

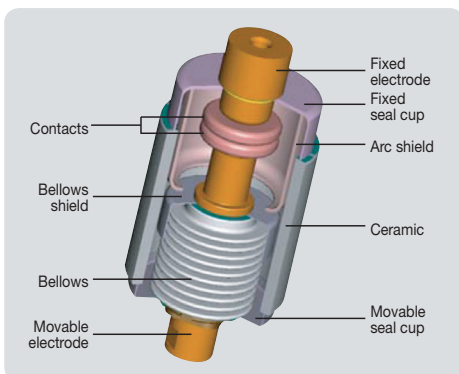
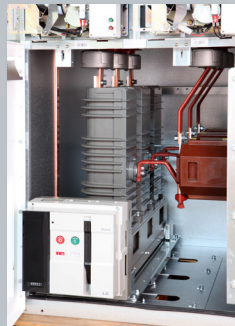
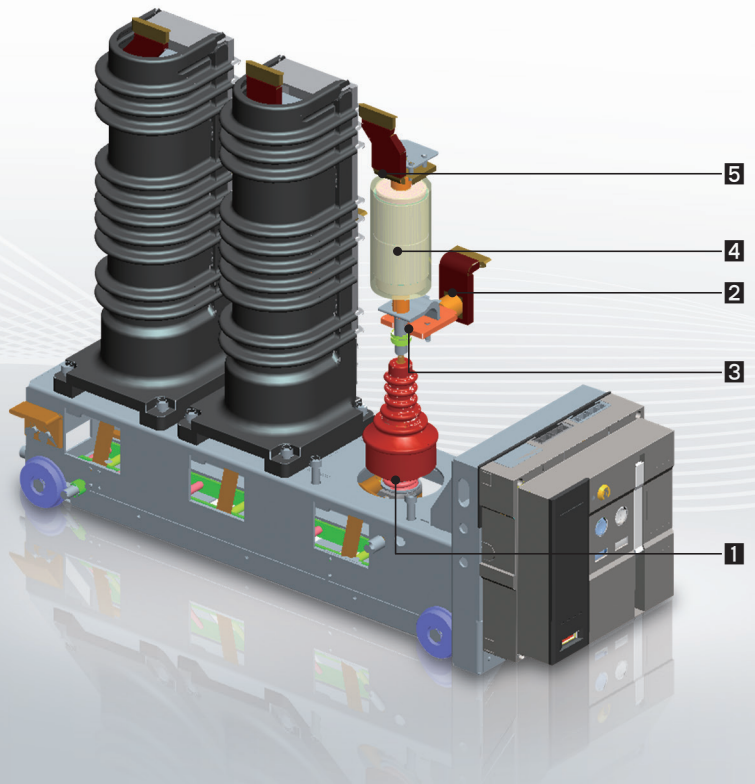
Configuration

Main circuit structure with high reliability

SM VCB (Side mount)

Breaker

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



Vacuum Interrupter (VI)

The vacuum rate within the VI is very high (approximately 5×10^{-5} Torr) and the spacing between fixed contact and movable contact is about 6–20mm, depending on the voltage.

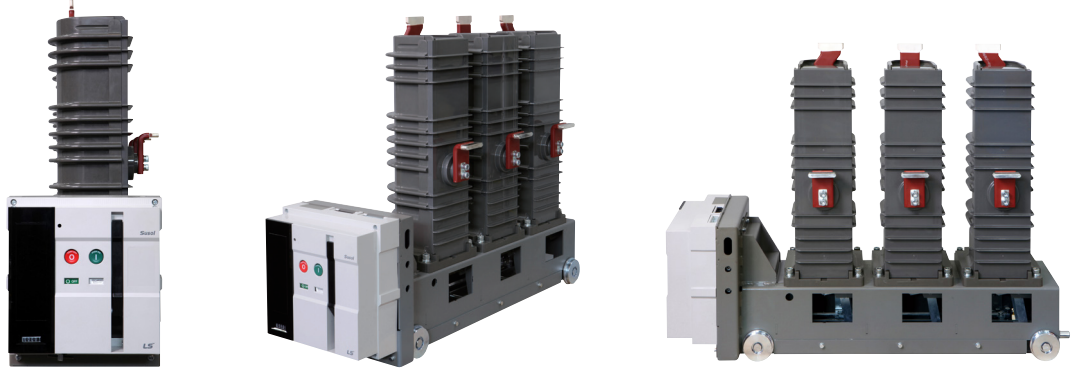
The contacts are in a structure that arc can easily be extinguished and the surfaces of

the contacts are made of special alloy (copper-chromium) and the interior is completely sealed to prevent loss of vacuum.

