



Composite Insulator Catalogue

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1. Composite Suspension/Tension Insulator for Electric Power

1.1 1000kV Composite Suspension/Tension Insulator for Electric Power

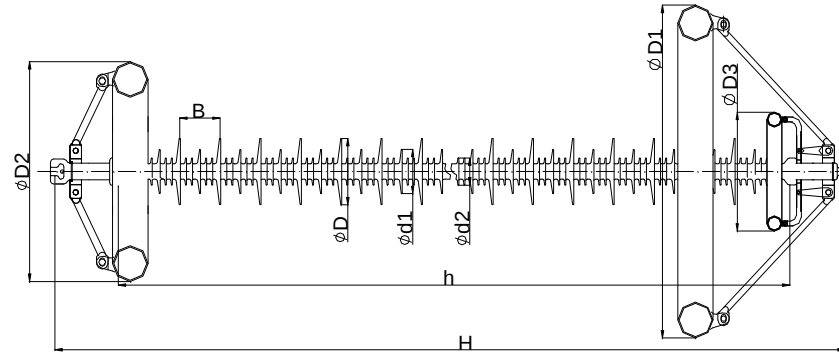


Figure 1.1 1000kV Composite Suspension/Tension Insulator

Table 1.1 Dimensions and Characteristics of 1000kV Composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d1/d2 mm	Shed Spacing B mm	Grading Diameter Ring D1/D2/D3 mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage (Peak) ≥ kV	Impulse Voltage ≥ kV	Wet Switching Impulse Withstand Voltage ≥ kV	1 Min Wet Power Frequency Withstand Voltage ≥ kV	Weight (for Reference) kg
1. 1	FXBW-1000/210	1000	210	20	9750±50	9380	246/158/98	158	1120/720/400	34300	3. 43	3600	2200	1450	93. 7	
1. 1	FXBW-1000/300	1000	300	24	9750±50	9353	250/164/98	158	1120/720/400	34000	3. 4	3600	2200	1450	97. 2	
1. 1	FXBW-1000/400	1000	400	28	9750±50	9265	250/164/98	158	1120/720/400	33800	3. 38	3600	2200	1450	97. 9	
1. 1	FXBW-1000/420	1000	420	28	9750±50	9265	250/164/98	158	1120/720/400	33800	3. 38	3600	2200	1450	97. 9	
1. 1	FXBW-1000/530	1000	530	32	9750±50	9205	250/164/98	158	1120/720/400	33800	3. 38	3600	2200	1450	98. 0	
1. 1	FXBW-1000/550	1000	550	32	9750±50	9205	250/164/98	158	1120/720/400	33800	3. 38	3600	2200	1450	98. 0	

1.2 $\pm 800\text{kV}$ d.c Composite Suspension/Tension Insulator

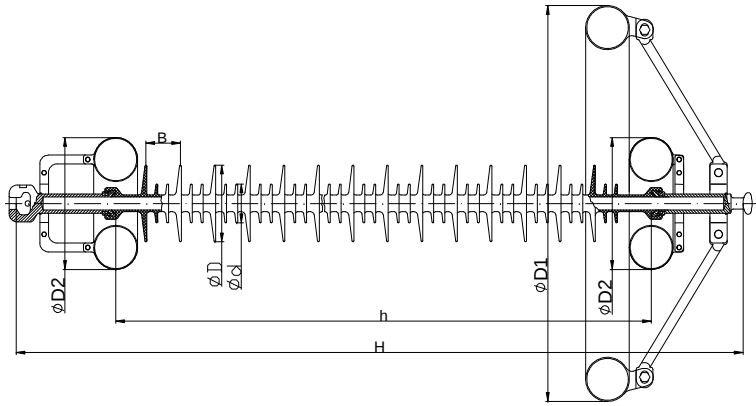


Figure 1.2 $\pm 800\text{kV}$ Composite Suspension/Tension Insulator

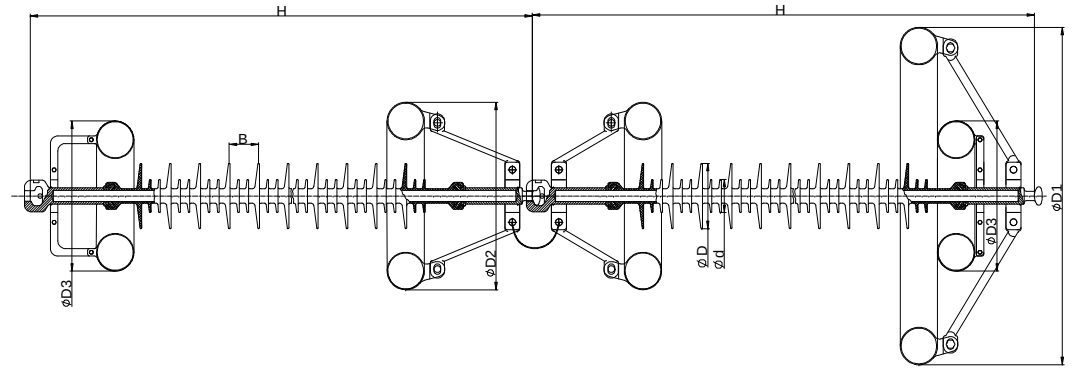


Figure 1.2 $\pm 800\text{kV}$ Composite Suspension/Tension Insulator with two units

Table 1.2 Dimensions and Characteristics of $\pm 800\text{kV}$ Composite Suspension/Tension Insulator

Weight (for Reference)	1 Min Wet DC Withstand Voltage	Wet Switching Impulse Withstand Voltage (Peak)	Full-Wave Withstand Voltage (Peak)	Impulse Voltage $\geq$	(Creepage /Rated Vol) Specific Creepage	Minimum Creepage	Grading Ring Diameter	Shed Spacing	Shed diameters	Insulating length	Section Length	Coupling Size	Specified Mechanical Load	Rated Voltage	Model	Figure. No
kg	$\geq$ kV	$\geq$ kV	$\geq$ kV	$\geq$ kV	cm/kV	L mm	D1/D2/D3 mm	B mm	D/d1/d2 mm	h mm	H mm		kN	kV		
83. 9	+900	+1950	+3600		3. 88	31100	900/400	158	246/158/98	8318	8700	20	210	± 800	FXBZ- $\pm 800/210$	1. 2
86. 3	+900	+1950	+3600		3. 76	30100	900/400	158	250/164/98	8262	8700	24	300	± 800	FXBZ- $\pm 800/300$	1. 2
87. 0	+900	+1950	+3600		3. 76	30100	900/400	158	250/164/98	8255	8700	28	400	± 800	FXBZ- $\pm 800/400$	1. 2
86. 4	+900	+1950	+3600		3. 72	29800	900/400	158	250/164/98	8139	8700	32	530	± 800	FXBZ- $\pm 800/530$	1. 2
88. 4	+900	+1950	+3600		3. 95	2*15800	900/500/400	158	246/158/98	2*4236	2*4618	20	210	± 800	FXBZS- $\pm 800/210$	1. 2
92. 0	+900	+1950	+3600		3. 70	2*14800	900/500/400	158	250/164/98	2*4180	2*4618	24	300	± 800	FXBZS- $\pm 800/300$	1. 2
93. 4	+900	+1950	+3600		3. 70	2*14800	900/500/400	158	250/164/98	2*4173	2*4618	28	400	± 800	FXBZS- $\pm 800/400$	1. 2
93. 3	+900	+1950	+3600		3. 65	2*14600	900/500/400	158	250/164/98	2*4057	2*4618	32	530	± 800	FXBZS- $\pm 800/530$	1. 2

1.3 750kV Composite Suspension/Tension Insulator

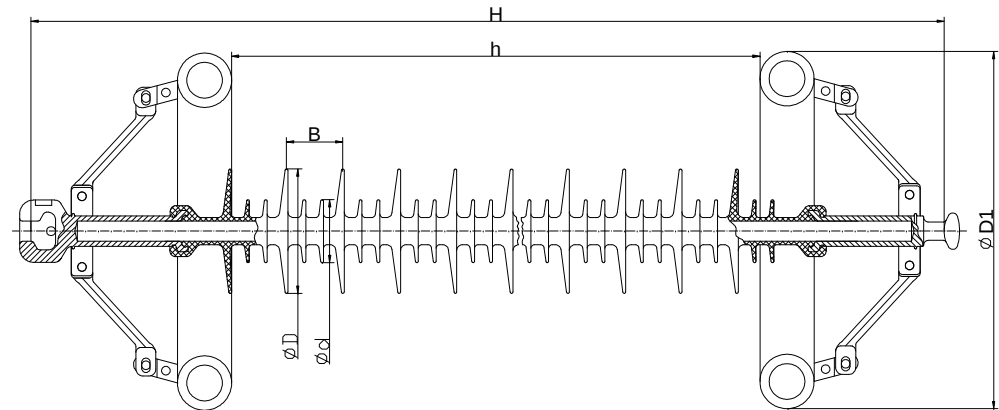


Figure 1.3 750kV Composite Suspension/Tension Insulator

Table 1.3 Dimensions and Characteristics of 750kV Composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length	Insulating length	Shed diameters	Shed Spacing	Grading Diameter	Ring Diameter	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Full-Wave Withstand Voltage (Peak)	Impulse Voltage	Wet Switching Withstand Voltage (Peak)	1 Min Frequency Voltage	Wet Power Withstand Voltage	Weight (for Reference)
					H mm	h mm	D/d mm	B mm	D1 mm		L mm	cm/kV	≥ kV	≥ kV	≥ kV	≥ kV	≥ kV	kg
1. 3	FXBW-750/100	750	100	16	7150±50	6750	174/88	79	440	23800	3. 17	2700	1800	1120	42. 0			
1. 3	FXBW-750/120	750	120	16	7150±50	6750	174/88	79	440	23800	3. 17	2700	1800	1120	42. 0			
1. 3	FXBW-750/160	750	160	20	7150±50	6680	174/88	79	440	23800	3. 17	2700	1800	1120	42. 7			
1. 3	FXBW-750/180	750	180	20	7150±50	6680	174/88	79	440	23800	3. 17	2700	1800	1120	42. 7			
1. 3	FXBW-750/210	750	210	20	7150±50	6680	174/88	79	440	23800	3. 17	2700	1800	1120	42. 7			
1. 3	FXBW-750/240	750	240	20	7150±50	6680	174/88	79	440	23800	3. 17	2700	1800	1120	42. 7			
1. 3	FXBW-750/300	750	300	24	7150±50	6600	174/88	79	440	23500	3. 13	2700	1800	1120	43. 7			
1. 3	FXBW-750/400	750	400	28	7150±50	6565	190/110	89	440	23500	3. 13	2700	1800	1120	56. 7			

1.4 $\pm 500\text{kV}$ Composite Suspension/Tension Insulator

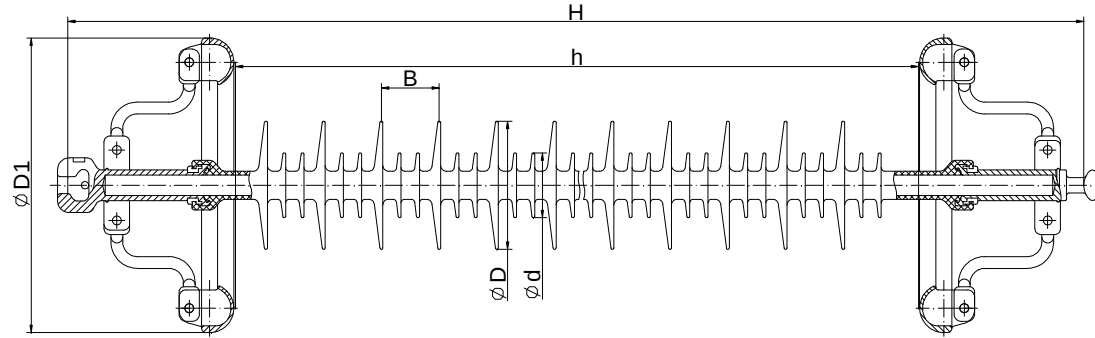


Figure 1.4 750kV Composite Suspension/Tension Insulator

Table 1.4 Dimensions and Characteristics of $\pm 500\text{kV}$ Composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d mm	Shed Spacing B mm	Grading Ring Diameter D1 mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Impulse Withstand Voltage (Peak) $\geq$ kV	Wet Switching Impulse Withstand Voltage (Peak) $\geq$ kV	1 Min Wet Power Frequency Withstand Voltage $\geq$ kV	Weight (for Reference) kg
1. 4	FXBZ- $\pm 500/160$ -A	± 500	160	20	5440	5000	174/88	79	400	17600	3. 52	+2550	+1550	+600	32. 4
1. 4	FXBZ- $\pm 500/160$ -B	± 500	160	20	6290	5850	174/88	79	400	20700	4. 14	+2750	+1650	+650	37. 4
1. 4	FXBZ- $\pm 500/160$ -C	± 500	160	20	6800	6360	174/88	79	400	22700	4. 54	+2950	+1750	+700	40. 5
1. 4	FXBZ- $\pm 500/180$ -A	± 500	180	20	5440	5000	174/88	79	400	17600	3. 52	+2550	+1550	+600	32. 4
1. 4	FXBZ- $\pm 500/180$ -B	± 500	180	20	6290	5850	174/88	79	400	20700	4. 14	+2750	+1650	+650	37. 4
1. 4	FXBZ- $\pm 500/180$ -C	± 500	180	20	6800	6360	174/88	79	400	22700	4. 54	+2950	+1750	+700	40. 5
1. 4	FXBZ- $\pm 500/210$ -A	± 500	210	20	5440	5000	174/88	79	400	17600	3. 52	+2550	+1550	+600	32. 4
1. 4	FXBZ- $\pm 500/210$ -B	± 500	210	20	6290	5850	174/88	79	400	20700	4. 14	+2750	+1650	+650	37. 4
1. 4	FXBZ- $\pm 500/210$ -C	± 500	210	20	6800	6360	174/88	79	400	22700	4. 54	+2950	+1750	+700	40. 5
1. 4	FXBZ- $\pm 500/240$ -A	± 500	240	20	5440	5000	174/88	79	400	17600	3. 52	+2550	+1550	+600	32. 4
1. 4	FXBZ- $\pm 500/240$ -B	± 500	240	20	6290	5850	174/88	79	400	20700	4. 14	+2750	+1650	+650	37. 4
1. 4	FXBZ- $\pm 500/240$ -C	± 500	240	20	6800	6360	174/88	79	400	22700	4. 54	+2950	+1750	+700	40. 5
1. 4	FXBZ- $\pm 500/300$ -A	± 500	300	24	5440	4950	174/88	79	400	17600	3. 52	+2550	+1550	+600	34. 0
1. 4	FXBZ- $\pm 500/300$ -B	± 500	300	24	6290	5800	174/88	79	400	20700	4. 14	+2750	+1650	+650	38. 7
1. 4	FXBZ- $\pm 500/300$ -C	± 500	300	24	6800	6310	174/88	79	400	22700	4. 54	+2950	+1750	+700	40. 6
1. 4	FXBZ- $\pm 500/400$ -A	± 500	400	28	5440	4900	190/110	89	400	18000	3. 6	+2550	+1550	+600	44. 1
1. 4	FXBZ- $\pm 500/400$ -B	± 500	400	28	6290	5750	190/110	89	400	21300	4. 26	+2750	+1650	+650	50. 6
1. 4	FXBZ- $\pm 500/400$ -C	± 500	400	28	6800	6260	190/110	89	400	23000	4. 6	+2950	+1750	+700	54. 0

