Pomanique™

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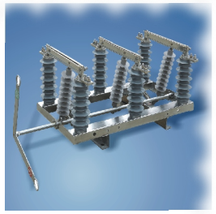


Pomanique™

About Pomanique

Brief
Pomanique Group was found in 1976, which locates at Wenzhou,Zhejiang Province.

Products Range
Power transformer from 12kV up to 36kV
Fuse cutout from 12kV up to 36kV
Surge arrester from 12kV up to 220kV
Polymer insulator from 12kV up to 500kV
Disconnecting switch 12kV up to 36kV

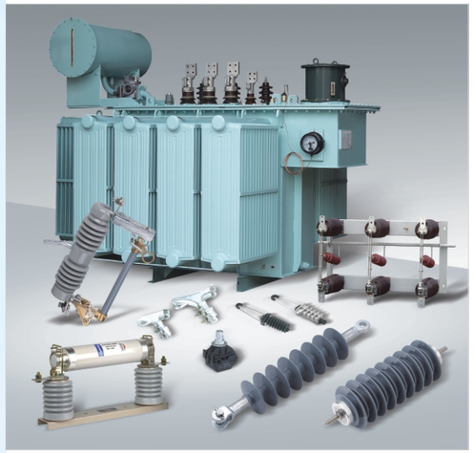
Sales Turnover
Around 25 million USD in the year of 2011

Employees
280 employees, including 50 engineers and technician

Brief of facilities
Silicon rubber Injection machine
YHD 200T hydraulic press machine
Tensile strength test machine
Tensional strength test machine

Ability to perform tests
Tensile strength test
Tensional strength test
Power frequency withstand voltage test
Lighting impulse withstand test
Coating thickness test

Pomanique™



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Power Transformers

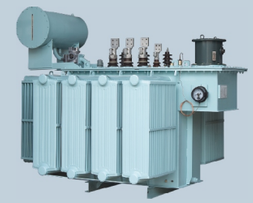
(10kV-35kV)

Pomanique offers a complete range of power and distribution transformers designed to grant the reliability, durability, and efficiency required in utility, industrial, and commercial applications. Pomanique's liquid filled transformers are manufactured in accordance with the most demanding industrial and international standards. Transformers can be used for indoor or outdoor applications and can be provided with off-load and on-load tap changers.

10kV 50-1250kVA distribution type liquid-filled 3-phase transformer

Rated Capacity (kVA)	HV (kV)	Tapping Range	LV (kV)	Vector Group	No Load Loss (W)	On Load Loss (W)	Impedance Voltage (%)	Weight (kg)	
50	6 6.3 10 10.5 11	±5 ±5×2.5	0.4	Dyn11 Yyn0	150	870	4.0	423	
63					180	1040		512	
80					200	1250		566	
100					230	1500		626	
125					270	1800		740	
160					310	2200		847	
200					380	2600		980	
250					460	3050		1130	
315					540	3650		1352	
400					650	4300		1510	
500					780	5150		1790	
630					920	6200	4.5	2330	
800					1120	7500		2560	
1000					1320	10300		2960	
1250					1560	12000		3575	

35kV 50-1250kVA distribution type liquid-filled 3-phase transformer

Rated Capacity (kVA)	HV (kV)	Tapping Range	LV (kV)	Vector Group	No Load Loss (W)	On Load Loss (W)	Impedance Voltage (%)	Weight (kg)	
50	35	±5	0.4	Dyn11 Yyn0	200	1150	6.5	740	
100					280	1920		995	
125					310	2260		1250	
160					330	2680		1405	
200					390	3150		1460	
250					460	3740		1625	
400					660	5440		2175	
500					780	6550		2485	
630					930	7820		2950	
800					1120	9350		3370	
1000					1320	11480		4140	
1250					1570	13860		4700	
1600					1900	16580		5570	
2000					2230	19550		5990	
2500					2650	23140		6810	

10kV 50-1250kVA distribution dry-type 3-phase transformer

Rated Capacity (kVA)	HV (kV)	Tapping Range	LV (kV)	Vector Group	No Load Loss (W)	On Load Loss (W)	Impedance Voltage (%)	
30	6 6.3 10 10.5 11	±5 ±5×2.5	0.4	Dyn11 Yyn0	220	750	4.0	
50					310	1060		
80					420	1460		
100					450	1670		
125					530	1960		
160					610	22050		
200					710	2600		
250					810	3050		
315					990	3650		
400					1100	4300		
500					1310	5150		
630					1640	6200	4.5	
800					1710	7500		
1000					1990	10300		
1250					2350	12000		

Notes when placing order

Transformer type: Rated capacity kVA

Voltage: high voltage kV/low voltage kV

Tapping range: ±2×2.5% ☐ ±5% ☐ Other ☐

Number of phases: three-phase single-phase ☐

Frequency: 50HZ ☐ 60HZ ☐ ☐

Connection group: Yyn0 ☐ Dyn11 ☐ Other ☐

Impedance voltage: 4% ☐ 6% ☐ Other

Cooling—down method: self-cooled AN ☐ Air cooling ☐

Protecting grade of outer casing: IP00 ☐ IP20 ☐ IP23 Other ☐

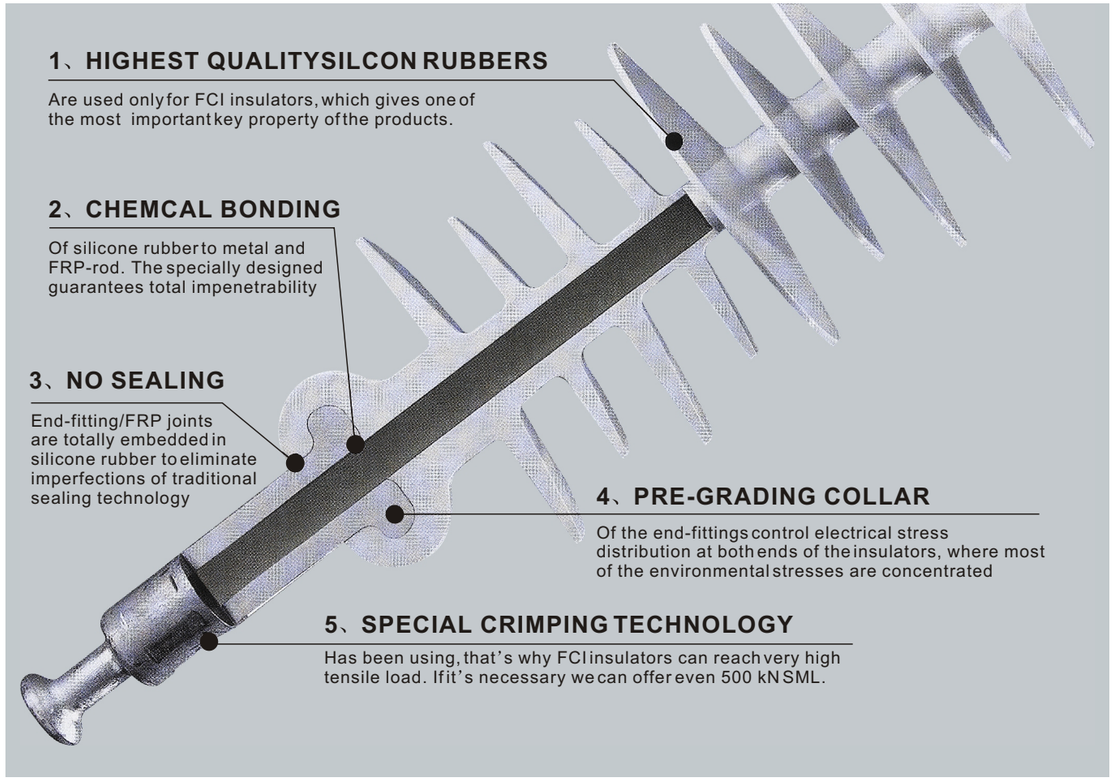
Method of incoming and outgoing line: Incoming line to lower part and outgoing line from upper part ☐

Incoming line to upper part and outgoing line from upper part ☐

Incoming line to lower pan and outgoing line from side part ☐

0ther ☐

Composite Insulators



Composite insulators up to 550kV

It is More then 1.000.000 sets of composite insulators in service, without any failure. This record is showing very well the reliability, and the quality of Pomanique comiposite insulators, which is connecting the following facts.

RAW MATERIALS:

All composite insulators are used only the high quality raw material, such as silicon rubber, end fitting, or ECR glass fiber reinforced resin rods.
For this reason, even serviced in highly polluted industrial areas or seashore climate, our composite insulators are operating without any controversy.

PROCCES OF PRODUCTION:

Pomanique adopt one-step moulding technology to produce composite insulator up to 500kV. The procedure is automatic, which guarantees the consistently high quality of insulator.

QUALITY AND CERTIFICATES:

Pomanique use ISO9001 system and ISO14001 management system since 1995. All composite Insulators pass the KEMA 5000 hour ageing test in 2003.

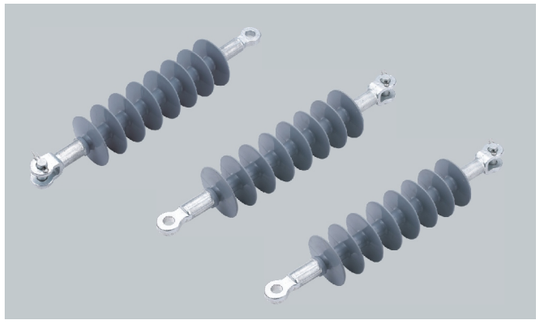
APPLICATIONS:

There is a wide range of application of our insulator, such as:

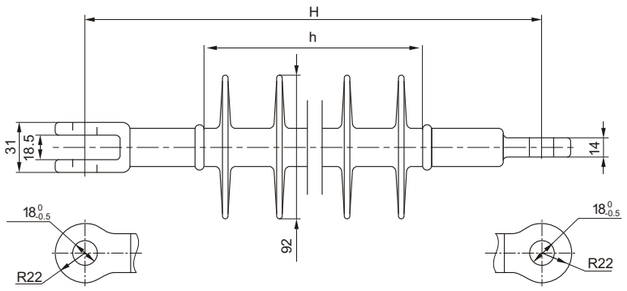
- Medium and high voltage transmission line insulators.
- Railway insulators.
- Substation post insulators.
- Crossarms insulator.
- Wall bushing.

