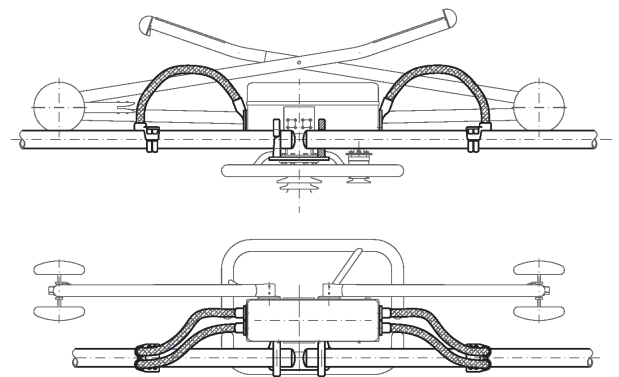
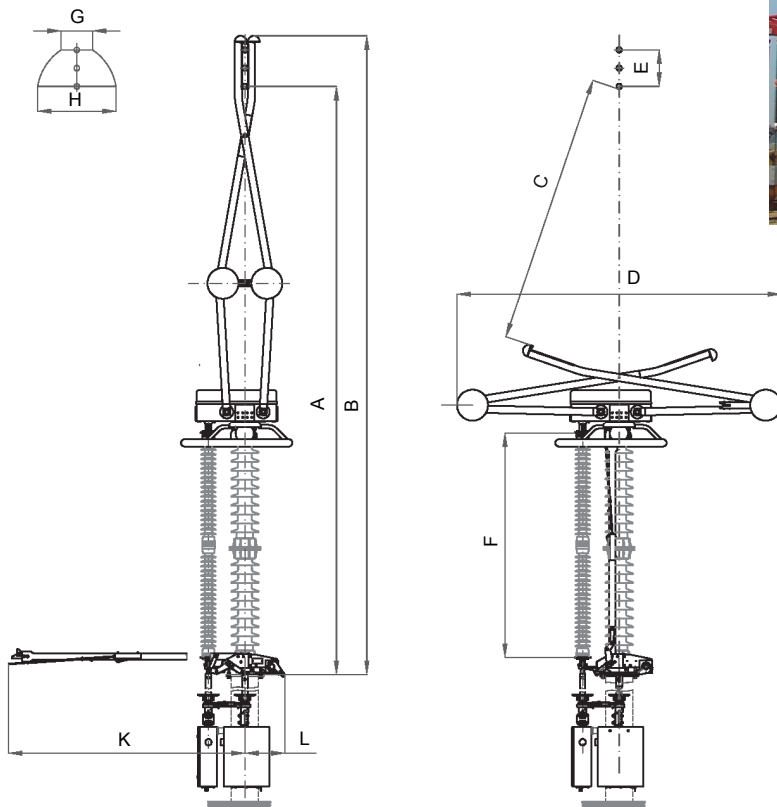


## Single-Column Pantograph Disconnectors type TFB 123 ÷ 550 kV

Single-column pantograph disconnector type TFB is appropriate for outdoor installations with conductors arranged at two different levels. They permit modern installation design and do not require much area.

Optionally each disconnector pole can be equipped with an earthing switch for earthing and short-circuiting disconnected sections of the substation or plant.

The TFB disconnectors comply with publication IEC 62271-102; IEC 62271-1 and most other national regulations.



Recommended connecting to rigid bus bar

Dimension			TFB 123	TFB 145	TFB 245	TFB 300	TFB 420	TFB 550
	<b>Earthing switch type:</b>		TEC	TEC	TEC	TEC	TEB	TEB
A	Height of disconnector (CLOSED)	mm	3765	4045	6240	6590	7910	10610
B	Distance to suspended contact	mm	3460	3740	5680	6030	7350	9710
C	Minimum isolating distance	mm	1400	1400	2300	2300	2950	4200
D	Width of disconnector (OPEN)	mm	1990	1990	2960	2960	3560	5260
E	Catching range	mm	300	300	400	400	400	500
F	Height of insulator	mm	1220	1500	2300	2650	3350	4000
G	Envelope, top	mm	170	170	260	260	260	330
H	Envelope, bottom	mm	580	580	840	840	840	950
K	Earthing switch (OPEN)	mm	1100	1300	1830	2180	2980	3730
L	Earthing switch counterpoise (OPEN)	mm	-	-	500	500	1030	1030

## Technical data of disconnector type TFB

Disconnector		TFB 123***	TFB 145***	TFB 245	TFB 300	TFB 420	TFB 550
Rated voltage	kV	123	145	245	300	420	550
Rated normal current							
type p	A	2500	2500	-	-	-	-
type pc	A	3150	3150	3150	3150	3150	3150
type q	A	4000	4000	4000	4000	4000	4000
Rated peak withstand current of disconnector and earthing switch	kA	100/125	100/125	100/125/160	100/125/160	100/125/160	100/125
Rated short-time withstand current (r.m.s)	kA	40 / 50	40 / 50	40 / 50 / 63	40 / 50 / 63	40 / 50 / 63	40 / 50
Rated power-frequency withstand voltage 50 Hz, 1min to earth	kV		275	460	380		
across open switching device	kV	230 265	315	530	435	520 610	620 800
Rated lightning impulse withstand voltage 1,2 / 50µs to earth							
across open switching device	kV	550	650	1050	1050	1425	1550
	kV	630	750	1200	1050(+170)*	1425(+240)*	1550(+315)*
Rated switching impulse withstand voltage 250/2500 µs to earth:							
across open switching device	kV	-	-	-			
	kV	-	-	-	850	1050	1175
	kV	-	-	-	700 (+245)	900(+345)	900(+450)
Discharge inception voltage	kV	>80	>95	>160	>190	>270	>335
Radio interference voltage	µV	<1000	<1000	<1000	<1000	<1000	<1000
3- phase breaking capacity inductive / capacitive	A	2	2	1,5	1	1	1
Bus-transfer switching ability**	A/V	1600 / 100	1600 / 100	1600 / 200	1600 / 200	1600 / 300	1600 / 300
Inducted current switching ability class A **							
for electromagnetic coupling	A/kV	50/0,5	50/1	80/1,4	80/1,4	80/2	80/2
for electrostatic coupling	A/kV	0,4/3	0,4/3	1,25/5	1,25/5	1,25/5	2/8
Inducted current switching class B **							
for electromagnetic coupling	A/kV	80 / 2	80 / 2	80 / 2	160 / 10	160 / 10	160 / 20
for electrostatic coupling	A/kV	2 / 6	2 / 6	3 / 12	10 / 15	18 / 20	25 / 25
Insulator design:							
minimum failing load	kN	6,0-8,0-10,0	6,0-8,0-10,0	6,0-8,0-10,0	6,0-8,0-10,0	6,0-8,0-10,0-12,5	6,0-8,0-10,0-12,5
overall height	mm	1220	1500	2300	2650	3350	4200
Admissible mechanical terminal load:							
static and dynamic	kN	4,2-5,6-7,0	4,2-5,6-7,0	4,2-5,6-7,0	4,2-5,6-7,0	4,2-5,6-7,0-8,75	4,2-5,6-7,0-8,75
static portion	kN	2,0-3,0-4,0	2,0-3,0-4,0	2,0-3,0-4,0	2,0-3,0-4,0	2,0-3,0-4,0-5,0	2,0-3,0-4,0-5,0

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

\*\* As optional extras

\*\*\* Available in 3-pole group with one operating mechanism

**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

