

Composite insulator for transmission and distribution lines

10KV composite insulator

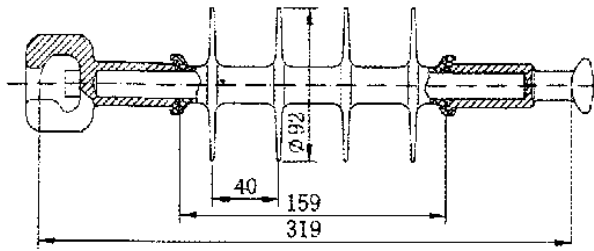


Fig.1 10KV composite insulator (W,T coupling)

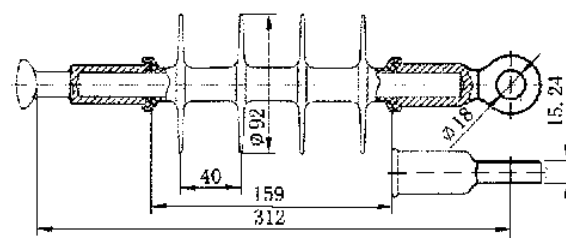


Fig.2 10KV composite insulator (D,T coupling)

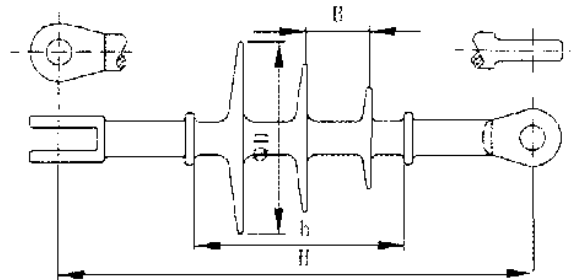


Fig.3 10KV composite insulator (U,D coupling)

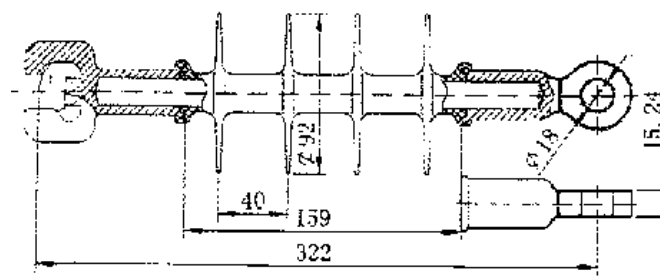


Fig.4 10KV composite insulator (W,D coupling)

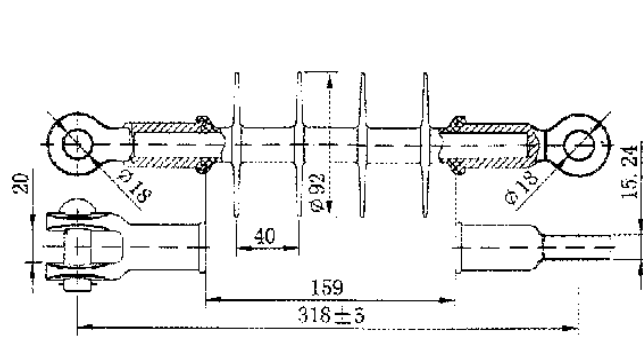


Fig.5 10KV composite insulator (U,D coupling)

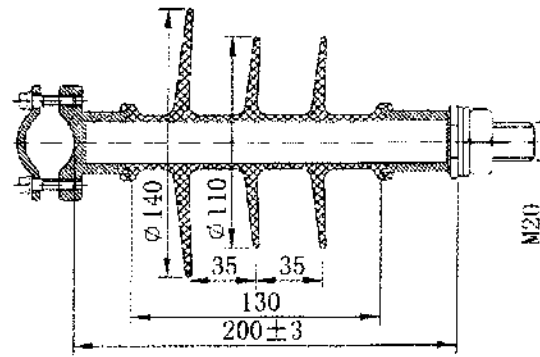


Fig.6 10KV pin composite insulator

General dimension and characteristics of 10kv suspension composite insulator

No.	Fig.	Type	Rated voltage KV	Specified mechanical load KN	Socket and ball size	Section height H, mm	Min arcing distance h, mm	Shed diameter D, mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	1	FXBW-10/70-WT	10	70	16	319 ± 5	159	92	415	95	60	1.6
2	2	FXBW-10/70-DT	10	70	16	312 ± 5	159	92	415	95	60	1.1
3	3	FXBW-10/70-UD-1	10	70	/	342 ± 5	155	150	400	95	60	1.6
4	4	FXBW-10/70-WD	10	70	16	322 ± 5	159	92	415	95	60	1.6
5	5	FXBW-10/70-UD-2	10	70	/	318 ± 5	159	92	415	95	60	1.5
6	6	FPW-10/3	10	3(Curve)	/	200 ± 5	130	140	380	95	40	1.6

35KV~330KV AC composite insulator

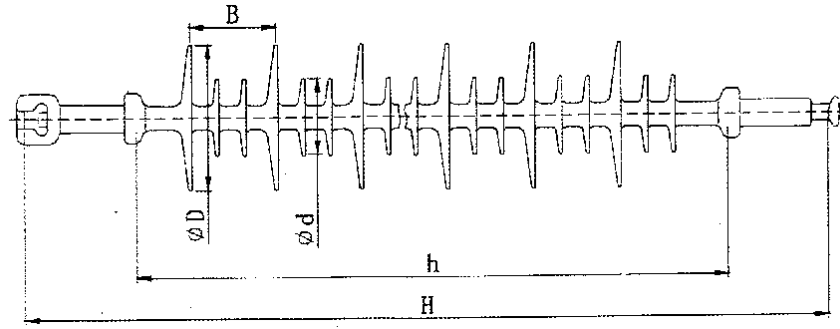


Fig.7 35KV~66KV AC composite insulator

General dimension and characteristics of 35KV~66KV AC composite insulator

No.	Type	Rated voltage KV	Specified mechanical load KN	Socket and ball size	Section height H, mm	Min arcing distance h, mm	Large shed diameter D, mm	Small shed diameter d, mm	Shed spacing B, mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	FXBW3-35/70	35	70	16	610±15	430	130	95	45	1050	230	95	2.2
2	FXBW4-35/70	35	70	16	650±15	450	130	95	45	1050	230	95	2.3
3	FXBW3-66/70	66	70	16	870±15	700	128	98	117	1050	410	185	3.5
4	FXBW4-66/70	66	70	16	940±15	760	128	98	117	1050	410	185	3.8