Composite deadend insulators

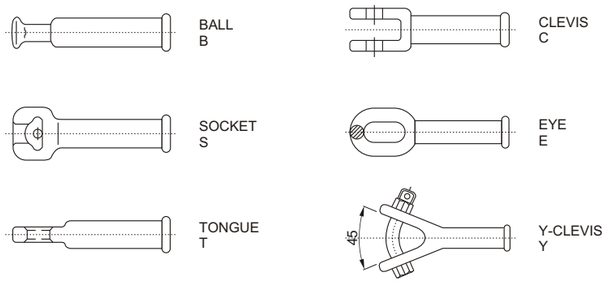
CDI series deadend insulators fulfill the requirements of IEC 61109, The sheds of the insulators are made of highly hydrophobic silicon rubber. The core is made of corrosion resistant fiber glass rod and the end fittings are made of hot-dip galvanized steel. They are meant to be used on 12 kV up to 36 kV distribution networks.



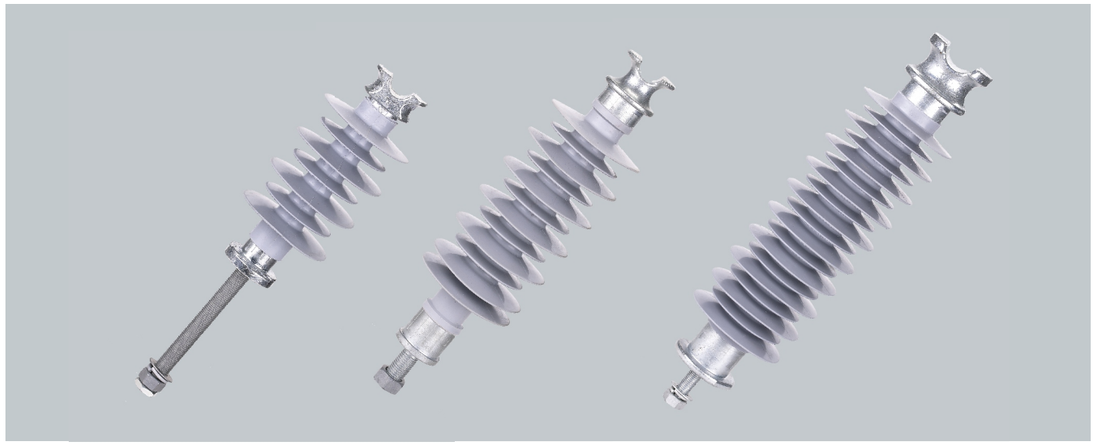
Type	CDI-12/70	CDI-24/70	CDI-36/70
Rated Voltage	12kV	24kV	36kV
Specified Mechanical Load	70kN	70kN	70kN
Section Length H	350mm	440mm	530mm
Dry Arcing Distance h	180mm	300mm	404mm
Leakage Distance	430mm	660mm	990mm
Power Frequency Dry Flashover	110kV	130kV	200kV
Power Frequency Wet Flashover	75kV	110kV	160kV
Number of Sheds	4	6	9



End fittings



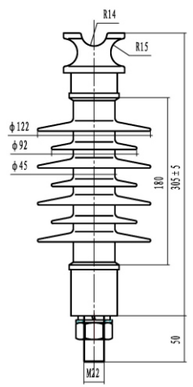
Pin type Insulator



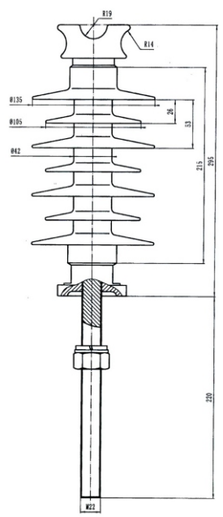
Main technical parameters

Type	Rated voltage (KV)	Speci?ed mechanical load	Section length (mm)	Min Arc distance (mm)	Leakage distance (mm)	Lightning impulse withstand BIL(KV)	Power frequency withstand (wet)(KV)
PDI-12/11	12	11	305	180	550	110	50
PDI-24/11	24	11	305	215	610	145	65
PDI-36/10	36	10	445	321	1040	200	105
PDI-36/12.5	36	12.5	545	405	1650	250	135

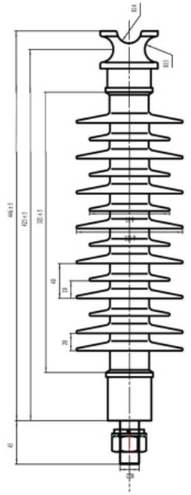
PDI-12/11



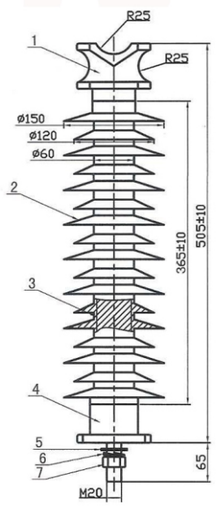
PDI-24/11



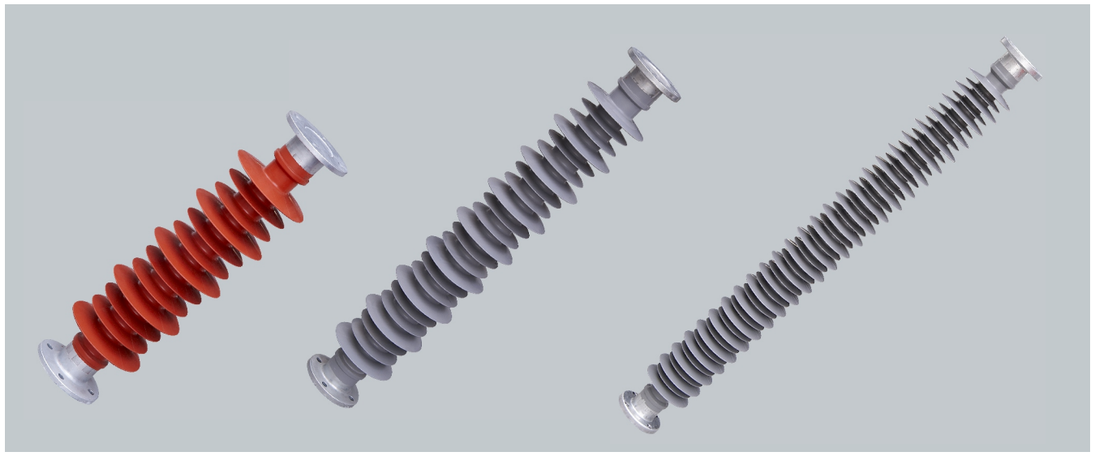
PDI-36/10



PDI-36/12.5



Post insu iator



Post insulator

Type	Rated voltage (KV)	Speci?ed mechanical load	Section length H (mm)	Min Arc distance (mm)	Leakage distance (mm)	Lightning impulse withstand BIL(KV)	Power frequency withstand (wet)(KV)	Fig No.
FZSW-15/5	15	5	245	170	600	105	45	1
FZSW-24/8	24	8	420	320	700	125	50	2
FZSW-35/6	35	6	460	360	900	185	95	2
FZSW-66/6	66	6	770	650	1930	325	140	2
FZSW-66/8	66	8	770	650	1940	325	140	2
FZSW-110/6	110	6	1150	1050	2950	325	200	3
FZSW-138/10	138	10	1220	1060	3260	450	200	3
FZSW-220/10	220	10	2440	2080	6520	950	395	3

Dimensions

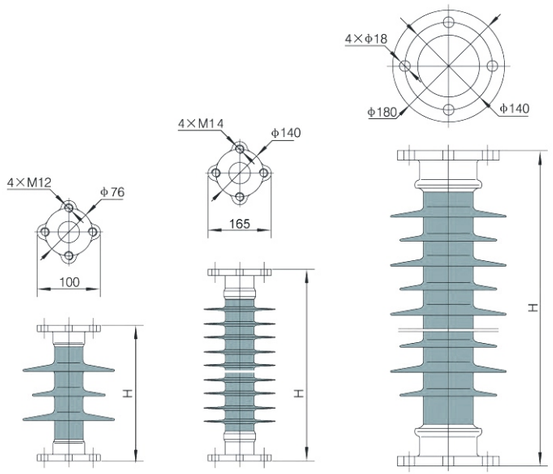
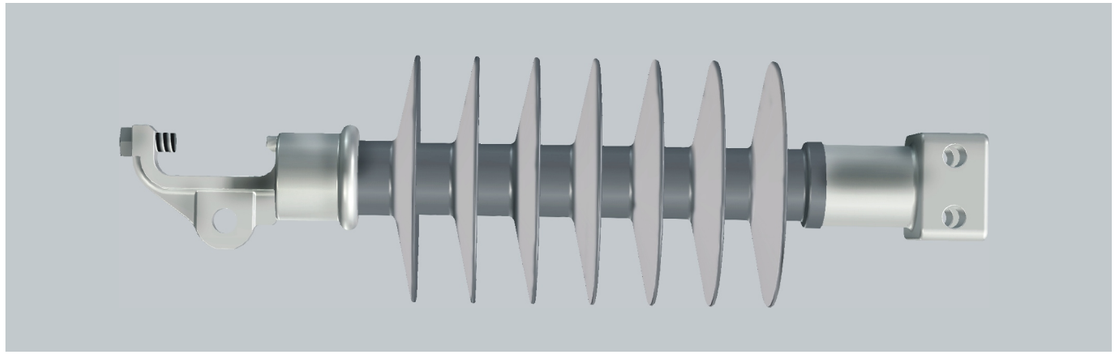


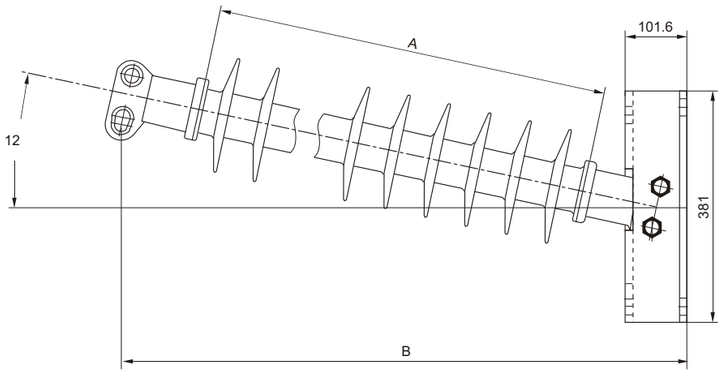
Fig. 1 Fig. 2 Fig. 3

Line post insulators

CDL series line post insulators were designed to be used on long rural lines to provide greater reliability and maintenance free operation. They are now widely used in a varity of pole top configurations to improve the appearance as well as performance of all distribution overhead, rural and urban.



