SIMOSEC

TMB

Air-insulated, Compact Medium-Voltage Switchgear Up to 24 kV

SIMOSEC

Technology Partner

SIEMENS

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TECHNICAL SPECIFICATION

Rated insulation level		Rated voltage U_r	kV	7.2		12		17.5		24			
		Rated short-dur. power-frequency withstand voltage U_d											
		– phase-to-phase, phase-to-earth, open contact gap	kV	20		28, 42 *)		38		50			
		– across the isolating distance	kV	23		32, 48 *)		45		60			
		Rated lightning impulse withstand voltage U_p											
		– phase-to-phase, phase-to-earth, open contact gap	kV	60		75		95		125			
		– across the isolating distance	kV	70		85		110		145			
Rated frequency f_r			Hz	50/60 →									
Rated normal current I_r **)		Standard	A	630 →									
for busbar		Option	A	800,1250 →									
50 Hz	Rated short-time	for rated duration of short-circuit t_k = 1 s, 2 s *)	up to kA	21	25	21	25	21	25	16	20	25	
	withstand current I_k	for rated duration of short-circuit t_k = 3 s (20 kA/4 s*))	up to kA	21	–	21	–	21	–	16	20	–	
	Rated peak withstand current I_p		up to kA	52.5	63	52.5	63	52.5	63	40	50	63	
Ring-main panel types R, R1, R(T), R1(T), cable panel types K and K1 [3]													
Rated normal current I_r **)		Standard	A	630 →									
		Option	A	1250 ,800 for type K1 →									
50 Hz	Rated short-time	for rated duration of short-circuit t_k = 1 s, 2 s*)	up to kA	21	25	21	25	21	25	16	20	25	
	withstand current I_k	for rated duration of short-circuit t_k = 3 s, (4 s*))	up to kA	21	–	21	–	21	–	16	20	–	
	Rated peak withstand current I_p		up to kA	52.5	63	52.5	63	52.5	63	40	50	63	
	Rated short-circuit making current I_{ma}	for ring-main feeders	up to kA	52.5	63	52.5	63	52.5	63	40	50	63	
Transformer panel types T, T1, T(T) as switch-fuse combination according to IEC 62271-105													
Rated normal current I_r **)		Standard	A	200 →									
50 Hz	Rated short-time	for rated duration of short-circuit t_k = 1 s, 2 s*)	up to kA	21	25	21	25	21	25	16	20	25	
	withstand current I_k [1)4)]	for rated duration of short-circuit t_k = 3 s (4 s*))	up to kA	21	–	21	–	21	–	16	20	–	
	Rated peak withstand current I_p [1)]	for transformer feeders [1)]	up to kA	52.5	63	52.5	63	52.5	63	40	50	63	
	Rated short-circuit making current I_{ma} [1)]	for transformer feeders [1)]	up to kA	52.5	63	52.5	63	52.5	63	40	50	63	
Disconnector panel types D1, D1(T)													
Rated normal current I_r **)		Standard	A	1250 →									
		On request	A	630 →									
50 Hz	Rated short-time	for rated duration of short-circuit t_k = 1 s, 2 s*)	up to kA	21	25	21	25	21	25	16	20	25	
	withstand current I_k	for rated duration of short-circuit t_k = 3 s (4 s*))	up to kA	21	–	21	–	21	–	16	20	–	
	Rated peak withstand current I_p		up to kA	52.5	63	52.5	63	52.5	63	40	50	63	
Circuit-breaker panel [2)] types L, L1, L(T), L1(T)													
Rated normal current I_r **)		Standard : L, L(T), L1, L1(T)	A	630 →									
		Option L1, L1(T)	A	1250 A →									
50 Hz	Rated short-time	for rated duration of short-circuit t_k = 1 s, 2s *)	up to kA	21	25	21	25	21	25	16	20	25	
	withstand current I_k	for rated duration of short-circuit t_k = 3 s(4 s*))	up to kA	21	–	21	–	21	–	16	20	–	
	Rated peak withstand current I_p		up to kA	52.5	63	52.5	63	52.5	63	40	50	63	
	Rated short-circuit making current I_{ma}		up to kA	52.5	63	52.5	63	52.5	63	40	50	63	
	Rated short-circuit breaking current I_{sc}		up to kA	21	25	21	25	21	25	16	20	25	