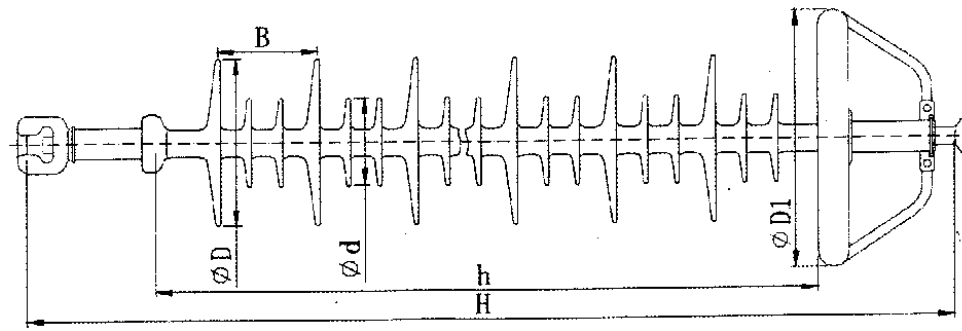


Fig.110KV composite insulator

General dimension and characteristics of 110KV AC composite insulator

No.	Type	Rated voltage KV	Specified mechanical load KN	Socket and ball size	Section height H, mm	Min arcing distance h, mm	Large/small shed diameter D/d mm	Shed spacing B, mm	Dia. of corona ring D1, mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power freq. Vol. \geq	Weight kg
1	FXBW3-110/70	110	70	16	1180±15	1000	162/86	95	250	3150	550	230	5.0
2	FXBW4-110/70	110	70	16	1240±15	1000	162/86	95	250	3150	550	230	5.0
3	FXBW3-110/100	110	100	16	1180±15	1000	162/86	95	250	3150	550	230	5.0
4	FXBW4-110/100	110	100	16	1240±15	1000	162/86	95	250	3150	550	230	5.0

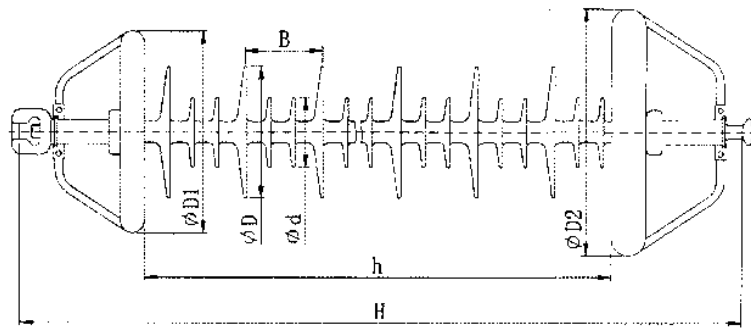


Fig.9 220KV AC composite insulator

General dimension and characteristics of 220KV AC composite insulator

No.	Type	Rated vol. KV	Spe.. mechanical load KN	Socket and ball size	Section height H, mm	Min arc. dis. h, mm	Lar./Sma shed diameter D, mm	Shed spacing B, mm	Dia. of corona ring D1/D2, mm	Min nominal creep. dis. L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	FXBW3-220/100	220	100	16	2150 \pm 30	1900	162/86	95	250/305	6300	1000	395	9.5
2	FXBW4-220/100	220	100	16	2240 \pm 30	1900	162/86	95	250/305	6300	1000	395	9.5
3	FXBW3-220/160	220	160	20	2150 \pm 30	1900	171/85	79	250/305	6300	1000	395	13
4	FXBW4-220/160	220	160	20	2240 \pm 30	1900	171/85	79	250/305	6300	1000	395	13

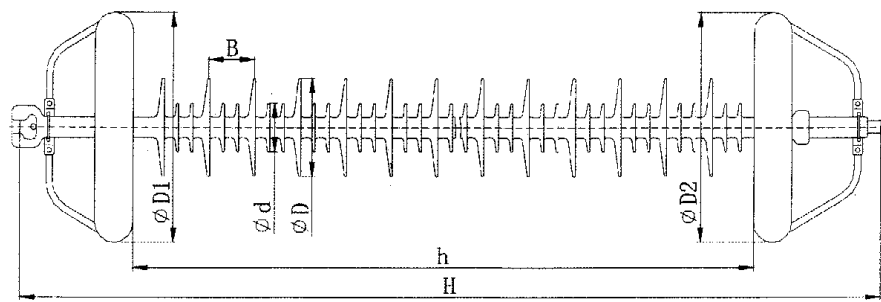


Fig.10 330KV AC composite

No.	Type	Rated Vol. KV	Spec. Mech. load KN	Socket and ball size	Section height H, mm	Min arcing distance h, mm	Lar./Sma shed dia. D/dmm	Shed Spacing B, mm	Dia. of corona ring D1,D2 mm	Min nominal creepage dis. L, mm	Lighting impulse withstand volt. \geq	Wet Switch Impulse Volt. \geq	Wet power freq. volt. \geq	Weight Kg
1	FXBW3-330/100	330	100	16	2930 \pm 40	2600	171/85	79	400	9075	1425	950	570	15
2	FXBW4-330/100	330	100	16	2990 \pm 40	2600	171/85	79	400	9075	1425	950	570	15
3	FXBW3-330/160	330	160	20	2930 \pm 40	2600	171/85	79	400	9075	1425	950	570	18
4	FXBW4-330/160	330	160	20	2990 \pm 40	2600	171/85	79	400	9075	1425	950	570	18
5	FXBW3-330/210	330	210	20	2930 \pm 40	2600	171/85	79	400	9075	1425	950	570	18
6	FXBW4-330/210	330	210	20	2990 \pm 40	2600	171/85	79	400	9075	1425	950	570	18