1. 5 500kV Composite Suspension/Tension Insulator

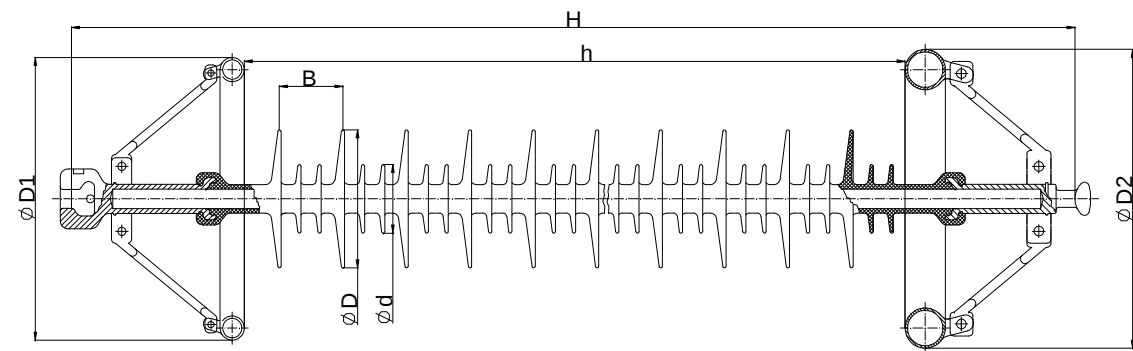


Figure 1.5-1 500kV Composite Suspension/Tension Insulator

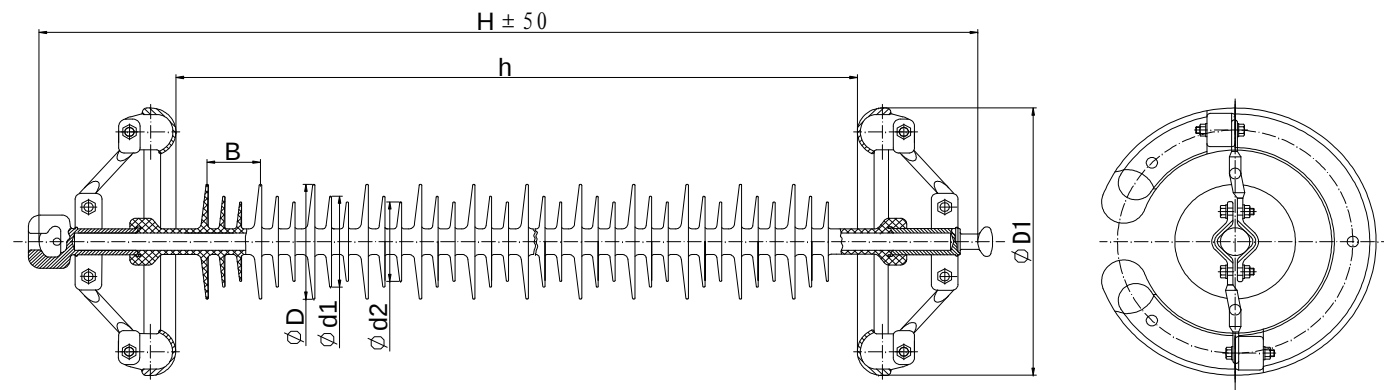


Figure 1.5-2 500kV Composite Suspension/Tension Insulator

Table 1.5 Dimensions and Characteristics of 500kV Composite Suspension/Tension Insulator

Figure.No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d1/d2 mm	Shed Spacing B mm	Grading Diameter Ring D1/D2 mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage (Peak)	Impulse Withstand Voltage $\geq$ kV	1 Min Wet Power Frequency Withstand Voltage $\geq$ kV	Weight Reference) (for kg
1.5-1	FXBW-500/100-A	500	100	16	4450	4130	171/85	79	350/370	14400	2.88	2250	1240	740	21.5
1.5-2	FXBW-500/100-B	500	100	16	4450	4130	190/131/100	79	370/370	16500	3.30	2250	1240	740	33.4
1.5-1	FXBW-500/120-A	500	120	16	4450	4130	171/85	79	350/370	14400	2.88	2250	1240	740	21.5
1.5-2	FXBW-500/120-B	500	120	16	4450	4130	190/131/100	79	370/370	16500	3.30	2250	1240	740	33.4
1.5-1	FXBW-500/160-A	500	160	20	4450	4030	171/85	79	350/370	14400	2.88	2250	1240	740	24.1
1.5-2	FXBW-500/160-B	500	160	20	4450	4030	190/131/100	79	370/370	16500	3.30	2250	1240	740	33.4
1.5-1	FXBW-500/180-A	500	180	20	4450	4030	171/85	79	350/370	14400	2.88	2250	1240	740	24.1
1.5-2	FXBW-500/180-B	500	180	20	4450	4030	190/131/100	79	370/370	16500	3.30	2250	1240	740	33.4
1.5-1	FXBW-500/210-A	500	210	20	4450	4030	171/85	79	350/370	14400	2.88	2250	1240	740	24.1
1.5-2	FXBW-500/210-B	500	210	20	4450	4030	190/131/100	79	370/370	16500	3.30	2250	1240	740	33.4
1.5-1	FXBW-500/240-A	500	240	20	4450	4030	171/85	79	350/370	14400	2.88	2250	1240	740	24.1
1.5-2	FXBW-500/240-B	500	240	20	4450	4030	190/131/100	79	370/370	16500	3.30	2250	1240	740	33.4
1.5-1	FXBW-500/240-D	500	240	20	4450	4000	174/88	79	350/370	14300	2.86	2250	1240	740	26.3
1.5-1	FXBW-500/300	500	300	24	4450	3950	174/88	79	350/370	14000	2.80	2250	1240	740	28.4
1.5-1	FXBW-500/400	500	400	28	4450	3900	190/110	89	350/370	14400	28.8	2250	1240	740	36.9

1. 6 400kV Composite Suspension/Tension Insulator

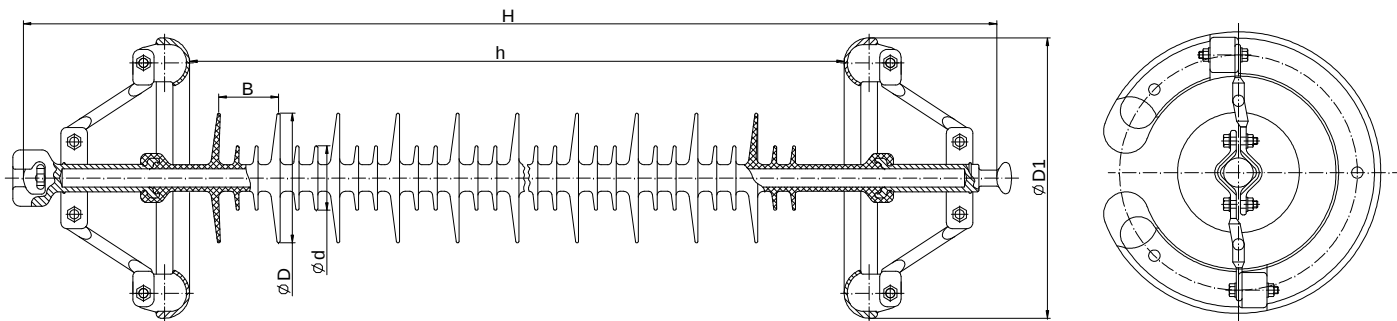


Figure 1.6-1 400kV Composite Suspension/Tension Insulator

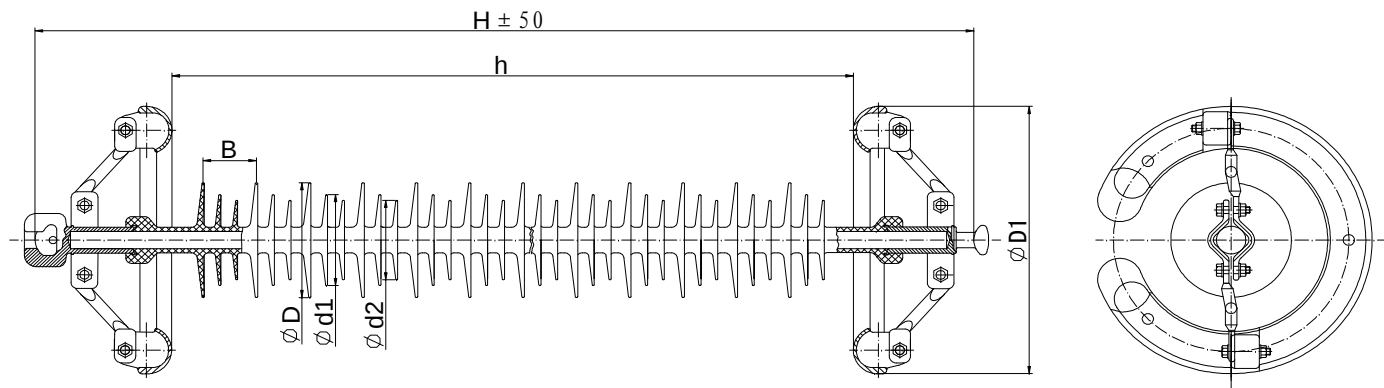


Figure 1.6-2 400kV Composite Suspension/Tension Insulator

Table 1.6 Dimensions and Characteristics of 400kV Composite Suspension/Tension Insulator

Weight (for Reference)	1 Min Frequency Voltage	Wet Power Withstand $\geq$ kV	Impulse Voltage $\geq$ kV	Wet Switching Withstand Voltage (Peak)	Full-Wave Withstand (Peak)	(Creepage/Max Vol) Specific Creepage	Minimum Creepage	Grading Ring Diameter	Shed Spacing	Shed diameters	Insulating length	Section Length	Coupling Size	Specified Load	Rated Voltage	Model	Figure. No
kg						cm/kV	L mm	D1 mm	B mm	D/d mm	h mm	H mm		kN	kV		
22.0	680		1050	1050	1850	2.50	10500	370	79	171/85	3050	3335±50	16	90	400	FXBW-400/90-A	1.6-1
27.0	680		1050	1050	1850	3.10	13020	370	79	190/131/100	3050	3335±50	16	90	400	FXBW-400/90-B	1.6-2
22.0	680		1050	1050	1850	2.50	10500	370	79	171/85	3050	3335±50	20	120	400	FXBW-400/120-A	1.6-1
27.0	680		1050	1050	1850	3.10	13020	370	79	190/131/100	3050	3335±50	20	120	400	FXBW-400/120-B	1.6-2
28.5	680		1050	1050	1850	2.50	10500	370	79	171/85	3580	3910±50	20	160	400	FXBW-400/160-A	1.6-1
29.2	680		1050	1050	1850	3.10	13020	370	79	190/131/100	3580	3910±50	20	160	400	FXBW-400/160-B	1.6-2
26.5	680		1050	1050	1850	2.50	10500	370	79	171/85	3580	3910±50	24	210	400	FXBW-400/210-A	1.6-1
30.2	680		1050	1050	1850	3.10	13020	370	79	190/131/100	3580	3910±50	24	210	400	FXBW-400/210-B	1.6-2

1. 7 330kV Composite Suspension/Tension Insulator

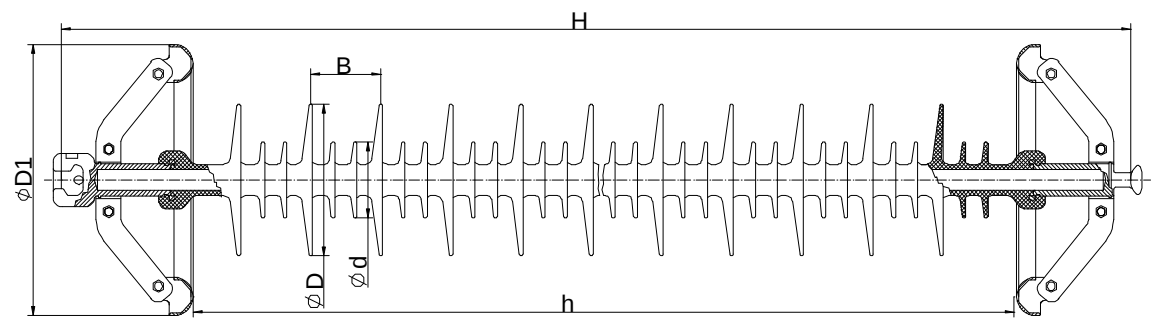


Figure 1.7-1 330kV Composite Suspension/Tension Insulator

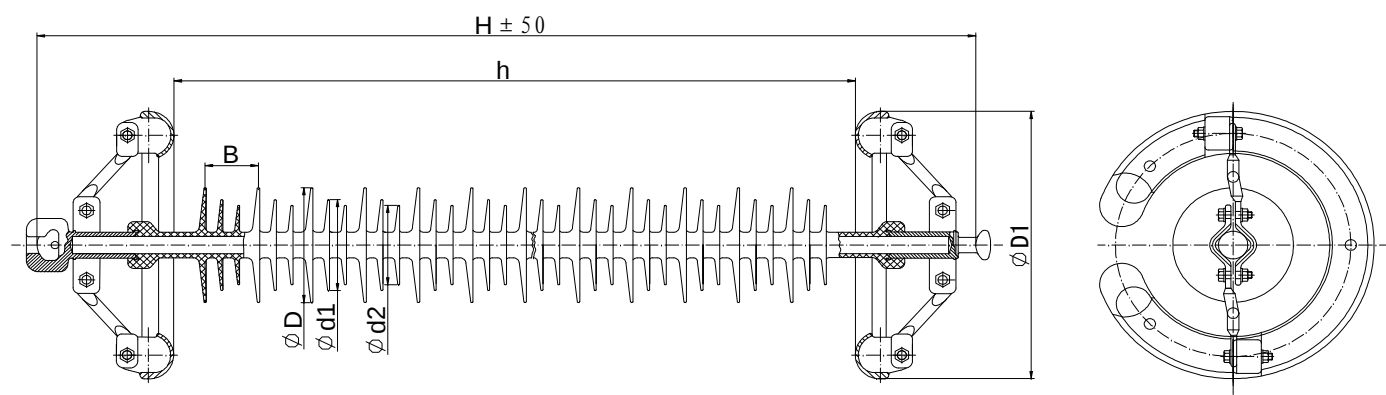


Figure 1.7-2 330kV Composite Suspension/Tension Insulator

Table 1.7 Dimensions and Characteristics of 330KV Composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d1/d2 mm	Shed Spacing B mm	Grading Ring Diameter D1 mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage (Peak) Impulse Voltage $\geq$ kV	Wet Switching Withstand Voltage (Peak) Impulse $\geq$ kV	1 Min Wet Power Frequency Withstand Voltage $\geq$ kV	Weight (for Reference) kg
1. 7-1	FXBW-330/100-A	330	100	16	2990	2700	162/86	95	305	9100	2. 76	1425	950	570	11. 5
1. 7-1	FXBW-330/100-B	330	100	16	2990	2700	171/85	79	305	9400	2. 85	1425	950	570	15. 4
1. 7-2	FXBW-330/100-C	330	100	16	2990	2700	190/131/100	79	305	12500	3. 27	1425	950	570	19. 6
1. 7-1	FXBW-330/120-A	330	120	16	2990	2700	171/85	79	305	9400	2. 85	1425	950	570	15. 4
1. 7-2	FXBW-330/120-B	330	120	16	2990	2700	190/131/100	79	305	12500	3. 27	1425	950	570	19. 6
1. 7-1	FXBW-330/160-A	330	160	20	2990	2600	171/85	79	305	9200	2. 79	1425	950	570	16. 6
1. 7-2	FXBW-330/160-B	330	160	20	2990	2600	190/131/100	79	305	12500	3. 21	1425	950	570	20. 7
1. 7-1	FXBW-330/180-A	330	180	20	2990	2600	171/85	79	305	9200	2. 79	1425	950	570	16. 6
1. 7-2	FXBW-330/180-B	330	180	20	2990	2600	190/131/100	79	305	12500	3. 21	1425	950	570	20. 7
1. 7-1	FXBW-330/210-A	330	210	20	2990	2600	171/85	79	305	9200	2. 79	1425	950	570	16. 6
1. 7-2	FXBW-330/210-B	330	210	20	2990	2600	190/131/100	79	305	12500	3. 21	1425	950	570	20. 7

