

Susol
Super Solution

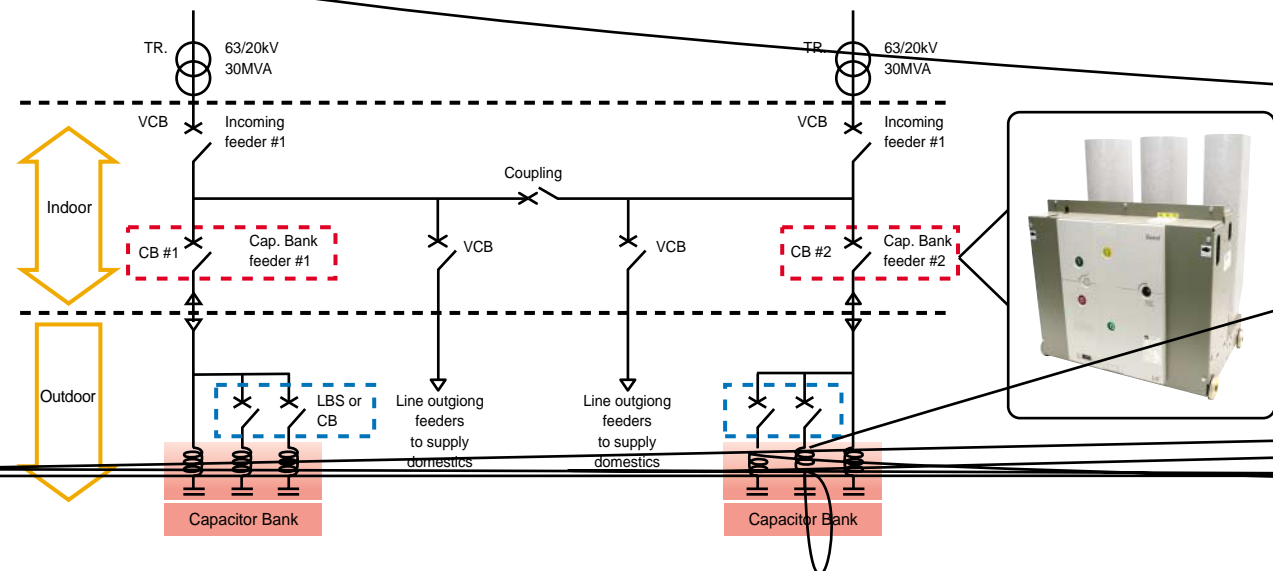
Vacuum Circuit Breakers for Back to Back Switching

LS IS

VCB(Back to Back)

Developed VCB/VI which has back to back on/off operation of capacitor bank and high break capacity with Susol VCB mechanism

Detailed Schematic of Capacitor Bank



24kV 25kA 1250A (Back to Back Switching 400A)

- Rating : 24kV 25kA 1250A (Back to Back Switching 400A)
- Rated short-circuit withstand characteristics : 3 sec
- Rated breaking time : 3 cycle
- Rated operating sequence : O-0.3s-CO-3min-CO
- Type test level : M2, E1, C2(Back to Back Switching)
- Control voltage

- DC 48V, DC 110V, DC 125V, DC 220V, AC 48V, AC 110V, AC 220V

- Various accessories

- VCB part : UVT, Latch checking switch, Key lock, Button cover, Button padlock
- Others : UVT Time delay controller, CTD(Condensor Trip Device)