500KV~750Kv AC composite insulator

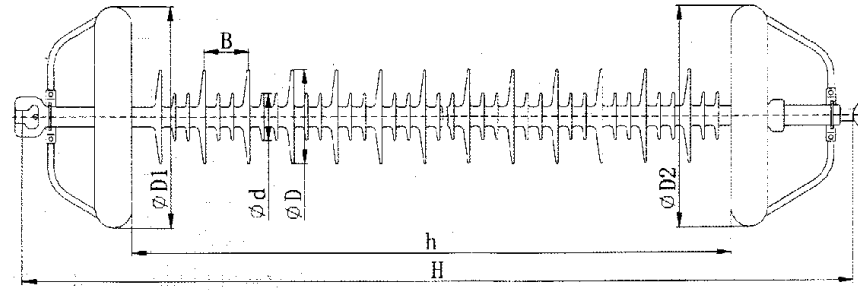


Fig.11

No.	Type	Rated Vol. KV	Spec. Mech. load KN	Socket and ball size	Section height H, mm	Min arcing distance h, mm	Lar/sma shed dia. D/d,mm	Shed Spacing B, mm	Dia. of corona ring D1,D2 mm	Min nominal creepage dis. L, mm	Lighting impulse withstand volt. \geq	Wet Switch Impulse Volt. \geq	Wet power freq. volt. \geq	Weight Kg
1	FXBW1-500/100	500	100	16	4030±50	3600	171/85	79	400	11000	2050	1240	740	22
2	FXBW4-500/100	500	100	16	4450±50	4000	171/85	79	400	13750	2250	1240	740	26
3	FXBW1-500/160	500	160	20	4030±50	3600	171/85	79	400	11000	2050	1240	740	23
4	FXBW4-500/160	500	160	20	4450±50	4000	171/85	79	400	13750	2250	1240	740	26
5	FXBW1-500/180	500	180	20	4030±50	3600	171/85	79	400	11000	2050	1240	740	23
6	FXBW4-500/180	500	180	20	4450±50	4000	171/85	79	400	13750	2250	1240	740	26
7	FXBW1-500/210	500	210	20	4030±50	3600	171/85	79	400	11000	2050	1240	740	23
8	FXBW4-500/210	500	210	20	4450±50	4000	171/85	79	400	13750	2250	1240	740	26
9	FXBW1-500/240	500	240	20	4030±50	3600	174/88	79	400	11000	2050	1240	740	23
10	FXBW4-500/240	500	240	24	4450±50	4000	174/88	79	400	13750	2250	1240	740	26
11	FXBW1-500/300	500	300	24	4030±50	3600	174/88	79	400	11000	2050	1240	740	25
12	FXBW4-500/300	500	300	24	4450±50	4000	174/88	79	400	13750	2250	1240	740	29
13	FXBW1-500/400	500	400	28	4030±50	3600	174/88	79	400	11000	2050	1240	740	30
14	FXBW4-500/400	500	400	28	4450±50	4000	174/88	79	400	13750	2250	1240	740	35

No	Type	Rated Vol. KV	Spec. Mech. load KN	Socket and ball size	Section height H, mm	Min arcing distance h, mm	Lar/sma shed dia. D/d,mm	Shed Spacing B, mm	Dia. of corona ring D1,D2 mm	Min nominal creepage dis. L, mm	Lighting impulse withstand volt. \geq	Wet Switch impulse Volt. \geq	Wet power freq. volt. \geq	weight kg
1	FXBW-750/100	750	100	20	6550±50	6000	171/85	79	400	22000	2700	1800	1125	32
2	FXBW-750/120	750	120	20	6550±50	6000	171/85	79	400	22000	2700	1800	1125	32
3	FXBW-750/160	750	160	20	6550±50	6000	171/85	79	400	22000	2700	1800	1125	34
4	FXBW-750/180	750	180	20	6550±50	6000	171/85	79	400	22000	2700	1800	1125	34
5	FXBW-750/210	750	210	20	6550±50	6000	174/88	79	400	22000	2700	1800	1125	34
6	FXBW-750/240	750	240	24	6550±50	6000	174/88	79	400	22000	2700	1800	1125	36
7	FXBW-750/300	750	300	24	6550±50	6000	190/110	89	400	22000	2700	1800	1125	50
8	FXBW-750/400	750	400	28	6550±50	4000	190/110	89	400	22000	2700	1800	1125	52

+/-500KV DC composite insulator

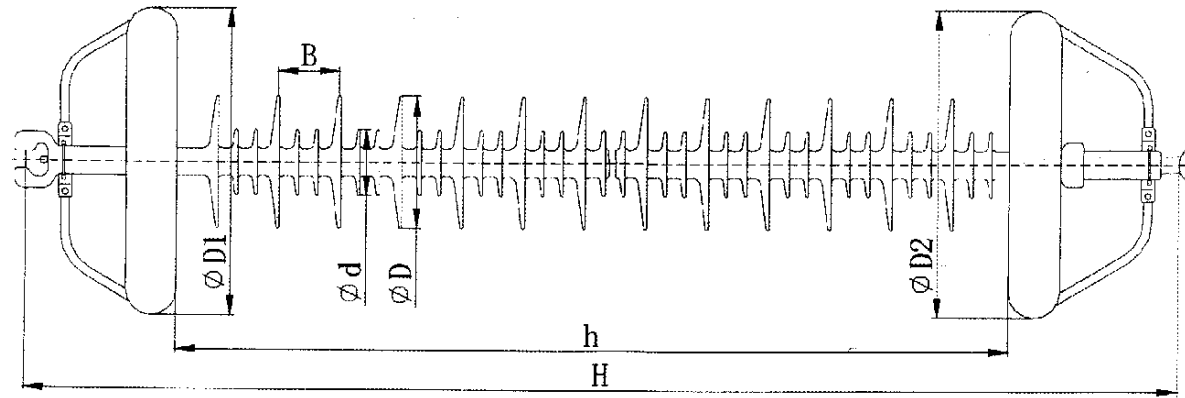


Fig.12 +/-500KV DC composite insulator

General dimension and characteristics of ±500KV DC composite insulator

No.	Type	Rated Vol. KV	Spec. Mech. load KN	Socket and ball size	Section height H, mm	Min arcing distance h, mm	Lar/sma shed dia. D/d,mm	Shed Spacing B, mm	Dia.of corona ring D1,D2 mm	Min nominal creepage dis. L, mm	Dry Lighting withstand volt. ≥	Wet Switch Impulse Volt. ≥	Wet power freq. volt. ≥	Weight kg
1	FXBZ-±500/160-1	±500	160	20	5440±50	5000	174/88	79	400	18025	+2550	+1550	+600	33
2	FXBZ-±500/160-2	±500	160	20	6290±50	5600	174/88	79	400	21000	+2750	+1650	+650	38
3	FXBZ-±500/160-3	±500	160	20	6800±50	6200	174/88	79	400	23000	+2950	+1750	+700	45
4	FXBZ-±500/180-1	±500	180	20	5440±50	5000	174/88	79	400	18025	+2550	+1550	+600	33
5	FXBZ-±500/180-2	±500	180	20	6290±50	5600	174/88	79	400	21000	+2750	+1650	+650	38
6	FXBZ-±500/180-3	±500	180	20	6800±50	6200	174/88	79	400	23000	+2950	+1750	+700	45
7	FXBZ-±500/210-1	±500	210	20	5440±50	5000	174/88	79	400	18025	+2550	+1550	+600	33
8	FXBZ-±500/210-2	±500	210	20	6290±50	5600	174/88	79	400	21000	+2750	+1650	+650	38
9	FXBZ-±500/210-3	±500	210	20	6800±50	6200	174/88	79	400	23000	+2950	+1750	+700	45
10	FXBZ-±500/240-1	±500	240	20	5440±50	5000	174/88	79	400	18025	+2550	+1550	+600	33
11	FXBZ-±500/240-2	±500	240	20	6290±50	5600	174/88	79	400	21000	+2750	+1650	+650	38
12	FXBZ-±500/240-3	±500	240	20	6800±50	6200	174/88	79	400	23000	+2950	+1750	+700	45
13	FXBZ-±500/300-1	±500	300	24	5440±50	5000	190/110	89	400	18025	+2550	+1550	+600	34
14	FXBZ-±500/300-2	±500	300	24	6290±50	5600	190/110	89	400	21000	+2750	+1650	+650	40
15	FXBZ-±500/300-3	±500	300	24	6800±50	6200	190/110	89	400	23000	+2950	+1750	+700	47
16	FXBZ-±500/400-1	±500	400	28	5440±50	5000	190/110	89	400	18025	+2550	+1550	+600	35
17	FXBZ-±500/400-2	±500	400	28	6290±50	5600	190/110	89	400	21000	+2750	+1650	+650	41
18	FXBZ-±500/400-3	±500	400	28	6800±50	6200	190/110	89	400	23000	+2950	+1750	+700	47