Therefore the wearing of the contacts can be minimized in the event of short-circuit and the arc energy by overvoltage or switching can be reduced effectively.

Ratings - SM VCB

SM VCB

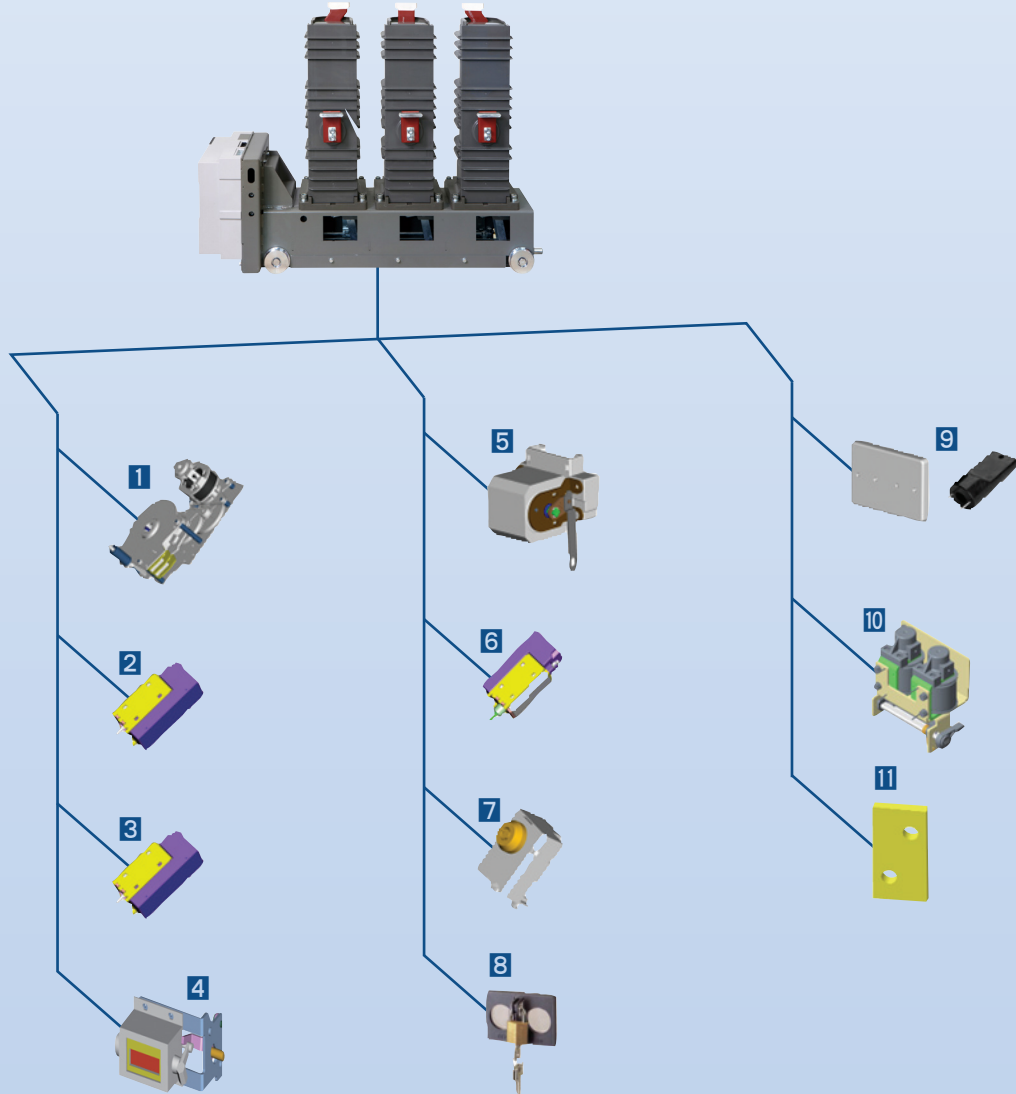


Insulation level		SVL-06□20,25□06,13	SVL-12□16, 20, 25□06,13	SVL-17□16, 20, 25□06,13	SVL-20□16, 20, 25□06,13	SVL-25□16, 20, 25□06,13						
Rated voltage	Ur (kV)	7.2		12		17.5		24		25.8		
Rated normal current	Ir (A)	630	1250	630	1250	630	1250	630	1250	630	1250	
Phase distance	(mm)	210 (Fixed), 230 (Fixed/Withdrawable), 254 (Fixed)										
Weight (Fixed type)	(kg)	80, 90 (Phase distance 254 only)										
Weight (Withdrawable type)	(kg)	85										
Rated frequency	fr (Hz)	50/60										
Rated short-circuit current	Isc (kA)	20, 25		16, 20, 25								
Rated short-circuit breaking capacity	(MVA)	249, 312		333, 415, 520		485, 606, 758		665, 831, 1039		715, 894, 1117		
Rated short-time withstand current	Ik/tk(kA)	16/3 (4*), 20/3 (4*), 25/3 (4*)										
Rated short-circuit making current	Ip (kA)	2.5 Isc (50Hz)/2.6 Isc (60Hz)										
Rated breaking time	(cycle)	3										
Rated withstand voltage	Power frequency	Ud (kV)	20		28		38		50		60	
	Impulse	-	60		75		95		125		125	
Rated operating sequence		O-0.3s-CO-15s-CO										
Control voltage	Closing coil	(V)	DC 24~30V, DC 48~60V, DC110V, DC125V, DC220V, AC 48V, AC100~130V, AC220~250V									
	Trip coil	(V)	DC 24~30V, DC 48~60V, DC110V, DC125V, DC220V, AC 48V, AC100~130V, AC220~250V									
Auxiliary contacts		4a4b, 10a10b										
Rated opening time	(s)	≤ 0.04										
No-load closing time	(s)	≤ 0.07										
Type test class	Mechanical	M2										
	Electrical	E2 (List3)										
	Capacitive current switching	C2										
Type	Fixed type	R/L type										
	Withdrawable type	S/T type										
Standards		IEC 62271-100										

Note) For C-AIS, only 230mm (phase to phase) right type SM VCB is available.

