



Solution Power

Medium Voltage Metal Clad Switchgear



LSIS



Solution Power

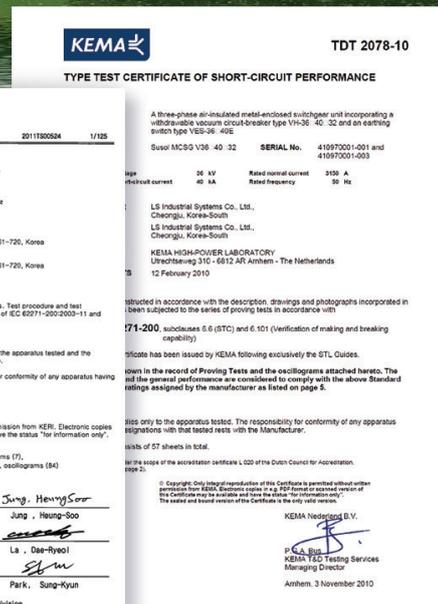
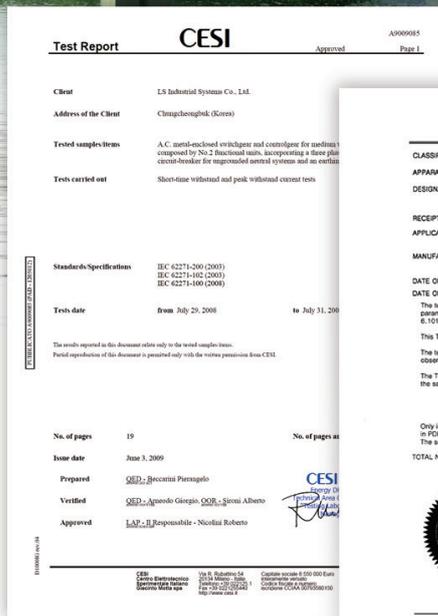
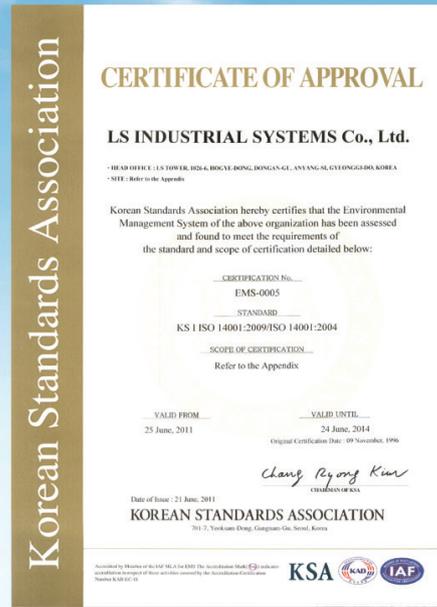
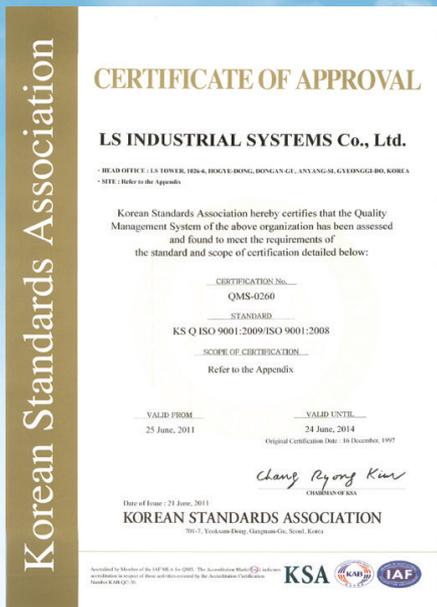
Medium Voltage Metal Clad Switchgear



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- Structures and dimensions
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LSIS showing the new, innovative products every customer desires to present standards for the future electric power solution as leading industrial electrical / electronic sectors with developing high-tech.



Susol VCB

Vacuum Circuit Breaker, VCB is installed in the medium voltage distribution lines to protect life and load equipment. In case of accidents such as over current, short circuit and ground fault current, VCB works by interrupting the circuit through the inner Vacuum Interrupter which is acted by signal from the outside separate relay.

LSIS' Super Solution, Susol VCB responds.

- customer needs for the breakers with high interrupting capacity and large current due to the integration and increase of the load capacity.
- worldwide trend of diversification in the medium voltage distribution lines.
- increase of the reliability for the temperature characteristics of circuit breakers.

Premium-type products to improve convenience and reliability of medium voltage switchgear configuration.

- full line-up modeling to the high interrupting capacity and large current.
- main structure with high reliability application.
- a variety of accessories and ability to maximize.

Suitable for use as the main circuit breaker to protect key installations in the places such as device industry, power plants, high-rise buildings, large ships.



- ▶ Strengthening of the high interrupting capacity and large current models and full line-up new VCB models to high/middle/low.

Voltage	Interrupting current	Rated current
7.2kV	8/12.5/20/25/31.5/40/50kA	400/630/1250/2000/3150/4000A
12kV	20/25/31.5/40/50kA	630/1000/1250/2000/2500/3150/4000/5000A
17.5kV	20/25/31.5/40/50kA	630/1000/1250/2000/2500/3150/4000A
24kV	12.5/25/31.5/40kA	630/1250/2000/2500/3150A
25.8kV	12.5/16/25/31.5/40kA	630/1250/2000/3150A
36kV	25/31.5/40kA	1250/2000/3150A

- ▶ Main circuit structure with high reliability.
 - Maximizing the durability and reliability of the main circuit contactors (Stego Tulip contactor).
 - Strong structure for the temperature rise (Natural cooling system).
- ▶ Convenience of switchgear configuration and a variety of accessories.
 - CB compartment structure: Metal isolation structures to prevent the accident spread and ensure safety. And the convenience of switchgear building is extended by its module style.
 - A variety of accessories: UVT, Locking Magnet, Plug Interlock, Key lock, Temperature Sensor, MOC, TOC, Earthing S/W.
 - Maximizing compatibility with existing products through the dualistic deployment of phases and compact models.