1.8 220kV Composite Suspension/Tension Insulator

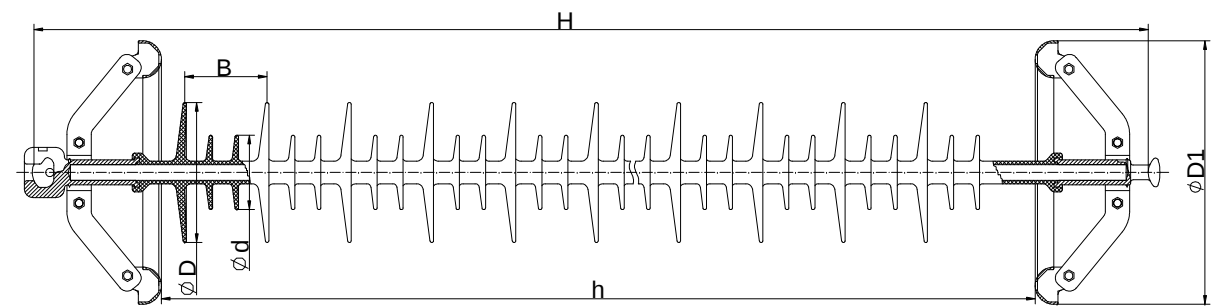


Figure 1.8-1 220kV Composite Suspension/Tension Insulator

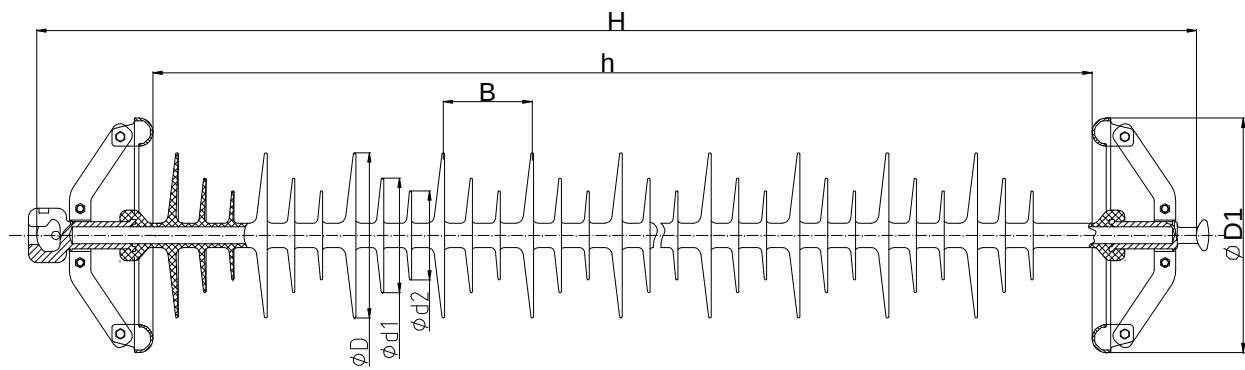


Figure 1.8-2 220kV Composite Suspension/Tension Insulator

Table 1.8 Dimensions and Characteristics of 220kV Composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage	Specified Mechanical Load	Coupling Size	Section Length	Insulating length	Shed diameters	Shed Spacing	Grading Diameter	Ring Diameter	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Full-Wave Withstand Voltage (Peak)	Impulse Voltage $\geq$	1 Min Wet Power Frequency Withstand Voltage	Weight Reference) (for kg
		kV	kN		H mm	h mm	D/d1/d2 mm	B mm	D1 mm	L mm	cm/kV	kV	$\geq$ kV			
		220	100	16	2150±30	1900	171/89	95	305	6300	2.86	1000	395	8.9		
		220	100	16	2150±30	1900	176/122/95	95	305	7300	3.31	1000	395	8.5		
		220	100	16	2240±30	1960	162/86	95	305	6400	29.1	1000	395	8.7		
		220	100	16	2240±30	1960	176/122/95	95	305	7650	3.47	1000	395	8.9		
		220	100	16	2240±30	1950	171/85	79	305	6800	3.09	1000	395	11.7		
		220	120	16	2240±30	1950	171/85	79	305	6800	3.09	1000	395	11.7		
		220	160	20	2340±30	1950	171/85	79	305	6800	3.09	1000	395	13.3		
		220	180	20	2340±30	1950	171/85	79	305	6800	3.09	1000	395	13.3		
220	210	20	2340±30	1950	171/85	79	305	6800	3.09	1000	395	13.3				

1.9 132kV Composite Suspension/Tension Insulator

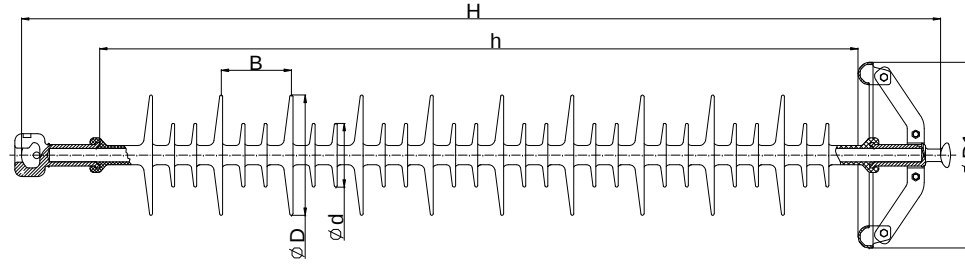


Figure 1.9-1 132kV Composite Suspension/Tension Insulator

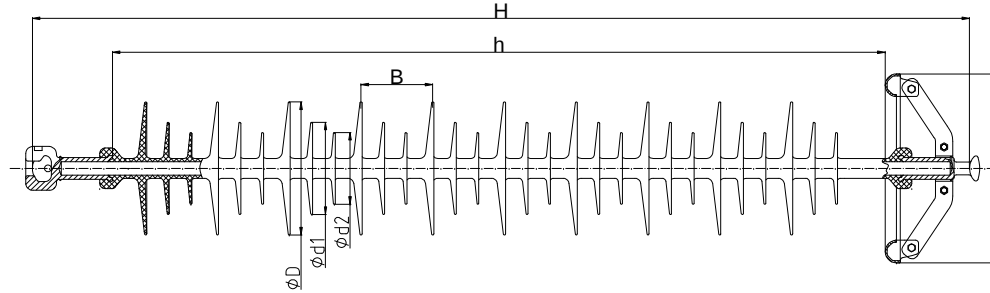


Figure 1.9-2 132kV Composite Suspension/Tension Insulator

Table 1.9 Dimensions and Characteristics of 132kV Composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d1/d2 mm	Shed Spacing B mm	Grading Diameter Ring D1 mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage (Peak)	Impulse Voltage ≥ kV	1 Min Wet Power Withstand ≥ kV	Weight (for Reference) kg
1.9-1	FXBW4-132/70-A	132	70	16	1480±15	1270	162/86	95	250	3900	2.95	660	275	275	5.8
1.9-2	FXBW4-132/70-B	132	70	16	1480±15	1270	176/122/95	95	250	4600	3.48	660	275	275	5.9
1.9-1	FXBW4-132/100-A	132	100	16	1480±15	1260	162/86	95	250	3900	2.95	660	275	275	5.8
1.9-2	FXBW4-132/100-B	132	100	16	1480±15	1260	176/122/95	95	250	4600	3.48	660	275	275	5.9
1.9-1	FXBW-132/100	132	100	16	1480±15	1225	171/85	79	250	4100	3.11	660	275	275	7.6
1.9-1	FXBW-132/160	132	160	20	1480±15	1215	171/85	79	250	4100	3.11	660	275	275	9.1

1. 10 110kV Composite Suspension/Tension Insulator

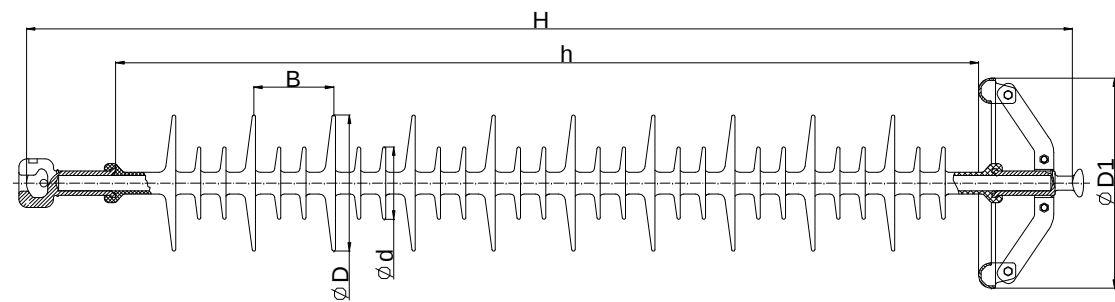


Figure 1.10-1 110kV Composite Suspension/Tension Insulator

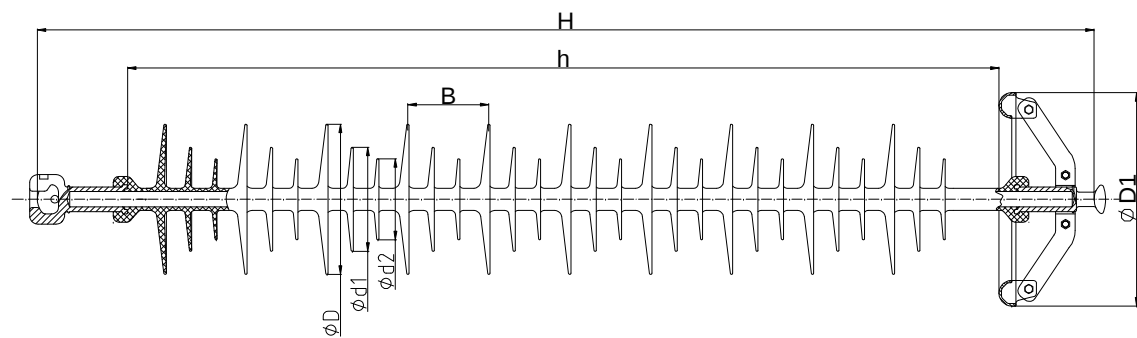


Figure 1.10-2 110kV Composite Suspension/Tension Insulator

Table 1.10 Dimensions and Characteristics of 110kV Composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage	Specified Load	Coupling Size	Section Length	Insulating length	Shed diameters	Shed Spacing	Grading Ring Diameter	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Full-Wave Withstand (Peak)	Impulse Voltage $\geq$	1 Min Wet Power	Weight (for Reference)
														Frequency Withstand $\geq$	kV
		kV	kN		H mm	h mm	D/d1/d2 mm	B mm	D1 mm	L mm	cm/kV	550 kV	230 kV		kg
1.10-1	FXBW4-110/70-A	110	70	16	1240±15	1025	162/86/86	95	250	3300	3.00	550	230		5.1
1.10-2	FXBW4-110/70-B	110	70	16	1240±15	1025	176/122/95	95	250	3900	3.54	550	230		5.2
1.10-1	FXBW4-110/70-C	110	70	16	1440±15	1225	162/86/86	95	250	3800	3.45	550	230		5.8
1.10-2	FXBW4-110/70-D	110	70	16	1440±15	1225	176/122/95	95	250	4500	4.09	550	230		6.0
1.10-1	FXBW4-110/100-A	110	100	16	1240±15	1020	162/86/86	95	250	3300	3.00	550	230		5.1
1.10-2	FXBW4-110/100-B	110	100	16	1240±15	1020	176/122/95	95	250	3900	3.54	550	230		5.2
1.10-1	FXBW4-110/100-C	110	100	16	1440±15	1220	162/86/86	95	250	3800	3.45	550	230		5.8
1.10-2	FXBW4-110/100-D	110	100	16	1440±15	1220	176/122/95	95	250	4500	4.09	550	230		6.0
1.10-1	FXBW-110/100	110	100	16	1380±15	1125	171/85	79	250	3700	3.36	550	230		7.2
1.10-1	FXBW-110/160	110	160	20	1380±15	1115	171/85	79	250	3700	3.36	550	230		8.7

1. 11 66kV (63kV) Composite Suspension/Tension Insulator

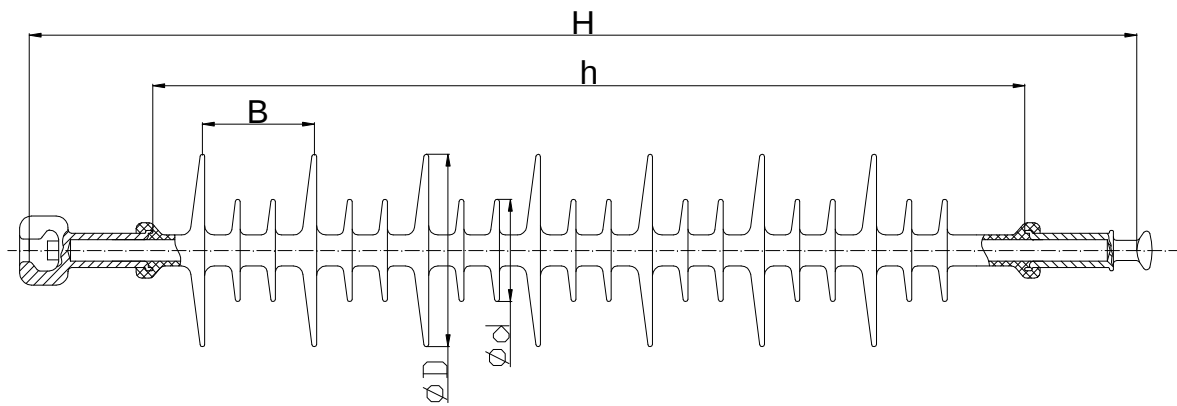


Figure 1.11--1 66kV (63kV) Composite Suspension/Tension Insulator

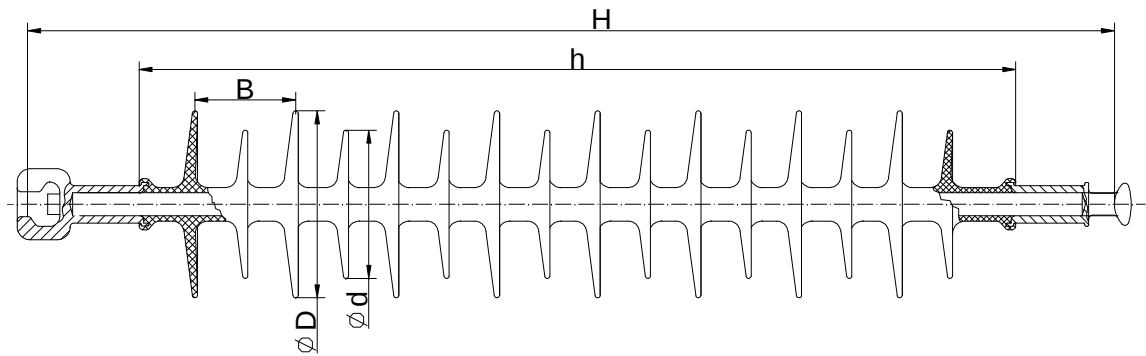


Figure 1.11--2 66kV (63kV) Composite Suspension/Tension Insulator

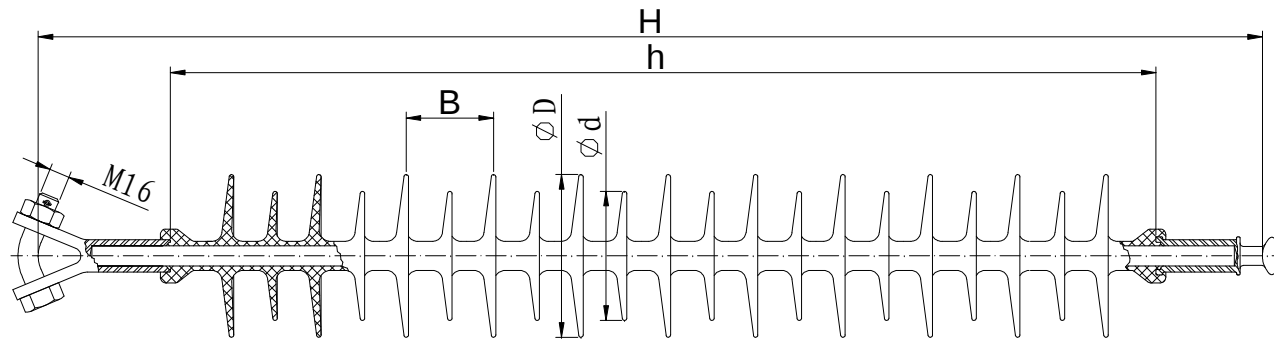


Figure 1.11--3 66kV (63kV) Composite Suspension/Tension Insulator

Table 1.11 Dimensions and Characteristics of 66kV (63kV) composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d mm	Shed Spacing B mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage (Peak)	Impulse Voltage ≥ kV	1 Min Wet Power Frequency Withstand Voltage ≥ kV	Weight Reference) (for kg
1. 11-1	FXBW-66/70-940	66	70	16	940±15	740	162/86/86	95	2200	3.33	410	185	185	3.7
1. 11-1	FXBW-66/100-940	66	100	16	940±15	740	162/86/86	95	2200	3.33	410	185	185	3.7
1. 11-1	FXBW-66/120-940	66	120	16	940±15	740	162/86/86	95	2200	3.33	410	185	185	3.7
1. 11-1	FXBW-66/70-870-A	66	70	16	870±15	700	162/86/86	95	1920	2.91	410	185	185	3.3
1. 11-1	FXBW-66/100-870-A	66	100	16	870±15	670	162/86/86	95	1920	2.91	410	185	185	3.3
1. 11-1	FXBW-66/120-870-A	66	120	16	870±15	670	162/86/86	95	1920	2.91	410	185	185	3.3
1. 11-2	FXBW-66/70-870-B	66	70	16	870±15	700	145/115	78	2000	3.03	410	185	185	3.6
1. 11-2	FXBW-66/100-870-B	66	100	16	870±15	670	145/115	78	2000	3.03	410	185	185	3.6
1. 11-2	FXBW-66/120-870-B	66	120	16	870±15	670	145/115	78	2000	3.03	410	185	185	3.6
1. 11-3	FXBW-66/120-1066-YS	66	80	16	1066±15	880	145/115	78	2800	4.2	410	185	185	4.5