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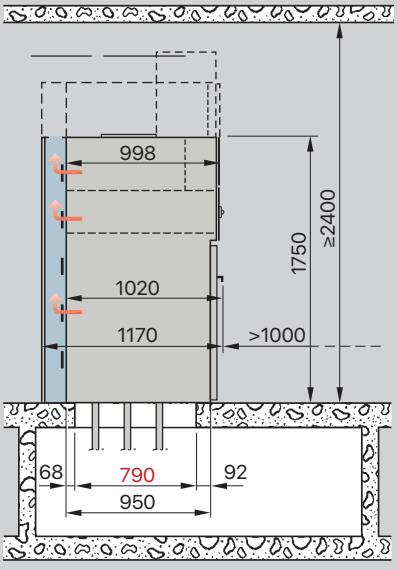
BENEFITS

- Type-tested, three phase, metal-enclosed indoor switchgear according to IEC 62271-200
- AFLR internal arc classification (AIC)
- Enables applications :
  - Transformer substations
  - Distribution substations of power supply
  - Railway stations, airports, industial plants
  - public building, high rise building, hospitals
- Extendable, compact and modular design
- Maintenance-free operating mechanism parts

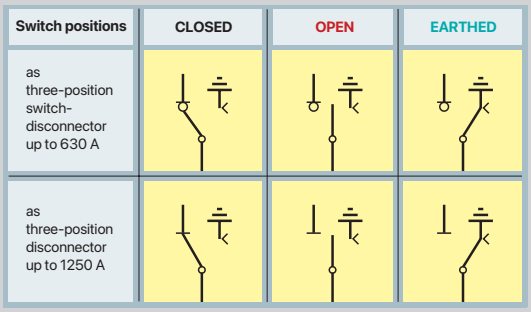
PRODUCT RANGE PANEL

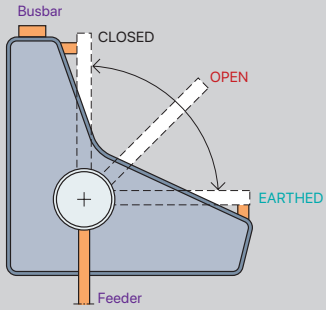
- Ring-main panel: types R, RI, R(T)
- Cable panel: types K, KI
- Bus riser panel: type H
- Bus Earthing panel: type E
- Transformer panel: types T, TI, T(T)
- Discover panel: types DI, DI(T)
- Circuit breaker panel: types L, LI, L(T), LI(T)
- Circuit breaker panel: types LI(r), L2(r)
- Metering panel: type M
- Bus metering panel: types M(VT-F), MI(VT-F)

ROOM PLANNING

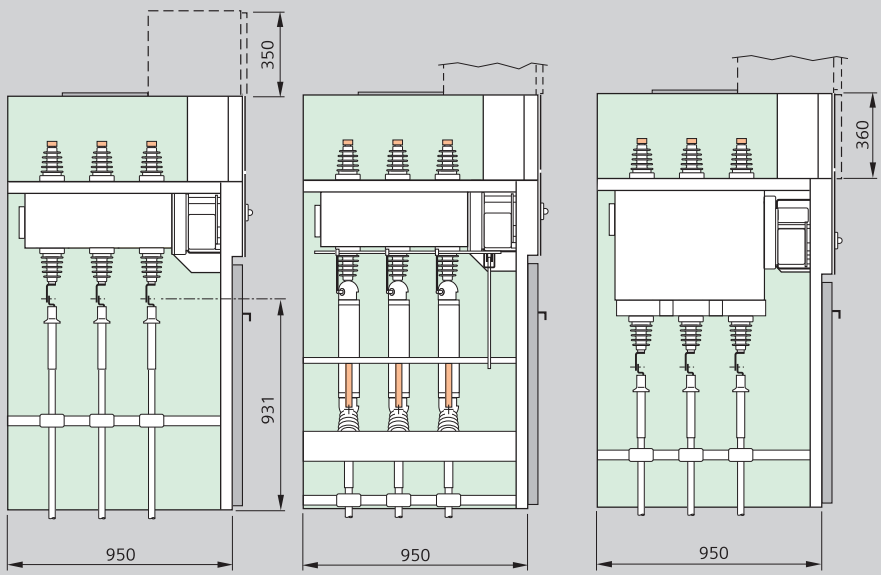


Free-standing arrangement (side view)