Type	CDL-38	CDL -69	CDL -115	CDL -138
Rated Voltage	38kV	69kV	115kV	138kV
Specified Mechanical Load	12.5kN	11kN	9.5kN	6.6kN
Section Length B	630mm	860mm	1115mm	1510mm
Dry Arcing Distance A	380mm	556mm	848mm	1250mm
Leakage Distance	1330mm	1420mm	2130mm	3150mm
BIL	260kV	340kV	620kV	760kV
Power Frequency Wet Flashover	130kV	195kV	295kv	430kV
Number of Sheds	7	8	12	18



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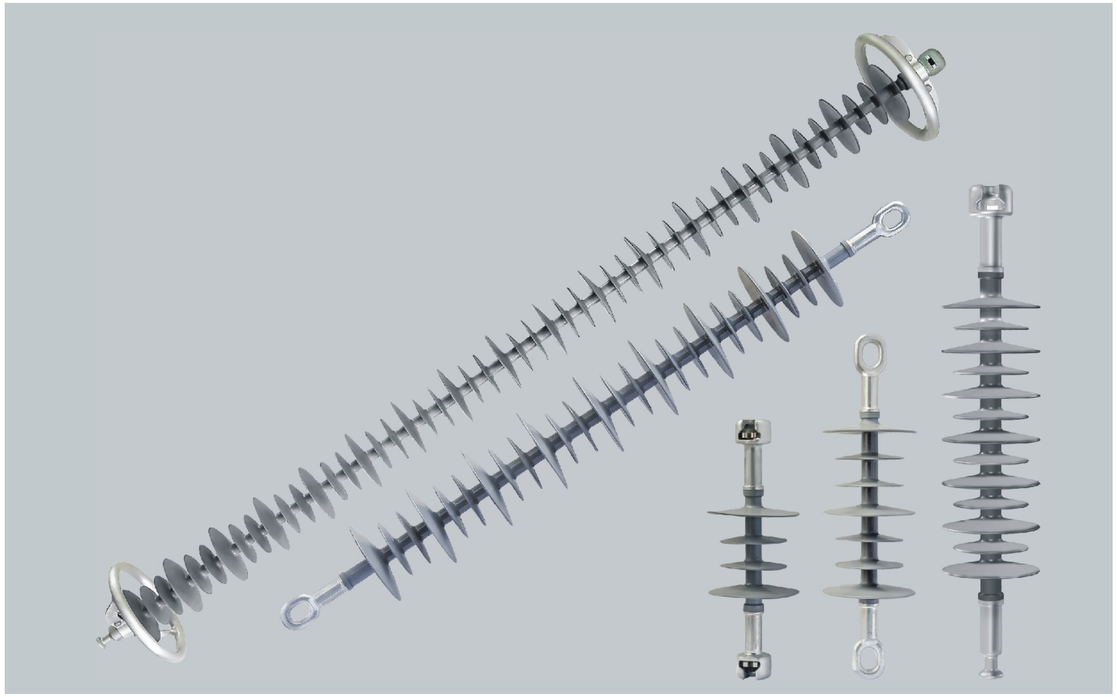
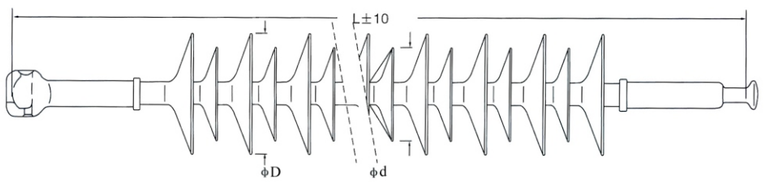
Composite suspension insulators



80kN suspension insulators



Type	Rated voltage (KV)	SML (kN)	L (mm)	arcing distance (mm)	creepage distance (mm)	Shed Diameter D/d (mm)	Lightning ithstand voltage (kV)	P. F withstand voltage (wet) (kV)
FXBW-12/80L	12	80	450	280	550	144/114	125	65
FXBW-24/80L	24	80	440	270	850	130/100	125	65
FXBW-24/80H	24	80	545	325	900	115/85	145	65
FXBW-33/80L	33	80	570	385	920	115/85	200	95
FXBW-33/80H	33	80	720	555	1650	144/114	250	135
FXBW-36/80L	36	80	670	430	1400	130/100	185	95

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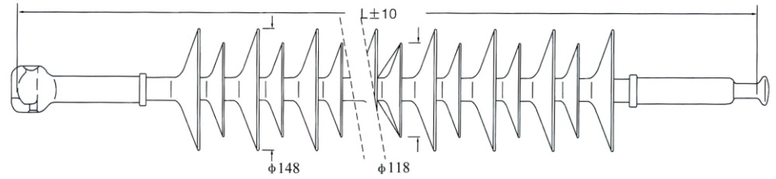
100kN and 120kN suspension insulators



Selection Guide (Line Voltage,kv)							Product Code	No of Shed	Length L (mm)	Leakage distance (mm)	Arc distance (mm)	P.F withstand 50Hz (kV)		Lightning impulse withstand 1,2/50 (kV)		Weight (kg)
36	69	110	138	145	220	330						Dry	Wet	Pos	Neg	
							FXB-0361209**	9	650	1320	430	110	95	240	285	2.0
							FXB-0691217**	17	940	2140	710	220	195	410	465	2.9
							FXB-0691218**	18	980	2290	750	280	250	480	520	2.7
							FXB-0691219**	19	1020	2470	790	290	260	500	540	3.1
							FXB-0691220**	20	1060	2620	830	300	270	520	560	3.2
							FXB-1101221**	21	1100	2800	870	315	280	540	580	3.3
							FXB-1101222**	22	1140	2950	910	330	300	570	615	3.4
							FXB-1381224**	24	1220	3280	990	380	300	620	670	3.7
							FXB-1451226**	26	1300	3610	1070	415	335	670	725	4.0
							FXB-1451231**	31	1480	4123	1240	435	355	725	775	5.0
							FXB-2201249**	49	2240	6300	1970	710	605	1200	1300	10.2
							FXB-2201251**	51	2320	6630	2050	715	615	1230	1330	10.4
							FXB-2201253**	53	2400	6950	2130	760	640	1270	1370	10.6
							FXB-2201255**	55	2480	7280	2210	810	675	1330	1430	11.0
							FXB-3301265**	65	2860	9075	2600	890	740	1520	1640	12.4
							FXB-3301267**	67	2940	9405	2680	895	745	1540	1660	12.6
							FXB-3301269**	69	3020	9735	2760	905	750	1585	1715	13.4

NOTE: In order to obtain the total length of the insulator(L) with different fittings, please select the kind of fitting end you have to use and refer to the following table:

Ground fitting	Line fitting	Code(2)	Length (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	+35
EYE	EYE	EE	+64
EYE	BALL	EB	+29
EYE	TONGUE	ET	+27
CLEVIS	BALL	CB	-8
SOCKET	EYE	SE	-10
Y-CLEVIS	TONGUE	YT	+15
Y-CLEVIS	EYE	TE	+52

Specified Mechanical Load ····· SML-IEC61109

Routine Test Load ····· RTL=50%of SML

Specified Mechanical Load ····· 100kN 120kN

Routing Test Load ····· 50kN 60kN

Max.torsion Load ····· 90N*m 90N*m

The metal fittings are in galvanized steel

Replace the product code ** with Code(2).

