

## Centre-Break Disconnectors types SGF 72.5 ÷ 550 kV

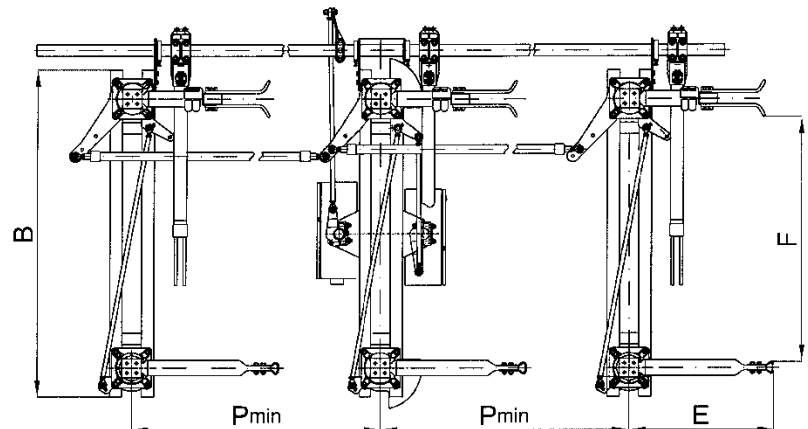
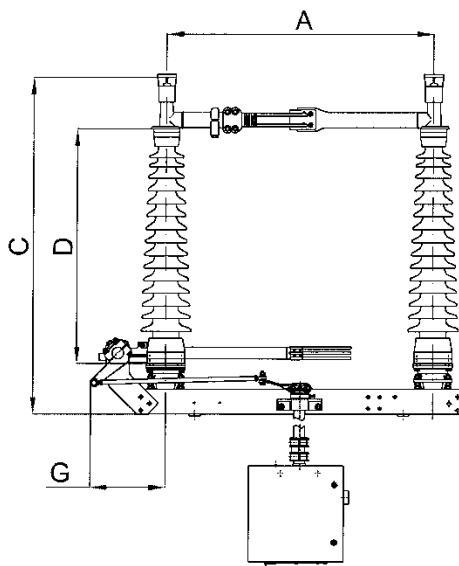
Disconnectors type SGF... are centre-break isolating switches designed for operation in outdoor substations

Disconnectors are used for metallic isolation of systems by creating in open position safe and visible isolating distance.

They can be installed in horizontal or vertical position (on the wall). They are available for rated voltages from 72.5 to 550 kV and for rated currents up to 4000 A.

The disconnectors are designed according to the publication IEC 62271-102; IEC 62271-1 and most other national regulations.

ANSI specifications can be met on request.



Dimension	kV	72.5	123	145	170	245	300	363	420	550	
<i>Build on earthing switch type:</i>			TEC	TEC	TEC	TEC	TEC	TEC	TEB	TEB	
A	Support insulator distance	mm	1000	1400	1650	1830	2620	2620	3200	3800	4200
B	Base frame length	mm	1200	1700	1950	2130	2920	2920	3500	4100	4500
C	Disconnector height										
	-rated current ≤ 1600 A (type n)	mm	1285	1735	2015	2255	2855	3205	x	x	x
	-rated current ≤ 2500 A (type p)	mm	1335	1785	2065	2305	2905	3255	3510	4010	4660
	-rated current ≤ 3150 A (type pc)	mm	1385	1835	2115	2335	2955	3305	3560	4060	4710
	-rated current ≤ 4000 A (type q)	mm	1385	1835	2115	2335	2955	3305	3560	4060	4710
D	Height of support insulator	mm	770	1220	1500	1700	2300	2650	2900	3350	4000
E	Disconnector width (open)	mm	560	760	925	1030	1450	1450	1780	2040	2460
F	Isolating distance	mm	800	1200	1450	1630	2370	2300	2750	3385	3810
G	Length of earthing switch attachment	mm	450	450	450	450	450	450	450	1050	1050
P	Minimum distance between poles	mm									
	- parallel arrangement	mm	1270	1900	2330	2640	3570	4000	4900	5410	6200
	- series arrangement	mm	1790	2700	3150	3530	4920	5700	6350	7320	8900