1.12 35kV (33kV) Composite Suspension/Tension Insulator

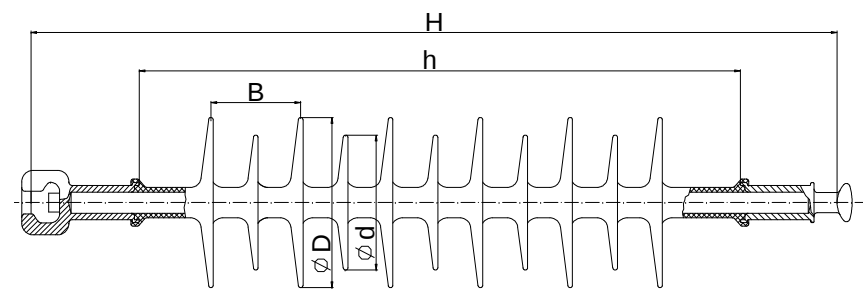


Figure 1.12-2 35kV (33kV) Composite Suspension/Tension Insulator

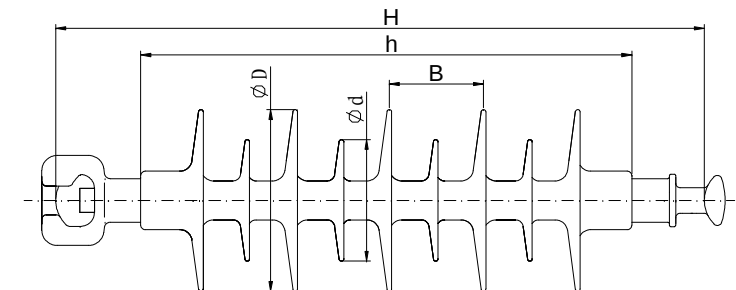


Figure 1.12-2 35kV (33kV) Composite Suspension/Tension Insulator

Table 1.12 Dimensions and Characteristics of 35kV (33kV) composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d mm	Shed Spacing B mm	Minimum Creepage L mm	(Creepage/Rated Vo) Specific Creepage cm/kV	Full-Wave Withstand Voltage Impulse Voltage ≥ kV	1 Min Wet Power Frequency Withstand Voltage ≥ kV	Weight Reference) (for kg
1.12-1	FXBW-35/70-650-A	35	70	16	650±15	473	130/95	90	1050	3.00	230	95	2.5
1.12-1	FXBW-35/100-650-A	35	100	16	650±15	450	130/95	90	1050	3.00	230	95	2.5
1.12-1	FXBW-35/70-650-B	35	70	16	650±15	473	145/115	78	1450	4.14	230	95	3.1
1.12-1	FXBW-35/100-650-B	35	100	16	650±15	450	145/115	78	1450	4.14	230	95	3.1
1.12-2	FXBW-35/70-420	33	70	16	420	318	121/81	61	880	26.6	200	90	2.0

1. 13 20kV (24kV) Composite Suspension/Tension Insulator

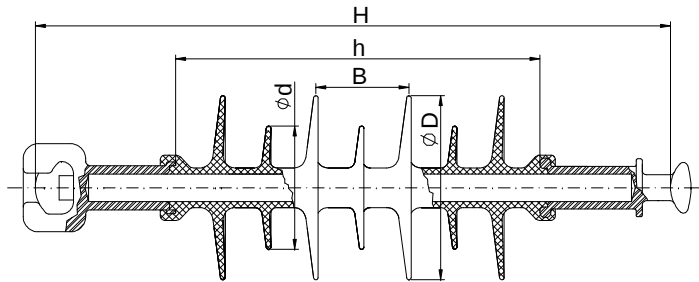


Figure 1.13-1 20kV(24kV) Composite Suspension/Tension Insulator

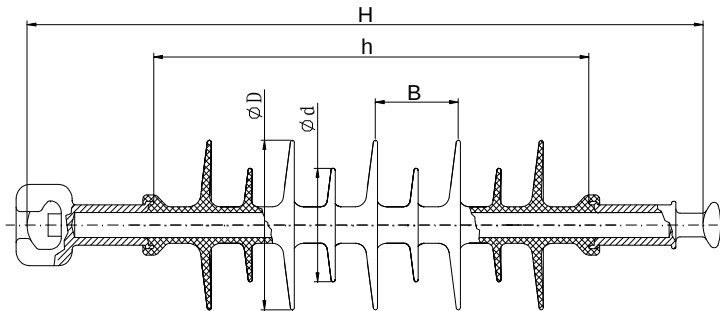


Figure 1.13-2 20kV(24kV) Composite Suspension/Tension Insulator

Table 1.13 Dimensions and Characteristics of 20kV (24kV) composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage	Specified Mechanical Load	Coupling Size	Section Length	Insulating length	Shed diameters	Shed Spacing	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Full-Wave Withstand Voltage (Peak)	Impulse Voltage $\geq$	1 Min Wet Power Frequency Withstand Voltage	Weight (for Reference)
		kV	kN		H mm	h mm	D/d mm	B mm	L mm	cm/kV		kV	$\geq$ kV	kg
1. 13-1	FXBW-20/70-WT	20	70	16	416±10	239	121/81	61	750	3. 75	150		90	1. 8
1. 13-2	FXBW-24/70-WT	24	70	16	477±10	239	121/81	61	900	3. 75	150		90	1. 95

1. 14、15kV Composite Suspension/Tension Insulator

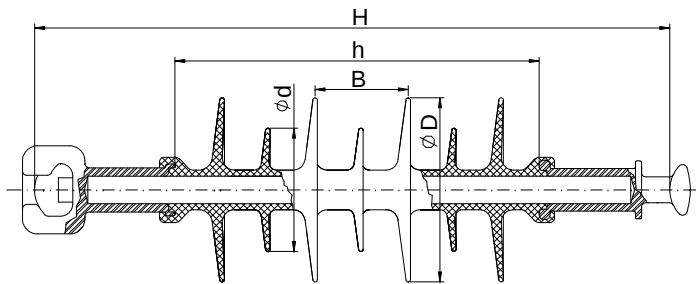


Figure 1.14 15kV Composite Suspension/Tension Insulator

Table 1.14 Dimensions and Characteristics of 15kV composite Suspension/Tension Insulator

Weight (for Reference)	kg	1.8
1 Min Wet Power Errequency Withstand Voltage	≧ kV	90
Full-Wave Withstand Voltage (Peak)	Impulse Voltage ≧ kV	150
(Creepage/Rated Vol) Specific Creepage	cm/kV	3.75
Minimum Creepage	L mm	750
Shed Spacing	B mm	61
Shed diameters	D/d mm	121/81
Insulating length	h mm	239
Section Length	H mm	416+10
Coupling Size		16
Specified Mechanical Load	kN	70
Rated Voltage	kV	15
Model		FXBW-15/70-WT
Figure. No		1.14

1. 15 10kV (12kV) Composite Suspension/Tension Insulator

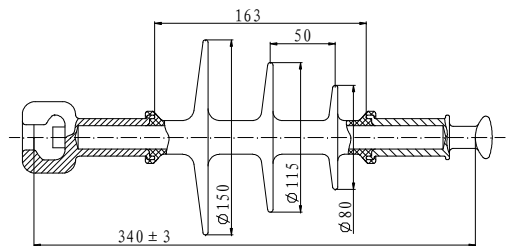


Figure 1.15-1

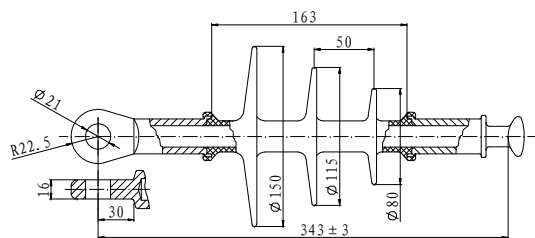


Figure 1.15-2

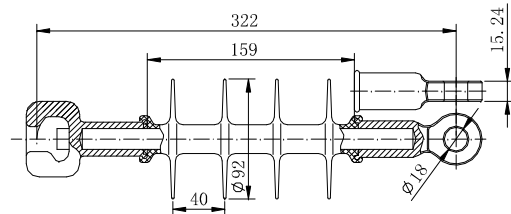


Figure 1.15-3

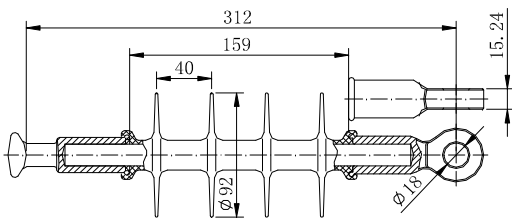


Figure 1.15-4

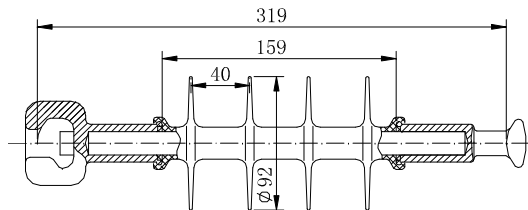


Figure 1.15-5

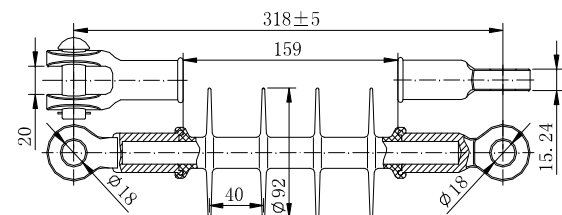


Figure 1.15-6

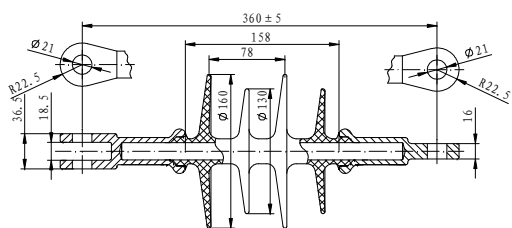


Figure 1.15-7

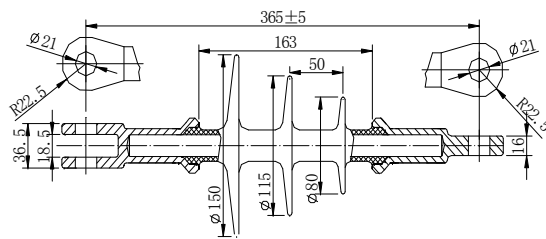


Figure 1.15-8

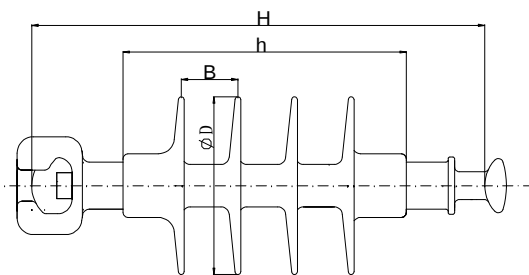


Figure 1.15-9

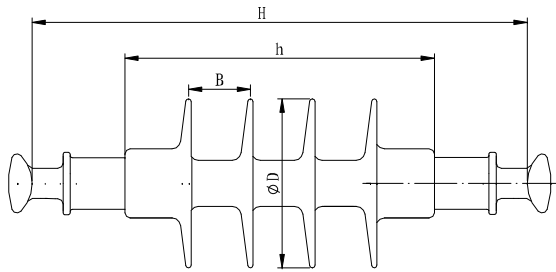


Figure 1.15-10

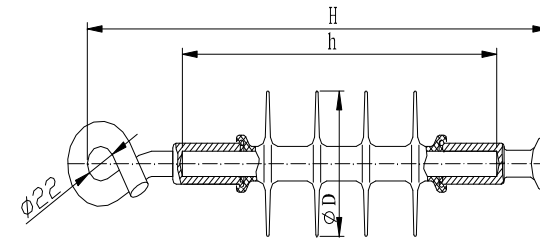


Figure 1.15-11

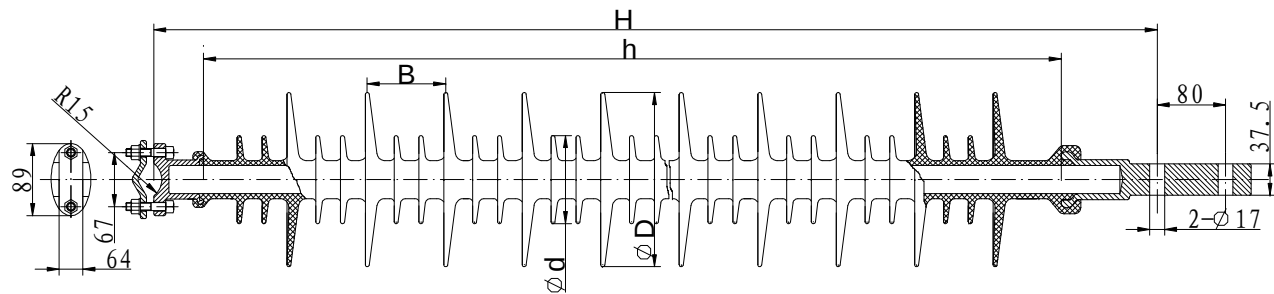
Figure 1.15 10kV (12kV) Composite Suspension/Tension Insulator

Table 1.15 Dimensions and Characteristics of 10kV (12kV) composite Suspension/Tension Insulator

Figure. No	Model	Rated Voltage kV	Specified Load kN	Coupling Size	Section Length		Shed diameters D/d mm	Shed Spacing B mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage ≧ kV		Weight (for Reference) kg
					H mm	h mm					Impulse Voltage ≧ kV	1 Min Wet Power Frequency Withstand Voltage ≧ kV	
1.15-1	FXBW-10/70-WT-A	10	70	16	340±5	163	150/115/80	50	400	4.00	95	60	1.5
1.15-2	FXBW-10/70-DT-A	10	70	16	343±5	163	150/115/80	50	400	4.00	95	60	1.3
1.15-3	FXBW-10/70-WD	10	70	16	322±5	159	92	40	415	4.15	95	60	1.3
1.15-4	FXBW-10/70-DT-B	10	70	16	312±5	159	92	40	415	4.15	95	60	1.1
1.15-5	FXBW-10/70-WT-B	10	70	16	319±5	159	92	40	415	4.15	95	60	1.2
1.15-6	FXBW-10/70-UD-A	10	70	/	318±5	159	92	40	415	4.15	95	60	1.2
1.15-7	FXBW-10/70-UD-B	10	70	/	360±5	158	160/130	78	600	6.00	95	60	1.4
1.15-8	FXBW-10/70-UD-C	10	70	/	365±5	163	150/115/80	50	400	4.00	95	60	1.4
1.15-9	FXBW-10/70- WT -C	10	70	16	296±5	163	106	39	460	4.40	95	60	1.4
1.15-10	FXBW-10/70- TT -A	10	70	16	296±5	163	106	39	460	4.40	95	60	1.4
1.15-11	FXBW-10/70- PT -A	10	20	16	375±5	163	92	40	400	4.00	95	60	1.3