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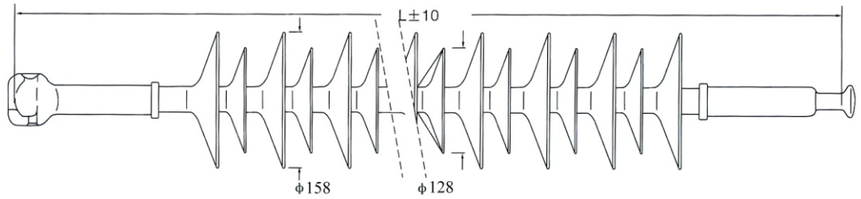
120kN and 160kN suspension insulators



Selection Guide (Line Voltage,kv)					Product Code	No of Shed	Length L (mm)	Leakage distance (mm)	Arc distance (mm)	P.F withstand 50Hz (kV)		Lightning impulse withstand 1,2/50 (kV)		Weight (kg)
110	145	220	330	420						Dry	Wet	Pos	Neg	
					FXB-1101621**	21	1290	3140	990	380	330	620	675	6.7
					FXB-1101623**	23	1375	3440	1075	415	335	660	725	6.9
					FXB-1101625**	25	1460	3740	1160	435	355	720	780	7.3
					FXB-1451626**	26	1505	3880	1205	445	365	740	790	7.5
					FXB-1451627**	27	1545	4040	1245	450	370	750	800	7.0
					FXB-1451628**	28	1590	4180	1290	455	380	765	820	7.4
					FXB-2201635**	35	1885	5250	1585	565	475	925	990	8.4
					FXB-2201637**	37	1970	5550	1670	615	515	1000	1080	8.9
					FXB-2201641**	41	2140	6150	1840	645	545	1070	1155	9.6
					FXB-2201643**	43	2225	6450	1925	675	575	1140	1230	9.8
					FXB-2201647**	47	2395	7050	2090	710	605	1210	1310	10.4
					FXB-3301661**	61	2990	9140	2690	890	740	1520	1640	11.6
					FXB-3301665**	65	3160	9740	2860	905	750	1585	1715	12.4
					FXB-3301671**	71	3415	10640	3115	930	780	1760	1860	12.8
					FXB-4201675**	75	3585	11240	3285	940	800	1800	1900	13.4
					FXB-4201679**	79	3755	11840	3455	960	820	1810	1920	13.6
					FXB-4201681**	81	3935	12440	3625	980	850	1840	1960	14.3

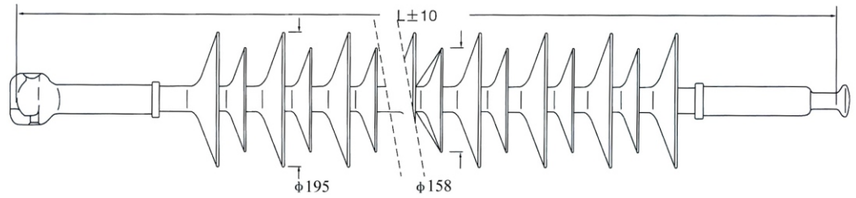
NOTE: In order to obtain the total length of the insulator(L) with different fittings, please select the kind of fitting end you have to use and refer to the following table:

Ground fitting	Line fitting	Code(2)	Length (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	-40
EYE	EYE	EE	+55
EYE	BALL	EB	+20
EYE	TONGUE	ET	+5
CLEVIS	BALL	CB	-25
SOCKET	EYE	SE	+30
Y-CLEVIS	TONGUE	YT	+5
Y-CLEVIS	EYE	TE	+50

Specified Mechanical Load	SML-IEC61109	
Routine Test Load	RTL=50%of SML	
Specified Mechanical Load	120kN	160kN
Routing Test Load	50kN	60kN
Max.torsion Load	120N*m	120N*m
The metal fittings are in galvanized steel		
Replace the product code ** with Code(2).		

Pomanique™

160kN and 210kN suspension insulators



Selection Guide (Line Voltage,kv)				Product Code	No of Shed	Length L (mm)	Leakage distance (mm)	Arc distance (mm)	P.F withstand 50Hz (kV)		Lightning impulse withstand 1,2/50 (kV)		Weight (kg)
220	330	420	500						Dry	Wet	Pos	Neg	
				FXB-2202141**	41	2270	6590	1970	740	620	1250	1350	10.4
				FXB-2202145**	45	2440	7290	2140	760	640	1270	1370	10.9
				FXB-2202149**	49	2610	7990	2310	810	675	1330	1430	11.4
				FXB-3302165**	65	3312	10380	2932	900	750	1670	1820	13.6
				FXB-4202169**	69	3480	11080	3100	930	780	1760	1860	14.5
				FXB-4202173**	73	3650	11780	3268	950	800	1785	1890	15.1
				FXB-4202177**	77	3820	12480	3435	960	820	1780	1930	17.0
				FXB-5002185**	85	4120	13460	3810	1140	1020	2030	2110	19.6
				FXB-5002189**	89	4285	14160	3980	1200	1250	2200	2300	20.5
				FXB-5002193**	93	4450	14860	4150	1280	1100	2400	2510	21.0

NOTE: In order to obtain the total length of the insulator(L) with different fittings, please select the kind of fitting end you have to use and refer to the following table:

Ground fitting	Line fitting	Code(2)	Length (L)
SOCKET	BALL	SB	0
CLEVIS	TONGUE	CT	-40
EYE	EYE	EE	+55
EYE	BALL	EB	+20
EYE	TONGUE	ET	+5
CLEVIS	BALL	CB	-25
SOCKET	EYE	SE	+30
Y-CLEVIS	TONGUE	YT	+5
Y-CLEVIS	EYE	TE	+50

Specified Mechanical Load	SML-IEC61109	
Routine Test Load	RTL=50%of SML	
Specified Mechanical Load	160kN	210kN
Routing Test Load	80kN	110kN
Max.torsion Load	160N*m	160N*m
The metal fittings are in galvanized steel		
Replace the product code ** with Code(2).		

Surge Arresters

Pomanique's surge arresters complete our reliable product solutions designed for fault free distribution of electricity. The surge arresters have been developed to endure the different temperature variations. The surge arresters have been designed and type tested according to IEC60099-4:2004 standard. Furthermore, Pomanique has additional tests made in KEMA lab to ensure that the arresters fit the challenging conditions.

Main technical parameters

Metal Oxide Polymer Housing (Gapless) type Surge Arrester (5kA)

Rated Voltage Ur,kV	9	12	15	21	24	36
MCOV, kV	7.75	10.2	12.5	17.0	20.0	30.0
Nominal current In, kA	5					
Current Withstand Capacity 4/10？s, kA	65					
Current Withstand Capacity 2ms, A	150					
Residual voltage with 8/20？s current impulse, kV	27.0	36.0	45.0	63.0	72.0	108.0
Residual voltage at 30/60？s current impulse, kV	24.0	32.0	40.0	56.0	64.0	96.0
Power frequency withstand voltage (wet) kV	25	35	35	55	65	185
Max. Energy Discharge Capability kJ/kV - UC	2.8 Class1(IEC 60099-4)					
Creepage distance, mm	450	550	550	750	850	1160
Length H, mm	260	290	290	350	381	470
Arc Distance h,mm	150	180	180	240	271	360
Fig No.	Fig 1	Fig 2	Fig 3	Fig 4	Fig 5	Fig 6

Metal Oxide Polymer Housing (Gapless) type Surge Arrester (10kA)

Rated Voltage Ur,kV	9	12	15	21	24	36
MCOV, kV	7.75	10.2	12.5	17.0	20.0	30.0
Nominal current In, kA	10					
Current Withstand Capacity 4/10？s, kA	100					
Current Withstand Capacity 2ms, A	250					
Residual voltage with 8/20？s current impulse, kV	27.0	36.0	45.0	63.0	72.0	108.0
Residual voltage at 30/60？s current impulse, kV	24.0	32.0	40.0	56.0	64.0	96.0
Power frequency withstand voltage (wet) kV	25	35	35	55	65	185
Max. Energy Discharge Capability kJ/kV - UC	2.1 Class1(IEC 60099-4)					
Creepage distance, mm	450	550	550	750	850	1160
Length H, mm	260	290	290	350	381	470
Arc Distance h,mm	150	180	180	240	271	360
Fig No.	Fig 7	Fig 8	Fig 9	Fig 10	Fig 11	Fig 12

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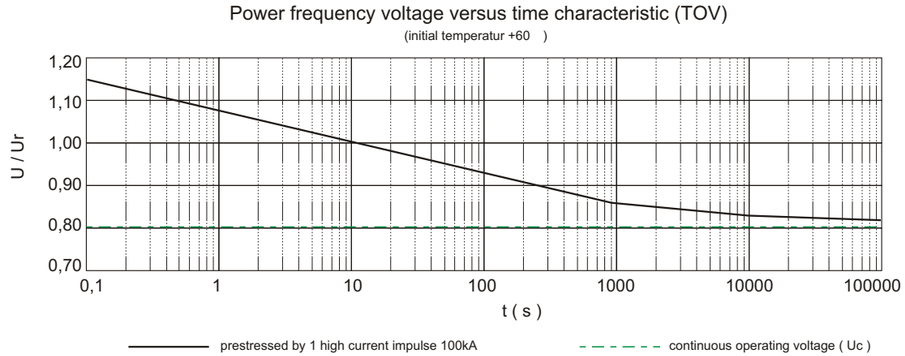
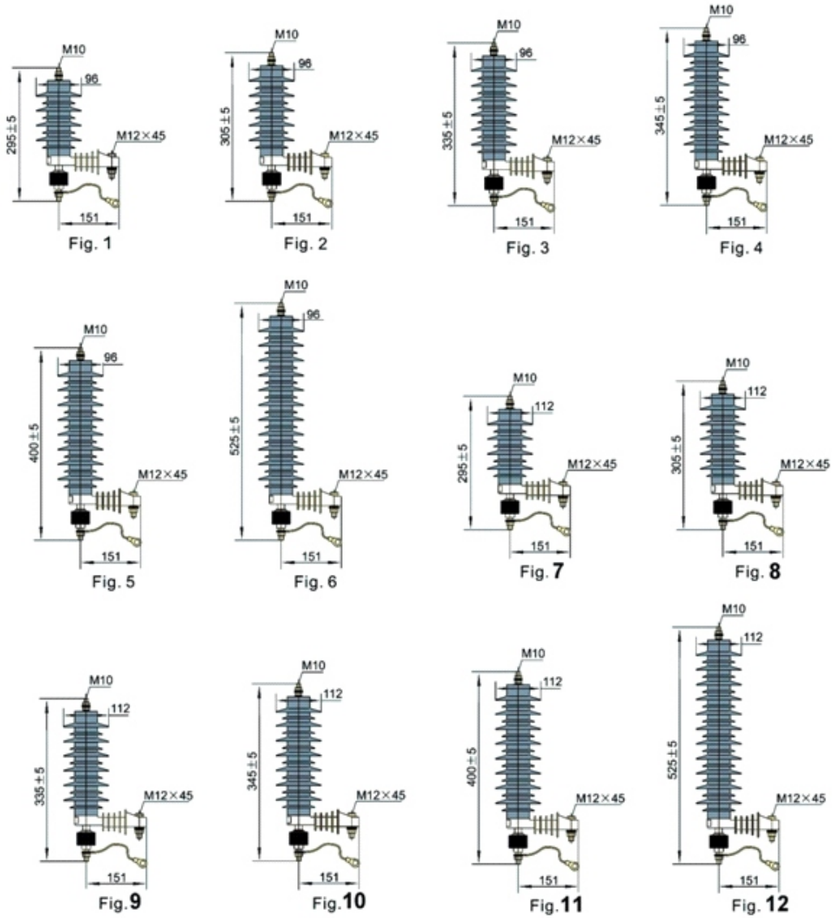
Distribution type surge arrester