Susol VCB Family

Susol VCB series are premium-type products featuring main structure with high reliability application and a variety of accessories and ability to maximize to be suitable for use as the main circuit breaker to protect key installations in the places such as device industry, power plants, high-rise buildings, large ships

7.2kV (VL-06)

- Rated short-time (for withstand current) : 3sec.
- Rated operating sequence: O-0.3s-CO-15s-CO
- Type test level: M2, E2 (List1), C2
- 100% Compatibility
 - with existing fixed type breakers
 - with existing drawout type breakers
- Various cradle: E, F and G type
- A variety of control power
 - DC 24~30V, DC 48~60V, DC 110V, DC 125V, DC 220V
 - AC 48V, AC 100~130V, AC 220~250V
- A variety of accessories
 - Charge switch, UVT, Secondary trip Coil, Current trip coil, Position S/W
 - Key-lock, Button lock, Button cover, Padlock, UVT, Time Delay Controller, CTD
- Anti Pumping Device
- TEST/SERVICE Automatic Position Indicator
- Standards and certification
 - IEC62271-100 (2012) [M2, C2, E2 (List1)]
 - Tested in enclosure
 - KERI type tested, V-check (KESCO) certification



Ur (kV)	Isc (kA)	Ir (A)
7.2	8	400
	12.5	630

Full line – up & Compact

Full line-up new VCB models to the high interrupting capacity and large current (~ 50kA, ~ 4000A) featuring maximization of compatibility with existing products through the dualistic deployment of phases and compact models

7.2/12/17.5/24/25.8kV (VL-06/12/17/20/25)

- Rated short-time (to withstand current): 3sec. 4sec*
- Rated operating sequence: O-0.3s-CO-15s-CO
- Type test level: M2, E2 (List3), C2
- Compatibility with existing Pro-MEC breakers
- Various cradle: E, F, G, Fs, Gs and H type
- CB Compartment for MCSG available
- A variety of control power
 - DC 24~30V, DC 48~60V, DC 110V, DC 125V, DC 220V
 - AC 48V, AC 100~130V, AC 220~250V
- A variety of accessories
 - VCB part: Charge switch, UVT, Secondary trip coil, Position switch, Locking magnet, Plug interlock, Key lock, Button cover, Button padlock, Padlock (H type Door interlock), MOC
 - Cradle part: MOC (Mechanical Operated Cell switch), TOC (Truck Operated Cell switch), Temperature sensor, Earthing switch & Accessories, Door, Door interlock, Door emergency button
 - Others: Racking in/out handle, UVT Time delay controller, CTD (Condensor Trip Device), Temperature module
- Anti Pumping Device
- TEST/SERVICE Automatic Position Indicator
- Standards and certification
 - IEC62271-100 (2012) [M2, C2, E2 (List3)]
 - KEMA, KERI type tested, V-check (KESCO) certification

Note) * Please contact us



Ur (kV)	Isc (kA)	Ir (A)
7.2	20	630
		1250
		2000
	25	630
		1250
		2000
31.5	630	
	1250	
	2000	
12	20	630
		1000
		1250
	25	630
		1000
		1250
31.5	630	
	1250	
	2000	
17.5	20	630
		1250
		2000
	25	630
		1250
		2000
31.5	630	
	1250	
	2000	
24, 25.8	12.5	630
		1250
		2000
	16	630
		1250
		2000
25	630	
	1250	
	2500	
36	25	630
		1250
		2000
		2500

7.2/12/17.5/24/25.8/36kV (VH-06/12/17/20/25/36)

- Rated short-time (to withstand current): 3sec. 4sec *
- Rated operating sequence: O-0.3s-CO-15s-CO, (O-0.3s-CO-3min-CO **)
- Type test level: M2, E2 (List3), C2
- Electrical and mechanical life: 20,000 operations
- Various cradle: K, Fs, Gs and H type
- CB Compartment for MCSG available
- A variety of control power
 - DC 48V, DC 110V, DC 125V, DC 220V
 - AC 48V, AC 110V, AC 220V
- A variety of accessories
 - VCB part: UVT, Secondary trip coil, Latch checking switch, Position switch, Locking magnet, Plug interlock, Key lock, Button cover, Button padlock, Padlock (H type Door interlock), MOC
 - Cradle part: MOC (Mechanical Operated Cell switch), TOC (Truck Operated Cell switch), Temperature sensor, Earthing switch & Accessories, Door, Door interlock, Door emergency button
 - Others: Racking in/out handle, Lifting hook, UVT Time delay controller, CTD (Condensor Trip Device), Temperature module
- Anti Pumping Device
- Standards and certification
 - IEC62271-100 (2012) [M2, C2, E2 (List3)]
 - KEMA, KERI type tested, V-check (KESCO) certification

Note) * Please contact us

** Please refer to ratings



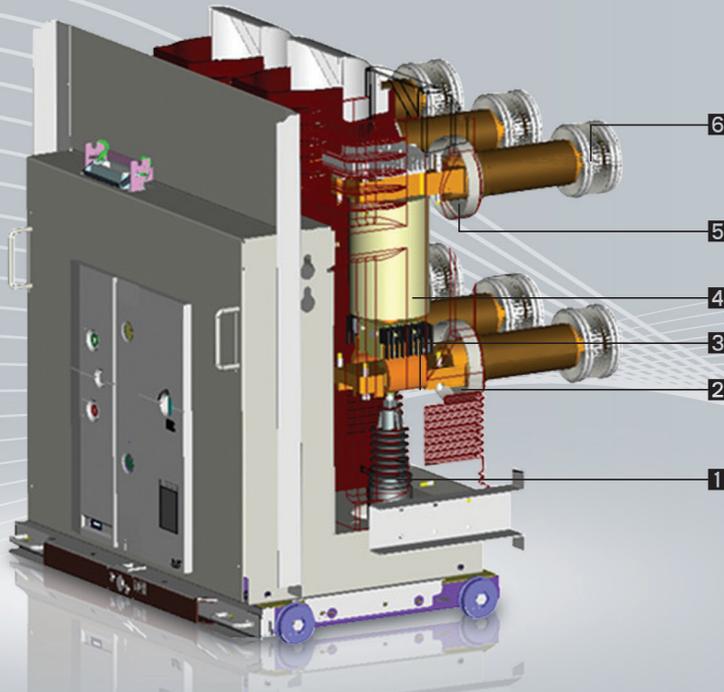
Ur (kV)	Isc (kA)	Ir (A)
7.2	31.5	1250
		2000
		3150
	40	2000
		3150
		4000
12	50	1250
		2000
		2500
	31.5	1250
		2000
		2500
17.5	31.5	3150
		1250
		2000
	40	2000
		3150
		3150
24, 25.8	25	2500
		1250
		2000
	31.5	1250
		2000
		3150
36	25	1250
		2000
		3150
	31.5	1250
		2000
		3150
40	2000	
	2000	
	3150	



VCB Cradle type

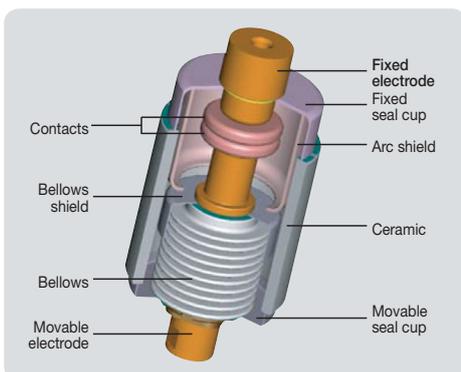
Main circuit structure with high reliability

Susol VCB



Breaker

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



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.