2. Composite Cross-arm Insulator for Electric Power Line

2. 1 220kV Cross-arm Insulator for Electric Power Line



220kV Cross-arm Insulator for Electric Power Line

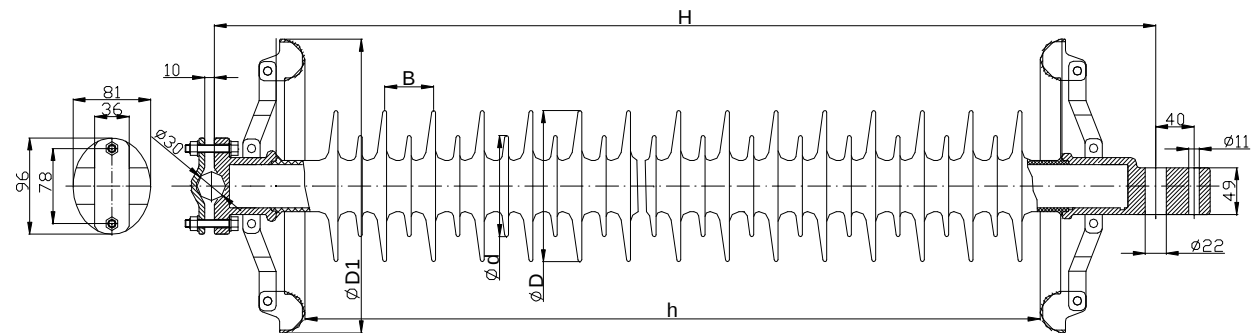


Figure 2.1 220kV Cross-arm Insulator for Electric Power Line

Table 2.1 Dimensions and Characteristics of 220kV Cross-arm Insulator

Figure. No	Model	Rated Voltage kV	Specified bending Mechanical Load kN	Section Length H mm	Insulating length h mm	Shed diameters D/d1/d2 mm	Shed Spacing B mm	Grading Diameter Ring D1 mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage Impulse Voltage ≥ kV (Peak)	1 Min Wet Power Frequency Withstand Voltage ≥ kV	Weight (for Reference) kg
2.1	FS-220/0.25-MJ-2240	220	0.25	2240±30	2100	190/110	89	305	6300	2.95	1000	395	17.8
2.2	FS-220/1-MJ-2500	220	1	2500±30	2300	157/105	51	305	6300	2.95	1000	395	22.5
2.2	FS-220/2-MJ-2500	220	2	2500±30	2300	172/120	51	305	6300	2.95	1000	395	32.0
2.2	FS-220/4-MJ-2500	220	4	2500±30	2300	192/140	51	305	6300	2.95	1000	395	47.5

2.2 110kV Cross-arm Insulator for Electric Power Line

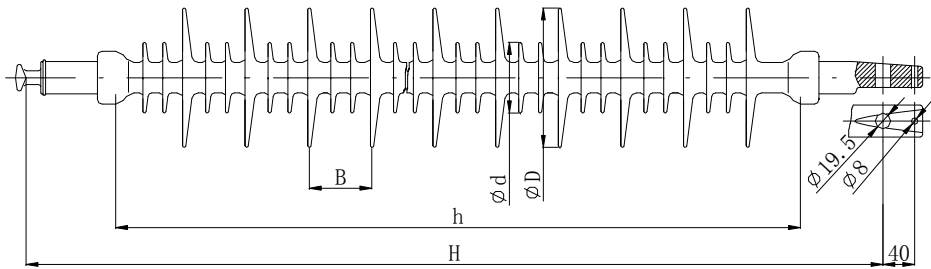


Figure 2.2-1

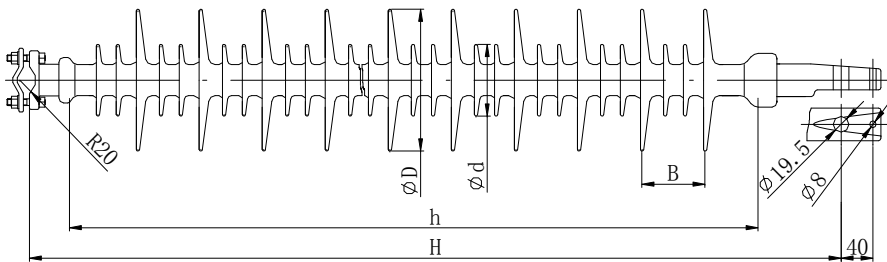


Figure 2.2-2

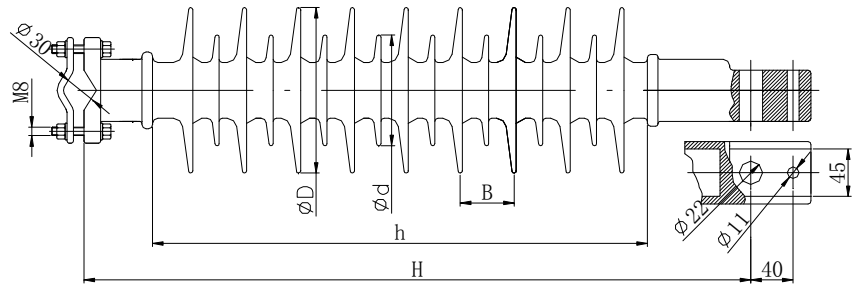


Figure 2.2-3

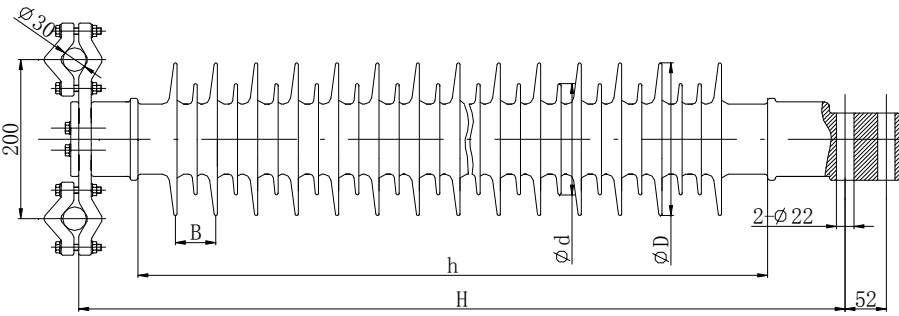


Figure 2.2-4

110kV Cross-arm Insulator for Electric Power Line

Table 2.2 Dimensions and Characteristics of 110kV Cross-arm Insulator

Figure. No	Model	Rated Voltage kV	Specified bending Mechanical Load kN	Section Length H mm	Insulating length h mm	Shed diameters D/d mm	Shed Spacing B mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage (Peak) Impulse Voltage ≥ kV	1 Min Wet Power Frequency Withstand Voltage ≥ kV	Weight (for Reference) kg
2.2-1	FS-110/0.25- TJ	110	0. 25	1318±5	1100	174/88	79	3300	3. 0	550	230	9. 2
2.2-2	FS-110/0.25- MJ	110	0. 25	1255±5	1100	174/88	79	3300	3. 0	550	230	9. 2
2.2-3	FS-110/4-MJ	110	4	1265±15	1100	157/105	51	3300	3. 0	550	230	13. 0
2.2-3	FS-110/6-MJ	110	6	1265±15	1100	172/120	51	3300	3. 0	550	230	18. 5
2.2-3	FS-110/10-M For single conductor	110	10	1265±15	1100	192/140	51	3300	3. 0	550	230	27. 0
2.2-4	FS-110/10-MJ for double conductor	110	10	1265±15	1100	192/140	51	3300	3. 0	550	230	27. 5

2. 3 66kV Cross-arm Insulator for Electric Power Line

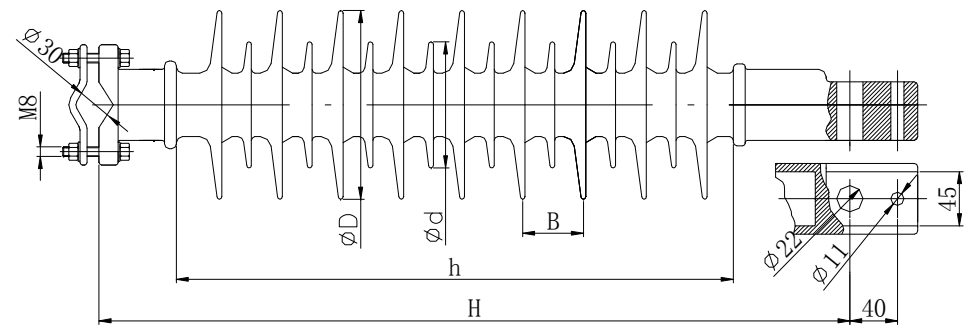


Figure 2.3 66kV Cross-arm Insulator for Electric Power Line

Table 2.3 Dimensions and Characteristics of 66kV Cross-arm Insulator

Figure. No	Model	Rated Voltage	Specified bending Mechanical Load	Section Length H	Insulating length h	Shed diameters	Shed Spacing B	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Full-Wave Withstand Voltage (Peak)	Impulse Voltage	1 Min Wet Power Frequency Withstand Voltage	Weight (for Reference)
2 3	FS-66/10-MJ		10	800 15	0	1 2 120	51	2100	3 1	00		145	12

2. 4 35kV Cross-arm Insulator for Electric Power Line

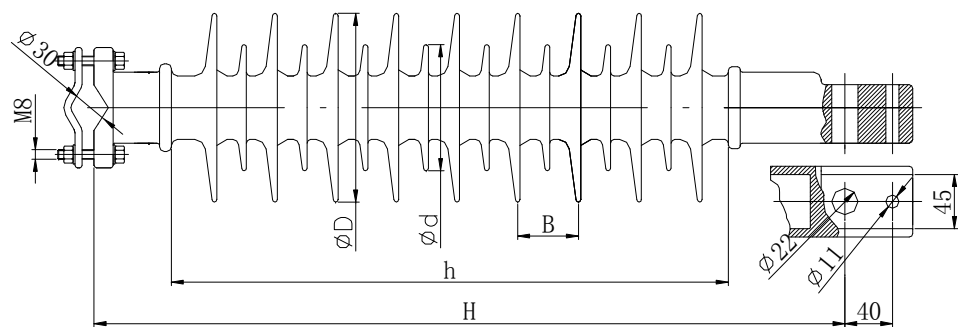


Figure 2.4-1

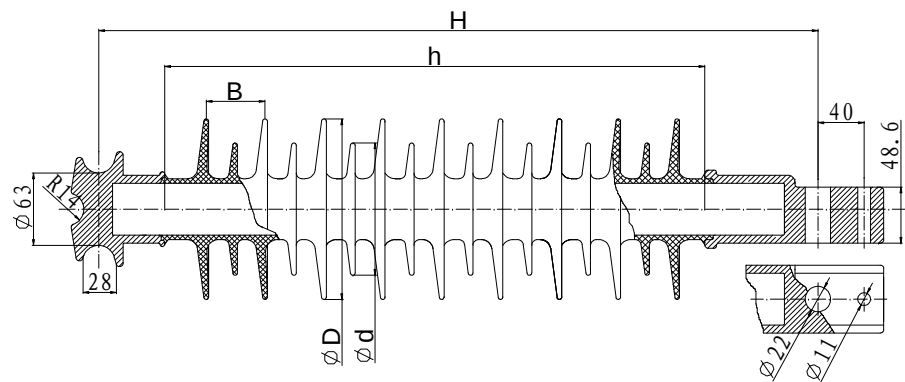


Figure 2.4-2

35kV Cross-arm Insulator for Electric Power Line

Table 2.4 Dimensions and Characteristics of 35kV Cross-arm Insulator

Figure. No	Model	Rated Voltage kV	Specified bending Mechanical Load k	Section Length H	Insulating length h	Shed diameters	Shed Spacing B	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage kV	Full-Wave Impulse Withstand Voltage (Peak) kV	1 Min Wet Power Frequency Withstand Voltage kV	Weight Reference) (for k
2.4-1	FS-35/10-MJ-630	35	10	30 5	4 8	15 105	51	1 00	4. 5	300	150	. 5
2.4-2	FS-35/10-MJ-620	35	10	20 5	4 8	15 105	51	1 00	4. 5	300	150	. 5

2. 5 10kV Cross-arm Insulator for Electric Power Line

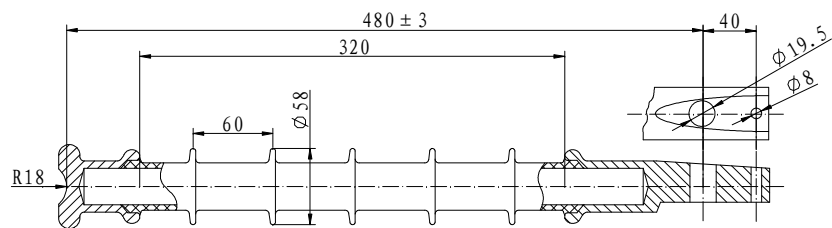


Figure 2.5-1 10kV Cross-arm Insulator for Electric Power Line

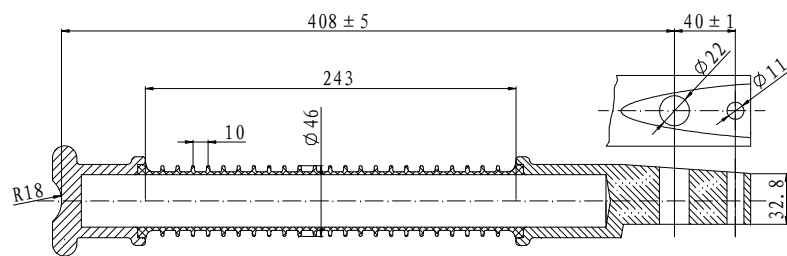


Figure 2.5-2 10kV Cross-arm Insulator for Electric Power Line

Table 2.5 Dimensions and Characteristics of 10kV Cross-arm Insulator

Figure. No	Model	Rated Voltage	Specified bending Mechanical Load	Section Length	Insulating length	Shed diameters	Shed Spacing	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Full-Wave Impulse Withstand Voltage (Peak)	1 Min Wet Power Frequency Withstand Voltage	Weight Reference (for kg)
		kV	kN	H mm	h mm	D mm	B mm	L mm	cm/kV	≥ kV	≥ kV	
2.5-1	FS-10/2.5-MJ-480	10	2.5	480±5	320	58	60	400	4.00	150	60	1.9
2.5-2	FS-10/5-MJ-408	10	5	408±5	243	46	10	380	3.80	150	60	2.9

3. Composite Insulator Used for High lands

3. 1 500kV Composite Insulator Used for High lands

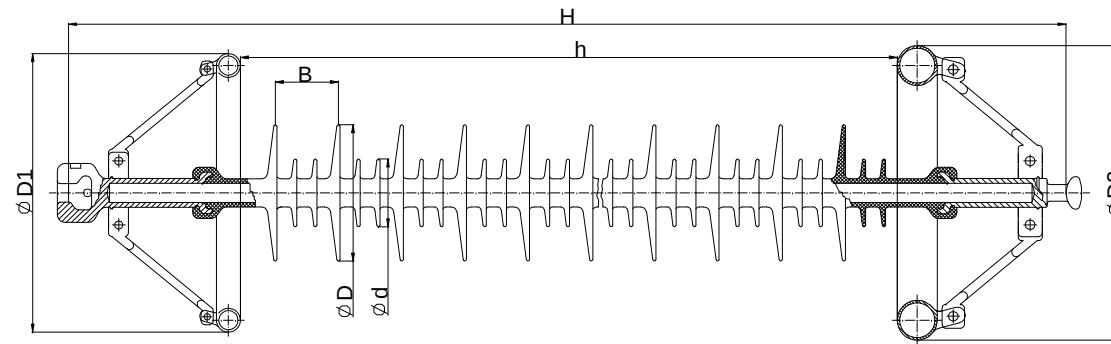


Figure 3.1 500kV Composite Insulator Used for High Lands

Table 3.1 Dimensions and Characteristics of 500kV Composite Insulator Used for High lands