- Standard and certification

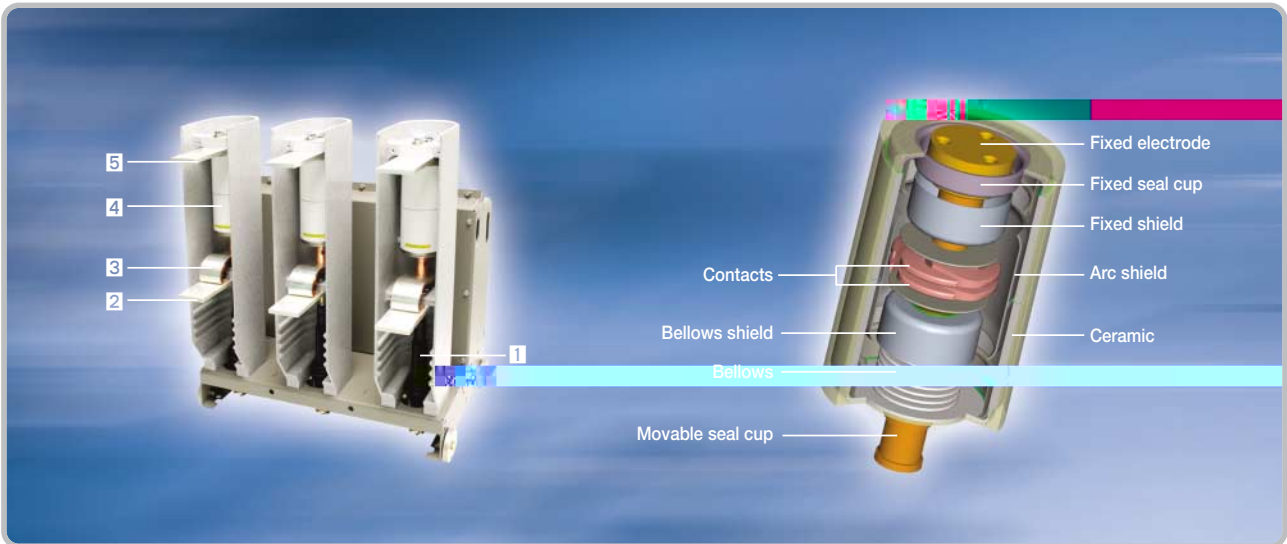
- IEC 62271-100 [M2, C2, E1]



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Type		VH-20□25□13	
Rated Voltage	Ur (kV)	24	
Rated normal current	Ir (A)	1250	
Rated frequency	fr (Hz)	50/60	
Rated short-circuit current	Isc (kA)	25	
Rated short-time withstand current (3 sec)	Ik (kA)	25	
Rated short-circuit breaking capacity	(MVA)	1039	
Rated short-circuit making current	Ip(kA)	65	
Rated breaking time	(cycle)	3	
Rated withstand voltage	Power frequency (1 min)	Ud (kV)	50
	Impulse (1.2×50 μ s)	Up (kV)	125
Rated operating sequence		O-0.3s-CO-3min-CO	
Control voltage	Closing coil	(V)	DC 48/110/125/220, AC 48/110/220
	Trip coil	(V)	DC 48/110/125/220, AC 48/110/220
Auxiliary contact		4a4b,10a10b	
Rated opening time	(sec)	≤0.04	
No-load closing time	(sec)	≤ 0.06	
Type test	Mechanical		M2
	Electrical		E1
	Capacitor Bank Switching (Single & Back to Back)		C2
Lifetime *	Mechanical	(time)	20000
	Electrical	(time)	20000
Installation	Fixed		P type
Pole centre distance	(mm)		265
Weight	CB (P type)	(kg)	125
Applied standards			IEC 62271-100