Convenience and Variety

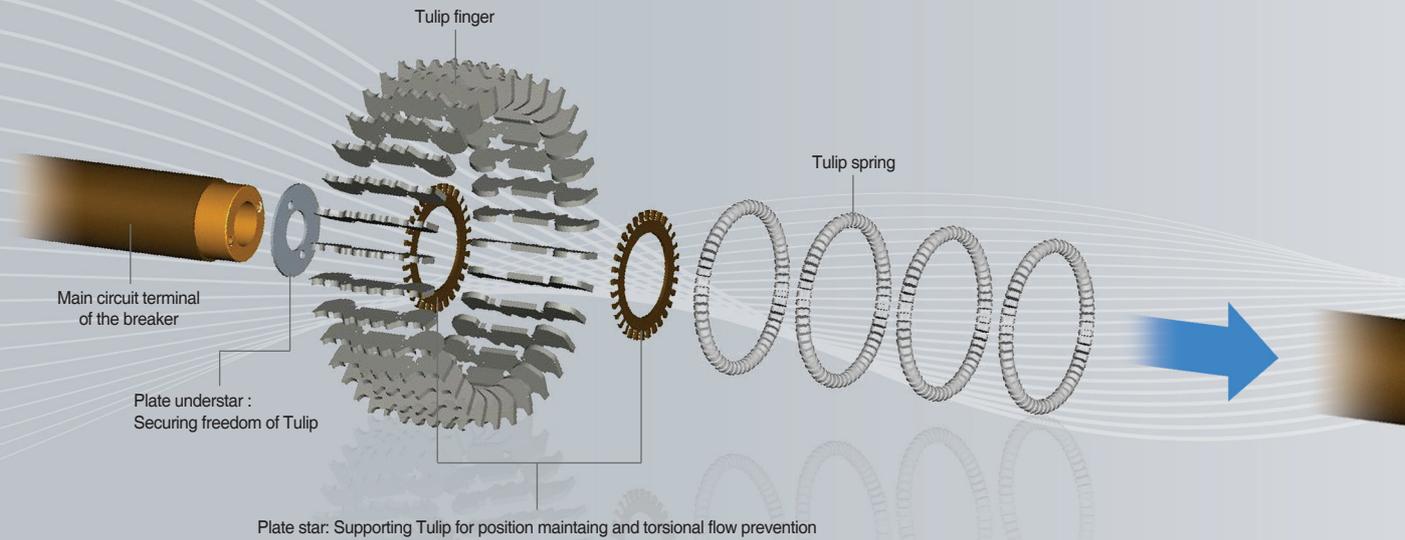
- Maximizing the durability and reliability of the main circuit contactors (Stego Tulip contactor)
- Strong structure for the temperature rise (Natural cooling system)



Stego Tulip

Main circuit structure with high reliability

- Maximizing the durability and reliability of the main circuit contactors (Stego Tulip contactor)
- Strong structure for the temperature rise (Natural cooling system)



Structure of Stego Tulip Terminal

- Maintaining the connection between breaker and cradle for the optimum current path through securing freedom of Tulip.
- Increasing the heat dissipation area of the contactors and minimizing aging.

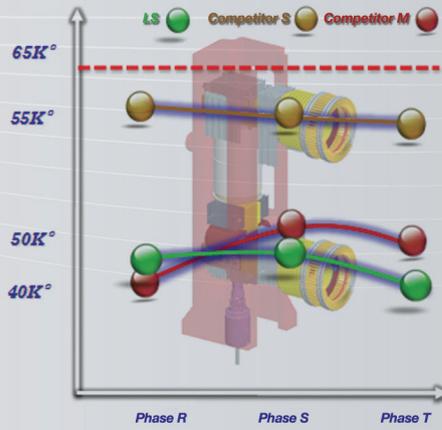


Major supply records

- S Electro-Mechanics, Busan plant: 12kV 40kA 4000A VCB
- P Combined cogeneration power plant: 7.2kV 50kA 4000A VCB
- K Petrochemical, Ulsan plant: 7.2kV 40kA 4000A VCB
- P Steel plant, Gwangyang: 7.2kV 50kA 4000A VCB
- P Steel plant, Pohang: 7.2kV 50kA 4000A VCB
- L Chem, Cheongju plant: 7.2kV 40kA 4000A VCB
- S Electronics, Tangjeong plant: 7.2kV 40kA 4000A VCB

7.2/12/17.5/24/25.8/36kV...
(VH-06/12/17/20/25/36)

- Drawout / natural cooling system
- Improved temperature characteristics and ensured high reliability



VL type Tulip contactor



VH type Tulip contactor



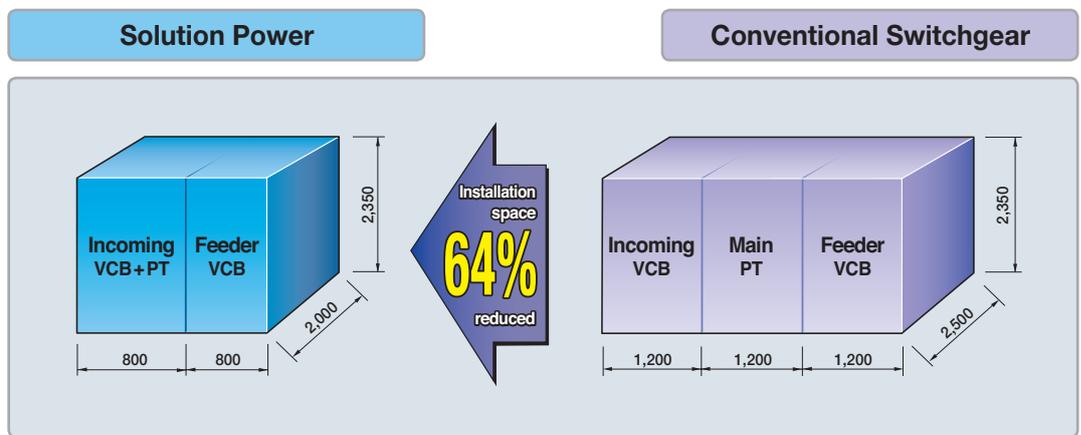
36kV Tulip contactor

Features

Reduced installation space

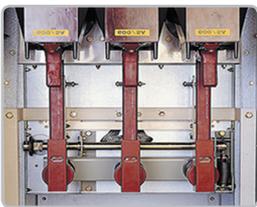
Securing a free space for installation even in the places where safety is top priority such as Power Plant(Nuclear, Thermal, Hydro and Cogeneration), Industrial Plant(semiconductor, petrochemical, steel) and Infrastructure facilities (subways, railways, airports), etc.

- Up to 64% reduction in installation space compared to conventional switchgear
- 33% reduction in the width of switchgear with rating upto 2000A
- Integration : Incoming VCB and main PT are installed in a panel (from 2 panels before)



Note) 1. For models up to 24kV 25kA 2000A.
2. In case of Bottom incoming and outgoing.

Safety considerations



This Solution Power switchgear provides the best protection rating out of Air Insulated Switchgear !!

