

Introduction of New Product

Susol series Vacuum Circuit Breakers

7.2kV 8/12.5kA 400/630A

- Rating : 7.2kV 8kA 400A, 7.2kV 12.5kA 630A
- Rated short-circuit withstand characteristics : 3sec
- Rated operating sequence : O-0.3s-CO-15s-CO
- Type test level : M2, E2(List1), C2
- Electrical/Mechanical lifetime : 30000 operations
- Compatible with the existing model
- Various cradle type : E, F and G type
- Control voltage
 - DC 24~30V, DC 48~60V, DC 110V, DC 125V, DC 220V
 - AC 48V, AC 100~130V, AC 220~250V

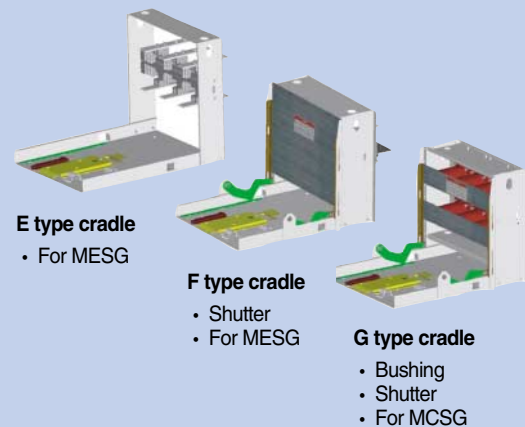
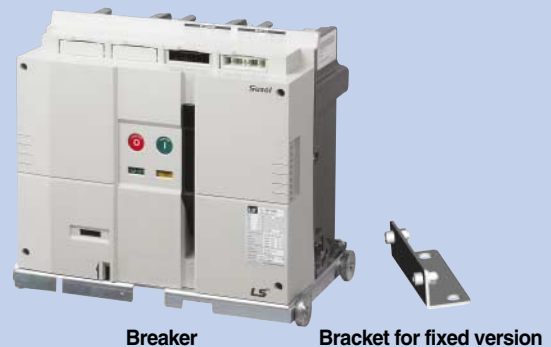
● Accessories

- Closing spring contact , UVT, Secondary trip coil, Current trip coil, Trip Latch Checking S/W(Ready to Close S/W), Position S/W
- Key lock, Button lock, Button cover Padlock, UVT Time Delay Controller, Lifting hook, CTD

● Draw in/out indication

● Standard and certification

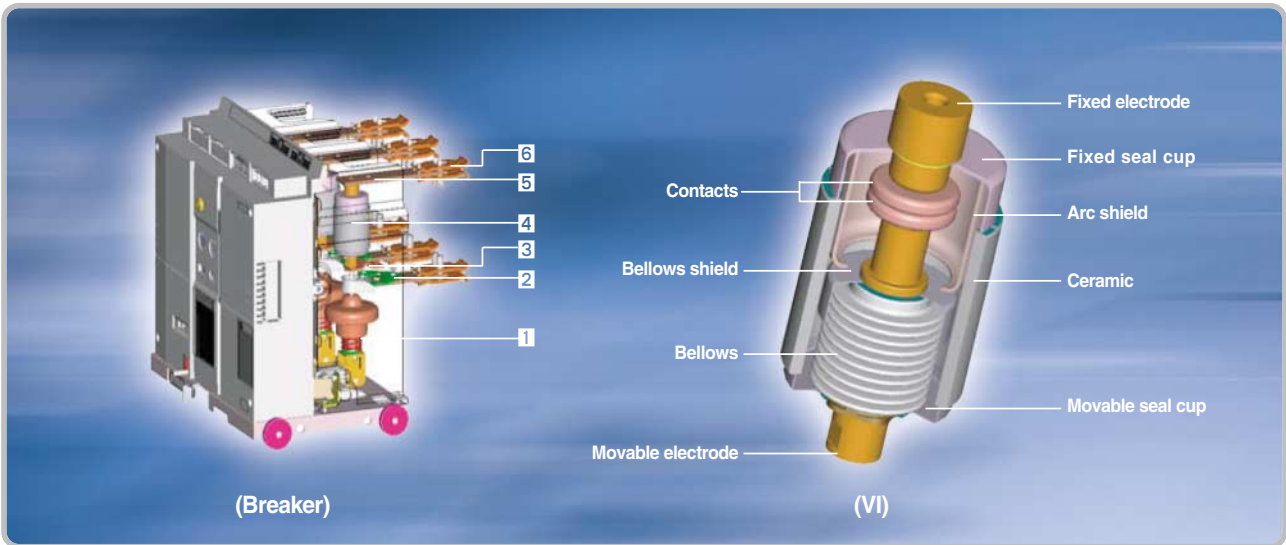
- IEC 62271-100(2008.04) [M2, C2, E2(List1)]
- Type tested in an Enclosure
- Type tested by KERI



