

VS1-12 Indoor AC High Voltage Vacuum Circuit Breaker

Summary

VS1 -12 Model indoor AC high voltage vacuum circ uit bre aker is a type of holistic and completely sealed HV switchgear, it has compac table dimen sion and small volume. The VCB a pplies to power system of rated voltage 12kV, three-phase and AC 50/60Hz. It is applicable in occasions with frequent operations, acting to protect and control line and electric appar atus. The product conforms to IEC62271, GB1984, JB3855 and DL1403 and passes KEMA test.

Ambient condition

1. Altitude: ≤1000m;
2. Ambient temperature: -25℃~+40℃;
3. Relative humidity: daily average ≤95% monthly average ≤90%;
4. Earthquake intensity: ≤8 degree;
5. Applicable occasions should free from inflammables, explosiv es, corro sives and severe vibration.

Model

VS1 - 12 / 630 - 31.5
1 2 3 4

1. Vacuum circuit breaker
2. Rated voltage (kV)
3. Rated current (A)
4. Rated short-circuit breaking current (kA)

Product feature

1. Holistic structure
2. Sealed spark chamber
3. Effective vacuum arc-extinguish
4. Good mechanical behavior
5. Various mounting approach

Technical specification

No.	Item	Unit	Data						
1	Rated voltage	kV	12						
2	Rated frequency	Hz	50/60						
3	Rated current	A	630,1000,1250			1600	2000,2500,3150	4000	
4	Rated short-circuit breaking current	kA	20	25	31.5	31.5	40	40	50
5	Rated short-circuit making current	kA	50	63	80	80	100	100	125
6	Rated short-time withstand current	kA	20	25	31.5	31.5	40	40	50
7	Rated peak withstand current	kA	50	63	80	80	100	100	125
8	Rated pull-out breaking current	kA			12.6	12.6	16	16	20
9	Rated out-of-phase earthing fault breaking current	kA	17.4	21.7	27.4	27.4	34.7	34.7	43.5
10	Rated short-circuit breaking current breaking time	Times	50				30	30	12
11	Rated operation sequence		O-0.3s-CO-180s-CO				O-180s-CO-180s-CO		
12	Rated breaking current of single capacitor bank	A	630						
13	Rated breaking current of back to back capacitor bank	A	400						
14	1min. PF withstand voltage	kV	Phase to phase/ to earth: 42, across open contacts:48						
15	Lightning impulse withstand voltage	kV	Phase to phase/ to earth: 75, across open contacts:85						
16	Mechanical life	Times	20000						
17	Closing time	ms	≤75						
18	Opening time	ms	≤60						
19	Power storage time under rated voltage	s	≤10						

1

Technical Parameter

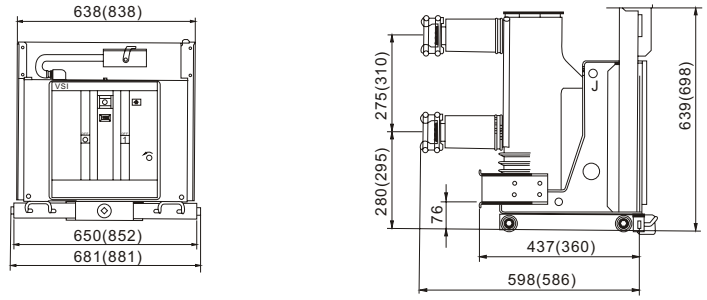


Diagram 1 Outline dimension of handcart type VS1 applies to 800mm width panel

Rated current(A)	630	1000	1250	1600	2000	2500	3150	4000
Rated short-circuit breaking current(kA)	20,25	20,25,31.5	20,25,31.5	31.5	31.5, 40	31.5, 40	40	40,50
Size of static contact (mm)	ϕ35	ϕ35	ϕ49	ϕ55	ϕ79	ϕ109	ϕ109	ϕ109

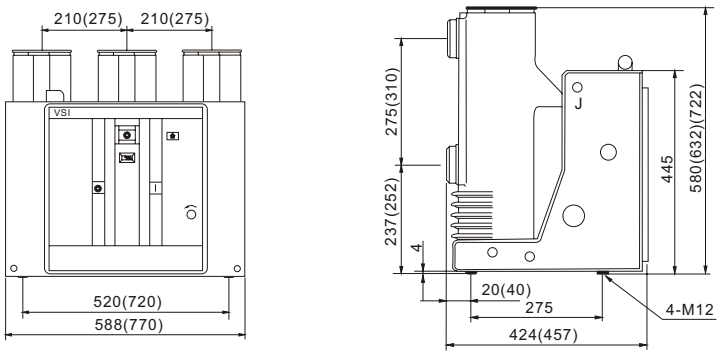


Diagram 2 Outline dimension of fixed type VS1 applied to 800mm width panel

Note: the size inside bracket is applied to 1000mm width panel; rated current: 2000A~4000A.

Rated current (A)	630	1000	1250	1600	2000	2500	3150	4000
Rated short-circuit breaking current(kA)	20,25	20,25,31.5	20,25,31.5	31.5	31.5,40	31.5,40	40	40,50