* with maintenance

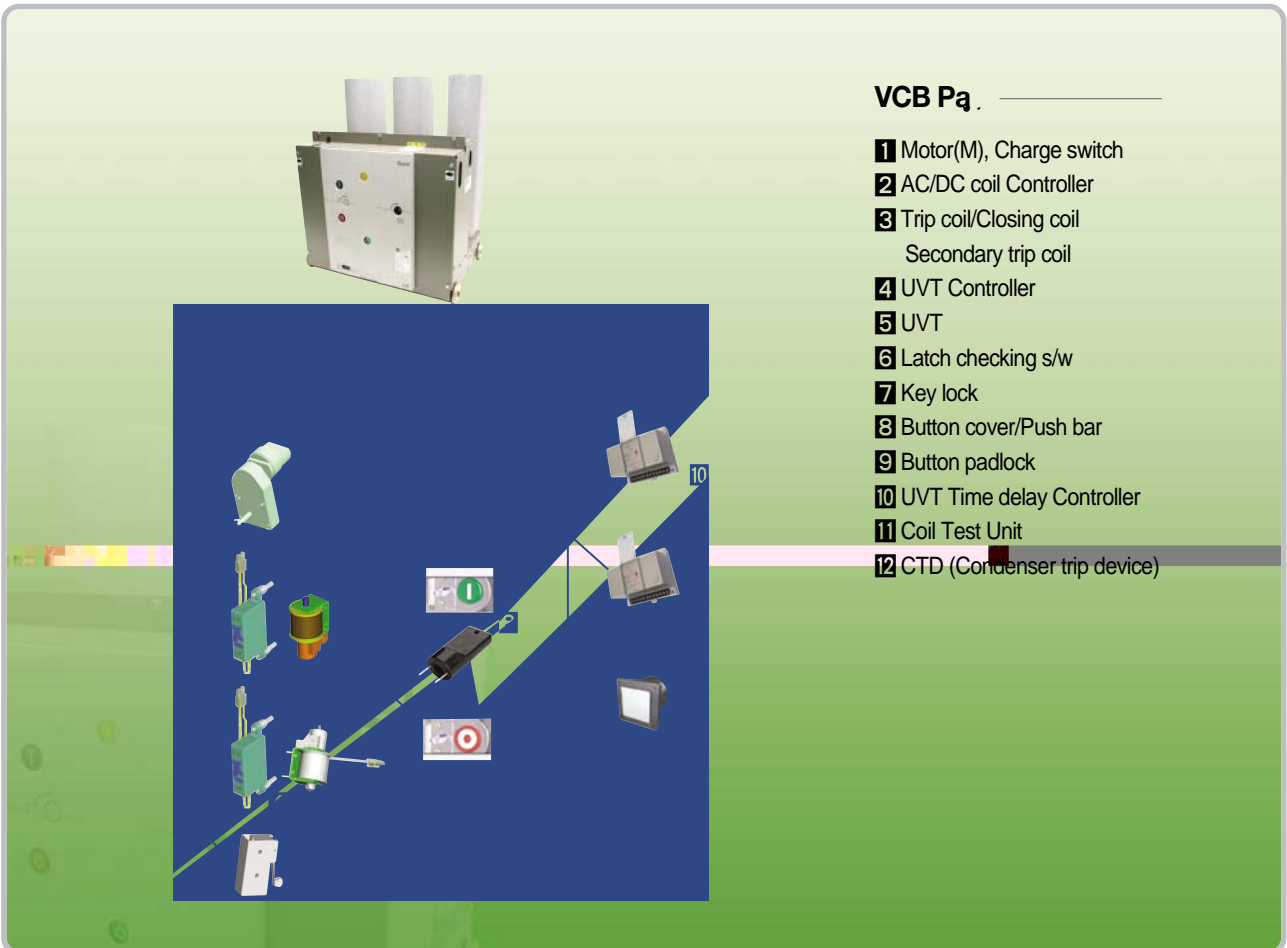


Structure of main circuit parts

- 1 Insulation rod
- 2 Lower terminal
- 3 Shunt
- 4 Vacuum interrupter
- 5 Upper terminal

