

Double-Break Disconnectors

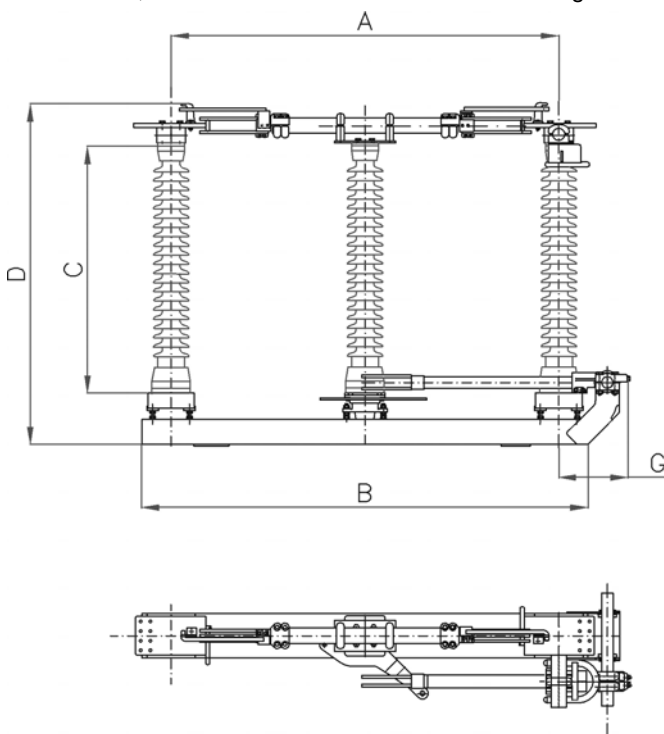
types SDB 123 ÷ 420 kV and SDBwt 123 ÷ 170 kV

Due its design, double-brake disconnectors can be used at substations where short pole distance is needed. Because the middle column is rotated only then outer columns can be loaded by higher static force.

During final phase of closing operation, the current path makes a rotation round the longitudinal axis. Disconnectors marked "wt" are closing without additional rotation.

Because outer columns do not rotate, the can be loaded with higher static force.

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



Rated voltage:	kV	123	145	170	245	300	362	420
Disconnector:		SDB	SDB	SDB	SDB	SDB	SDB	SDB
<i>Build on earthing switch type:</i>		<i>TEC</i>	<i>TEC</i>	<i>TEC</i>	<i>TEC</i>	<i>TEC</i>	<i>TEB</i>	<i>TEB</i>
A Support insulator distance	mm	1700	2000	2300	3000	3600	4000	4800
B Base frame length	mm	2000	2300	3600	3300	3900	4300	5100
C Disconnector height	mm	1860	2150	2340	2940	3300	3600	4050
D Height of support insulator	mm	1220	1500	1700	2300	2650	2900	3350
E Arm range (open)	mm	880	1050	1220	1550	1800	2200	2450
F Isolating distance	mm	1200	1400	1800	2580	2950	3500	4150
G Length of earthing switch attachment	mm	450	450	450	450	450	1000	1000
P Minimum distance between poles								
- parallel arrangement	mm	1750	1950	2150	2850	3400	3750	4150
- series arrangement	mm	3000	3500	4000	5300	6000	6600	8100
Disconnector:		SDBwt	SDBwt	SDBwt				
A Support insulator distance	mm	2000	2000	2750	-	-	-	-
B Base frame length	mm	2300	2300	3050	-	-	-	-
C Disconnector height	mm	1705	1985	2185	-	-	-	-
D Height of support insulator	mm	1220	1500	1700	-	-	-	-
E Arm range (open)	mm	950	950	1250	-	-	-	-
F Isolating distance	mm	1320	1320	1330	-	-	-	-
G Length of earthing switch attachment	mm	450	450	450	-	-	-	-
P Minimum distance between poles								
- parallel arrangement	mm	1750	1950	2150	-	-	-	-
- series arrangement	mm	3000	3500	4000	-	-	-	-

Technical data of disconnecter type SDB

Disconnecter		SDB 123	SDB 145	SDB 170	SDB 245	SDB 300	SDB 362	SDB 420
		SDBwt 123	SDBwt 145	SDBwt 170	-	-	-	-
Rated voltage	kV	123	145	170	245	300	362	420
Rated normal current								
type n	A	1600	1600	1600	1600	-	-	-
type p	A	2500	2500	2500	2500	2500	2500	2500
type pc	A	3150**	3150**	3150**	3150	3150	3150	3150
type q	A	4000**	4000**	4000**	4000	4000	4000	4000
Rated peak withstand current of disconnecter and earthing switch	kA	100 /125	100 /125	100 /125	100 /125	100 /125	100 /125	125 /160
Rated short-time withstand current (rms.)	kA	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	40 / 50	50 / 63
Rated power-frequency withstand voltage 50 Hz, 1min								
To earth	kV	230	275	325	460	380	450	520
Across open switching device	kV	265	315	375	530	435	520	610
Rated lighting impulse withstand voltage 1,2 / 50µs								
To earth	kV	550	650	750	1050	1050	1175	1425
Across open switching device	kV	630	750	860	1200	1050(+170)*	1175(+205)*	1425(+240)*
Rated switching impulse withstand voltage 250/2500 µs								
To earth	kV	-	-	-	-	850	950	1050
Between phases	kV	-	-	-	-	1275	1425	1575
Across open switching device	kV	-	-	-	-	700(+245)	800(+295)	900(+345)
Discharge inception voltage	kV	>80	>95	>110	>160	>190	>230	>270
Radio interference voltage	µV	<2500	<2500	<2500	<2500	<25000	<25000	<2500
3- phase breaking capacity inductive / capacitive	A	2	2	2	1,5	1	1	1
Insulator design:								
minimum failing load	kN	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	6,0-8,0	8,0-10,0
overall height	mm	1220	1500	1700	2300	2650	2900	3350
Admissible mechanical terminal load:								
static and dynamic	kN	3,5-5,5-7,5	3,5-5,5-7,5	3,5-5,5-7,5	3,5-5,5-7,5	5,5-7,5	5,5-7,5	5,5-7,5
static portion	kN	2,0-3,0-3,5	2,0-3,0-4,0	2,0-3,0-4,0	2,0-3,0-4,0	2,5-2,5	2,5-2,5	2,5-2,5

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

** not apply for SDBwt

HAPAM Poland Sp. z o.o.

22/24 W Tymienieckiego St

90-349 Lodz, POLAND

Tel. +48 42 663 54 50

Fax. +48 42 663 54 97

hapam@hapam.pl

www.hapam.pl