A variety of accessories for SM VCB

If accessories are attached to the breaker, the function of the breaker is upgraded.
Susol VCB provides a variety of accessories depending on the purpose.



Breaker

- | | |
|----------------------|----------------------------|
| 1 Motor | 7 Keylock |
| 2 Closing coil | 8 Button padlock |
| 3 Trip coil | 9 Button cover |
| 4 Counter | 10 CTC (Current trip coil) |
| 5 Auxiliary contacts | 11 Changeable terminal |
| 6 UVT coil | |

Types and ordering information

SM VCB

Breaker

SVL	06	R	20	H	06
Basic model name	Rated voltage (kV)	Version	Interrupting current (kA)	Phase distance/Compatibility	Rated current (A)
SVL SM VCB	06 7.2 12 12 17 17.5 20 24 25 25.8	R Fixed type right L Fixed type left S Withdrawable type right T Withdrawable type left	16 16 20 20 25 25 <small>* 7.2kV Model 20, 25kA only</small>	B 210mm H 230mm H 254mm <small>* 230 (Withdrawable type only)</small>	06 630A 13 1250A

SVL-06R20H06	M1	C1	T1	SA2	U1	A	1 2 3...
	Motor control voltage		Trip coil voltage		UVT		
	M0 - M1 DC 110V M2 DC 220V M3 DC 125V M4 DC 24V~30V M5 DC 48V~60V M6 AC 48V M7 AC 100V~130V M8 AC 200V~250V		T0 - 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		U0 - U1 DC 110V U2 DC 220V U3 DC 125V U4 DC 24V~30V U5 DC 48V~60V U6 AC 48V U7 AC 100V~130V U8 AC 200V~250V		
	Closing coil voltage		Connector and wire		Other accessories		
	C0 - C1 DC 110V C2 DC 220V C3 DC 125V C4 DC 24V~30V C5 DC 48V~60V C6 AC 48V C7 AC 100V~130V C8 AC 200V~250V		SA2 Standard A type connector, 4a4b SA4 Standard A type connector, 10a10b SB6 Flame retardant A type connector, 4a4b SB8 Flame retardant A type connector, 10a10b		A1 Secondary trip coil A2 Secondary trip coil with TCS contact A3 A4 A5 A6 A7 Keylock A8 Button Padlock A9 Button Cover AA Lead Wire AB User Plug(Part) AV CT operated coil 1A AW CT operated coil 5A		