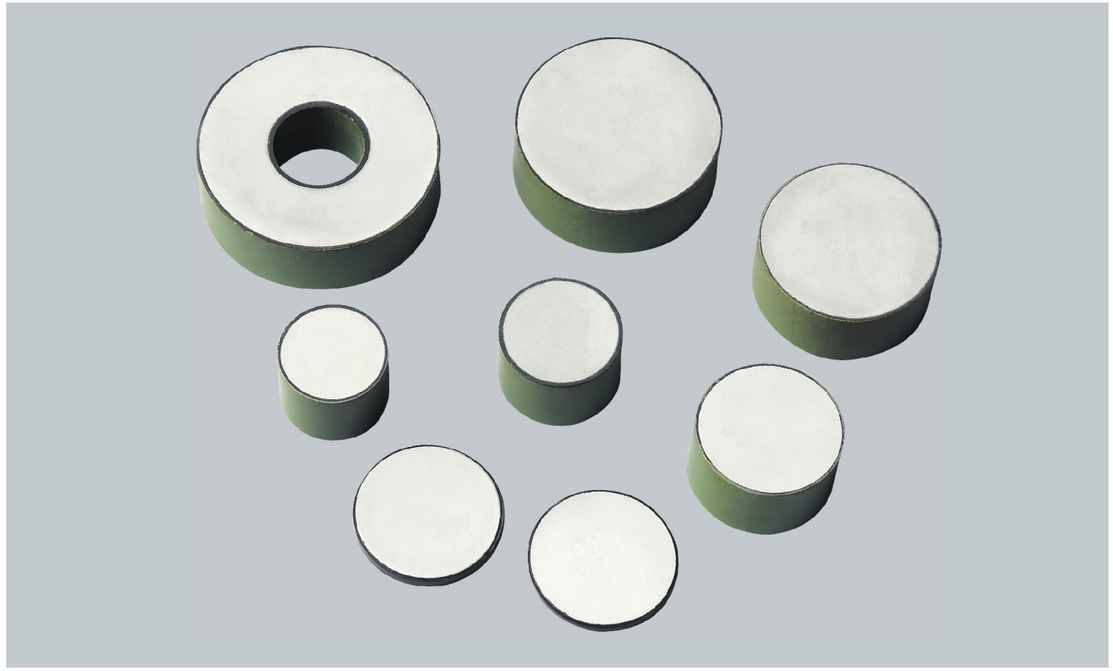
Dimensions



Pomanique™

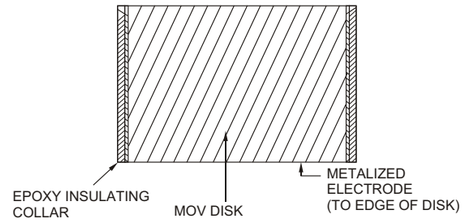
Metal-oxide varistor

We are known as a leader in the developing and manufacturing of these highly engineered ceramics in china. Years of manufacturring experience allow us to have capability to harmonizing the each electrical performance.



Feartures

- Excellent non-linear characteristics.
- Full face metalized electrodes.
- 100% production tested.
- All rating available.



IEC standard	5kA	5kA	10kA	10kA	10kA	10kA
Rated Voltage (kV rms)	1.5	3.0	1.5	3.0	4.0	3.0
U 1mA.DC (kV-DC)	2.5	5.0	2.5	5.0	6.7	5.0
Residual Voltage Ratio (8/20 μ s)	1.85	1.85	1.70	1.70	1.70	1.66
Current Withstand Capacity 4/10 μ s kA	65	65	100	100	100	100
Current Withstand Capacity 2ms A	150	150	350	350	350	600
Diameter mm	35	35	42	42	42	52
Height mm	11	22	11	22	27	22

Pomanique™

Station type surge arrester

Polymer housing station type Surge arrester (10kA)

Model	Rated voltage (kV)	MCOV (kV)	2ms square wave impulse withstand (A)	4/10？s high current withstand (kA)	Max discharge voltage with 8/20？s current wave (kV)			Leakage distance (mm)
					5KA	10KA	20KA	
YH10W-54	54	42	600	100	117	125	136	1460
YH10W -60	60	48	600	100	130	139	151	1460
YH10W -72	72	57	600	100	154	165	179	1460
YH10W -90	90	74	600	100	206	220	239	2250
YH10W -96	96	76	600	100	206	220	239	2250
YH10W -108	108	84	800	100	233	249	270	3925
YH10W -120	120	98	800	100	265	283	307	3925
YH10W -132	132	106	800	100	287	307	333	3925
YH10W -172	172	140	800	100	379	405	439	6850
YH10W -180	180	144	800	100	390	416	452	6850
YH10W -192	192	152	800	100	412	440	477	7850
YH10W -228	228	180	800	100	492	526	570	7850
YH10W -258	258	209	800	100	570	609	661	7850

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Porcelain housing station type Surge arrester (10kA)

Model	Rated voltage (kV)	MCOV (kV)	2ms square wave impulse withstand (A)	4/10？s high current withstand (kA)	Max discharge voltage with 8/20？s current wave (kV)			Leakage distance (mm)
					5KA	10KA	20KA	
YH10W -108	108	84	800	100	233	249	270	3200
YH10W -120	120	98	800	100	265	283	307	3200
YH10W -132	132	106	800	100	287	307	333	3200
YH10W -172	172	140	800	100	379	405	439	3200
YH10W -180	180	144	800	100	390	416	452	6400
YH10W -192	192	152	800	100	412	440	477	6400
YH10W -228	228	180	800	100	492	526	570	6400
YH10W -258	258	209	800	100	570	609	661	6400

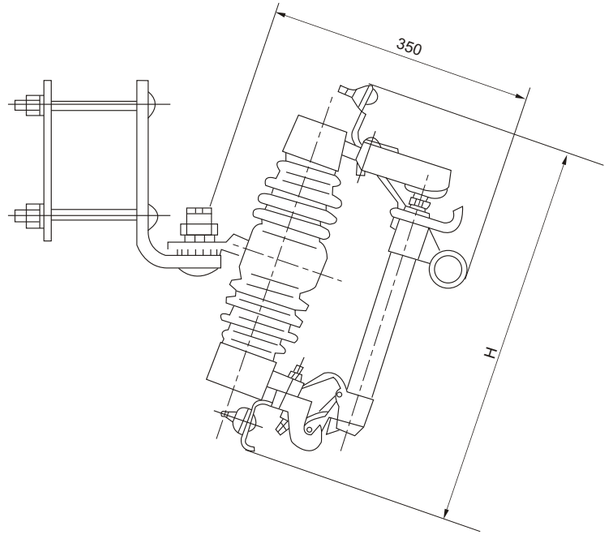
Porcelain housing station type Surge arrester (20kA)

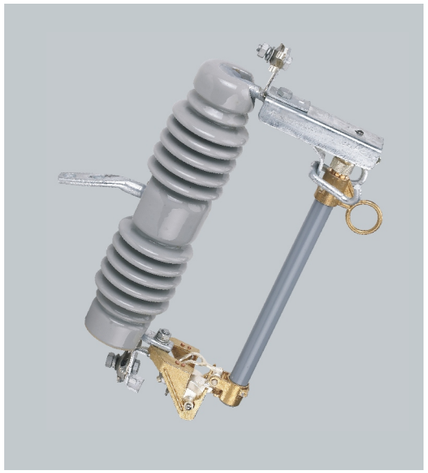
Model	Rated voltage (kV)	MCOV (kV)	2ms square wave impulse withstand (A)	4/10？s high current withstand (kA)	Max discharge voltage with 8/20？s current wave (kV)			Leakage distance (mm)
					5KA	10KA	20KA	
YH20W -108	108	84	1500	100	234	246	270	3200
YH20W -120	120	98	1500	100	260	273	299	3200
YH20W -172	172	140	1500	100	364	383	419	6400
YH20W -228	228	180	1500	100	493	519	568	6400
YH20W -258	258	209	1500	100	558	587	643	6400
YH20W-264	264	212	2000	100	575	599	647	9800
YH20W-300	300	240	2000	100	634	660	713	11900
YH20W-330	330	266	2000	100	702	731	789	11900
YH20W-360	360	290	2000	100	761	792	856	11900
YH20W-390	390	315	2000	100	824	858	927	17050
YH20W-420	420	336	2000	100	888	924	998	17050
YH20W-444	444	353	2000	100	938	977	1060	17050
YH20W-500	500	400	2000	100	1055	1100	1192	17050

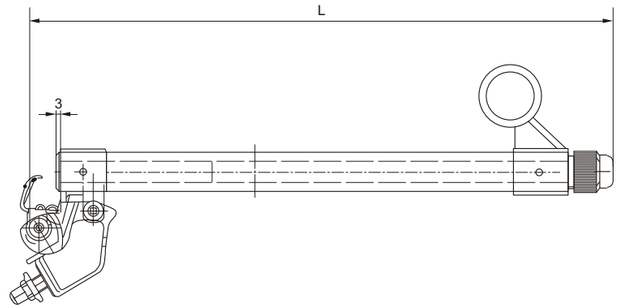
Fuse Cutout

The fuses are fitted in HV side of distribution transformer or on distribution branches, acting as overload protection as well as the function of opening and closing load current. The rated voltage cover from 12kV up to 36kV, rated current up to 200A. The fuse conforms to IEC282-2 standard.