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d mm	Shed Spacing B mm	Grading Ring Diameter D1/D2 mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage (Peak) Impulse Voltage ≧ kV	Wet Switching Impulse Withstand Voltage (Peak) ≧ kV	1 Min Wet Power Frequency Withstand Voltage ≧ kV	Weight (for Reference) kg	Altitude applicable m
3.1	FXBW-500/100-A	500	100	16	4820	4500	171/85	79	350/370	16000	3. 20	2500	1380	830	25. 0	1000-2000
3.1	FXBW-500/100-B	500	100	16	5320	5000	171/85	79	350/370	18000	3. 60	2850	1550	925	27. 8	2000-3000
3.1	FXBW-500/100-C	500	100	16	6120	5800	171/85	79	350/370	20000	4. 00	3250	1800	1100	31. 9	3000-4000
3.1	FXBW-500/120-A	500	120	16	4820	4500	171/85	79	350/370	16000	3. 20	2500	1380	830	25. 0	1000-2000
3.1	FXBW-500/120-B	500	120	16	5320	5000	171/85	79	350/370	18000	3. 60	2850	1550	925	27. 8	2000-3000
3.1	FXBW-500/120-C	500	120	16	6120	5800	171/85	79	350/370	20000	4. 00	3250	1800	1100	31. 9	3000-4000
3.1	FXBW-500/160-A	500	160	20	4920	4500	171/85	79	350/370	16000	3. 20	2500	1380	830	26. 5	1000-2000
3.1	FXBW-500/160-B	500	160	20	5420	5000	171/85	79	350/370	18000	3. 60	2850	1550	925	29. 3	2000-3000
3.1	FXBW-500/160-C	500	160	20	6220	5800	171/85	79	350/370	20000	4. 00	3250	1800	1100	33. 4	3000-4000
3.1	FXBW-500/180-A	500	180	20	4920	4500	171/85	79	350/370	16000	3. 20	2500	1380	830	26. 5	1000-2000
3.1	FXBW-500/180-B	500	180	20	5420	5000	171/85	79	350/370	18000	3. 60	2850	1550	925	29. 3	2000-3000
3.1	FXBW-500/180-C	500	180	20	6220	5800	171/85	79	350/370	20000	4. 00	3250	1800	1100	33. 4	3000-4000
3.1	FXBW-500/210-A	500	210	20	4920	4500	171/85	79	350/370	16000	3. 20	2500	1380	830	26. 5	1000-2000
3.1	FXBW-500/210-B	500	210	20	5420	5000	171/85	79	350/370	18000	3. 60	2850	1550	925	29. 3	2000-3000
3.1	FXBW-500/210-C	500	210	20	6220	5800	171/85	79	350/370	20000	4. 00	3250	1800	1100	33. 4	3000-4000
3.1	FXBW-500/240-A	500	240	20	4920	4500	171/85	79	350/370	16000	3. 20	2500	1380	830	26. 5	1000-2000
3.1	FXBW-500/240-B	500	240	20	5420	5000	171/85	79	350/370	18000	3. 60	2850	1550	925	29. 3	2000-3000
3.1	FXBW-500/240-C	500	240	20	6220	5800	171/85	79	350/370	20000	4. 00	3250	1800	1100	33. 4	3000-4000
3.1	FXBW-500/300-A	500	300	24	5000	4500	174/88	79	350/370	16000	3. 20	2500	1380	830	31. 5	1000-2000
3.1	FXBW-500/300-B	500	300	24	5500	5000	174/88	79	350/370	18000	3. 60	2850	1550	925	34. 8	2000-3000
3.1	FXBW-500/300-C	500	300	24	6300	5800	174/88	79	350/370	20000	4. 00	3250	1800	1100	39. 5	3000-4000
3.1	FXBW-500/400-A	500	400	28	5050	4500	190/110	89	350/370	16000	3. 20	2500	1380	830	40. 8	1000-2000
3.1	FXBW-500/400-B	500	400	28	5550	5000	190/110	89	350/370	18000	3. 60	2850	1550	925	44. 2	2000-3000
3.1	FXBW-500/400-C	500	400	28	6350	5800	190/110	89	350/370	20000	4. 00	3250	1800	1100	49. 4	3000-4000

3. 2 330kV Composite Insulator Used for High Lands

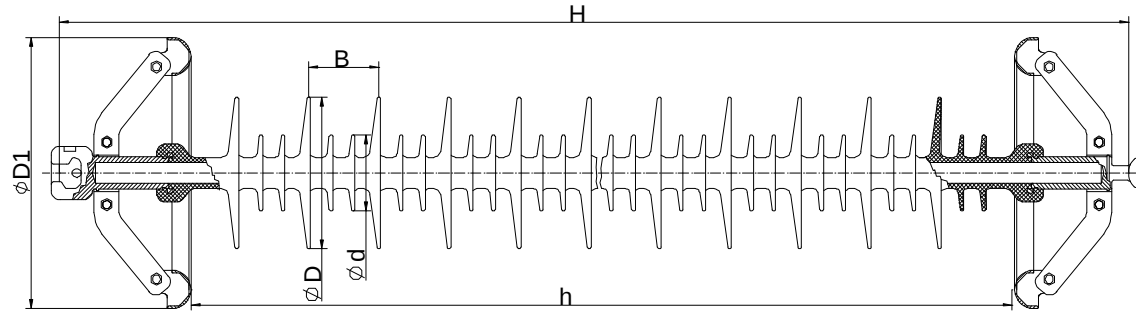


Figure 3.2 330kV Composite Insulator Used for High Lands

Table 3.2 Dimensions and Characteristics of 330kV Composite Insulator Used for High lands

Altitude applicable	Weight (for Reference)	1 Min Frequency Voltage	Wet Power Withstand	Impulse Voltage	Wet Switching Impulse Withstand Voltage (Peak)	Full-Wave Withstand (Peak)	Impulse Voltage	(Creepage/Rated Vol) Specific Creepage	Minimum Creepage	Grading Ring Diameter	Shed Spacing	Shed diameters	Insulating length	Section Length	Coupling Size	Specified Mechanical Load	Rated Voltage	Model	Figure. No
	</																		

3.3 220kV Composite Insulator Used for High Lands

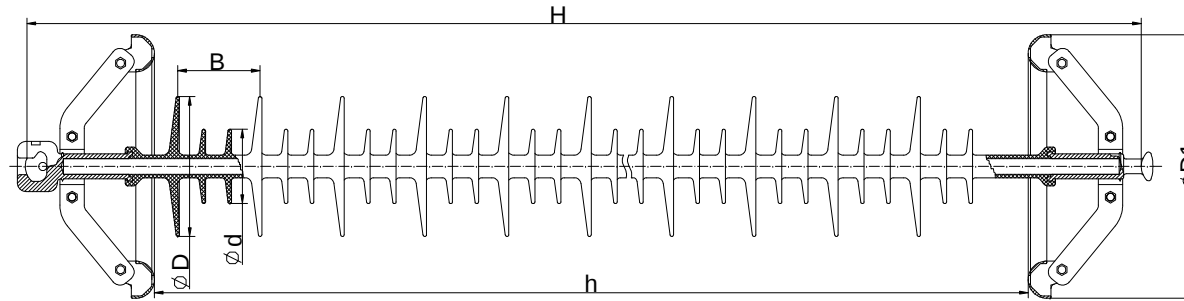


Figure 3.3 220kV Composite Insulator Used for High Lands

Table 3.3 Dimensions and Characteristics of 220kV Composite Insulator Used for High lands

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d mm	Shed Spacing B mm	Grading Ring Diameter D1 mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand (Peak) Impulse Voltage ≥ kV	1 Min Wet Power Frequency Withstand Voltage ≥ kV	Weight (for Reference) kg	Altitude applicable m
3.3	FXBW-220/100-A	220	100	16	2480	2200	162/86	95	305	7000	3.18	1120	440	9.4	1000-2000
3.3	FXBW-220/100-B	220	100	16	2680	2400	162/86	95	305	7900	3.59	1250	494	10.1	2000-3000
3.3	FXBW-220/100-C	220	100	16	3030	2750	162/86	95	305	9000	4.09	1430	565	11.5	3000-4000
3.3	FXBW-220/120-A	220	120	16	2490	2200	171/85	79	305	7000	3.18	1120	440	12.6	1000-2000
3.3	FXBW-220/120-B	220	120	16	2690	2400	171/85	79	305	7900	3.59	1250	494	13.5	2000-3000
3.3	FXBW-220/120-C	220	120	16	3040	2750	171/85	79	305	9000	4.09	1430	565	15.5	3000-4000
3.3	FXBW-220/160-A	220	160	20	2590	2200	171/85	79	305	7000	3.18	1120	440	14.4	1000-2000
3.3	FXBW-220/160-B	220	160	20	2790	2400	171/85	79	305	7900	3.59	1250	494	15.3	2000-3000
3.3	FXBW-220/160-C	220	160	20	3140	2750	171/85	79	305	9000	4.09	1430	565	17.3	3000-4000
3.3	FXBW-220/180-A	220	180	20	2590	2200	171/85	79	305	7000	3.18	1120	440	14.4	1000-2000
3.3	FXBW-220/180-B	220	180	20	2790	2400	171/85	79	305	7900	3.59	1250	494	15.3	2000-3000
3.3	FXBW-220/180-C	220	180	20	3140	2750	171/85	79	305	9000	4.09	1430	565	17.3	3000-4000
3.3	FXBW-220/210-A	220	210	20	2590	2200	171/85	79	305	7000	3.18	1120	440	14.4	1000-2000
3.3	FXBW-220/210-B	220	210	20	2790	2400	171/85	79	305	7900	3.59	1250	494	15.3	2000-3000
3.3	FXBW-220/210-C	220	210	20	3140	2750	171/85	79	305	9000	4.09	1430	565	17.3	3000-4000

3. 4 110kV Composite Insulator Used for High Lands

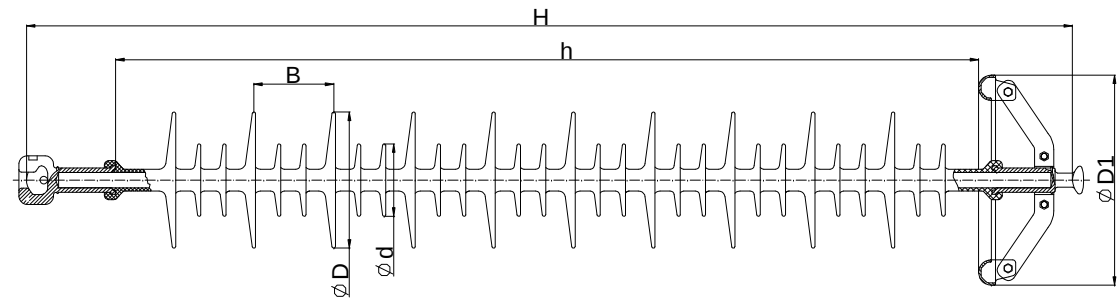


Figure 3.4 110kVComposite Insulator Used for High Lands

Table 3.4 Dimensions and Characteristics of 110kV Composite Insulator Used for High lands

Figure. No	Model	Rated Voltage	Specified Mechanical Load	Coupling Size	Section Length	Insulating length	Shed diameters	Shed Spacing	Grading Ring Diameter	Minimum Creepage	(Creepage/Rated Vo) Specific Creepage	Full-Wave Withstand Voltage (Peak)	1 Min Wet Power Frequency Withstand Voltage	Weight (for Reference)	Altitude applicable
		kV	kN		H mm	h mm	D/d mm	B mm	D1 mm	L mm	cm/kV	Impulse Voltage ≧ kV	≧ kV	kg	m
3.4	FXBW-110/70-A	110	70	16	1340	1120	162/86	95	250	3500	3.18	612	256	5.4	1000-2000
3.4	FXBW-110/70-B	110	70	16	1480	1260	162/86	95	250	4150	3.77	688	288	5.7	2000-3000
3.4	FXBW-110/70-C	110	70	16	1650	1430	162/86	95	250	4500	4.09	786	329	6.5	3000-4000
3.4	FXBW-110/100-A	110	100	16	1340	1120	162/86	95	250	3500	3.18	612	256	5.4	1000-2000
3.4	FXBW-110/100-B	110	100	16	1480	1260	162/86	95	250	4150	3.77	688	288	5.7	2000-3000
3.4	FXBW-110/100-C	110	100	16	1650	1430	162/86	95	250	4500	4.09	786	329	6.5	3000-4000
3.4	FXBW-110/120-A	110	120	16	1380	1120	171/85	79	250	3500	3.18	612	256	7.2	1000-2000
3.4	FXBW-110/120-B	110	120	16	1520	1260	171/85	79	250	4150	3.77	688	288	7.9	2000-3000
3.4	FXBW-110/120-C	110	120	16	1690	1430	171/85	79	250	4500	4.09	786	329	8.5	3000-4000
3.4	FXBW-110/160-A	110	160	20	1390	1120	171/85	79	250	3500	3.18	612	256	8.7	1000-2000
3.4	FXBW-110/160-B	110	160	20	1530	1260	171/85	79	250	4150	3.77	688	288	9.4	2000-3000
3.4	FXBW-110/160-C	110	160	20	1700	1430	171/85	79	250	4500	4.09	786	329	10.0	3000-4000

3. 5 35kV Composite Insulator Used for High Lands

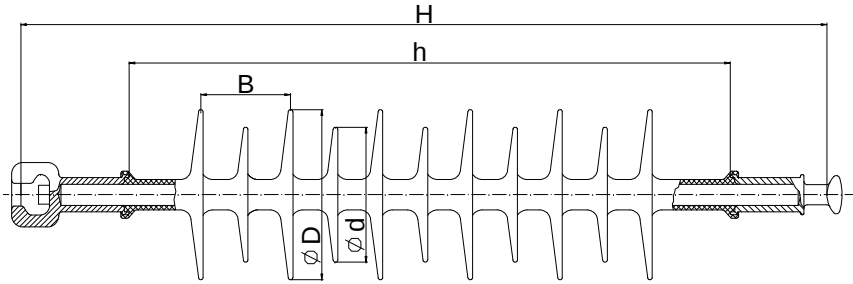


Figure 3.5 35kV Composite Insulator Used for High Lands

Table 3.5 Dimensions and Characteristics of 35kV Composite Insulator Used for High lands

Figure. No	Model	Rated Voltage kV	Specified Mechanical Load kN	Coupling Size	Section Length H mm	Insulating length h mm	Shed diameters D/d mm	Shed Spacing B mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Full-Wave Withstand Voltage (Peak) Impulse Voltage ≥ kV	1 Min Wet Power Frequency Withstand Voltage ≥ kV	Weight Reference) (for kg	Altitude applicable m
3. 5	FXBW-35/70-A	35	70	16	678±15	500	145/115	78	1500	4. 28	256	106	3. 2	1000-2000
3. 5	FXBW-35/70-B	35	70	16	738±15	560	145/115	78	1700	4. 85	288	120	3. 3	2000-3000
3. 5	FXBW-35/70-C	35	70	16	818±15	640	145/115	78	1900	5. 42	329	136	3. 5	3000-4000
3. 5	FXBW-35/100-A	35	100	16	704±15	500	145/115	78	1500	4. 28	256	106	3. 2	1000-2000
3. 5	FXBW-35/100-B	35	100	16	764±15	560	145/115	78	1700	4. 85	288	120	3. 3	2000-3000
3. 5	FXBW-35/100-C	35	100	16	844±15	640	145/115	78	1900	5. 42	329	136	3. 5	3000-4000

4. Pedestal-type Post Insulator

4. 1 35kV (33kV) Pedestal-type Post Insulator

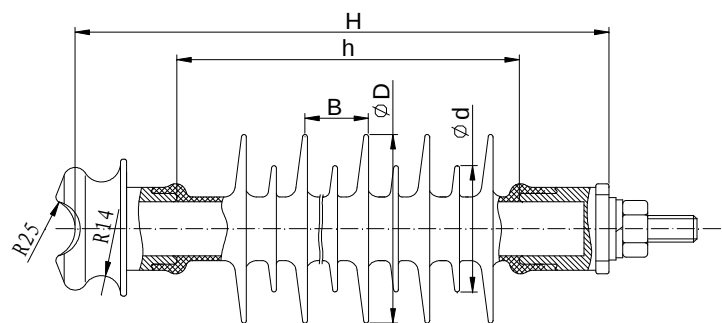


Figure 4.1-1 35kV (33kV) Pedestal-type Post Insulator

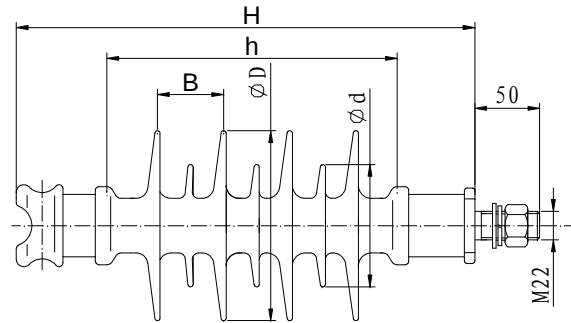


Figure 4.1-2 35kV (33kV) Pedestal-type Post Insulator

Table 4.1 35kV (33kV) Pedestal-type Post Insulator

Figure. No	Model	Rated Voltage	Specified Cantilever Load	Section Length	Insulating length	Shed diameters	Shed Spacing	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Bottom Screw	Full-Wave Withstand Voltage (Peak)	Impulse Voltage	1 Min Wet Power Frequency Withstand Voltage	Weight (for Reference)
4.1-1	FPW-35/8	35	8	610±15	465	157/105	51	1400	4.00	M20/M22/M24	230		95	7.1
4.1-2	FPW-35/4	35	4	610±15	465	146/94	51	1400	4.00	M18/M20/M22	230		95	4.9

