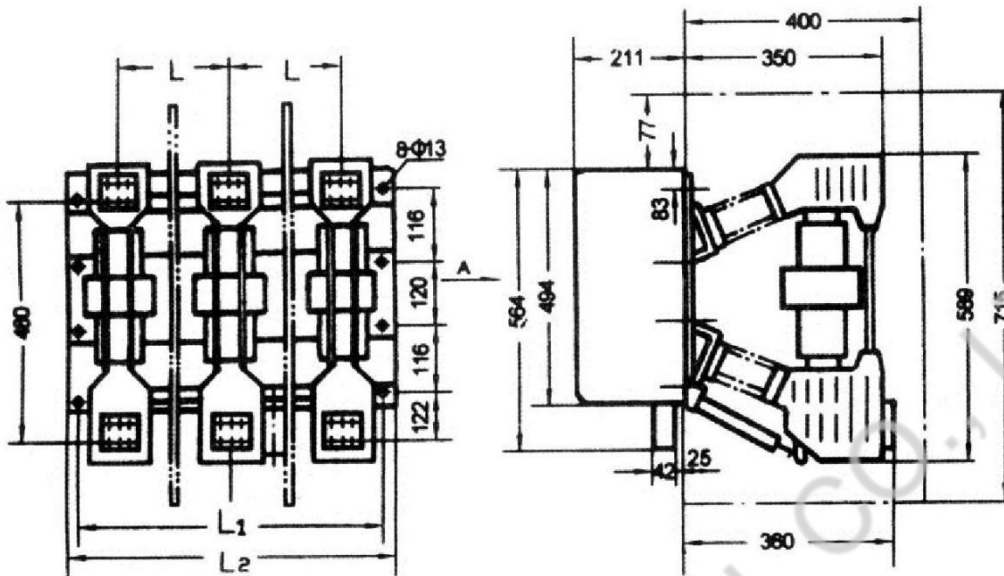
No	Item	Unit	Value
17	Rated voltage of closing coil	V	110V, 220V
18	Rated voltage of opening coil	V	
19	Rated voltage of interlock coil	V	
20	Rated current of release	A	5
21	Rated current of auxiliary switch	A	AC10A, DC5A

## ZN12-40.5

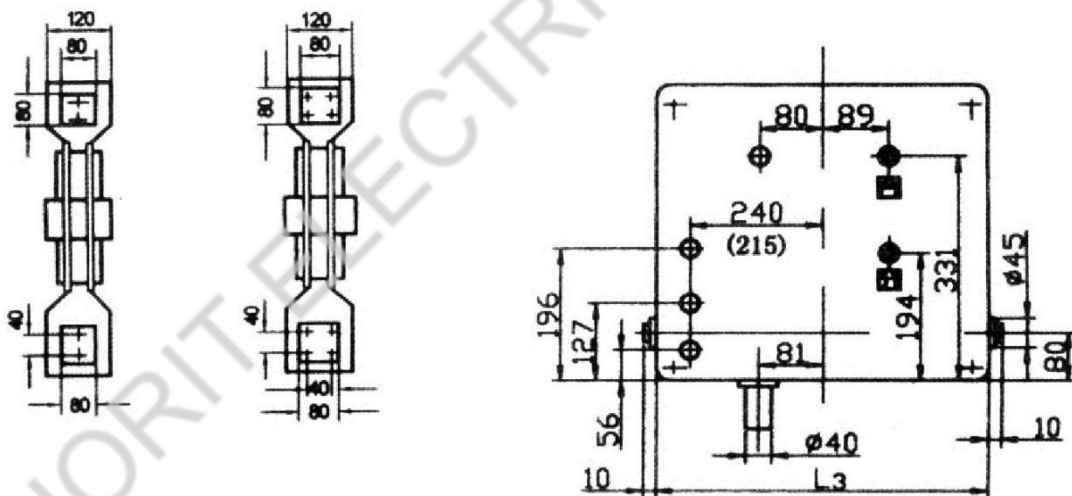
No	Item	Unit	Value	
1	Rated voltage	kV	40.5	
2	Rated current	A	1250, 1600, 2000	1250, 1600, 2000, 2500
3	Rated short circuit breaking current	kA	20, 25	31.5
4	Dynamic stability current (peak)	kA	50, 63	80
5	4s thermal stability current	kA	20, 25	31.5
6	Rated short circuit making current (peak)	kA	50, 63	80
7	Short circuit current breaking number	times	30	20
8	Rated operating sequence		CO-0.3S-CO-180S-CO	
9	Rated lightning impulse withstand voltage (full wave)	kV	180	
10	Rated short time power frequency withstand current (1min)	kV	95	
11	Closing time	ms	≤90	
12	Opening time	ms	≤75	
13	Mechanical life	times	10000	6000
14	Rated current breaking number	times	10000	6000
15	Rated capacitor bank breaking current	A	630	
16	Power of energy storage motor	W	275	
17	Rated voltage of energy storage motor	V	≈ 110V, 220V	
18	Energy storage time	s	≤15	
19	Rated voltage of closing and opening coil	V	≈ 110V, 220V	
20	Rated current of overcurrent release	A	5	
21	Rated current of auxiliary switch	A	AC10A, DC5A	

※ **General Structure Drawing and Installation Size (unit: mm)**

◆ ZN12-12 (inclined mounted)



Note: dimension 360mm is for current above 2000A, under 2000A, the dimension is 350mm.