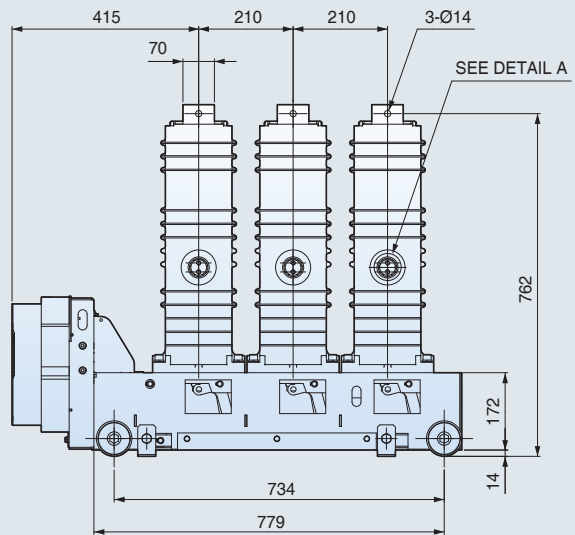
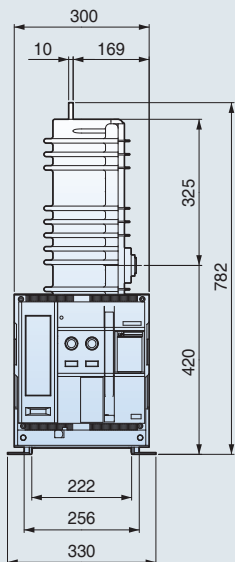
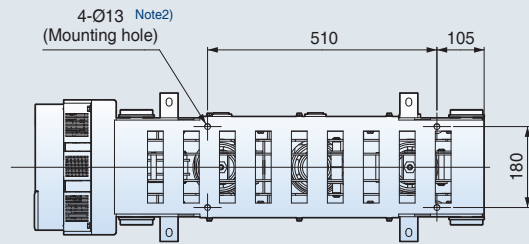
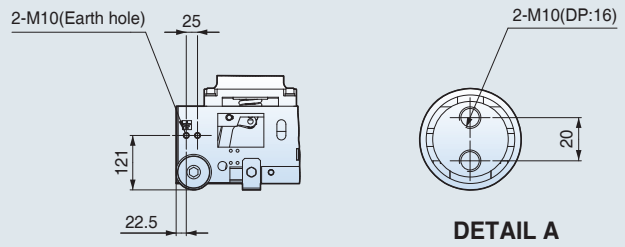
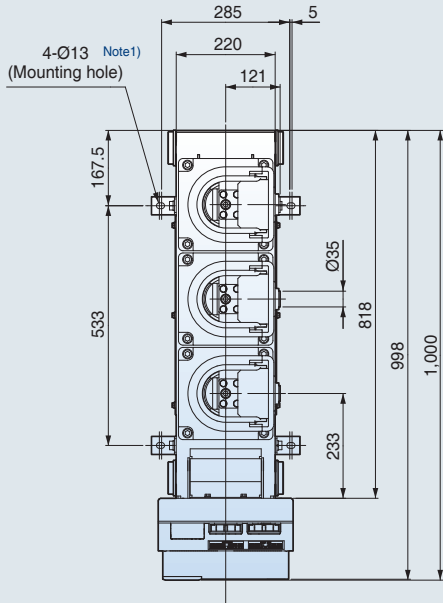
Note)

1. If A1 (Secondary trip coil), A7 (Keylock), A8 (Button padlock) are selected, A148 is the type name in the ordering.
2. A1 (Secondary trip coil), U1~U8 (UVT) can not be selected simultaneously.
3. A8 (Button padlock) and A9 (Button cover) can not be selected simultaneously.
4. If A1 (Secondary trip coil) is selected, Auxiliary contacts is max 9a9b
5. If A2 (Secondary trip coil with TCS contact) are selected, Auxiliary contacts is max 4a3b, 9a8b
6. If AV (CTC 1A), AW (CTC 5A) are selected, Auxiliary contacts is max 4a4b
7. AV(CTC 1A), AW(CTC 5A), SA4 (10a10b), SA8 (10a10b) are only available on phase distance 254mm.

Dimensions - SM VCB

24kV, 25kA, 1250A Fixed (Right type, phase distance 210mm)

(Unit: mm)