Designed to remove explosion or damage to peripheral devices as possible in the event of internal arc happening .To prove its reliability and safety LSIS use the internationally recognized testing agency, KERI / KEMA / CESI for certification as well as LSIS' test lab PT&T that is a KOLAS-qualified (Korea Laboratory Accreditation Scheme) accredited testing laboratory and provides worldwide testing service.

- Metal clad type: each compartment is divided by metal partitions for the highest degree of protection rating out of Air Insulated Switchgears.
- Short-circuit, short-time current and internal arc tests passed at KERI / KEMA / CESI by IEC 62271-200.
- Various options including
 - Mechanical interlock to prevent from inadvertent operating
 - Mechanism enable the breaker to be drawn in or out without opening the door
 - Position padlock to lock the breaker at the present position.
- Solid structure with hinge and locker
- IP Cover on the face of the breaker and inspection window on the door
- Metal shutter and shutter padlock installed in CB compartment for safe maintenance
- Used reliable tube & boots for busbar insulation
- Insulation cap and padlock used for earthing switch to secure insulation and safety
- CT equipped with protective insulation wall
- Inhouse test equipment with 1,500 MVA capacity for performing reliability test

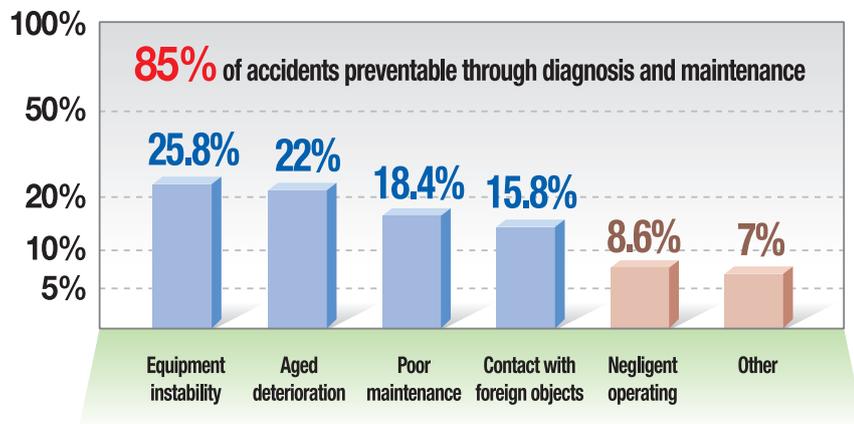
Convenient maintenance and inspection



Preventive maintenance is essential for all switchgears.

LSIS' One-Stop Total preventive maintenance activities cover continuous maintenance, inspection, remaining life expectancy and streamline. Solution Power Switchgear is structured for these convenient maintenance and inspection.

- Using recently developed Susol VCB for almost unnecessary maintenance and inspection .
- Low voltage compartment provides enough space to test and change the internal wiring easily, and the wiring duct at the top of it is made of steel material .
- Independent bus compartment structured not to affect any accident to adjacent panels .



Digital type switchgear capable of digital data link

Digital Protection & Monitoring Device, GIPAM developed by LSIS is adopt for establishing convenient and reliable power protection and monitoring system, and for Digital data link with remote monitoring and control system.



X GIPAM separate type touch screen applied



X GIPAM



GIPAM-2000



GIPAM-2200

Ratings

7.2kV Metal Clad Switchgear Specification



Section		Contents						
Model		Solution Power V7 / S7						
Rated voltage (kV)		7.2						
Rated frequency (Hz)		50/60						
Rated power frequency withstand voltage (kV/1min)		20						
Rated lighting impulse withstand voltage (kV[1.2×50μs])		60						
Rated short-time withstand current (kA/s)		25/3	40/3	50/3				
Degree of protection		IP4X	IP4X	IP4X				
Internal arc withstand current (kA/s)		25/1	40/1	50/0.5				
Rated current (A)		630/1250/2000	1250/2000	3150	1250/2000	2500/3150	4000	5000
Size (mm)	Width	(650)750/800	(650)800	850	850	1050		1200
	Height	2250	2250		2250			
	Depth	(1800)2000	(1900)2000	(1900)2200	(2000)2200		2400	(2200)2400
Standard		IEC 62271-200						

Note) 1. Solution Power V Series : Pro-MEC VCB installed.
 2. Solution Power S Series : Susol VCB installed.
 3. The number of the size in () is for minimum size.

12kV Metal Clad Switchgear Specification



Section		Contents						
Model		Solution Power V12 / S12						
Rated voltage (kV)		12						
Rated frequency (Hz)		50/60						
Rated power frequency withstand voltage (kV/1min)		28						
Rated lighting impulse withstand voltage (kV[1.2×50μs])		75						
Rated short-time withstand current (kA/s)		25/3	40/3	50/3				
Degree of protection		IP4X	IP4X	IP4X				
Internal arc withstand current (kA/s)		25/1	40/1	50/0.5				
Seismic Qualification Test		-	-	-	UBC 97 Code Zone 4/IEC 60068		-	
Rated current (A)		630/1250/2000	1250/2000	3150	1250/2000	2500/3150	4000	5000
Size (mm)	Width	(650)750/800	(650)800	850	850	1050		1200
	Height	2250	2250		2250			
	Depth	(1800)2000	(1900)2000	(1900)2200	(2000)2200		2400	(2200)2400
Standard		IEC 62271-200						

Note) 1. Solution Power V Series : Pro-MEC VCB installed.
 2. Solution Power S Series : Susol VCB installed.
 3. The number of the size in () is for minimum size.

17.5kV Metal Clad Switchgear Specification



Section		Contents					
Model		Solution Power V17 / S17					
Rated voltage (kV)		17.5					
Rated frequency (Hz)		50/60					
Rated power frequency withstand voltage (kV/1min)		38					
Rated lighting impulse withstand voltage (kV[1.2×50μs])		95					
Rated short-time withstand current (kA/s)		25/3	40/3	50/3			
Degree of protection		IP4X	IP4X	IP4X			
Internal arc withstand current (kA/s)		25/1	40/0.1	50/0.5			
Rated current (A)		630/1250/2000	1250	3150	1250/2000	2500/3150	4000
Size (mm)	Width	800	800	950	850	1050	
	Height	2250		2250		2250	
	Depth	(1800)2000	(1900)2200		2200	2400	
Standard		IEC 62271-200					

Note) 1. Solution Power V Series : Pro-MEC VCB installed. 2. Solution Power S Series : Susol VCB installed. 3. The number of the size in () is for minimum size.

