

Transmission Line Surge Arresters



Description:

The use of transmission line surge arresters on hazardous stretches of a power line helps improve network protection and increases the reliability of the entire transmission system. Offering a highly efficient combination of low weight, outstanding strength, and safety features, HENGDA's line surge arresters are ideally suited for this purpose and in conformity with IEC60099-4.

Classification: 10kA

Voltage Rating: 15 to 230 kV

High Current Performance: 100kA

Line Discharge Class: 2 and 3

Insulation Material: Silicone Rubber

Transmission Line Surge Arrester

Users of electricity have become more and more demanding over recent years. The quality of the power they receive is critical to their operations. Sensitive electronic equipment cannot tolerate voltage fluctuations and many problems are directed to the utility. The heightened awareness of power quality has brought the issue to all levels of operations including transmission.

In the area of transmission line power quality, HENGDA offers the "CLA" transmission line arrester. The lightweight construction makes it possible to easily mount arresters on the transmission line structures. The arresters provide a preferred path between line and ground, guarding against insulator flashover. using polymer MOV arresters provides higher power quality, which will improve customer satisfaction.

Electrical Performance:

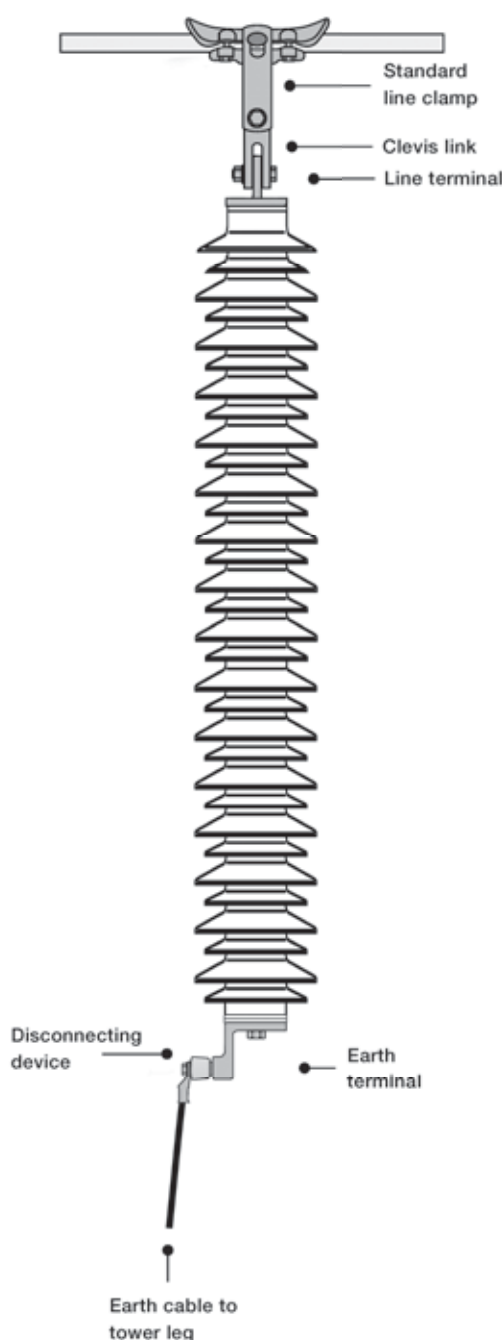
- Standards: IEC 60099-4
 - Classification: 10kA
 - High Current Capacity: 100kA
 - Line Discharge Class: 2 and 3
- | | | | |
|------|----------|---------|----------|
| CLA1 | 15-45kV | Class 2 | 4.5kJ/kV |
| CLA2 | 45-210kV | Class 2 | 4.5kJ/kV |
| CLA3 | 96-230kV | Class 3 | 7.2kJ/kV |
- Disconnector with IEC 60099-4
 - Insulation Material: Silicon rubber

Operation:

- Improve power quality and overall line performance
- Supplement shield wire protection
- Provide protection for lines without a shield wire
- Create more space on structures by eliminating the shield wires
- Protect both new construction and retrofit

Key Features:

- Minimize the requirement to lower ground resistance
- Protect against backflash
- Safeguard from induced surges caused by nearby lightning
- Limit effects of switching surges
- Install easily and economically
- Allow for reduction of structure BIL
- Reduce system breaker operations
- Provide protection for isolated problem areas
- Improve overall line performance





Protective Characteristics

Class2 15-210kV (10kA)