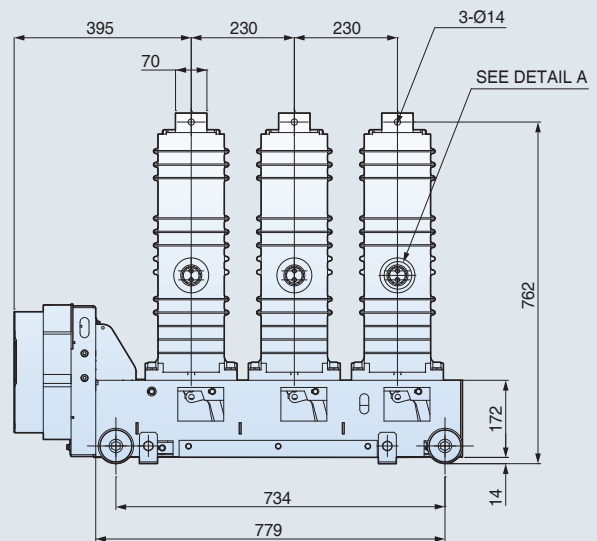
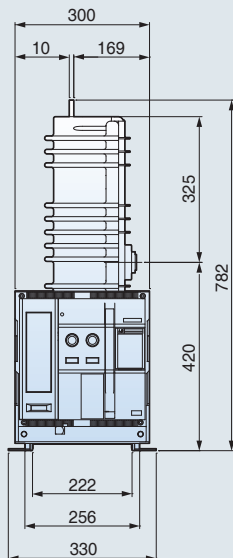
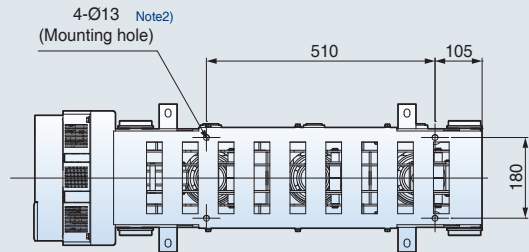
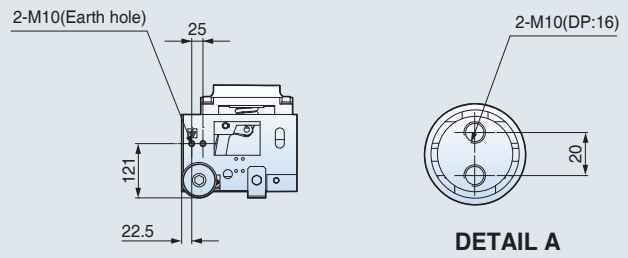
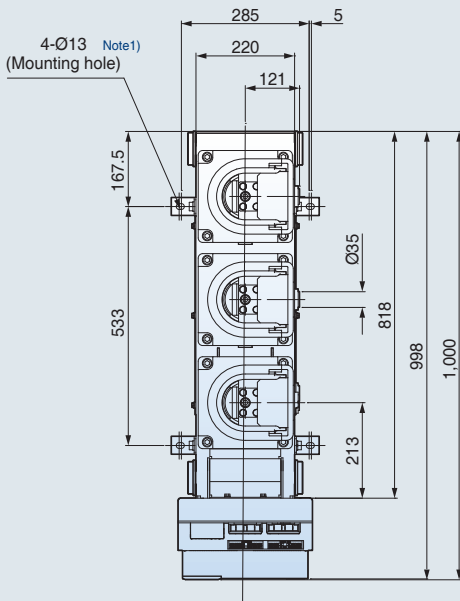
Note)

1. Mounting hole 01 for compact AIS panel
2. Mounting hole 02 for using SM VCB only
3. If using mounting hole 02, four brackets attached to the frame for mounting hole 01 can be removed.

Dimensions - SM VCB

24kV, 25kA, 1250A
Fixed (Right type, phase distance 230mm)