Vacuum Interrupters VI

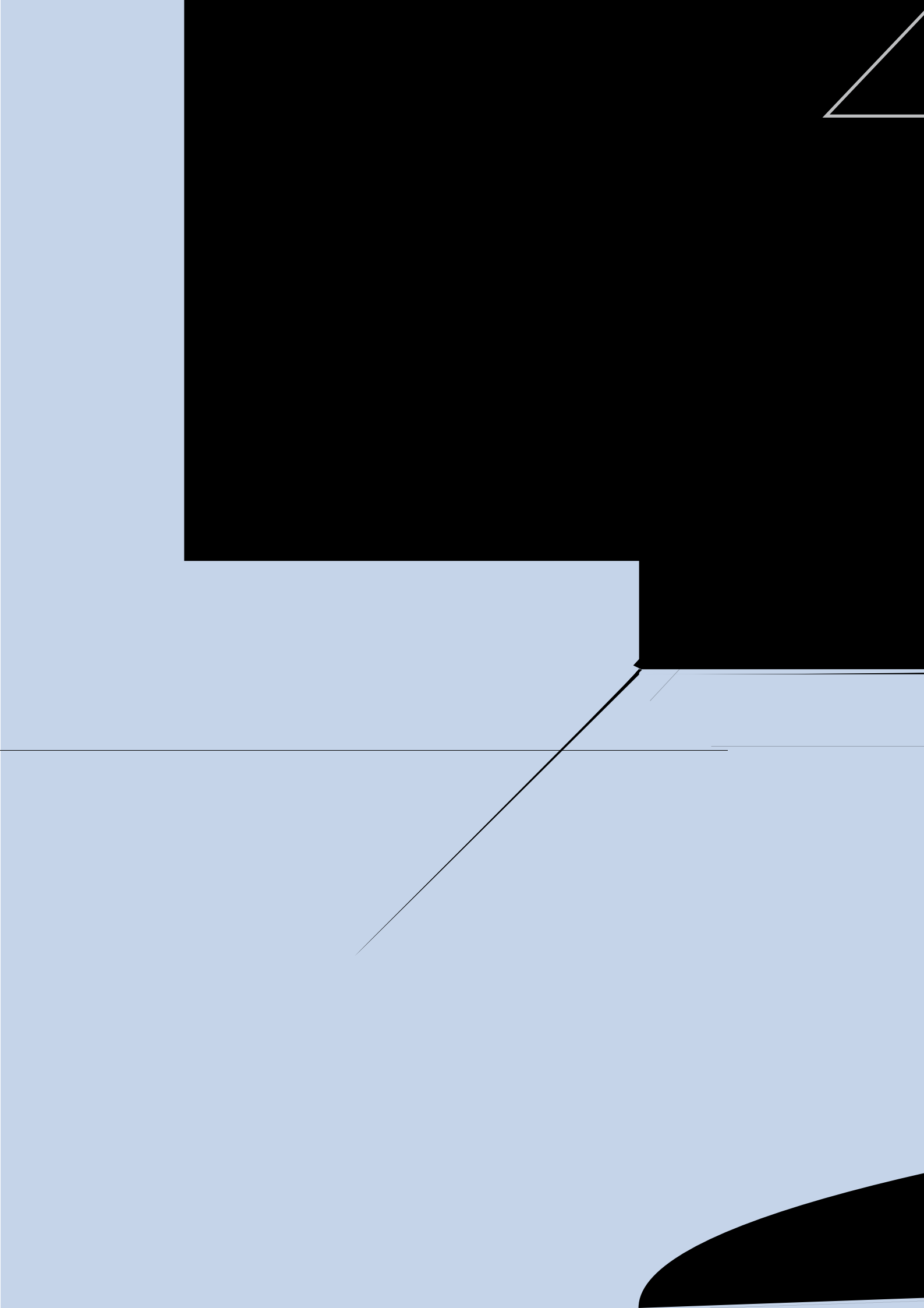
The internal components of a typical Vacuum Interrupter are shown in the Fig. LS Vacuum Interrupter consists of a ceramic insulator, two end plates, arc shield, bellows, a movable and fixed electrode, and contact set. The ambient gas pressure within the evacuated tube is approximately 5×10^{-5} Torr.



VCB Pa .

- 1 Motor(M), Charge switch
- 2 AC/DC coil Controller
- 3 Trip coil/Closing coil
Secondary trip coil
- 4 UVT Controller
- 5 UVT
- 6 Latch checking s/w
- 7 Key lock
- 8 Button cover/Push bar
- 9 Button padlock
- 10 UVT Time delay Controller
- 11 Coil Test Unit
- 12 CTD (Condenser trip device)

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VH		20		P		25		F		13	
Type		Rated voltage(kV)		Installation type		Breaking current(kA)		Pole center distance		Rated current(A)	
VH	Susol VCB	20	24	P	Fixed type	25	25	F	265 mm	13	1250A



- Note) 1. When accessories A1(Secondary trip coil) and A7(Key lock) are selected together, the ordering code becomes A17.
 2. A1(Secondary Trip Coil), A2(UVT) can not be used together at the same VCB.
 3. A8(Button Padlock) and A9(Button Cover) can not be used together at the same VCB.
 4. In case of UVT, Latch checking S/W is as installed standard for mechanical interlock.

Green



Safety Instructions

- For your safety, please read user's manual thoroughly before operating.
- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact a qualified service technician when you need maintenance. Do not disassemble or repair by yourself!
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.

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