Fuse cutout with porcelain base

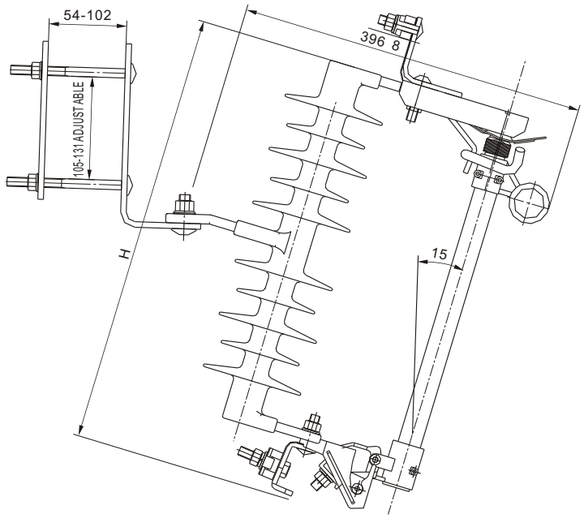


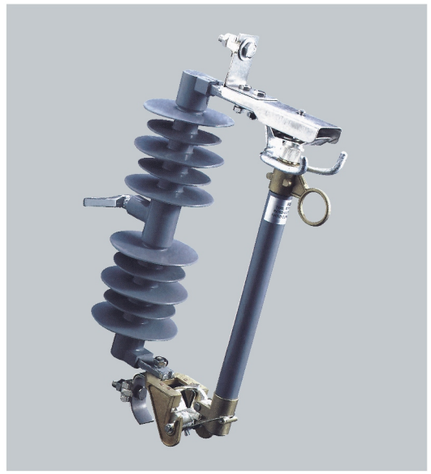


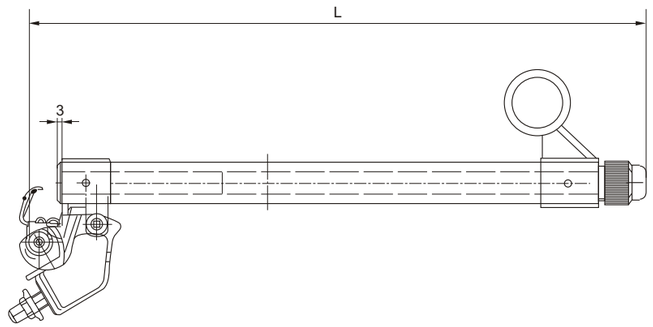


Product Code	DT-1501	DT-1502	DT-2701	DT-2702	DT-3601	DT-3602
Rated Voltage ,kV	12/15	12/15	24/27	24/27	36	36
Rated Current, A	100	200	100	200	100	200
Rated Breaking current, A	10	12	10	12	10	12
BIL, kV	110	110	150	150	200	200
Power frequency withstand voltage (dry 1min), kV	55	55	70	70	95	95
Leakage Distance, mm	300	300	540	540	720	720
Height H, mm	430	430	500	500	600	600
Tube length L, mm	310	310	380	380	480	480
Weight, kg	5.7	5.9	14	14.5	16.0	16.4

Fuse cutout with polymer base

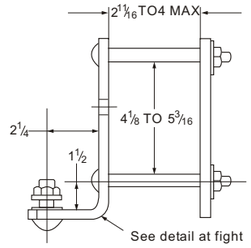


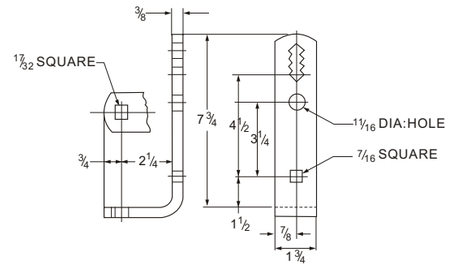




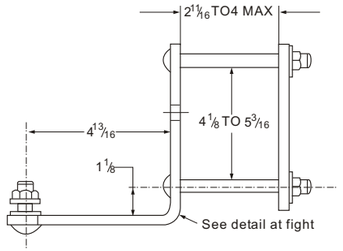
Product Code	DH-1501	DH-1502	DH-2701	DH-2702	DH-3601	DH-3602
Rated Voltage ,kV	12/15	12/15	24/27	24/27	36	36
Rated Current, A	100	200	100	200	100	200
Rated Breaking current, A	10	12	10	12	10	12
BIL, kV	110	110	150	150	200	200
Power frequency withstand voltage (dry 1min), kV	55	55	70	70	95	95
Leakage Distance, mm	440	440	600	600	790	790
Height H, mm	430	430	500	500	600	600
Tube length L, mm	310	310	380	380	480	480
Weight, kg	3.6	4.0	4.6	4.8	5.6	5.8

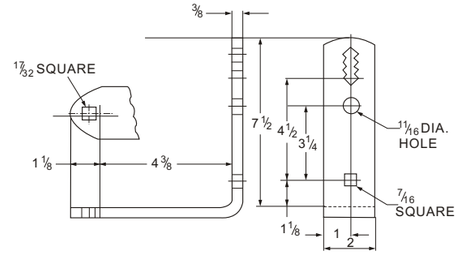
Mounting bracket





NEMA Type B Mounting Braket-Adjustable for 3 “X4” to 4 “X5” Crossarm





Extended Mounting Brackat-Adjustable for “X4” to 4 “X5” Crossarm

Fuse link

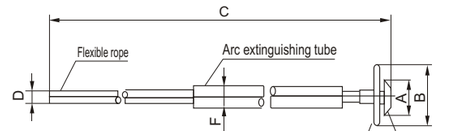
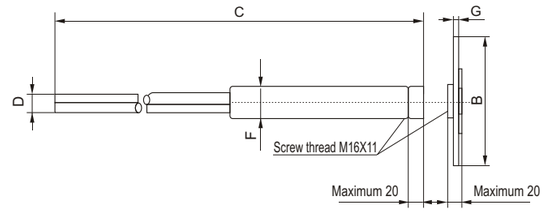


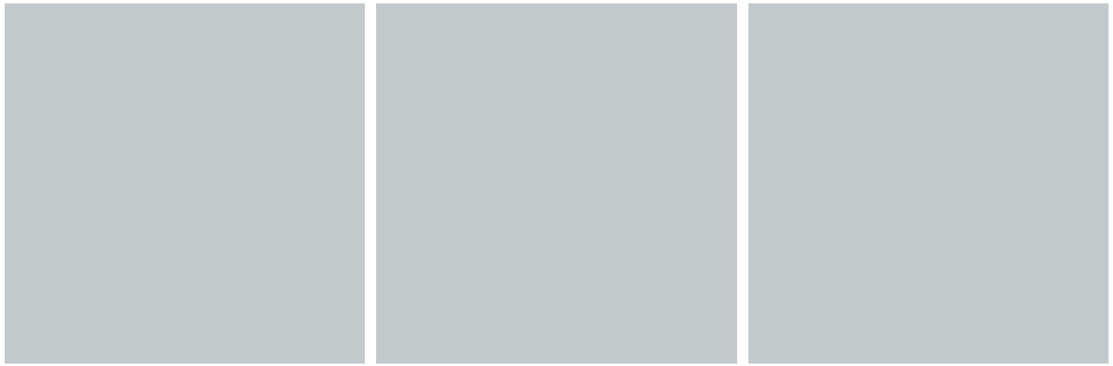
Fig.b.la button type



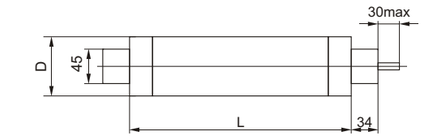
Rated Current, A	A (mm)	B(mm)	C(mm)	D(mm)	F(mm)
1~25	12.5±0.2	19±0.3	787	2.0	6.5
30~40	12.5±0.2	19±0.3	787	3.0	8.0
50~100	19±0.3	NA	787	5.0	9.8
110~200	19±0.3	NA	787	7.0	12.0

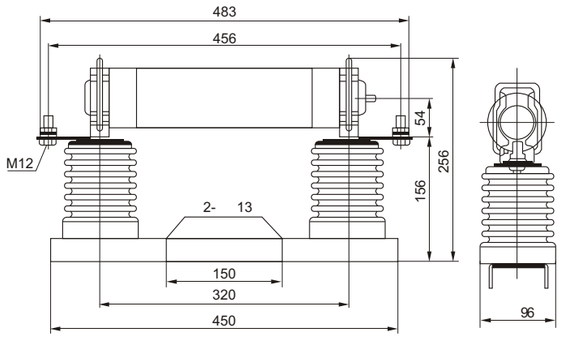
HRC Fuse

The HRC (high rupturing capacity) fuse-links are used to protect transformers, capacitor banks, cable and overhead lines against short-circuits. They protect Switch-gears from thermal and electromagnetic effects of heavy short-circuit currents by limiting the peak current values (cut-off characteristic) and interrupting the currents in several milliseconds.