Parts of optical transformer: optical fiber composite insulator

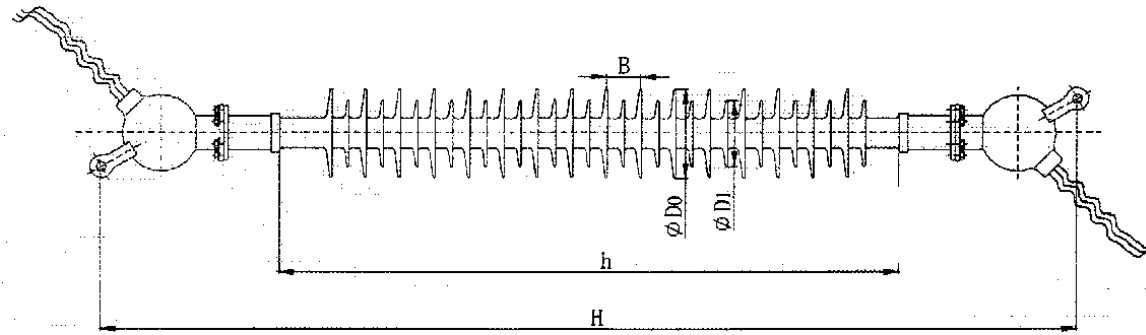


Fig.13 Suspension optical fiber composite insulator

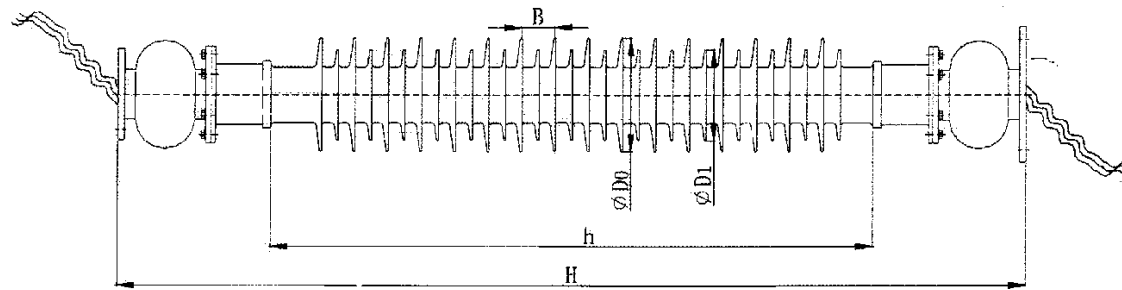


Fig.14 Post optical fiber composite insulator

No.	Fig.	Type	Rated volt. KV	Specified mechanical load KN	Section height H, mm	Min arcing distance h, mm	Lar/sma Shed Dia D/d,mm	Shed Spacing B,mm	Fiber No.	Partial Discharge Less than	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	13	FXGQ-110/70	110	70	1700 ± 15	1000	157/105	51	10	5	3600	550	230	11
2	13	FXGQ-220/70	220	70	2700 ± 30	2000	157/105	51	10	5	6600	1000	395	18
3	14	FXGQ-110/8	110	8	1630 ± 15	1000	192/140	51	10	5	3400	550	230	21

Composite phase-to-phase spacer

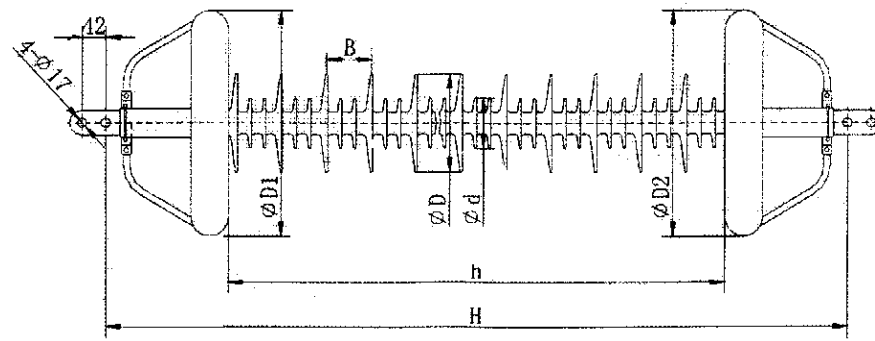


Fig.15 220kv~500kv composite phase-to-phase spacer

No.	Type	Rated Vol. KV	Spec. Mech. load KN	Bending Withstand Load N,m	Compress Withstand Load KN	Twisting Withstand Load N,m	Section height H, mm	Min arcing distance h, mm	Lar /sma shed dia. D/d, mm	Shed Spacing B, mm	Dia. of corona Ring D1,D2, mm	Min arcing distance H, mm	Lighting impulse withstand volt. ≥	Wet power freq. volt. ≥	Weig. kg
1	FXGB-220/100	220	100	225	7.5	75	2990 ±20	2630	174 /88	79	400	7900	1000	395	18
2	FXGB-330/100	330	100	245	10.5	75	4640 ±30	4280	174 /88	79	400	11800	1425	570	28
3	FXGB-500/120	500	120	275	12.5	75	5850 ±50	5490	174 /88	79	400	14000	2250	740	31

Composite bushing

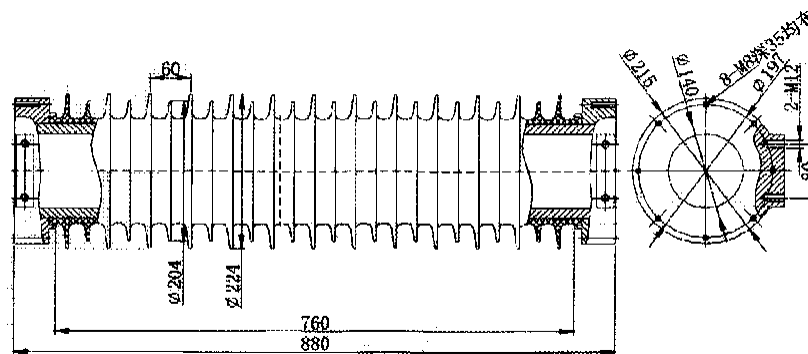


Fig. 16 180kv composite capacitor bushing

No.	Type	Rated Vol. KV	Specified bending moment N,m	Section height H, mm	Min arcing distance h, mm	Large shed dia. D,mm	Small shed dia. D,mm	Shed Spacing B, mm	Min Nominal Creepage Distance L, mm	Lighting impulse withstand volt. ≥	Wet power freq. volt. ≥	Weight kg
1	FTG-180/4	180	4000	1480±5	1370	224	204	60	3700	750	300	16