24kV Metal Clad Switchgear Specification



Section		Contents					
Model		Solution Power V24 / S24					
Rated voltage (kV)		24					
Rated frequency (Hz)		50/60					
Rated power frequency withstand voltage (kV/1min)		50					
Rated lighting impulse withstand voltage (kV[1.2×50μs])		125					
Rated short-time withstand current (kA/s)		25/3			40/3		
Degree of protection		IP4X			IP4X		
Internal arc withstand current (kA/s)		25/1			40/0.5		
Seismic Qualification Test		-			IEC 60068		-
Rated current (A)		630/1250	2000	2500	1250/2000	3150	
Size (mm)	Width	800	(800)1000	1000	(800)1000	1000	
	Height	2250/2350			2250/2350		
	Depth	2000			2200	2200	
Standard		IEC 62271-200					

Note) 1. Solution Power V Series : Pro-MEC VCB installed. 2. Solution Power S Series : Susol VCB installed. 3. The number of the size in () is for minimum size.
4. Height 2350mm is the height of 24kV receiving equipment 5. Max internal arc capability is 1Sec for 40kA model.

36kV Metal Clad Switchgear Specification



Section		Contents	
Model		Solution Power S36	
Rated voltage (kV)		36	
Rated frequency (Hz)		50/60	
Rated power frequency withstand voltage (kV/1min)		70	
Rated lighting impulse withstand voltage (kV[1.2×50μs])		170	
Rated short-time withstand current (kA/s)		25, 31.5, 40/3	
Degree of protection		IP4X	
Internal arc withstand current (kA/s)		40/1	
Rated current (A)		1250/2000/3150	
Size (mm)	Width	1200	
	Height	2250~3000	
	Depth	2600~3300	
Standard		IEC 62271-200	

Note) Please contact us for exact size.

Ratings for double lever

Compact Type Double level Specification



Section		Contents				
Model		Compact Type				
Rated voltage (kV)		7.2		12		
Rated frequency (Hz)		50/60		50/60		
Rated power frequency withstand voltage (kV/1min)		20		28		
Rated lighting impulse withstand voltage (kV[1.2×50μs])		60		75		
Rated short-time withstand voltage (kA/s)		20/3, 25/3	31.5/3, 40/3		31.5/3, 40/3	
Degree of protection		IP4X		IP4X		
Rated current (A)		630/1250/2000	1250/2000	3150	1250/2000	3150
Size (mm)	Width	750(800)	750(800)	850	750(800)	850
	Height	2350/2450		2350/2450		
	Depth	2200/2400	2200/2400		2400	
Standard		IEC 62271-200				

Note) The number of the size in () is for installed PT model.

Earthing Switch Type Double level Specification



Section		Contents				
Model		Earthing Switch + Arc Duct Type				
Rated voltage (kV)		7.2				
Rated frequency (Hz)		50/60				
Rated power frequency withstand voltage (kV/1min)		20				
Rated lighting impulse withstand voltage (kV[1.2×50μs])		60				
Rated short-time withstand current (kA/s)		25/3	40/3		50/3	
Degree of protection		IP4X		IP4X		
Internal arc withstand current (kA/s)		25/0.5	40/0.5		50/0.5	
Seismic Qualification Test		UBC 97 Code Zone 4/IEC 60068			-	
Rated current (A)		630/1250/2000	1250/2000	3150	1250/2000	2500/3150/4000
Size (mm)	Width	800	800	850	950	1050
	Height	2700	2700		2750	2750
	Depth	2400	2400		2300	2300
Standard		IEC 62271-200				

Note) Internal arc performance can be verified with 1Sec when customer requests

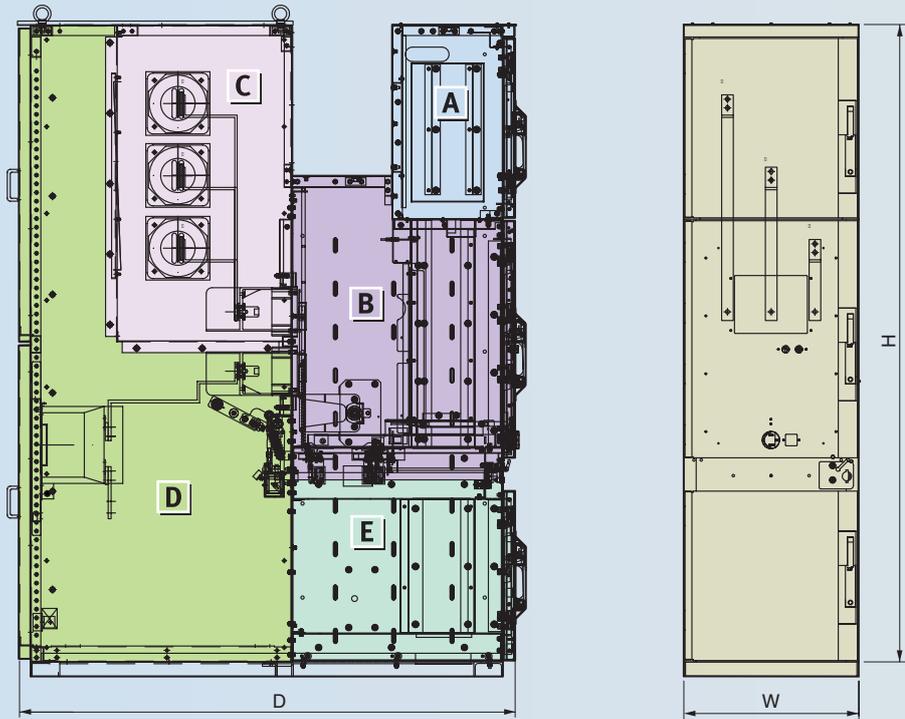
Middle Busbar Type Double level Specification



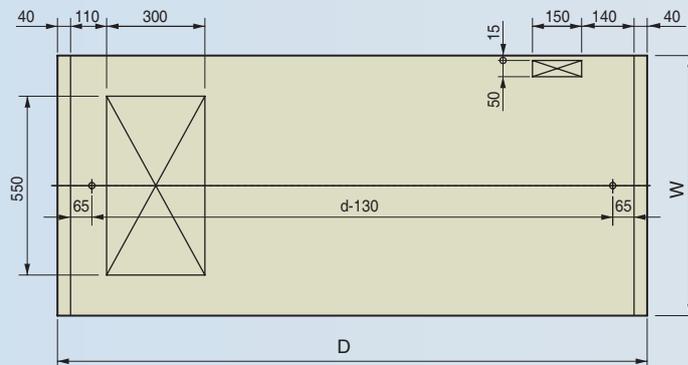
Section		Contents				
Model		Middle Busbar + Arc Duct Type				
Rated voltage (kV)		7.2				
Rated frequency (Hz)		50/60				
Rated power frequency withstand voltage (kV/1min)		20				
Rated lighting impulse withstand voltage (kV[1.2×50μs])		60				
Rated short-time withstand current (kA/s)		25/3	40/3		50/3	
Degree of protection		IP4X		IP4X		
Internal arc withstand current (kA/s)		25/1	40/0.5		50/0.5	
Seismic Qualification Test		IEEE 693		-		-
Rated current (A)		630/1250/2000	1250/2000	3150	1250/2000	2500/3150/4000
Size (mm)	Width	750	900	1000	1000	1050
	Height	2450	2250/2450		2450	
	Depth	2200	2400		2400	
Standard		IEC 62271-200				

Note) 1. Max internal arc capability is 1Sec for 40kA model. 2. Height 2450mm size for 50kA 2,500/3,150/4,000A is applied by customer needs.