Plug-in type HRC fuse

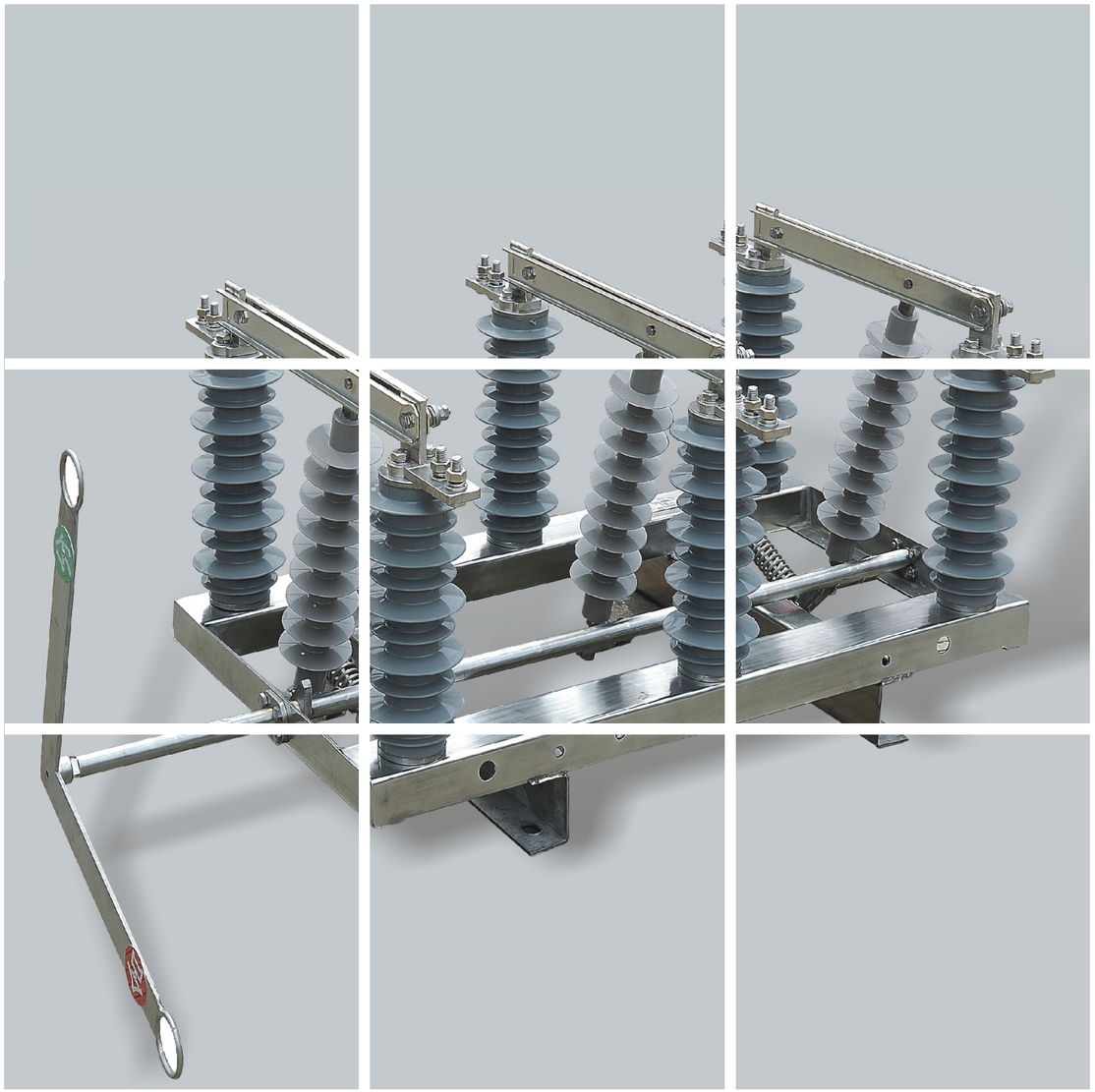




Type	Rated Voltage kV	Rated Current A	Breaking Capacity kA	D mm	L mm
XRNT1/3.6	3.6	6.3,10,16,20,25,31.5,40	31.5	51	192
XRNT1/7.2	7.2	6.3,10,16,20,25,31.5,40,50,63	31.5	51	292
XRNT1/7.2	7.2	80,100,125,160	31.5	76	292
XRNT1/12	12	6.3,10,16,20,25,31.5,40	31.5	51	292
XRNT1/12	12	50,63,71,80,100	31.5	76	292
XRNT1/12	12	125	31.5	76	292
XRNT1/12	12	160,200	31.5	88	292
XRNT1/24	24	6.3,10,16,20,25,31.5,40	31.5	51	442
XRNT1/24	24	50,63,71,80,100	31.5	76	442
XRNT1/24	24	125	31.5	76	442
XRNT1/24	24	160	31.5	88	442
XRNT1/40.5	40.5	3.15,6.3,10,16,20,25	31.5	51	537
XRNT1/40.5	40.5	31.5,40	31.5	56	537
XRNT1/40.5	40.5	63	31.5	88	537

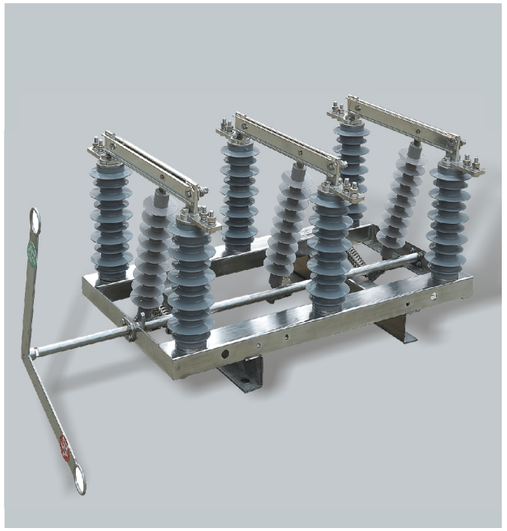
Disconnectors

The Pomanique? s single break, insulator operated disconnector has been designed for both rural distribution and substation type disconnector applications and complying with IEC 60129.Rated voltage from 12kV to 36kV,rated current up to 1200A.



Three phase disconnect switch

GW58-12/24/36 outdoor MV disconnect switch are used to open an close circuit with voltage but no-load 50/60Hz,12kV up to 36kV power system, this anti-pollution type can be used in the series pollution area.



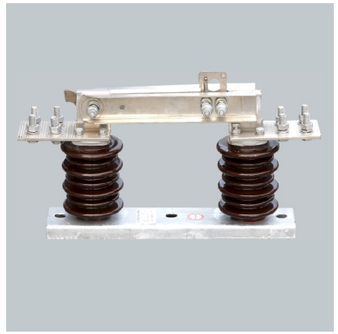
Features

Manufacture according IEC standards.
Up to 36kV,900A,200kV BIL.
Three phase disconnector.
Porcelain and polymer type insulator.
Manual and electric drivers.
Accessories and relays.

Technical parameters:

Test Item	Unit	Data		
Rated voltage	kV	12	24	36
Rated current	A	400/630	400/630	400/630
Rated frequency	Hz	50/60	50/60	50/60
Rated short-time withstand current	kA	20	20	25
Rated short-circuit duration	s	4	4	4
Main loop resistance	? ?	⩽100	⩽100	⩽100
Power frequency withstand (wet)	kV	30	65	85
Power frequency withstand (ydr)	kV	48	85	115
Lightning impulse withstand voltage.	kV	75	125	185
Mechanical life	Times	2000	2000	2000

Three phase disconnect switch



15KV

Technical specifications

Type	GW9-15/400	GW9-15/630	GW9-15/900
Rated Voltage kV	15	15	15
Rated Current A	400	630	900
Momentany Current A	40000	40000	40000
BIL kV	125	125	125
Short Time Withstand Current 2S(Sym)A	25000	2500	2500

24KV

Technical specifications

Type	GW9-24/400	GW9-24/630	GW9-24/900
Rated Voltage kV	24	24	24
Rated Current A	400	630	900
Momentany Current A	40000	40000	40000
BIL kV	125	125	125
Short Time Withstand Current 2S(Sym)A	25000	2500	2500

36KV

Technical specifications

Type	GW9-36/400	GW9-36/630	GW9-36/900
Rated Voltage kV	36	36	36
Rated Current A	400	630	900
Momentany Current A	40000	40000	40000
BIL kV	125	125	125
Short Time Withstand Current 2S(Sym)A	25000	2500	2500

Vacuum Circuit Breaker

ZW58-12/24 model outdoor AC vacuum circuit breaker is used to make and break load current, overload current and short-circuit current in 12/24kV, 50/60Hz power system. It is applicable for substations, industry and mining, urban and rural electricity power networks, especially for occasions with frequent operation and automatic power distribution network.

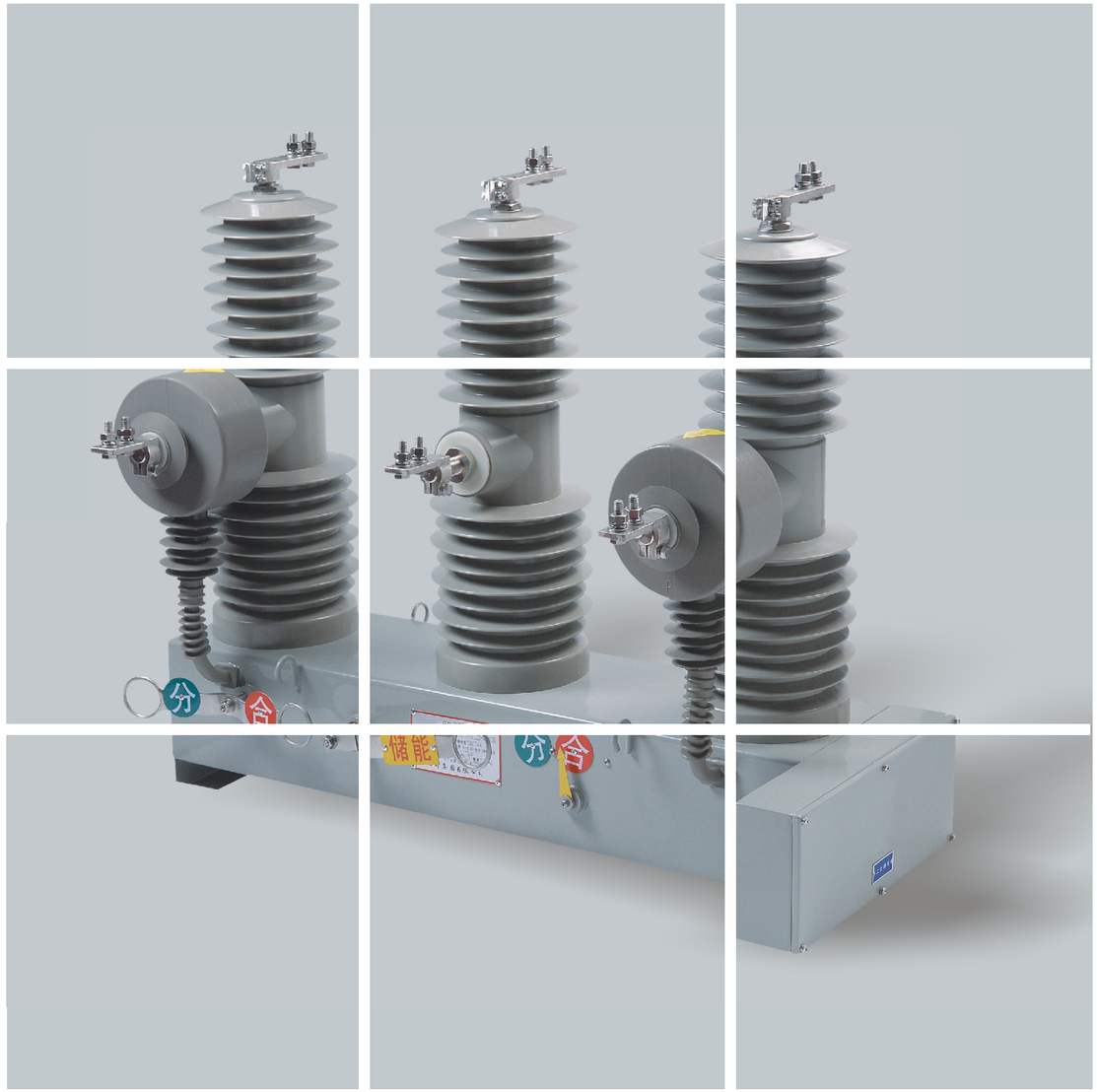
It accords with the standard of IEC622 71-100 & GB1984: AC high voltage circuit breaker, IEC60694 & GB/T11022: HV General technical requirement of switch and control apparatus.