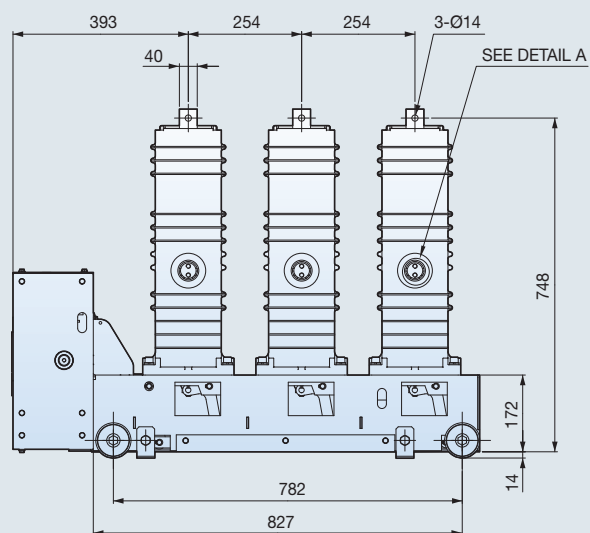
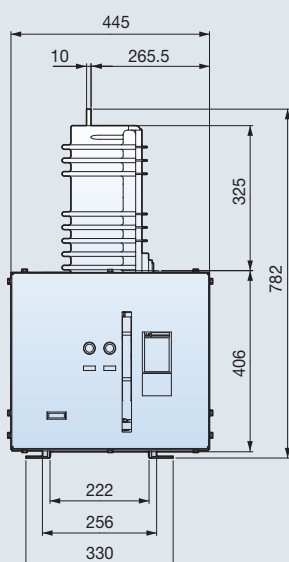
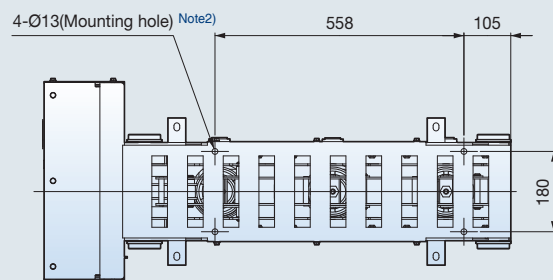
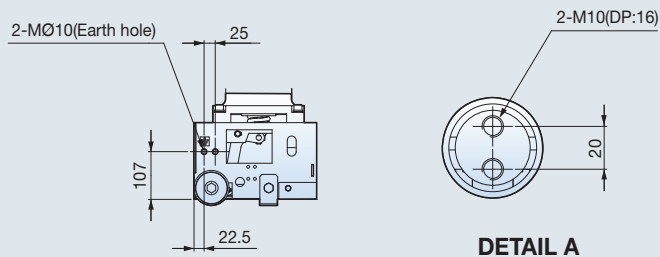
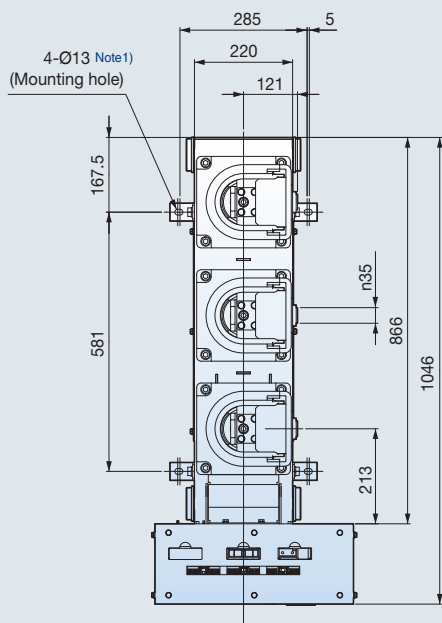
(Unit: mm)



- Note)
1. Mounting hole 01 for compact AIS panel
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24kV, 25kA, 1250A Fixed (Right type, phase distance 254mm)

(Unit: mm)



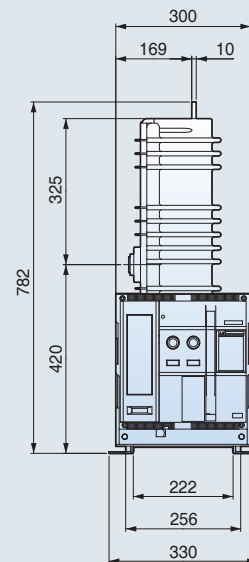
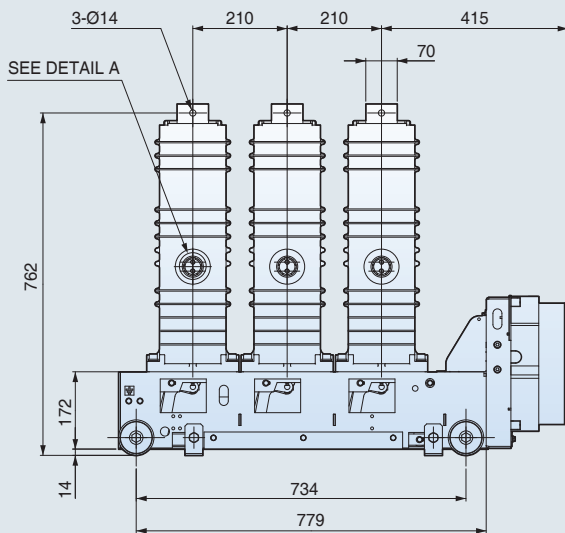
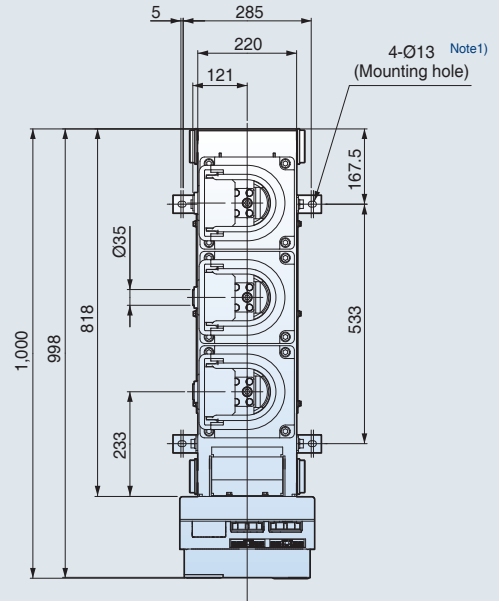
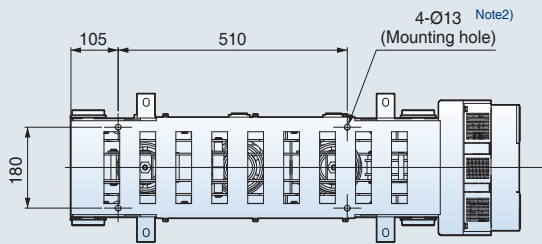
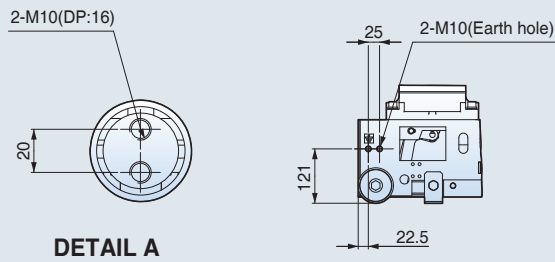
Note)