Item		Susol	
Rated voltage	(kV)	7.2	
Rated normal current	(A)	400	630
Rated frequency	(Hz)	50/60	
Rated short-circuit breaking current	(kA)	8	12.5
Rated short-circuit breaking capacity	(MVA)	100	160
Rated short-time withstand current	(kA/3sec)	8	12.5
Rated short-circuit making current	(kA)	20.8	32.5
Rated breaking time	(Cycle)	3	
Rated opening time	(sec)	≤ 0.04	
No-load closing time	(sec)	≤ 0.06	
Withstand voltage	Power frequency (kV/min)	20	
	Impulse (kV/1.2x50μs)	60	
Rated operating sequence		O-0.3s-CO-15s-CO	
Type test	Mechanical	M2	
	Electrical	E2 (List1)	
	Capacitive current switching	C2	
Lifetime*	Mechanical	30000	
	Electrical	30000	
Installation	Fixed	P type	P type
	Drawout	E, F, G type	E, F, G type
Weight(Breaker/Cradle_E, F, G)	(kg)	37/18, 25, 32	37/19, 26, 33
Reference standard		IEC 62271-100(2008.04), KSC4611	
Type test in an enclosure		O	

* With maintenance

Structure



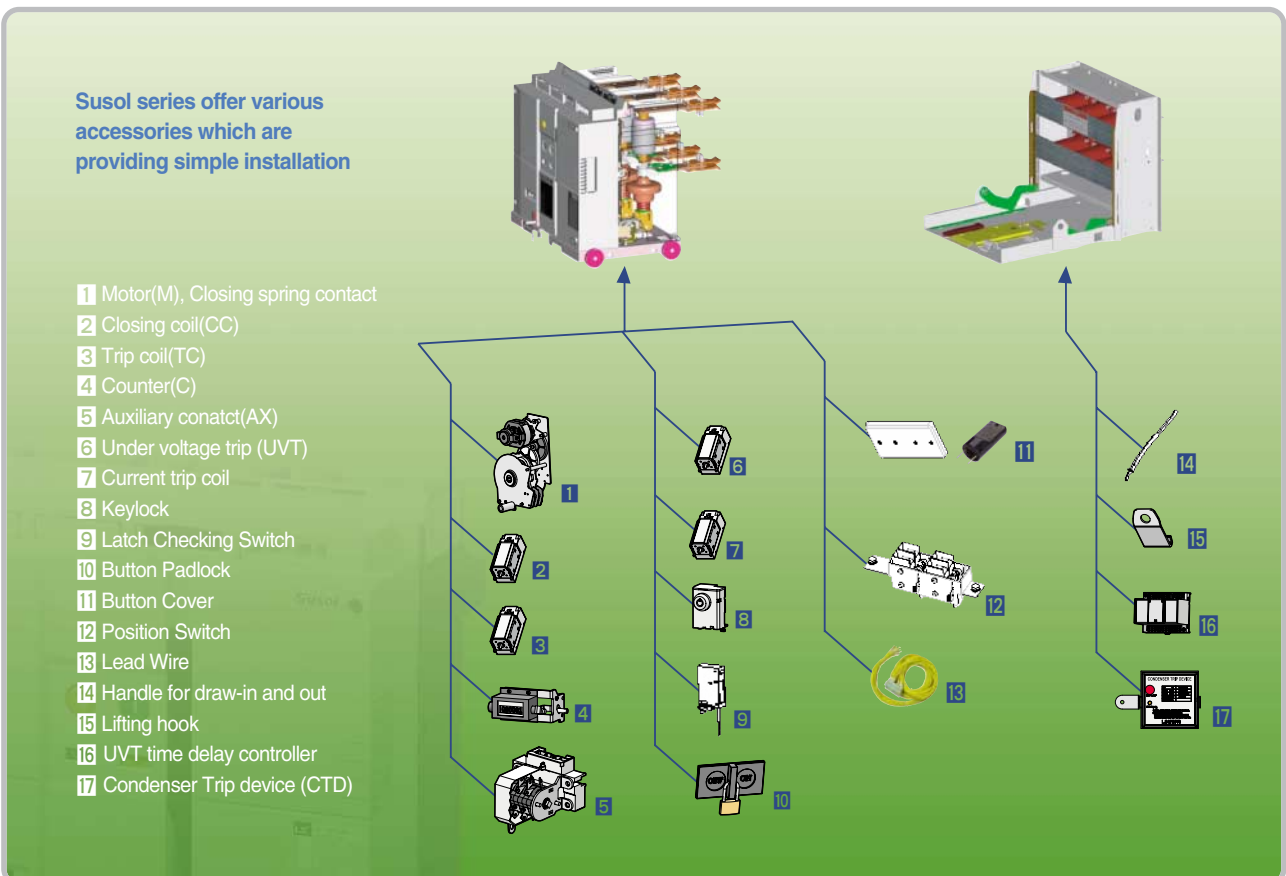
VBreaker

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

Vacuum Interrupter, VI

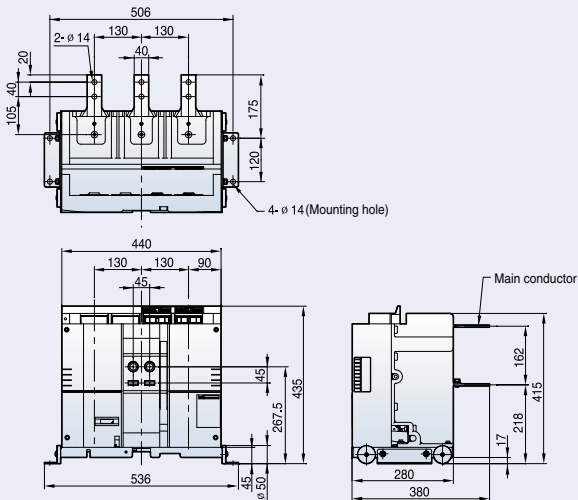
The internal components of a typical Vacuum Interrupter are shown in the Fig. LS Vacuum Interrupter consists of a ceramic insulator, two end plates, arc shield, bellows, a movable and fixed electrode, and contact set. The ambient gas pressure within the evacuated tube is approximately 5×10^{-4} torr.

Accessories

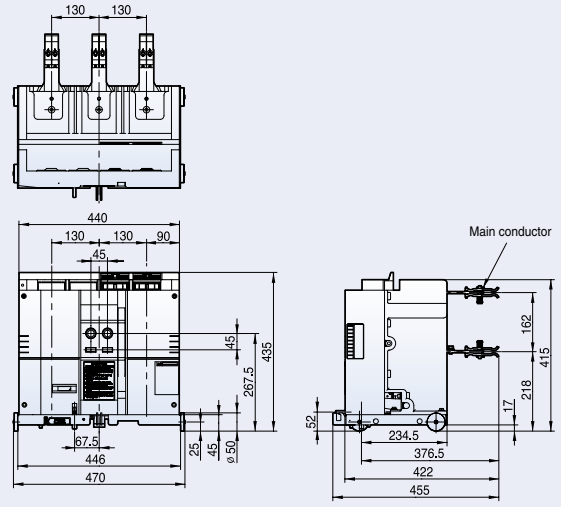


Dimensions

■ Breaker(Fixed)