4.2 20kV Pedestal-type Post Insulator

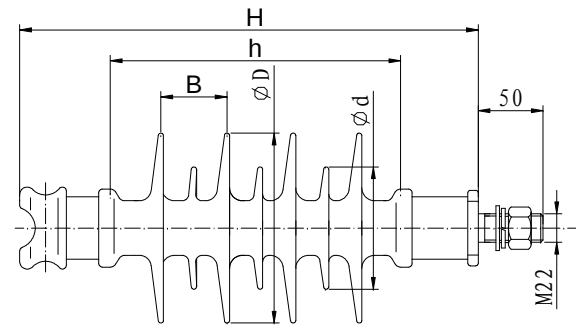


Figure 4.2 20kV Pedestal-type Post Insulator

Table 4.2 Dimensions and Characteristics of 20kV Pedestal-type Post Insulator

Figure. No	Model	Rated Voltage	Specified Load	Section Length	Insulating length	Shed diameters	Shed Spacing	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Bottom Screw	Full-Wave Withstand Voltage (Peak)	1 Min Wet Power Frequency Withstand Voltage	Weight (for Reference)
		kV	kN	H mm	h mm	mm	B mm	L mm	cm/kV		Impulse ≧ kV	≧ kV	kg
4. 2	FPW-20/6	20	6	354±5	224	146/94	51	700	3. 50	M20/M18/M16	90	50	1. 9

4. 3 15kV Pedestal-type Post Insulator

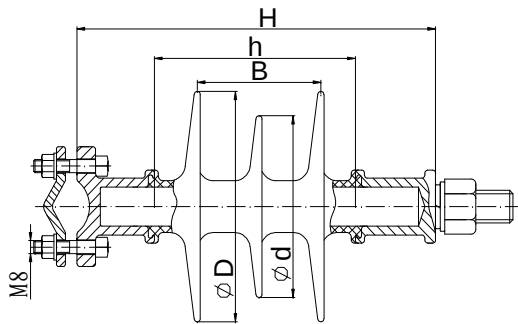


Figure 4.3-1 15kV Pedestal-type Post Insulator

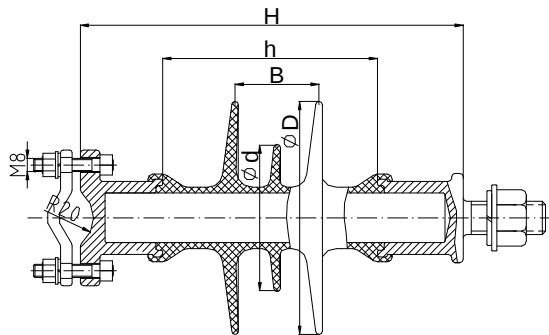


Figure 4.3-2 15kV Pedestal-type Post Insulator

Table 4.3 Dimensions and Characteristics of 15 kV Pedestal-type Post Insulator

Figure. No	Model	Rated Voltage kV	Specified Cantilever Load kN	Section Length H mm	Insulating length h mm	Shed diameters mm	Shed Spacing B mm	Minimum Creepage L mm	(Creepage/Rated Vol) Specific Creepage cm/kV	Bottom Screw	Full-Wave Withstand Voltage (Peak) Impulse Voltage ≧ kV	1 Min Wet Power Frequency Withstand Voltage ≧ kV	Weight (for Reference) kg
4. 3-1	FPW-15/3	15	3	232±5	130	142/112	80	380	3. 80	M20/M18/M16	90	50	1. 7
4. 3-2	FPW-15/5	15	5	232±5	130	141/89	51	380	3. 80	M20/M18/M16	90	50	1. 9

4.4 10kV Pedestal-type Post Insulator

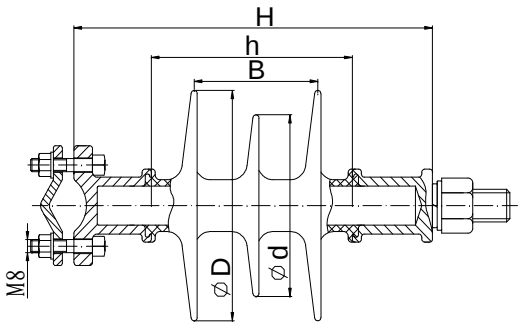


Figure4.4-110kV Pedestal-type Post Insulator

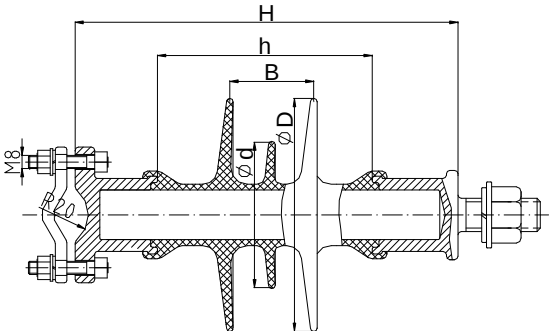


Figure 4.4-2 10kV Pedestal-type Post Insulator

Table 4.4 Dimensions and Characteristics of 15 kV Pedestal-type Post Insulator

Figure. No	Model	Rated Voltage	Specified Cantilever Load	Section Length	Insulating length	Shed diameters	Shed Spacing	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Bottom Screw	Full-Wave Withstand Voltage (Peak)	Impulse Voltage	1 Min Wet Power Frequency Withstand Voltage	Weight (for Reference)
4.4-1	FPW-10/3	10	3	232±5	130	142/112	80	380	3.80	M20/M18/M16	90	50	50	1.7
4.4-2	FPW-10/5	10	5	232±5	130	141/89	51	380	3.80	M20/M18/M16	90	50	50	1.9

5. Post Insulator for Substation

5.1 220kV (252kV) Post Insulator for Substation

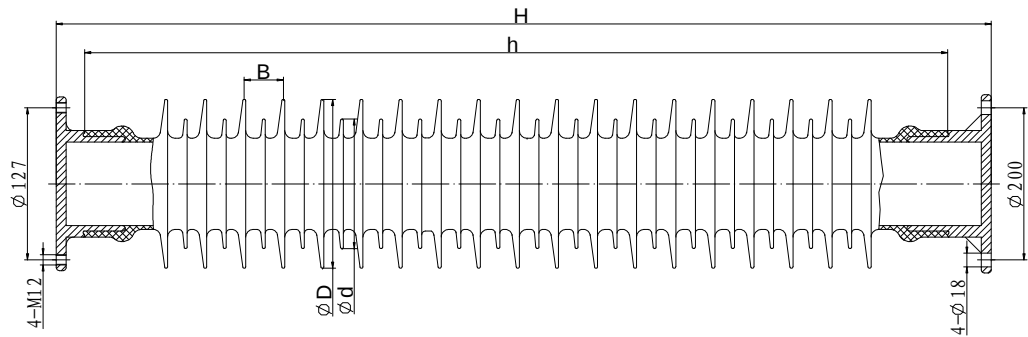


Figure5.1 220kV (252kV) Post Insulator for Substation

Table 5.1 Dimensions and Characteristics of 220kV (252kV) Post Insulator for Substation

Weight (for Reference)	
1 Min Wet Power Frequency Withstand Voltage	
Full-Wave Withstand Voltage (Peak)	
Impulse Voltage	
(Creepage/Rated Vol) Specific Creepage	
Minimum Creepage	
Shed Spacing	
Shed diameters	
Insulating length	
Section Length	
Specified Cantilever Load	
Specified Cantilever Load	
Rated Voltage	
Model	
Figure. No	

5. 2 110kV (126kV、132kV) Post Insulator for Substation

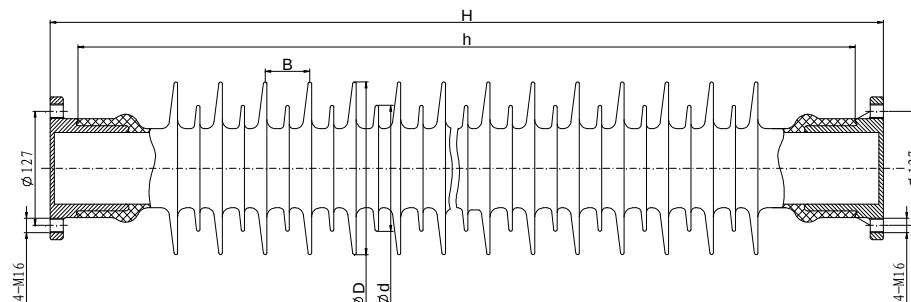


Figure 5.2-1 110kV (126kV、132kV) Post Insulator for Substation

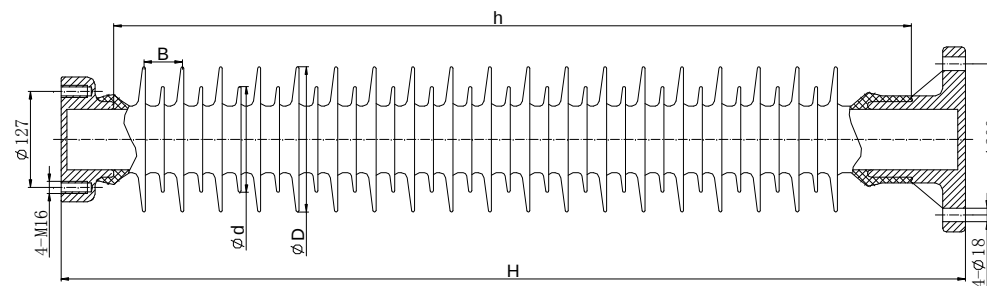


Figure 5.2-2 110kV (126kV、132kV) Post Insulator for Substation

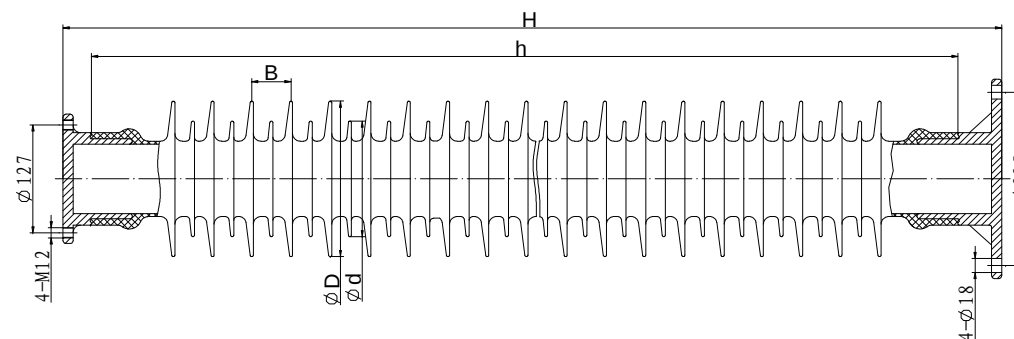


Figure 5.2-3 110kV (126kV、132kV) Post Insulator for Substation

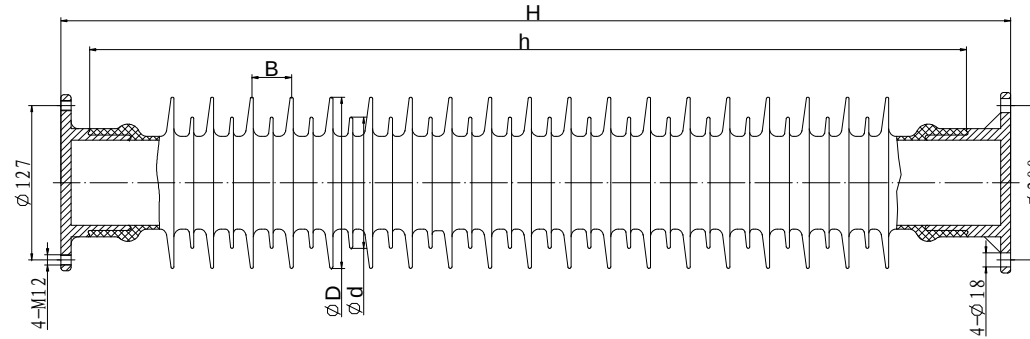


Figure 5.2-4 110kV (126kV、132kV) Post Insulator for Substation

Table 5.2 Dimensions and Characteristics of 110kV (126kV、132kV) Post Insulator for Substation

Figure. No	Model	Rated Voltage kV	Specified Load k	Section Length	Insulating length	Shed diameters	Shed Spacing	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage kV	Full-Wave Withstand Voltage kV	Impulse Voltage kV	1 Min Wet Power Frequency Withstand Voltage kV	Weight (for Reference) k
5.2-1	132	132		1 00 2	131	1 2 120	1	00	3 1	6 0		2	1 3
5.2-2	126	110		1300 2	1100	1 2 1 0	1	3300	3 00	0		230	26 0
5.2-3	126 10	110	10	1220 1	1020	202 1 0	1	3300	3 00	0		230	2
5.2-4	126 12	110	12	1220 1	1020	222 1 0	1	3300	3 00	0		230	3

5.3 66kV (72.5kV) Post Insulator for Substation

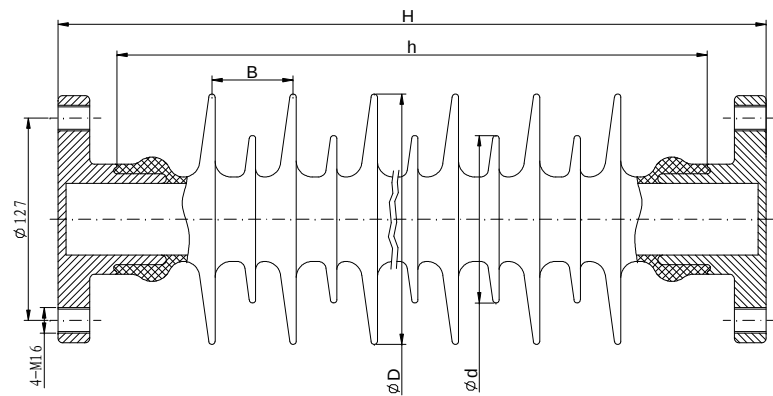


Figure 5.3-1 66kV (72.5kV) Post Insulator for Substation

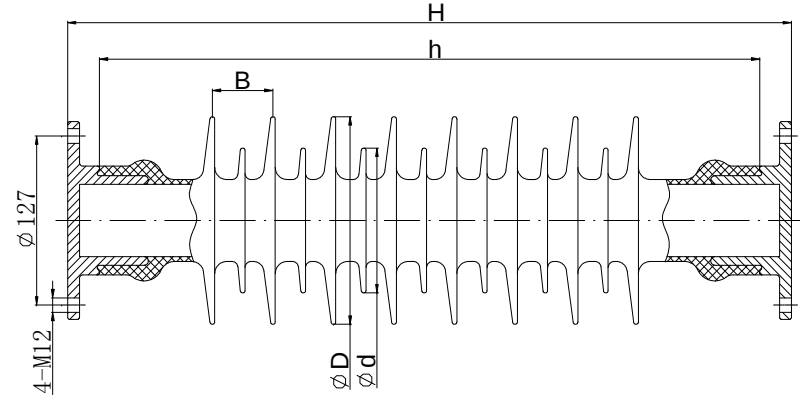


Figure 5.3-2 66kV (72.5kV) Post Insulator for Substation

Table 5.3 Dimensions and Characteristics of 66kV (72.5kV) Post Insulator for Substation

Weight (for Reference)	1 Min Frequency Voltage	Wet Power Withstand Voltage	Impulse Voltage
Full-Wave Withstand (Peak)			
(Creepage/Rated Vol) Specific Creepage			
Minimum Creepage			
Shed Spacing			
Shed diameters			
Insulating length			
Section Length			
Specified Load			
Cantilever			
Rated Voltage			
Model			
Figure. No			

5.3-1	FXZZ-66/4	66	4	770±1	634	157/105	51	2160	3. 27	325	140	7. 5
5.3-2	FXZZ-66/8	66	8	770±1	630	172/120	51	2160	3. 27	325	140	10. 7