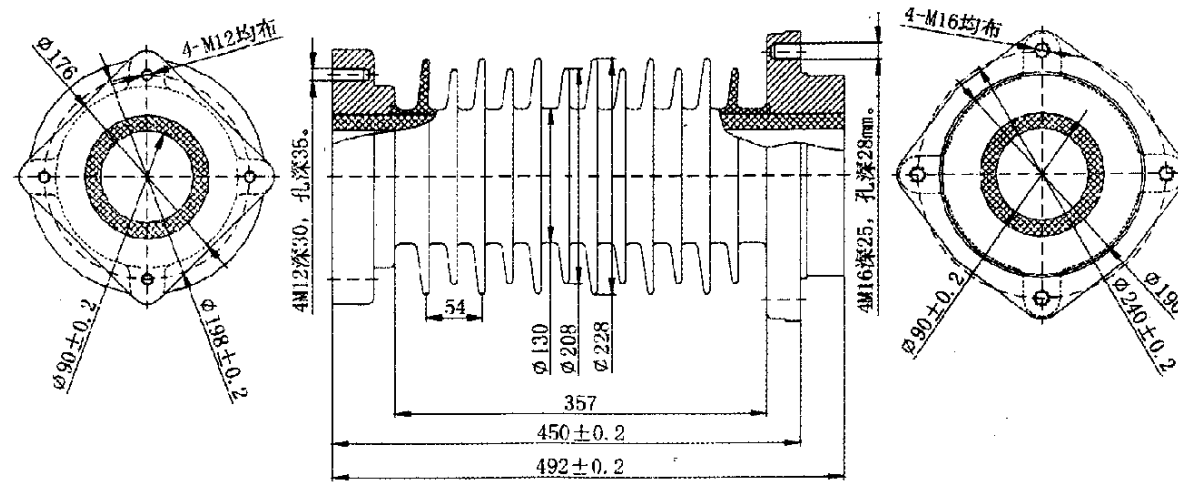


Fig. 17 25kV vacuum circuit breaker (vertical support) composite bushing

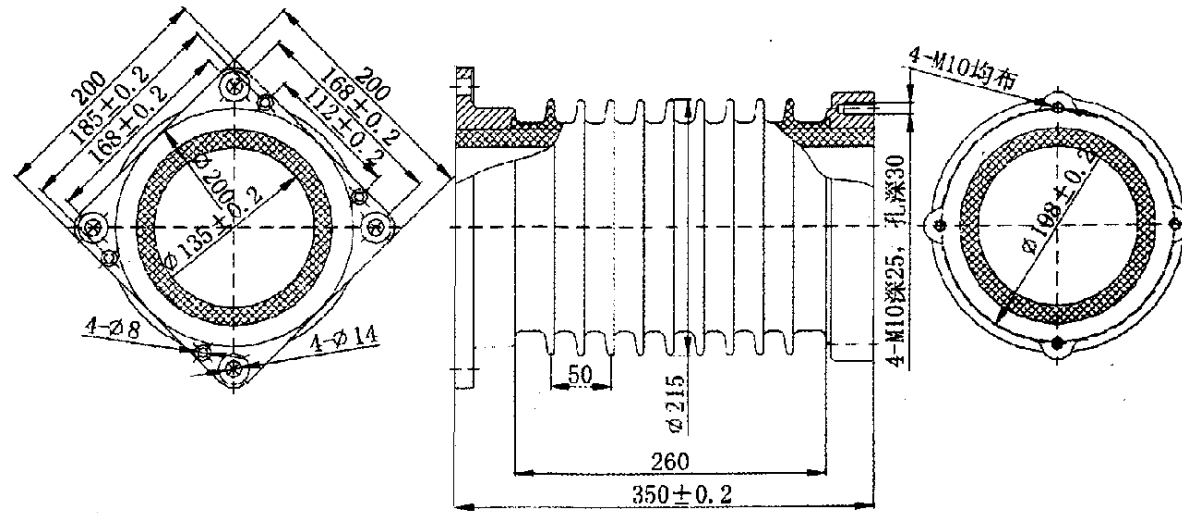


Fig. 18 25kV vacuum circuit breaker (horizontal support) composite bushing

General dimension and characteristics of 25kV vacuum circuit breaker (horizontal support) composite bushing

No.	Fig.	Type	Rated volt. kv	Specified bending moment N,m	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	17	FTG-25/4-C	25	4	450±0.2	357	228	208	54	1298	210	100	7.2
2	18	FTG-25/4-S	25	4	350±0.2	260	215	/	25	548	170	80	5.8