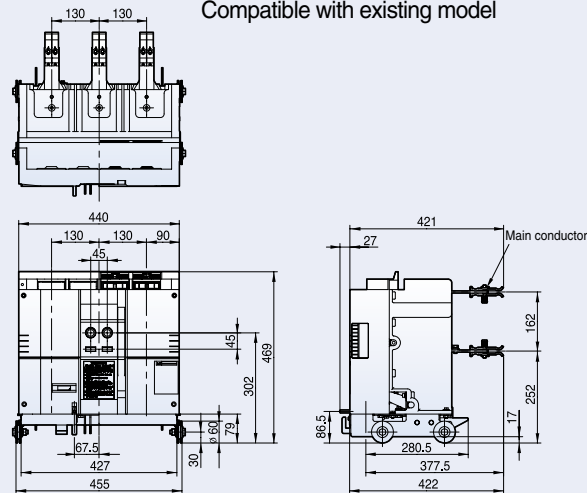


■ Breaker(Drawout, E/F/G class)

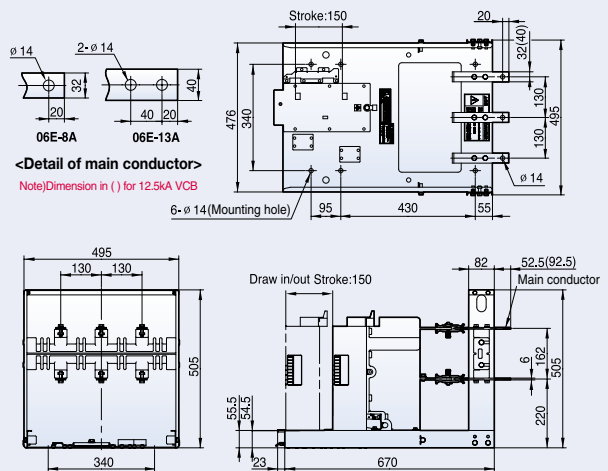


■ Breaker(Drawout, E/F/G class)

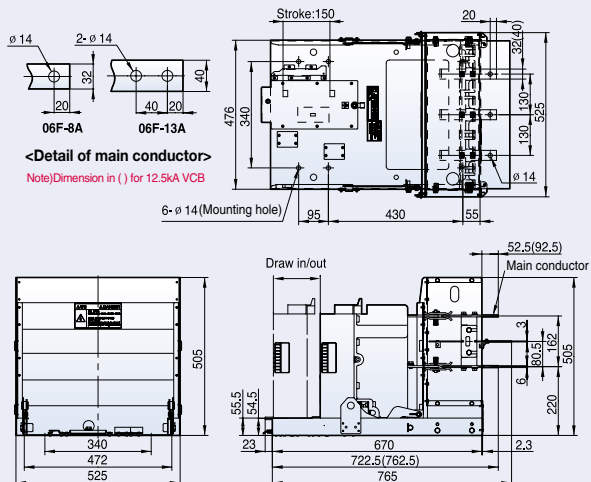
Compatible with existing model



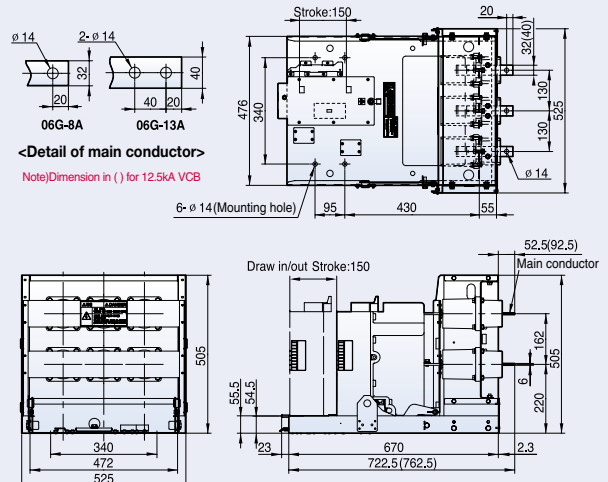
■ Cradle (E-class)



■ Cradle (F-class)