Structures and dimensions



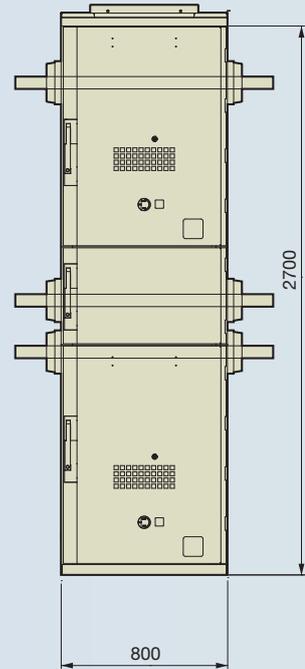
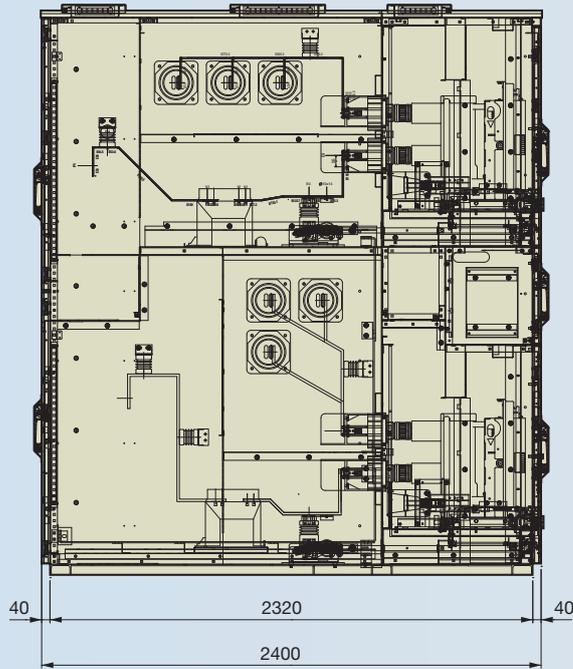
- A** Low voltage compartment **B** C.B. compartment **C** BusBar compartment
- D** Cable compartment **E** V.T. compartment



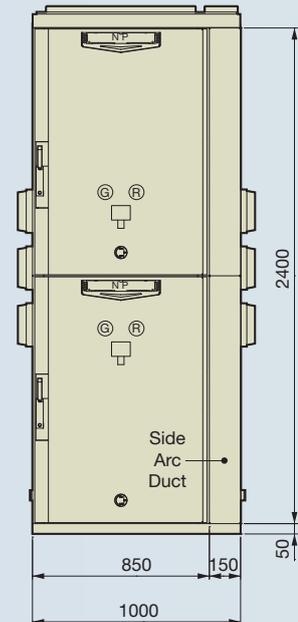
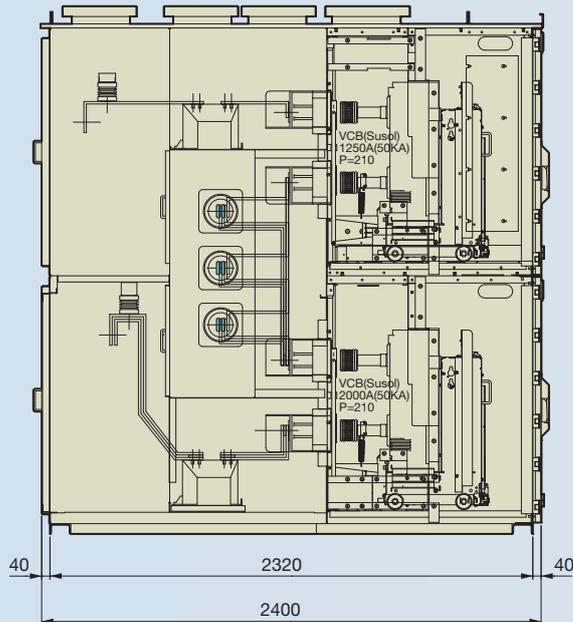
Base detail

Structures and dimensions for double lever

Earthing Switch + Arc Duct Type



Middle Busbar Type



Note) Width of 40kA model is 900mm.



Ventilation Cover



Bus Compartment

- Independent bus compartment structured not to affect any accident to adjacent panels .



Low Voltage Compartment

- Enough space to test and change the internal wiring easily.
- Wiring duct for panel connection at the top is made of steel.



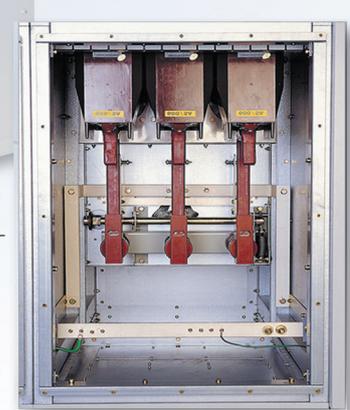
Earthing Switch

- Device to discharge the load side current in the position of Test and Drawout to ensure the safe maintenance



CB Compartment

- Can be drawn in and out C.B. without opening the door.
- Viewing window for C.B. inspection
- Solid structure with hinge and locker
- Metal shutter and shutter padlock
- IP cover on the face of C.B



Cable compartment

- Sufficient spaces for wiring
- Insulation cap for the dielectric of Earthing switch
- Bottom incoming and outgoing (Top incoming and outgoing not available)

Accessories and apparatuses

Optional accessories for C.B. Compartment

Shutter Padlock

The hole to lock the shutters (load and line side) in close position, to increase the safety during the maintenance of a VCB draw-out position.



Inspection window

Viewing window permits view of the status of the breaker through the closed door.

Emergency trip device

C.B. can be tripped by trip device without opening the door.

Draw-in and out device

C.B. can be drawn-in and out with the door closed.

Mechanical position indicator

Indicate the service and test position of C.B.

VCB Interlock

The device that prevents the circuit breaker to separate the Jack Terminal when the Run position.

Interlocking device between door and C.B.

When the C.B. is service position, customer can not open the door without releasing the interlock key.

Earthing Switch Padlock

Prevent the accident in case of carelessness earthing switch operation. The locking of the earthing switch is available when the switch is in 'OFF' position.

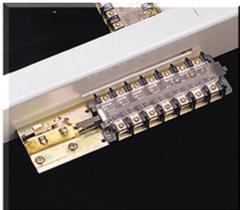


Vacuum circuit breaker

LS Susol VCB is user-friendly to give more convenience and safety by providing high speed interrupting time (3cycles), adopting the rapid auto reclosing method, and having wide range of accessories.

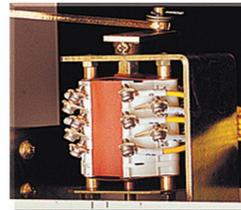


CB Compartment Option



Mechanically Operated Cell switch (MOC)

Auxiliary switch, which is mechanically operated in 'Run' position, indicates 'ON' or 'OFF' condition of the breaker.