5.4 35kV (36kV,40.5kV) Post Insulator for Substation

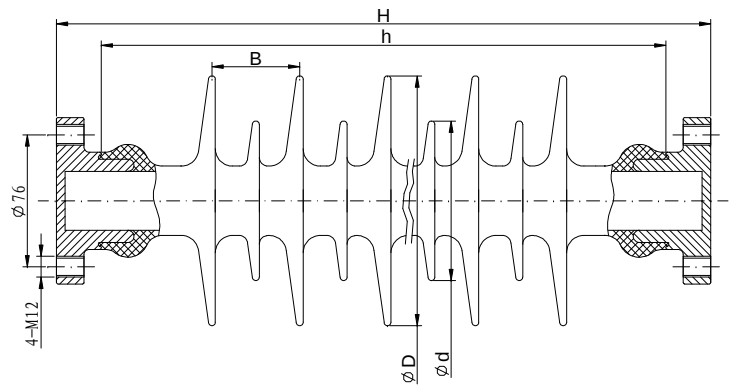


Figure5.4-1 35kV (36kV、40.5kV) Post Insulator for Substation

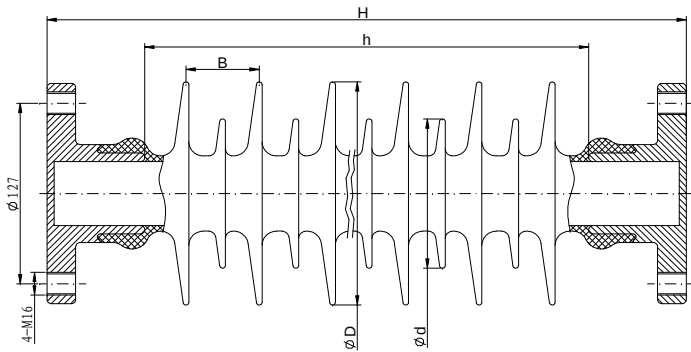


Figure5.4-2 35kV (36kV、40.5kV) Post Insulator for Substation

Table 5.4 Dimensions and Characteristics of 35kV (36kV、40.5kV) Post Insulator for Substation

Figure. No	Model	Rated Voltage	Specified Load	Cantilever	Section Length	Insulating length	Shed diameters	Shed Spacing	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Full-Wave Withstand Voltage (Peak)	Impulse Voltage	1 Min Frequency Wet Power Withstand Voltage	Weight (for Reference)
5.4-1	FXZZ-35/4	35	4		560±1	424	146/94	51	1320	3.77	250		95	4.4

5.4-1	FXZZ-35/8	35	8	560±1	420	157/105	51	1320	3.77	250	95	5.8
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5. 5 20kV (22kV, 24kV) Post Insulator for Substation

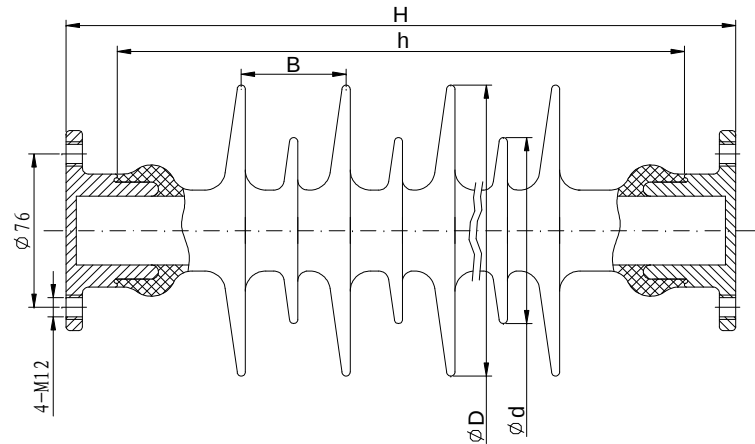


Figure 5.5-1 20kV (22kV、24kV) Post Insulator for Substation

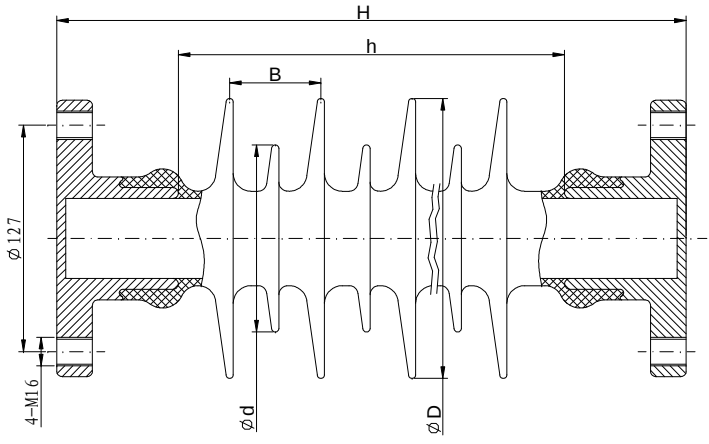


Figure 5.5-1 20kV (22kV、24kV) Post Insulator for Substation

Table 5.5 Dimensions and Characteristics of 20kV (22kV、24kV) Post Insulator for Substation

Figure. No	Model	Rated Voltage	Specified Load	Section Length	Insulating length	Shed diameters	Shed Spacing	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Full-Wave Withstand (Peak)	1 Min Frequency Voltage	Wet Power Withstand	Weight (for Reference)
		kV	k						kV	kV	kV	kV	k
5.5-1	20	20		0	2	4 4		0	40	2	0		2
5.5-2	20	20		0	2	0		0	40	2	0		

5.5-2	FXZZ-20/10	20	10	355±1	215	157/105	51	720	3.60	150	50	4.1
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5.6 10kV（11kV、12kV）Post Insulator for Substation

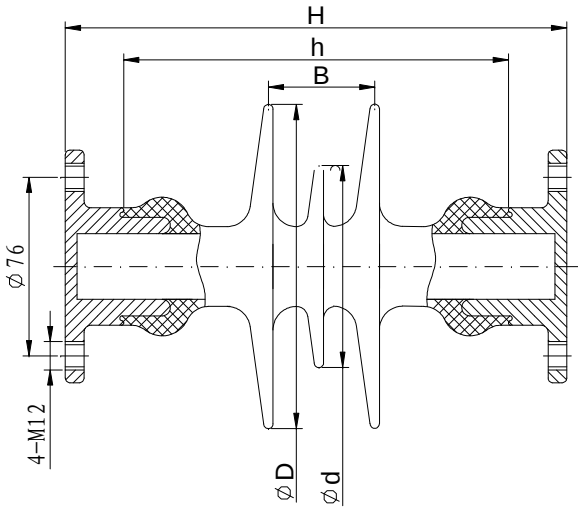


Figure 5.6 10kV（11kV、12kV）Post Insulator for Substation

Table 5.6 Dimensions and Characteristics of 10kV（11kV、12kV）Post Insulator for Substation

Weight (for Reference)	1 Min Frequency Voltage	Wet Withstand Voltage	Power Withstand Voltage
Full-Wave Withstand (Peak)	Impulse Voltage		
(Creepage/Rated Vol)			
Specific Creepage			
Minimum Creepage			
Shed Spacing			
Shed diameters			
Insulating length			
Section Length			
Specified Load	Cantilever		
Rated Voltage			
Model			
Figure. No			

		kV	kN	H mm	h mm	D/d mm	B mm	L mm	cm/kV	≥ kV	≥ kV	kg
5.6	FXZZ-10/6	10	6	215±1	125	140/88	51	380	3.80	95	38	1.9
5.6	FXZZ-10/8	10	8	215±1	125	146/94	51	380	3.80	95	38	2.2

6. Post Insulator for Transmission Line

6. 1 132kVPost Insulator for Transmission Line

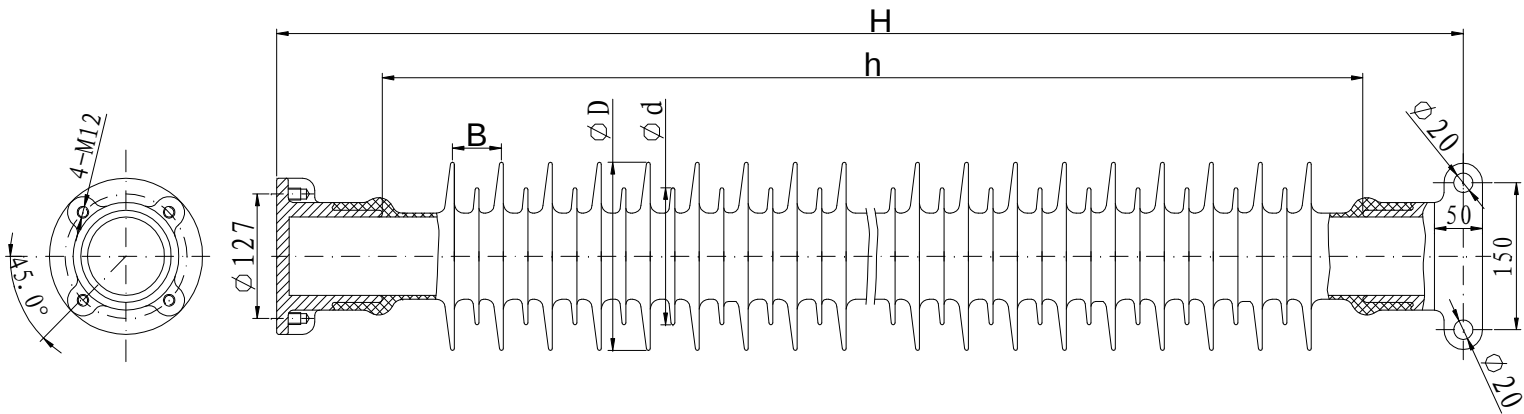


Figure 6.1-1 132kV Post Insulator for Transmission Line

Table 6.1 Dimensions and Characteristics of 132kV Post Insulator for Transmission Line

Weight Reference)	(for
1 Min Wet Power Frequency Withstand Voltage	
Full-Wave Withstand Voltage (Peak)	Impulse Voltage
(Creepage/Rated Vol)	
Specific Creepage	
Minimum Creepage	
Shed Spacing	
Shed diameters	
Insulating length	
Section Length	
Specified Cantilever Load	
Rated Voltage	
Model	
Figure. No	

		kV	kV	kN	h mm	D/d mm	B mm	L mm	cm/kV	$\geq$ kV	$\geq$ kV	kg
6. 1-1	FZSW-132/5. 7-1560	132	5. 7	1560	1335	192/140	51	3880	3. 41	660	276	31

6. 2 66kV（69kV）Post Insulator for Transmission Line

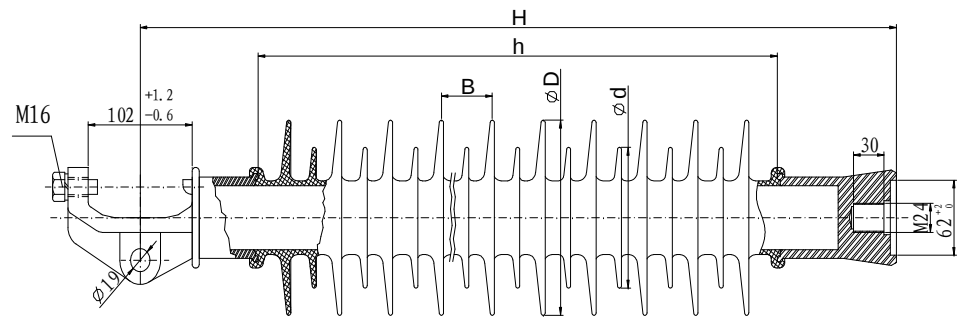


Figure 6.2-1 66kV（69kV）Post Insulator for Transmission Line

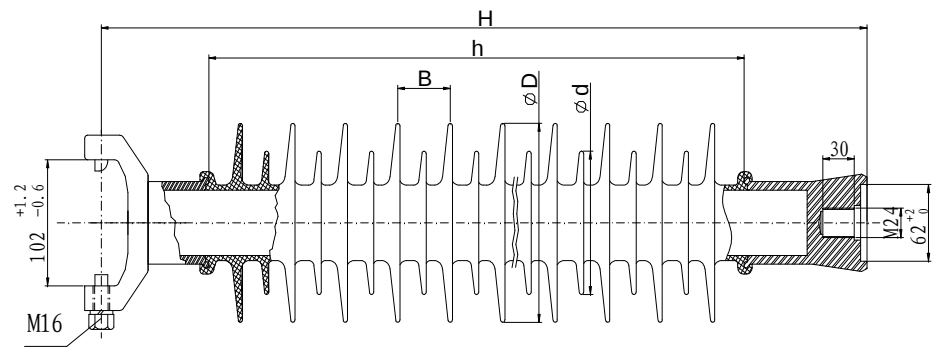


Figure 6.2-2 66kV（69kV）Post Insulator for Transmission Line

Table 6.2 Dimensions and Characteristics of 66kV（69kV）Post Insulator for Transmission Line

Figure. No	Model	Rated Voltage	Specified Load	Cantilever	Section Length	Insulating length	Shed diameters	Shed Spacing	Minimum Creepage	(Creepage/Rated Vol) Specific Creepage	Full-Wave Withstand Voltage (Peak)	Impulse Voltage	1 Min Wet Power Frequency Withstand Voltage	Weight Reference)	(for
											kN	mm	D/d	B	L
6. 2-1	FZSW-66/11-	66	11	878	15	645	172/120	51	2250	3. 41	410		185	13. 7	

6. 2-2	FZSW-66/11-V	66	11	878 ± 15	645	172/120	51	2250	3. 41	410	185	13. 7
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6.3 33KV Post Insulator for Transmission Line

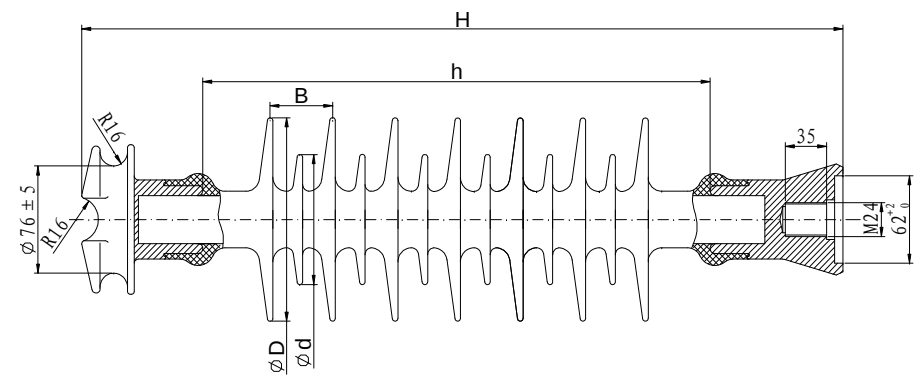


Figure 6.3 33KV Post Insulator for Transmission Line

Table 6.3 Dimensions and Characteristics of 33kV Post Insulator for Transmission Line

Weight Reference)	(for kg	1 Min Wet Power Frequency Withstand Voltage	Impulse Voltage ≧ kV	Full-Wave Withstand (Peak)	(Creepage/Rated Vol) Specific Creepage cm/kV	Minimum Creepage L mm	Shed Spacing B mm	Shed diameters D/d mm	Insulating length h mm	Section Length H mm	Specified Load kN	Rated Voltage kV	Model	Figure. No
8.0		140	250		3.39	1120	45	146/94	370	547+5	4	33	FZSW-33/4	6.3

6.4 22kV Post Insulator for Transmission Line

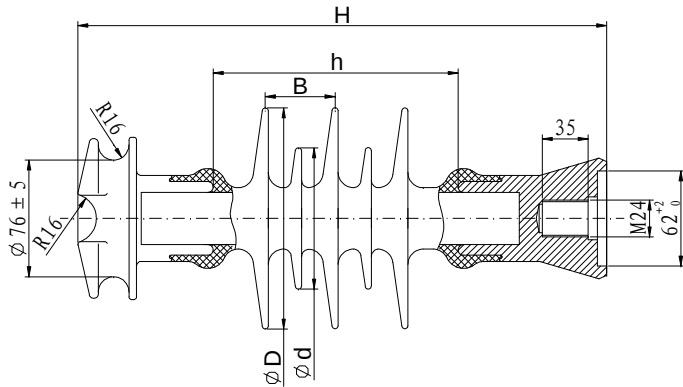


Figure 6.4 22kV Post Insulator for Transmission Line

Table 6.4 Dimensions and Characteristics of 22kV Post Insulator for Transmission Line

Weight (for Reference)	kg	4. 9
1 Min Wet Power Frequency Withstand Voltage	$\geq$ kV	50
Full-Wave Withstand Voltage (Peak)	Impulse Voltage $\geq$ kV	150
(Creepage/Rated Vol) Specific Creepage	cm/kV	2. 72
Minimum Creepage	L mm	600
Shed Spacing	B mm	45
Shed diameters	D/d mm	146/94
Insulating length	h mm	160
Section Length	H mm	337+5
Specified Load	Cantilever kN	6
Rated Voltage	kV	22
Model	FZSW-22/6	
Figure. No	6. 4	