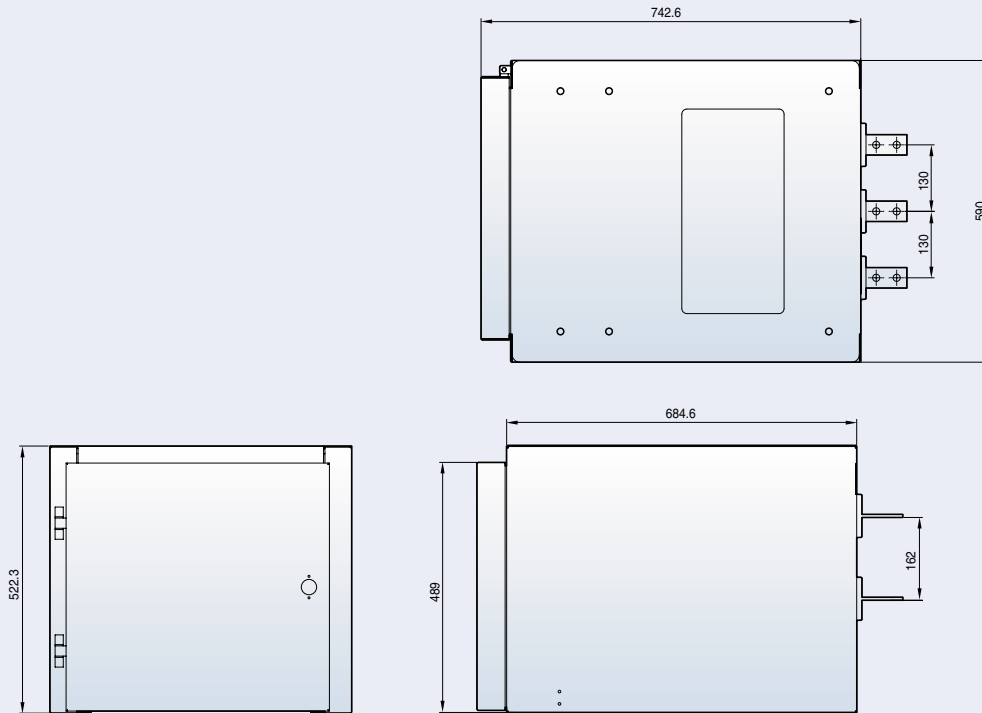


■ Cradle (G-class)