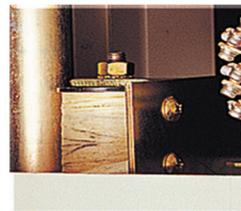
Earthing Switch Position Switch

The auxiliary switch (5a5b) to indicate 'ON' or 'OFF' of the earthing switch.



Truck Operated Cell Switch (TOC)

The auxiliary switch (3a4b), which is operated when the breaker comes to 'Run' position.



Earthing Locking Coil

To prevent the accident through carelessness earthing switch operation, the earthing switch can be changed to 'ON' position after releasing the lock by energizing the coils.

Code Plate (Miss insertion prevention)

To prevent the insertion of a breaker to a cradle if their ratings do not match.

Accessories and apparatuses

Current Transformer

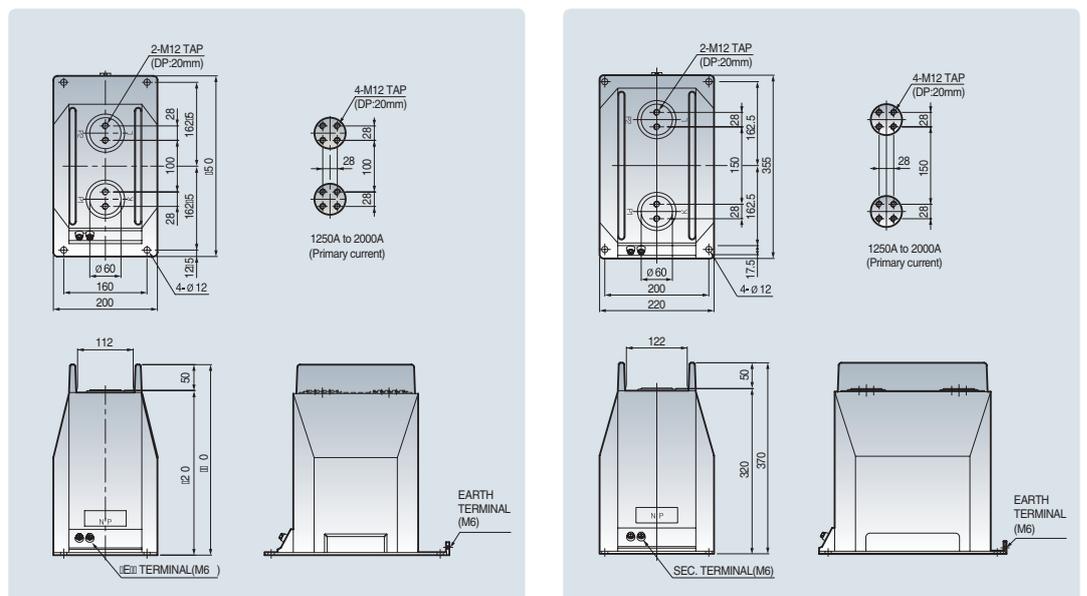
In Door Insulator Type Current Transformer DCI-204A(W)



- Max system voltage 7.2KV to 25.8KV
- The primary and secondary coil are wound on high permeability directional core with short magnetic path. The assembly of primary, secondary and ground is entirely encapsulated with silica-filled epoxy resin.
- This ensures superior electrical characteristics and mechanical strength

Type	DCI-204A(W)DIC-205A(W)	TPU 60.23
Maker	Dongwoo	ABB
Rated Voltage (kV)	24	
Rated Primary Current (A)	20 to 2,000	
Rated Secondary Current (A)	1,5	
Rated Output (VA)	40	
Rated Insulation Power Frequency (kV/1min)	50	
Level Impulse (kV/1.2 × 50μs)	125	
Rated Short Time Current (kA)	25	

Contact us for other specification.



Voltage Transformer

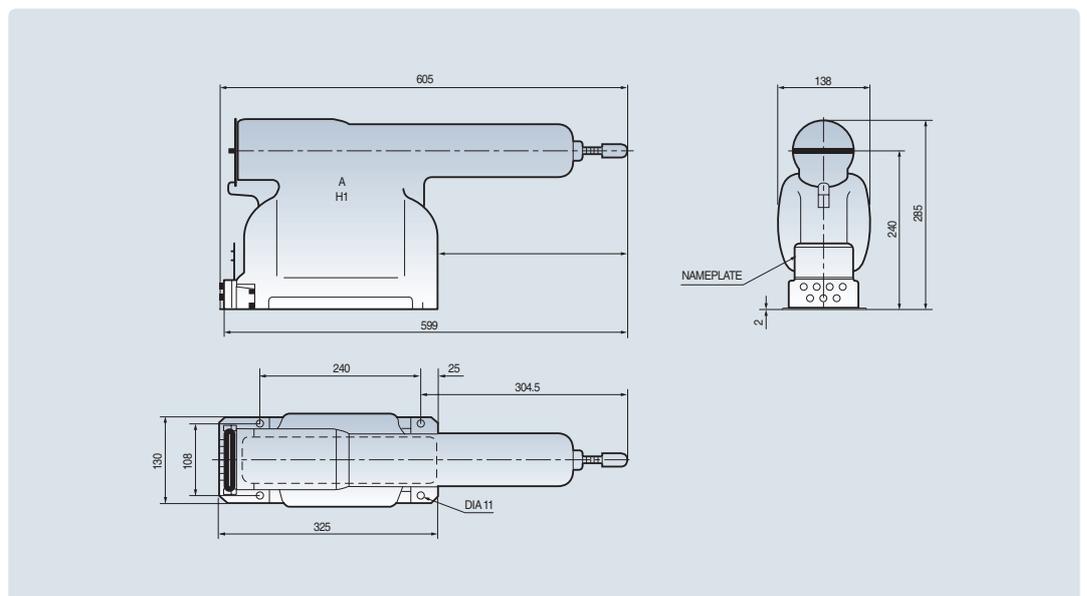


In Door Type Voltage Transformer

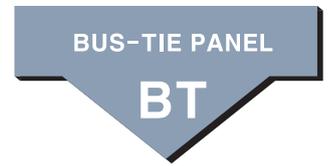
- Compact and concentrated fuse holder of Y24F can be easily applied to the VTS compartment
- Mounting type
- Compact and epoxy molded for superior insulation and maintenance free

Type	Y24F/a14 (Equipped with a fuse)	YH(G)P-24NFE (Equipped with a fuse)
Maker	SADTEM (France)	Younghwa (Korea)
Rated Voltage (kV)	24	
Rated Voltage Ratio (V)	22,900 $\sqrt{3}$ / 190 $\sqrt{3}$ or 110 $\sqrt{3}$	
Rated Output (VA)	50, 100	
Rated Insulation	Power Frequency (kV/1min)	
Level	Impulse (kV/1.2 \times 50 μ s)	
Rated Voltage Factor	1.9 \times 8h	