Insulation operation rod for live working

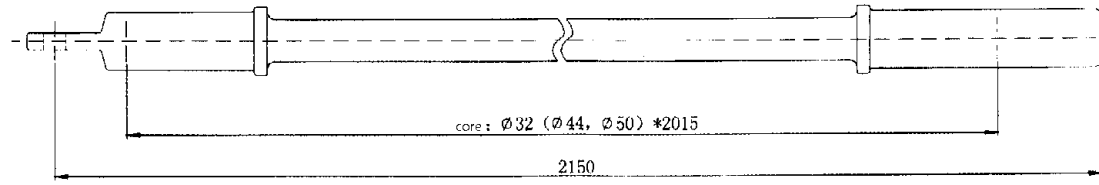


Fig.19a JYLG-500kV/160~530kN (A) insulation operation rod

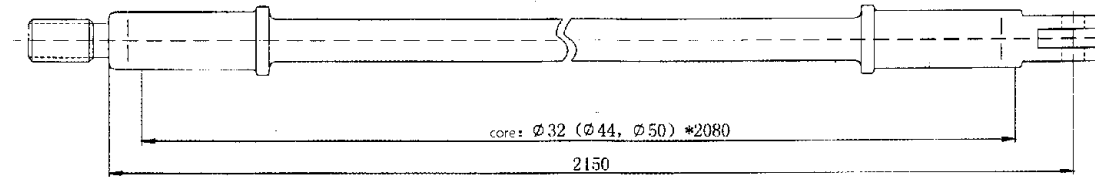


Fig.19b JYLG-500kV/160~530kN (B) insulation operation rod

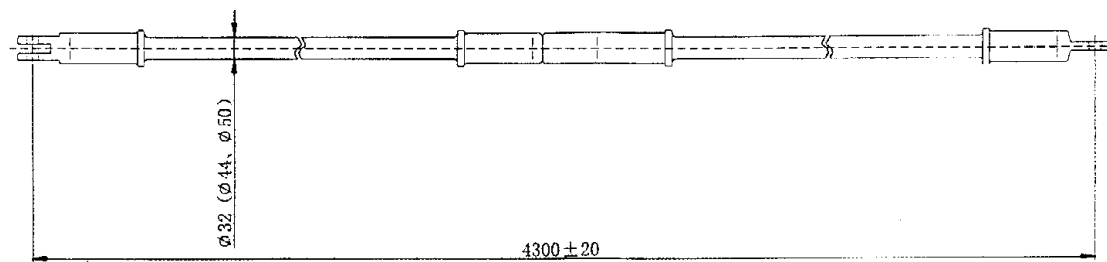


Fig.19 General assembly drawing of JYLG-500kV/160~530kN conventional type insulation operation rod

General dimension and characteristics of conventional type insulation operation rod

No.	Fig.	Type	Rated volt. kv	Specified Mechanical load kN	Section height H, mm	Thickness of tongue mm	The hole diameter of tongue mm	Combined thickness of clevis mm	Hole diameter of clevis mm	Weight kg
1	19	JYLG-500/160	500	160	4300±20	13	16	21	17	8.7
2	19	JYLG-500/210	500	210	4300±20	14	16	20	17	15.3
3	19	JYLG-500/300	500	300	4300±20	16	20	24	21	15.4
4	19	JYLG-500/400	500	400	4300±20	20	25	34	25	20.6
5	19	JYLG-500/530	500	530	4300±20	23	25	33	25	20.8

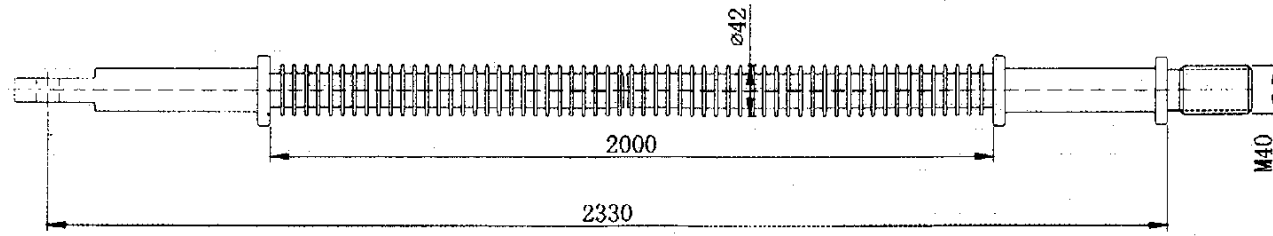


Fig.20a FXLG-500kV/100~120kN (A) insulation operation rod

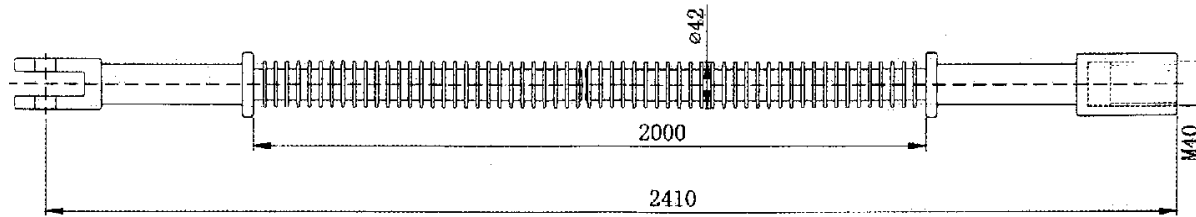


Fig.20b FXLG-500kV/100~120kN (B) insulation operation rod

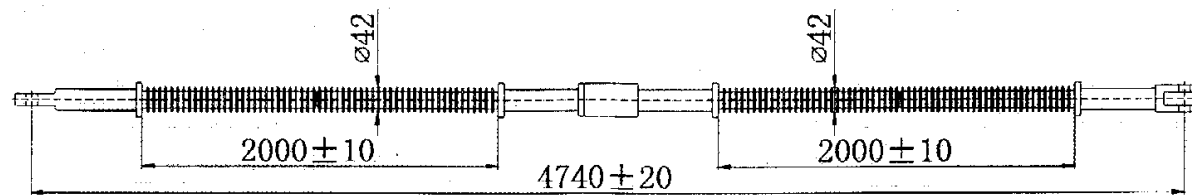


Fig.20 FXLG-500kV/100~120kN portable type insulation operation rod

General dimension and characteristics of FXLG-500kV/100~120kN portable type insulation operation rod

No.	Fig.	Type	Rated volt. kv	Specified Mechanical load kN	Section height H, mm	Thickness of tongue mm	The hole diameter of tongue mm	Combined thickness of clevis mm	Hole diameter of clevis mm	Weight kg
1	20	FXLG-500/100	500	100	4740±20	20	19	24	19	7.3
2	20	FXLG-500/120	500	120	4740±20	20	19	24	19	7.3

Composite cross-arm insulators

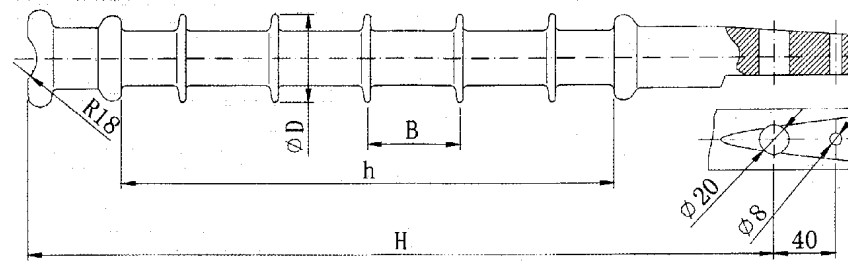


Fig.21 FS-10/2.5-MJ composite cross-arm insulator

General dimension and characteristics of FS-10/2.5-MJ composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified bending moment N,m	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	21	FS-10/2.5-MJ	10	2.5	480 \pm 5	320	58	60	400	150	60	2