Note: in the figure, (215) means when L3=516mm, the dimension is 215mm.

Under 1600A: upper and lower outlet terminal hole 2-M12

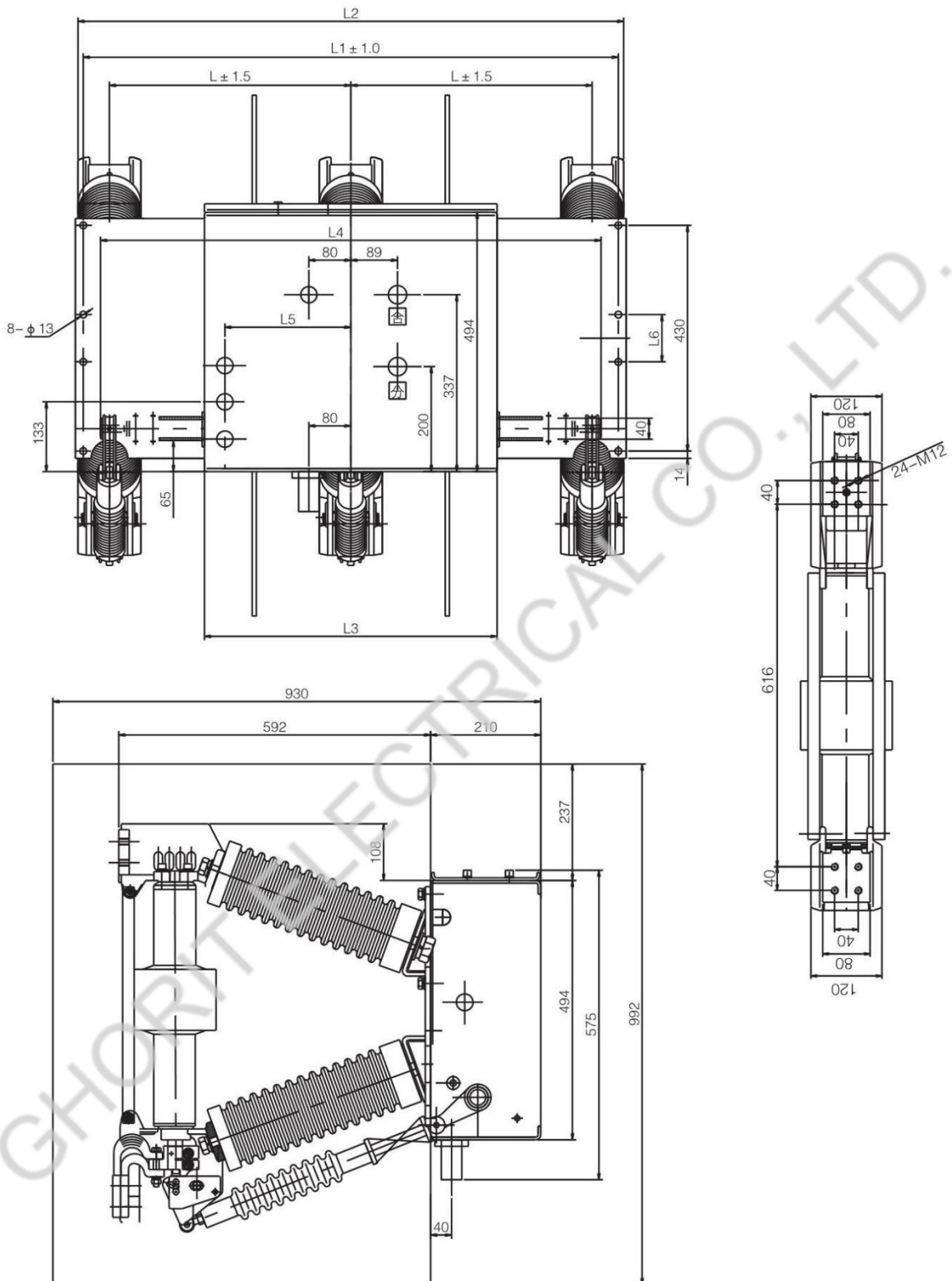
Above 2000A: upper and lower outlet terminal hole 4-M12

Type	L	L1	L2	L3	Remarks
ZN12-12	210	586	610	516	With inter-phase partition
	230	620	650	565	
	250	700	740	565	
	275	696	720	516	





◆ ZN12-40.5



Type	L	L1	L2	L3	L4	L5	L6	Remarks
ZN12-40.5	350	800	830	510	751	215	50	With inter-phase partition
	460	1040	1090	600	971	260	90	