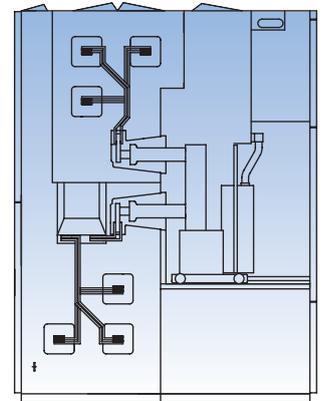
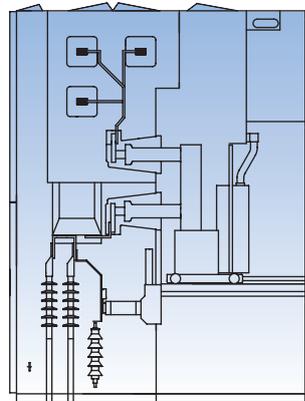
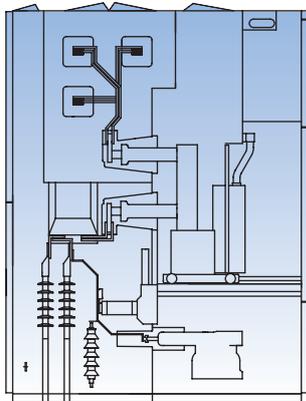
Contact us for other specification.



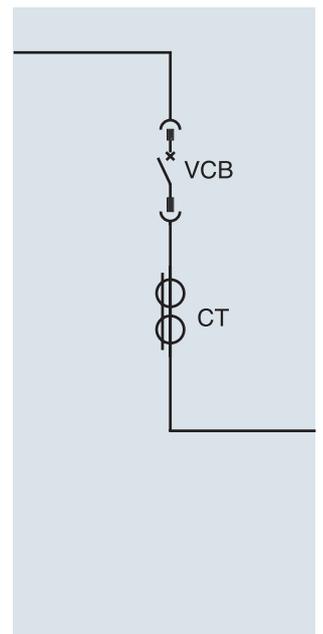
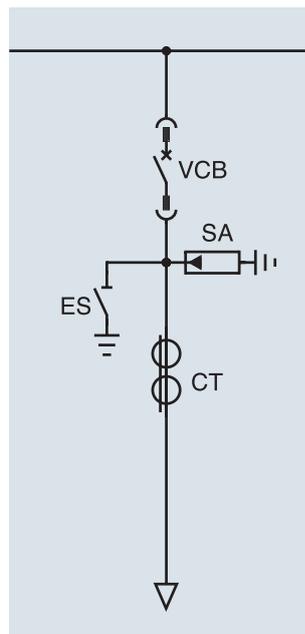
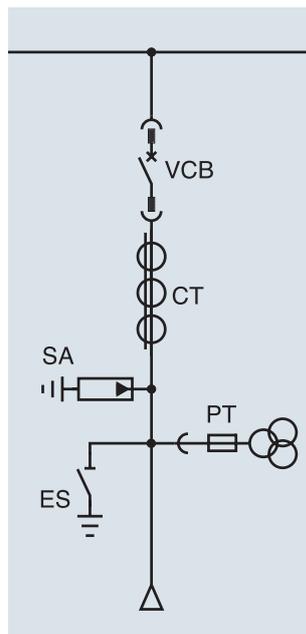
Arrangement (for general application)



Section view



Diagram



Note) Panels except Incoming panel and Feeder panel to be applied those of a general switchgear.

BUS-RISER PANEL

BR

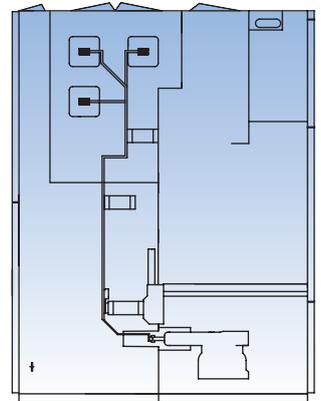
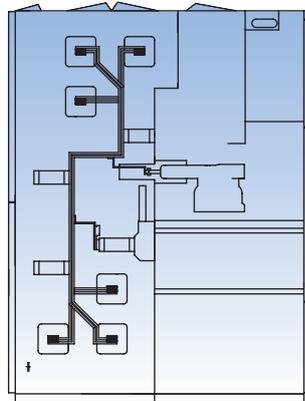
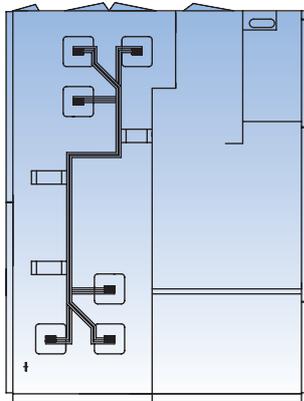
BUS-RISER PANEL
(Withdrawable VT)

RP

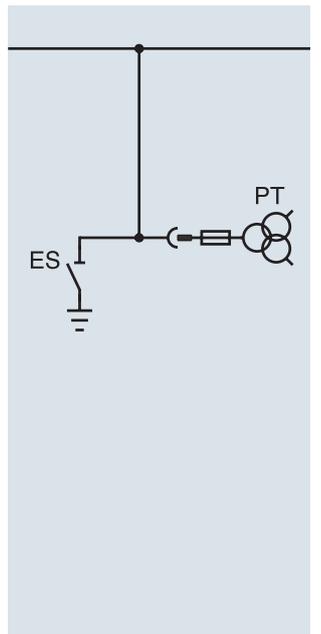
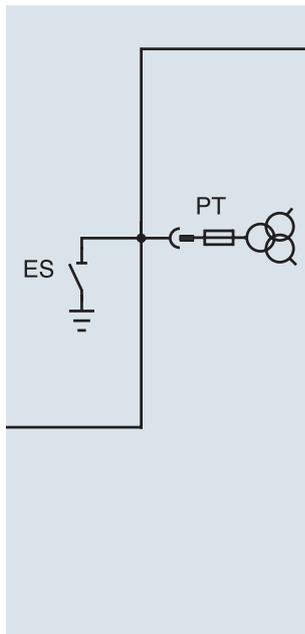
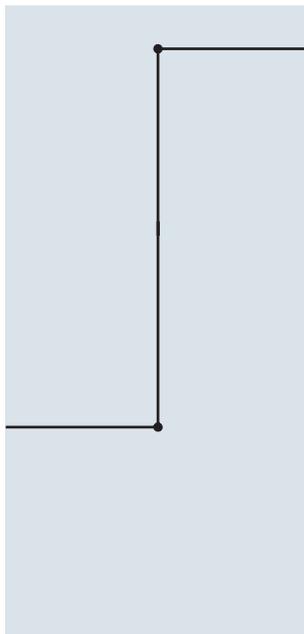
BUS-PT PANEL

BP

Section view



Diagram



Memo



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 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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