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Dimensions - SM VCB

24kV, 25kA, 1250A Fixed (Left type, phase distance 210mm)

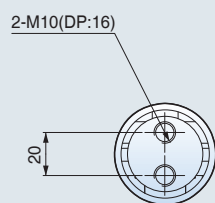
(Unit: mm)



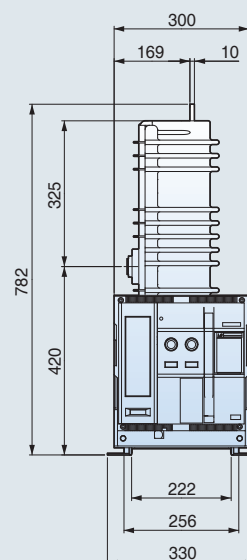
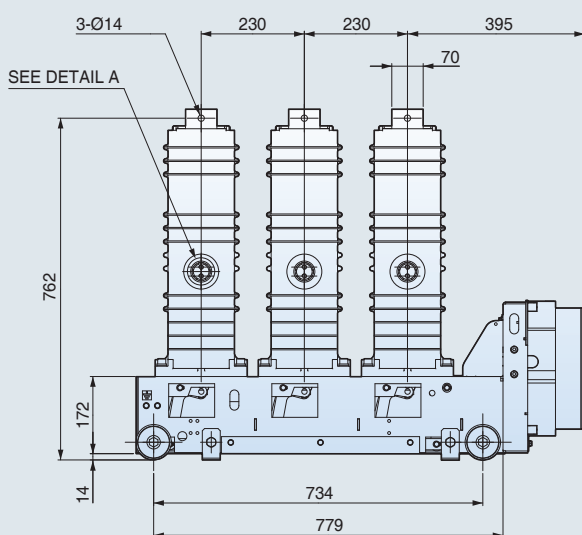
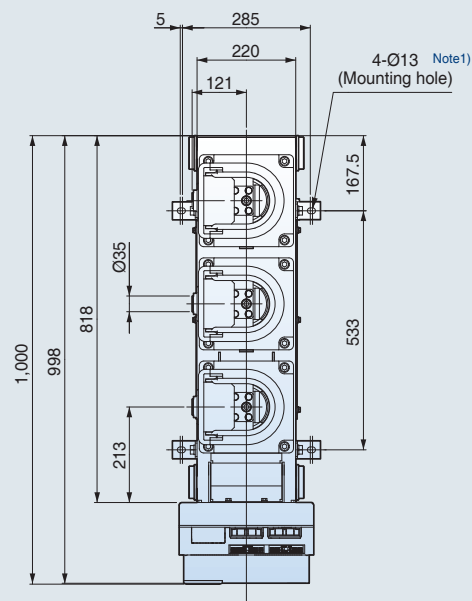
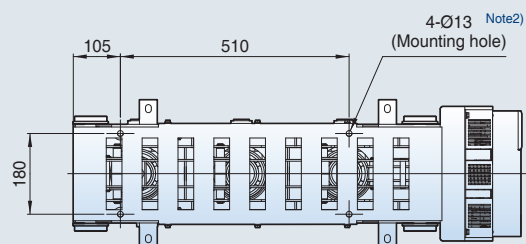
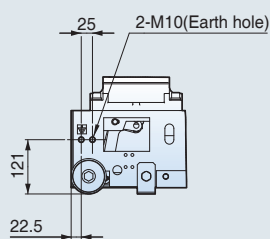
- Note)
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24kV, 25kA, 1250A Fixed (Left type, phase distance 230mm)