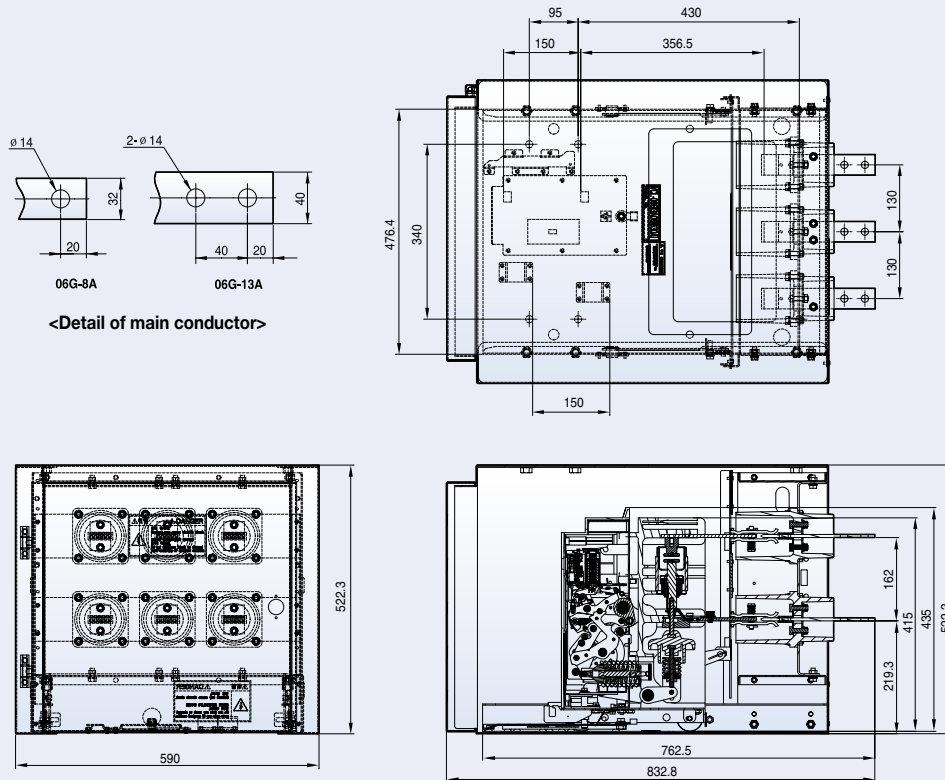


Dimensions

■ Cradle enclosure, outside



■ Cradle enclosure, inside



Ordering information

■ Breaker

VL	06	E	08	A	04
Type	Rated voltage(kV)	Installation	Breaking current(kA)	Compatibility	Rated current(A)
VL Susol VCB	06 7.2	P Fixed type E E class draw - out type F F class draw - out type G G class draw - out type	08 8 13 12.5	A Standard (non-Compatible) B Compatible with existing model	04 400 06 630

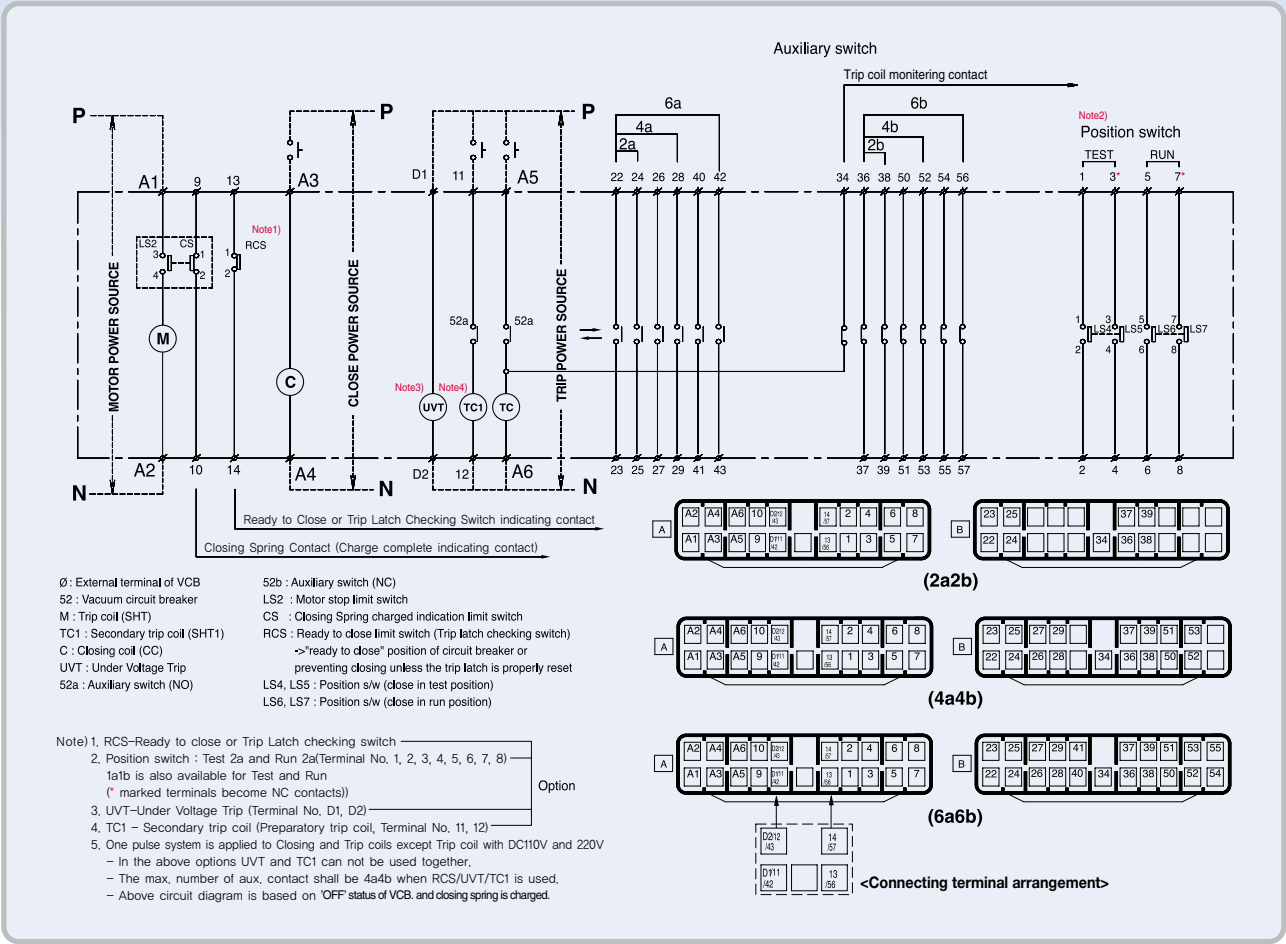
VL-06E08A04	M1	C1	T1	SA1	U1	A12 ...
Motor control voltage	Installation	UVT	Accessories <small>Note</small>	Closing coil voltage	Aux. contact & Cable ASS'Y	Other options
M0 N.A.(manual) M1 AC/DC 100V~130V M2 AC/DC 200V~250V M3 DC 125V M4 DC 24V~30V M5 DC 48V~60V M6 AC 48V	T0 N.A.(w/o T.C.) T1 DC 110V T2 DC 220V T3 DC 125V T4 DC 24V~30V T5 DC 48V~60V T6 AC 48V T7 AC 100V~130V T8 AC 200V~250V T9 Current trip	U0 N.A.