## Technical data of disconnector type SGF

Disconnector		SGF 72,5	SGF 123	SGF 145	SGF 170	SGF 245	SGF 300	SGF 363	SGF 420	SGF 550
Rated voltage	kV	72,5	123	145	170	245	300	362	420	550
Rated normal current										
- type n	A	1600	1600	1600	1600	1600	1600	-	-	-
- type p	A	2500	2500	2500	2500	2500	2500	2500	2500	2500
- type pc	A	3150	3150	3150	3150	3150	3150	3150	3150	3150
- type q	A	4000	4000	4000	4000	4000	4000	4000	4000	4000
Rated peak withstand current of disconnector and earthing switch										
- type n	kA	100 /125	100 /125	100 /125	100	100	100	-	-	-
- type p /pc /q	kA	100 /125	100 /125	100 /125	100 /125	100 /125	100 /125	100 /125	125 /160	125 /160
Rated short-time withstand current (rms.)										
- type n	kA	40 / 50	40 / 50	40 / 50	40	40	40	-	-	-
- type p /pc /q	kA	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	50 / 63	50 / 63
Rated power-frequency withstand voltage 50 Hz, 1min										
- to earth and between phases:	kV	140	230	275	325	460	380	450	520	620
- across open switching device:	kV	160	265	315	375	530	435	520	610	800
Rated lightning impulse withstand voltage 1,2 / 50µs										
- to earth and between phases:	kV	325	550	650	750	1050	1050	1175	1425	1550
- across open switching device:	kV	375	630	750	860	1200	1050(+170)*	1175(+205)*	1425(+240)*	1550(+315)*
Rated switching impulse withstand voltage 250/2500 µs										
- to earth and across open switching device:	kV	-	-	-	-	-	850	950	1050	1175
- between phases:	kV	-	-	-	-	-	1275	1425	1575	1760
- across open switching device:	kV	-	-	-	-	-	700(+245)*	800(+295)*	900(+345)*	900(+450)*
Discharge inception voltage	kV	>46	>80	>95	>110	>160	>230	>209	>270	>350
Radio interference voltage	µV	-	<2500	<2500	<2500	<2500	<2500	<2500	<2500	< 2500
3- phase breaking capacity inductive / capacitive	A	2	2	2	2	1,5	1	1	1	1
Bus-transfer switching ability according to IEC 62271-102 Annex B**	A/V	1600/ 100	1600/ 100	1600/ 100	1600/ 100	1600/ 200	1600/ 200	- -	- -	- -
Inducted current switching ability according to IEC 62271-102 Annex C class A **										
- for electromagnetic coupling	A/kV	50/0,5	50/0,5	50/1	50/1	80/1,4	80/1,4	80/2	80/2	80/2
- for electrostatic coupling	A/kV	0,4/3	0,4/3	0,4/3	0,4/3	1,25/5	1,25/5	1,25/5	1,25/5	1,25/5
Inducted current switching ability according to IEC 62271-102 Annex C class B **										
- for electromagnetic coupling	A/kV	-	80/2	80/2	80/2	80/2	160/10	160/10	160/10	160/20
- for electrostatic coupling	A/kV	-	2/6	2/6	3/9	3/12	10/15	18/17	18/20	25/25
Insulator design:										
minimum failing load	kN	4,0-6,0	4,0-6,0-8,0	4,0-6,0-8,0	4,0-6,0-8,0	4,0-6,0-8,0	6,0-8,0	8,0-10,0	8,0-10,0	8,0-10,0
overall height	mm	770	1220	1500	1700	2300	2650	2900	3350	4000
Admissible mechanical terminal load:										
- static and dynamic	kN	2,5-2,5	3,0-4,5-6,0	3,1-4,7-6,0	3,1-5,1-6,0	3,2-5,1-6,0	5,1-6,0	5,1-6,0	5,1-6,0	4,0-4,0
- static portion	kN	1,0-1,0	1,5-2,5-3,0	1,5-2,5-2,5	1,5-2,5-2,5	1,5-2,5-2,5	2,5-2,5	1,5-1,5	1,5-1,5	1,0-1,0

\* Values in brackets are peak values of power frequency voltage applied to the opposite terminal

\*\* As an option

Type designation is complemented by the data for rated current (n-1600A; p- 2500A) and peak withstand current.

Example: **SGF 245 p 125**

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