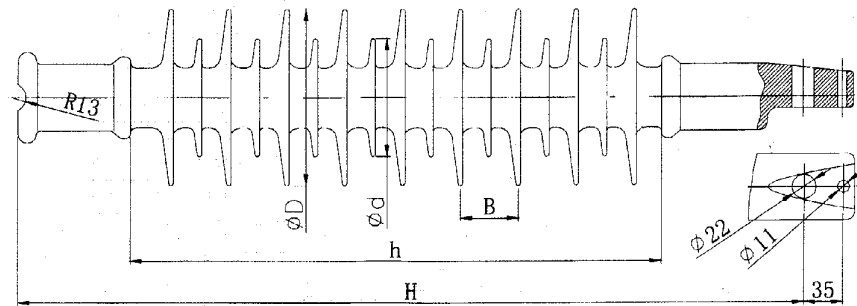


Fig.22 FS-25/5-MJ composite cross-arm insulator

General dimension and characteristics of FS-25/5-MJ composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified mechanical bending load kN	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	22	FS-25/5-MJ	25	5	684	460	157	105	51	1600	300	150	6.5

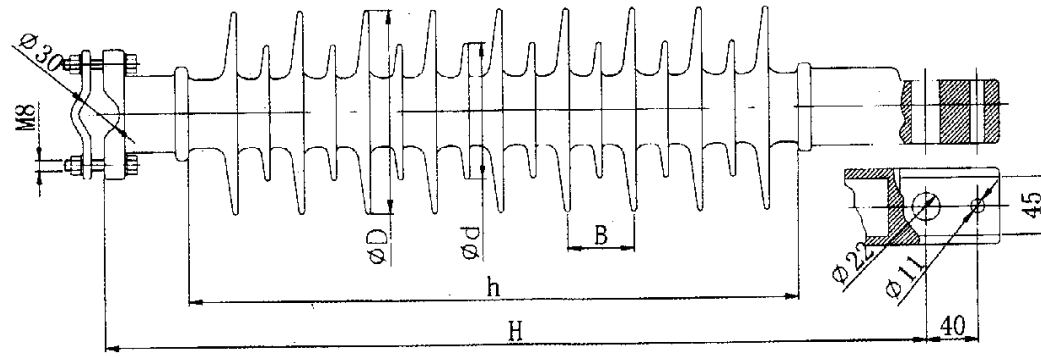


Fig.23 FS-35/10-MJ composite cross-arm insulator

General dimension and characteristics of FS-35/10-MJ composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified mechanical bending Load kN	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	23	FS-35/10-MJ	35	10	630	468	157	105	51	1600	300	150	6.3

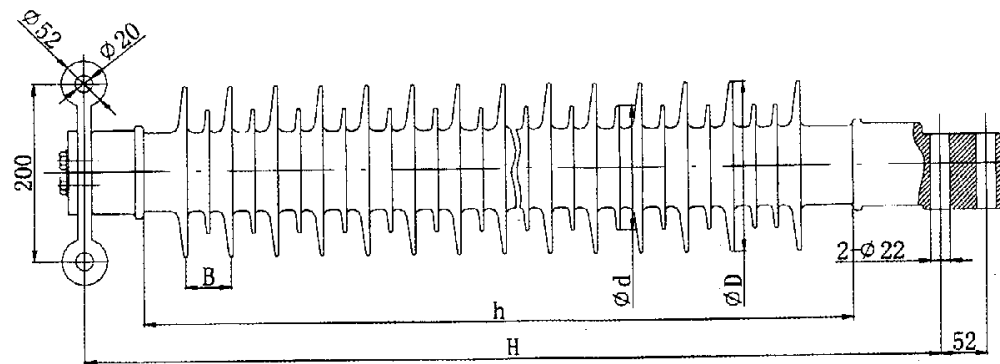


Fig.24 FS-110/10-MJ-A composite cross-arm insulator

General dimension and characteristics of FS-110/10-MJ-A composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified mechanical bending load kN	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	24	FS-110/10-MJ-A	110	10	1265±5	1100	192	140	51	3600	550	230	21

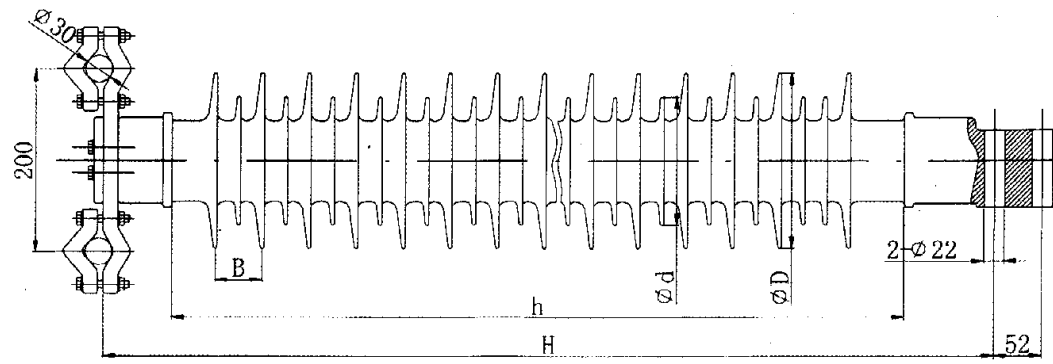


Fig.25 FS-110/10-MJ-B composite cross-arm insulator

General dimension and characteristics of FS-110/10-MJ-B composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified mechanical bending load kN	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lightning impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	25	FS-110/10-MJ-B	110	10	1265±5	1100	192	140	51	3600	550	230	21

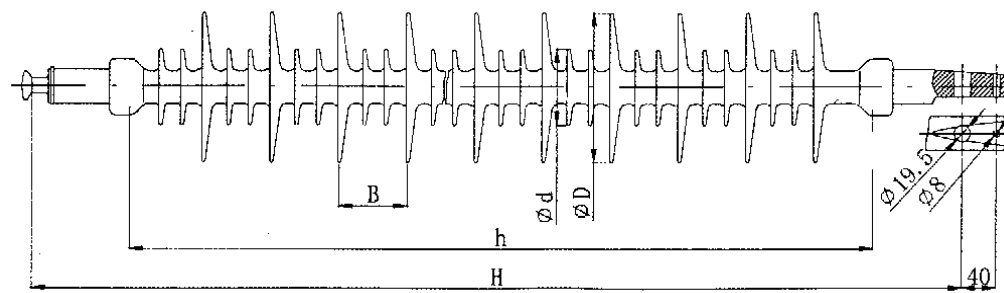


Fig.26 FS-110~220/0.25-TJ-A composite cross-arm insulator

General dimension and characteristics of FS-110~220/0.25-TJ-A composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified mechanical bending load kN	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lightning impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	26	FS-110/0.25-TJ-A	110	0.25	1318±5	1100	174	88	79	3300	550	230	7.8
2	26	FS-220/0.25-TJ-A	220	0.25	2240±5	2000	174	88	79	6300	1000	395	12.5