The ZW58 provides the following unique features:

Highest availability

Lowest Weight

Environmental friendly



Ambient condition

1. Altitude: 1000mm;
2. Ambient temperature: -45 ~+40 ; daily temperature difference: 25 ;
3. Wind speed: 34m/s;
4. Earthquake intensity: 8 degree;
5. Relative humidity: monthly average 90%, daily average 95%;
6. Ice thickness: 20mm;
7. Applicable occasions should be free from inflammables, explosives, corrosives and severe vibrations.

Technical specification

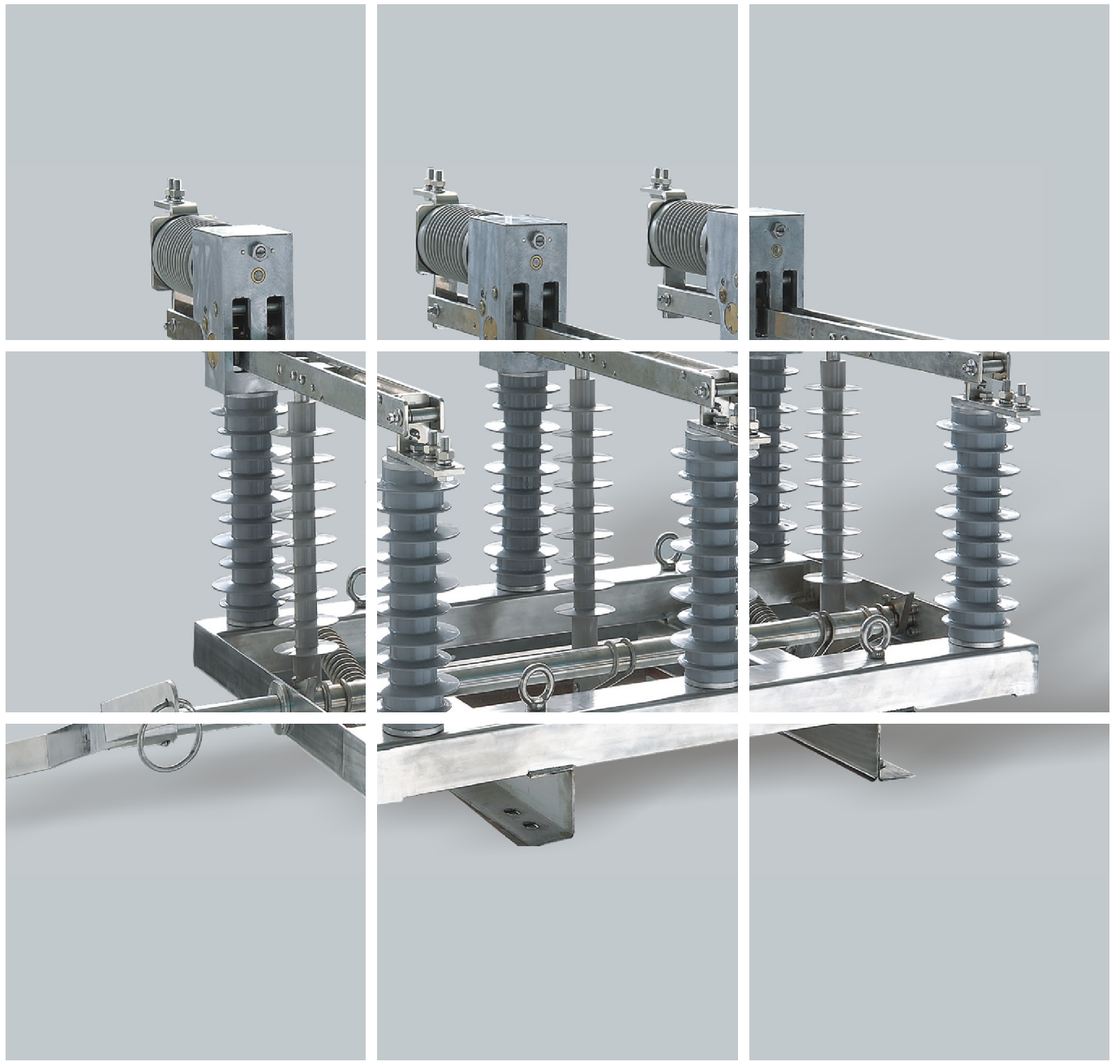
No.	Item	Unit	Data
1	Rated voltage	kV	12/24
2	1min.PF withstand voltage(dry/wet)		42(across open contacts:49)/34,65(79)/50
3	Lightning impulse withstand voltage(peak)		75(across open contacts:85),125(145)
4	Rated current	A	630,1250
5	Rated short-circuit breaking current	kV	20,25
6	Rated short-circuit making current		50,63
7	4s rated short-time withstand current		20,25
8	Rated peak withstand current		50,63
9	Rated operating sequence		O-0.3s-CO-180s-CO
10	Breaking times of rated short-circuit breaking current	Times	30
11	Mechanical duration		10000
12	Rated operation voltage	V	220(DC,AC)
13	Rated voltage of auxiliary loop		220(DC,AC)
14	Rated current of over-current release	A	5
15	Current transformer ratio	A	200/5,400/5,600/5 (Protection degreeⅢ class,Class:0.5)
16	Operating method		Spring operation mechanism (manual/motor)
17	Outline dimension	mm	782x222x642(1095x225x940)
18	Weight	kg	50(80)

Vacuum arc extinguish chamber

No.	Item	Unit	Data
1	Rated voltage	mm	10±1
2	1min.PF withstand voltage(dry/wet)	m/s	1.2±0.2
3	Lightning impulse withstand voltage(peak)	ms	<3
4	Rated current	ms	<3

Vacuum Type Load Disconnector

FZW33 12kV/24kV Outdoor AC vacuum type load disconnector is a new product adopts domestic existing mature load breaker switch production experience and overseas advanced technology to design and manufacture. The load breaker is composed of disconnect blade, vacuum interrupter and operation mechanism. vacuum extinguishing arc, there are merits as strong extinguishing arc ability, reliable performance, long lifetime, small volume, no explosive danger and no pollution to environment.
These disconnectors are suitable for powering networks of 12,24kV,to be used as a disconnecting devive of MV/LV distribution transformers and to disconnect the MV outdoor tine.
It accords with the standards of IEC62271-102 & GB/T3804:3.6~40.5kV High voltage switches, IEC60694 & GB/T11022: High voltage switch apparatus and control apparatus.



Ambient condition

1. Altitude: 1000m;
2. Ambient temperature: -35 ~+50° C ;
3. Relative humidity: daily average 90%; monthly average 95%;
4. Earthquake intensity: 8 degree;
5. Applicable occasions should be free from inflammable, explosives and severe vibration.

Technical specification

No.	Test Item	Unit	Data	
1	Rated voltage	kV	12	24
2	Rated current	A	400/630	400/630
3	Rated frequency	Hz	50/60	50/60
4	Rated short-time withstand current	kA	20	20
5	Rated short-circuit duration	s	4	4
6	Rated active load breaking current	A	400/630	400/630
7	Rated loop breaking current	A	400/630	400/630
8	Rated cable charging current	A	12	12
9	5% rated active load breaking current	A	31.5	31.5
10	Rated short-circuit making current	kA	50	50
11	Main loop resistance	μ Ω	≤100	≤100
12	power frequency withstand voltage against the earth, between phases	kV rms	40	65
13	power frequency withstand voltage against the isolating distance	kV rms	48	79
14	Lightning impulse withstand voltage against the earth, between phases (peak)	kV	75	125
15	Lightning impulse withstand voltage against the air gap(peak)	kV	85	145
16	Mechanical life	Times	10000	10000
17	Three phase closing asynchronous	ms	≤5	≤5
18	Main contact blade pressure	N	520	520
19	Distance between electric parts and phase to earth	mm	≧300	≧600
20	Rated operating force	N	≤300	≤300

Vacuum arc extinguish chamber

No.	Item	Unit	Data
1	Contact distance	mm	10±1
2	Average breaking speed	m/s	1.2±0.2
3	Three phase breaking asynchronous	ms	<3
4	Three phase making asynchronous	ms	<3