(w/o UVT) U1 AC/DC 100V~130V U2 AC/DC 200V~250V U3 DC 125V U4 DC 24V~30V U5 DC 48V~60V U6 AC 48V	A1 Secondary Trip coil A2 UVT A3 Current trip coil A4 Position s/w(2a2a) A5 Position s/w(2a2b) A6 Latch checking s/w A7 Keylock A8 Button Padlock A9 Button cover AA Lead Wire AB User Plug(Part) AO Lead Wire Special Color(Blue)	C0 N.A.(w/o C.C.) C1 AC/DC 100V~130V C2 AC/DC 200V~250V C3 DC 125V C4 DC 24V~30V C5 DC 48V~60V C6 AC 48V	SA1 Standard connector type A, 2a2b SA2 Standard connector type A, 4a4b SA3 Standard connector type A, 6a6b OA1 Optional connector type A, 2a2b OA2 Optional connector type A, 4a4b OA3 Optional connector type A, 6a6b SA5 Standard connector type A, 2a2b SA6 Standard connector type A, 4a4b SA7 Standard connector type A, 6a6b OA5 Optional connector type A, 2a2b OA6 Optional connector type A, 4a4b OA7 Optional connector type A, 6a6b	LH Lifting Hook CTD Condenser Trip Device UDC UVT Time Delay Controller