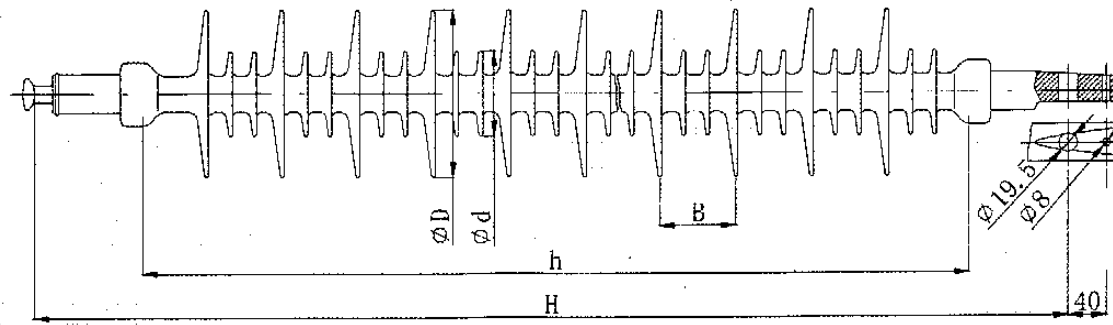


Fig.27 FS-110~220/0.25-TJ-B composite cross-arm insulator

General dimension and characteristics of FS-110~220/0.25-TJ-B composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified mechanical bending load kN	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	27	FS-110/0.25-TJ-B	110	0.25	1318 \pm 5	1100	174	88	79	3300	550	230	7.8
2	27	FS-220/0.25-TJ-B	220	0.25	2240 \pm 5	2000	174	88	79	6300	1000	395	12.3

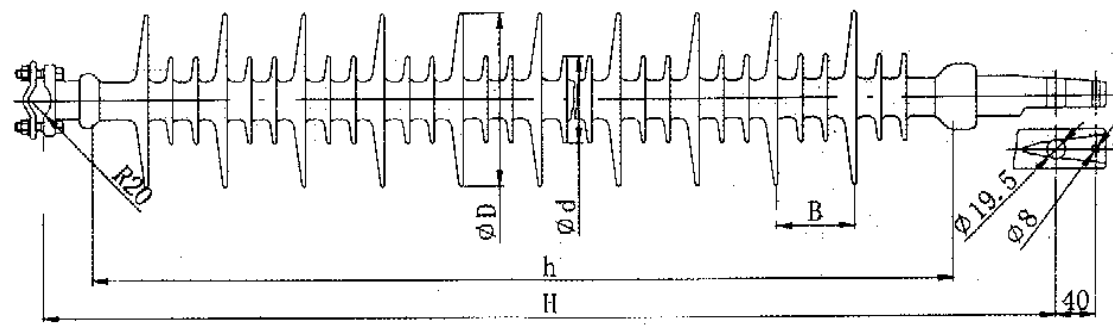


Fig.28 FS-110/0.25-MJ-A composite cross-arm insulator

General dimension and characteristics of FS-110/0.25-MJ-A composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified mechanical bending load kN	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	28	FS-110/0.25-MJ-A	110	0.25	1255	1100	174	88	79	3600	550	230	7.7

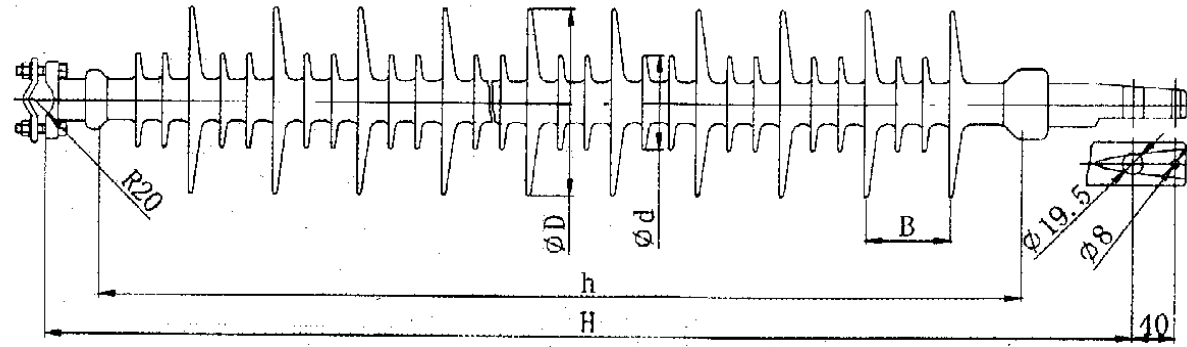


Fig.29 FS-110/0.25-MJ-B composite cross-arm insulator

General dimension and characteristics of FS-110/0.25-MJ-B composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified mechanical bending load kN	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B, mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	29	FS-110/0.25-MJ-B	110	0.25	1255	1100	174	88	79	3600	550	230	7.8

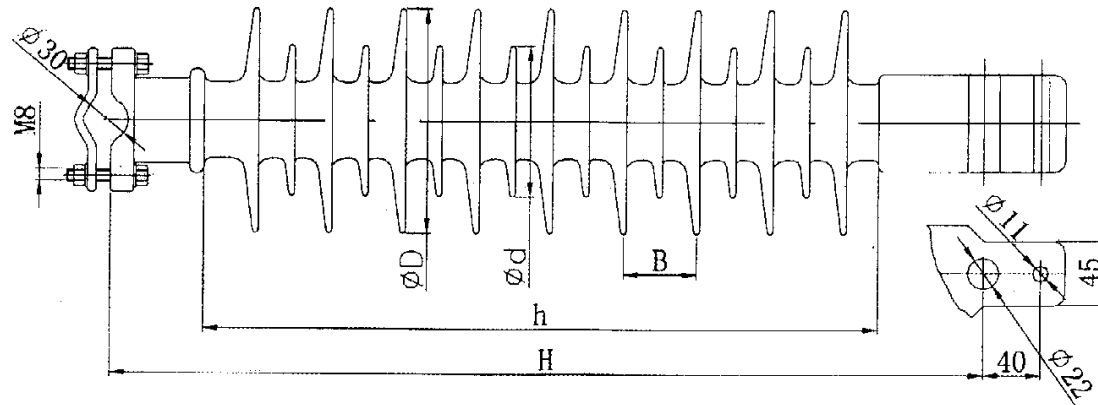


Fig.30 FS-110/10-MJ-C composite cross-arm insulator

General dimension and characteristics of FS-110/10-MJ-C composite cross-arm insulator

No.	Fig.	Type	Rated volt. kv	Specified mechanical bending load kN	Section height H, mm	Min arcing distance h, mm	Large Shed dia D,mm	Small Shed dia. d,mm	Shed Spacing B,mm	Min nominal creepage distance L, mm	Lighting impulse withstand voltage \geq	Wet power frequency voltage \geq	Weight kg
1	30	FS-110/10-MJ-C	110	10	1138	1000	157	105	51	3100	550	230	11.2