(Unit: mm)



DETAIL A



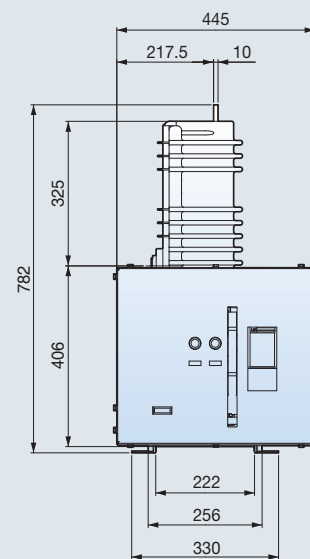
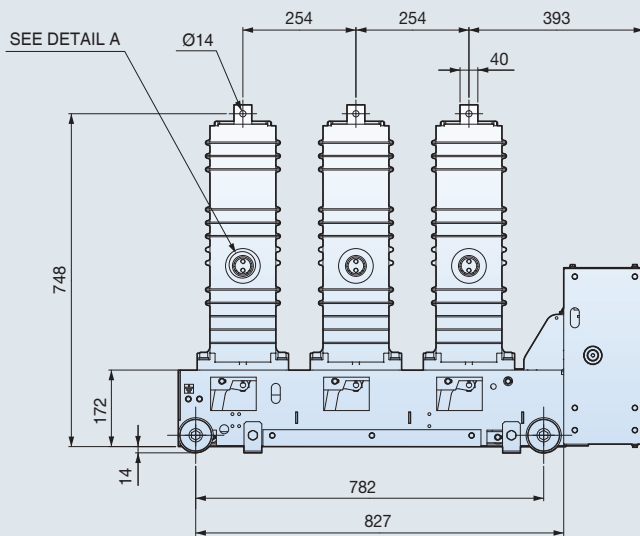
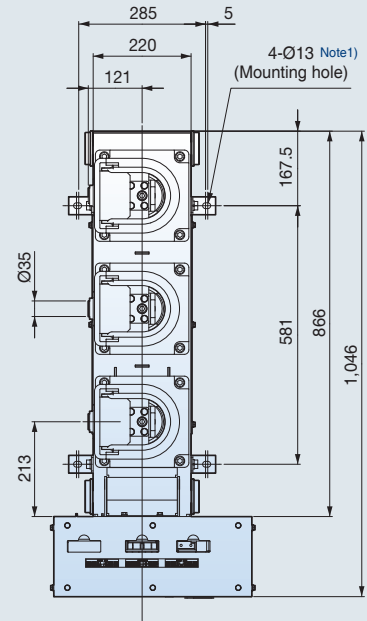
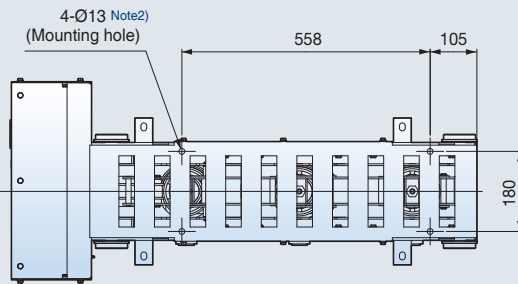
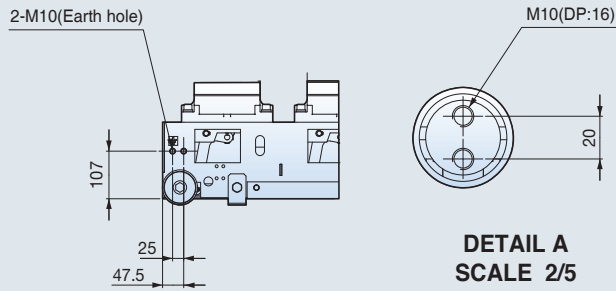
Note)

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Dimensions - SM VCB

24kV, 25kA, 1250A Fixed (Left type, phase distance 254mm)

(Unit: mm)



- Note)
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24kV, 25kA, 1250A
Withdrawable (Right type, phase distance 230mm)

(Unit: mm)