- Note) 1. When accessories A2(UVT), A4(Position s/w 2a2b) and A7(Keylock) are selected together the ordering code becomes A247.
 2. A1(Sencondary Trip Coil), A2(UVT) and A3(Current trip coil) can not be used together at the same VCB.
 3. A4(Position S/W 2a2a) and A5(Position S/W 2a2b) can not be used together at the same VCB.
 4. A8(Button Padlock) and A9(Button Cover) can not be used together at the same VCB.
 5. When A1(Sencondary Trip Coil), A2(UVT) or A6(Latch checking s/w) is selected the max. number of aux. contact shall be 4a4b

■ Cradle

VCL	06	E	08	A	06
Type	Rated voltage(kV)	Installation	Breaking current(kA)	Compatibility	Rated current(A)
VCL Susol VCB cradle	06 7.2	E E class draw-out type F F class draw-out type G G class draw-out type	08 8 13 12.5	A Standard (non-Compatible) B Compatible with existing model	04 400 06 630

Control circuit diagram



Susol series VCB



7.2kV 8kA 400A
7.2kV 12.5kA 630A



7.2/12/17.5kV 20kA ~2000A
7.2/12/17.5kV 25kA ~2000A



7.2/12kV ~50kA ~4000A
17.5kV ~50kA ~3150A
24kV ~40kA ~3150A
36kV ~40kA ~3150A
40.5kV ~31.5kA ~3150A

LS constantly endeavor to improve our products so that information in this catalog is subject to change without notice.

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