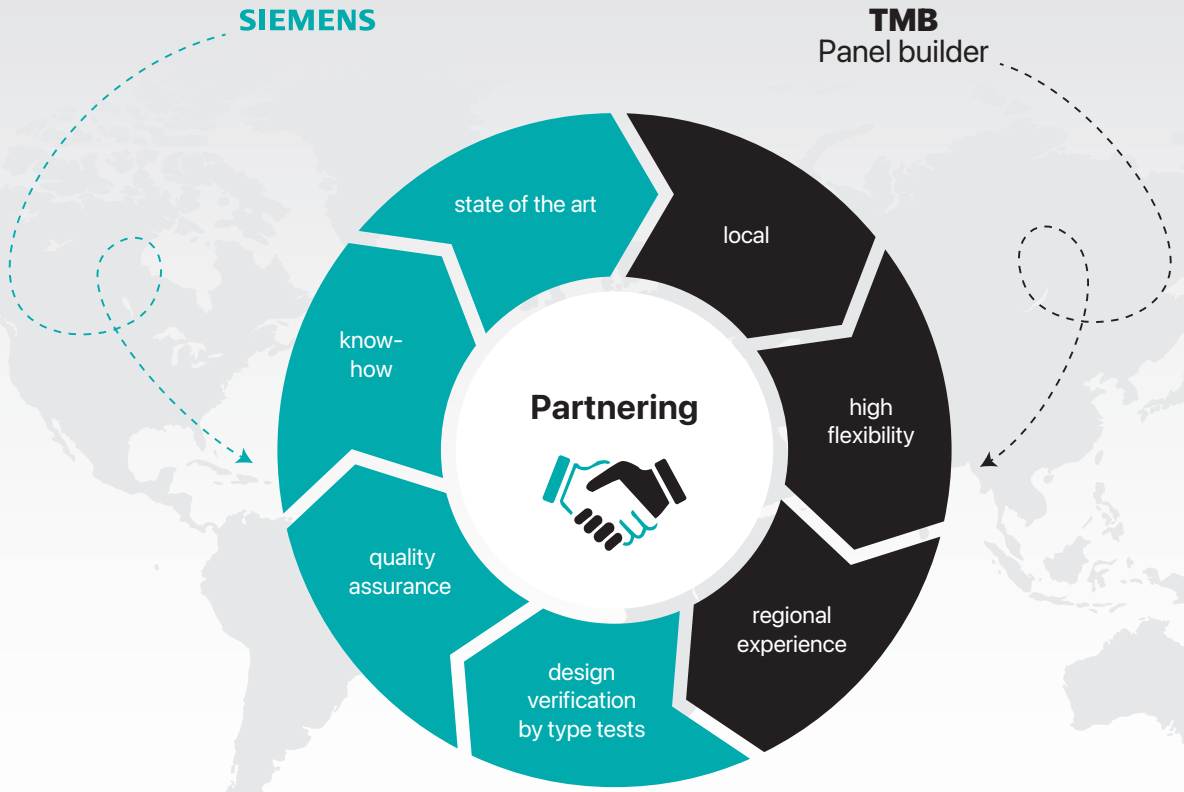




DIMENSION



PARTNERING CONCEPT



STANDARDS

		IEC standard	VDE standard	EN standard	GB standard
Switchgear	SIMOSEC	IEC 62271-1	VDE 0671-1	EN 62271-1	GB/T 11022
		IEC 62271-200	VDE 0671-200	EN 62271-200	GB 3906
Devices	Circuit-breakers	IEC 62271-100	VDE 0671-100	EN 62271-100	GB 1984
	Disconnectors and earthing switches	IEC 62271-102	VDE 0671-102	EN 62271-102	GB 1985
	Switch-disconnectors	IEC 62271-103	VDE 0671-103	EN 62271-103	GB 3804
	Switch-disconnector/fuse combination	IEC 62271-105	VDE 0671-105	EN 62271-105	GB 16926
	HV HRC fuses	IEC 60282-1	VDE 0670-4	EN 60282-1	GB 15166.2
	Voltage detecting systems Voltage presence indicating systems	IEC 61243-5 IEC 62271-206	VDE 0682-415 VDE 0671-206	EN 61243-5 EN 62271-206	DL / T 2006-538 (acc. to IEC 61958 2008, similar to Chinese satandard
Degree of protection	IP code	IEC 60529	VDE 0470-1	EN 60529	GB 4208
	IK code	IEC 62262	VDE 0470-100	EN 50102	
Insulation	–	IEC 60071	VDE 0111	EN 60071	GB / T 311.2
Transformers	Instrument transformers : General requirements	IEC 61869-1	VDE 0414-9-1	EN 61869-1	
	Current transformers	IEC 61869-2	VDE 0414-9-2	EN 61869-1	GB 1208
	Voltage transformers	IEC 61869-3	VDE 0414-9-3	EN 61869-3	GB 1207
Power installations	Common rules Earthing of power installations	IEC 61936-1 -	VDE 0101-1 VDE 0101-2	EN 61936-1 EN 50522	– –
Insulating gas SF_6	Specification for sulfur hexafluoride (SF_6)	IEC 1-61936	VDE 0373-1	EN 60376	–