Model	Rated Voltage (kV)	MCOV (kV)	2ms square wave impulse withstand (A)	Max residual voltage with current wave					TOV 1s kV	External insulation		Height mm A	Leakage distance mm	Fig
				30/60µs		8/20µs				1.2/50 µs kV (dry)	50 Hz (60s) kV (wet)			
				125A kV	500A kV	5kA kV	10kA kV	20kA kV						
CLA1-15	15	12	600	31.1	33.5	41.4	45.9	51.6	17.1	150	65	329	960	1
CLA1-18	18	14	600	39.2	41.7	50.5	54.4	61.8	20.5	150	65	329	960	1
CLA1-21	21	17	600	43.9	46.5	56.4	61.4	69	24.0	150	65	329	960	1
CLA1-24	24	19	600	50.1	53.2	64.5	69.5	78.9	27.4	150	65	329	960	1
CLA1-27	27	22	600	54.8	58.2	70.6	76.3	86.4	30.8	185	80	383	1150	1
CLA1-30	30	24	600	60.9	64.8	78.5	84.6	96.0	34.2	185	80	383	1150	1
CLA1-36	36	29	600	71.8	76.3	92.4	100	113	41.1	185	80	383	1150	1
CLA1-39	39	31	600	76.4	81.0	98.4	106	120	44.5	250	120	491	1400	1
CLA1-42	42	34	600	82.7	87.6	106	115	130	47.8	250	120	491	1400	1
CLA1-45	45	36	600	88.9	95.0	114	123	140	52.0	250	120	491	1400	1
CLA2-48	48	38	600	94.0	100	121	130	148	55.0	400	185	730	2600	1
CLA2-60	60	48	600	115	122	148	160	182	68.5	400	185	730	2600	1
CLA2-72	72	57.6	600	137	146	176	190	216	83.0	400	185	730	2600	1
CLA2-75	75	60	600	144	153	186	200	227	86.0	400	185	730	2600	1
CLA2-84	84	67.2	600	159	169	204	220	250	96.0	400	185	730	2600	1
CLA2-96	96	76.8	600	182	193	234	252	286	110.0	575	295	1080	3100	1
CLA2-108	108	86.4	600	202	215	260	281	319	123.0	575	295	1080	3100	1
CLA2-120	120	96	600	225	239	286	312	354	137.0	750	360	1250	3800	1
CLA2-138	138	110	600	261	277	336	363	411	157.0	750	360	1250	3800	1
CLA2-144	144	115	600	271	288	349	377	427	164.0	750	360	1250	3800	2
CLA2-150	150	120	600	285	303	367	396	449	171.0	940	450	1600	5200	2
CLA2-168	168	134	600	314	333	404	435	494	192.0	940	450	1600	5200	2
CLA2-180	180	144	600	338	359	435	470	533	205.0	940	450	1600	5200	2
CLA2-192	192	154	600	376	399	484	521	594	220.0	1150	560	2100	7800	2
CLA2-198	198	158	600	388	412	500	537	612	228.0	1150	560	2100	7800	2
CLA2-210	210	168	600	411	436	530	570	650	240.0	1150	560	2100	7800	2

Class3 96-228kV (10kA)

Model	Rated Voltage (kV)	MCOV (kV)	2ms square wave impulse withstand (A)	Max residual voltage with current wave					TOV 1s kV	External insulation		Height mm A	Leakage distance mm	Fig
				30/60μs		8/20μs				1.2/50 μs kV (dry)	50 Hz (60s) kV (wet)			
				500A kV	1kA kV	5kA kV	10kA kV	20kA kV						
CLA3-96	96	77	1000	185	191	215	226	249	110	775	360	1120	3100	3
CLA3-108	108	86	1000	208	214	242	254	280	124	775	360	1120	3100	3
CLA3-120	120	96	1000	231	238	269	282	310	137	800	375	1230	3920	3
CLA3-138	138	110	1000	265	274	309	325	357	151	800	375	1230	3920	3
CLA3-144	144	115	1000	277	286	322	339	373	165	800	375	1230	3920	3
CLA3-150	150	120	1000	288	298	335	353	388	172	975	460	1870	6850	4
CLA3-168	168	131	1000	323	333	376	395	435	186	975	460	1870	6850	4
CLA3-180	180	144	1000	346	357	402	423	466	207	975	460	1870	6850	4
CLA3-192	192	154	1000	369	381	429	452	497	220	975	460	1870	6850	4
CLA3-198	198	158	1000	381	393	443	466	512	227	1160	585	2230	7850	4
CLA3-210	210	168	1000	404	417	469	494	543	241	1160	585	2230	7850	4
CLA3-228	228	182	1000	438	452	510	536	590	262	1160	585	2230	7850	4

CLA Dimensions

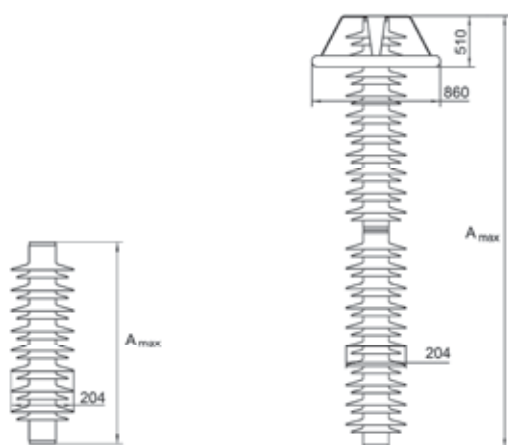


Figure 1

Figure 2

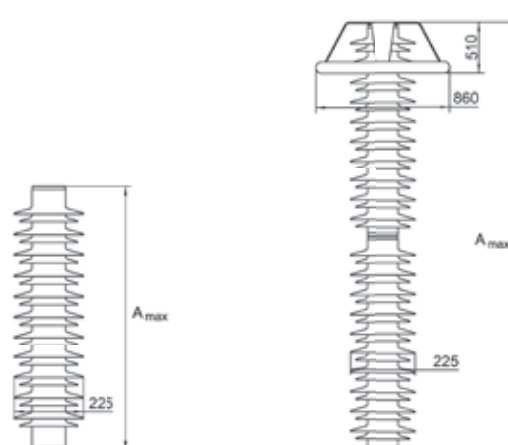
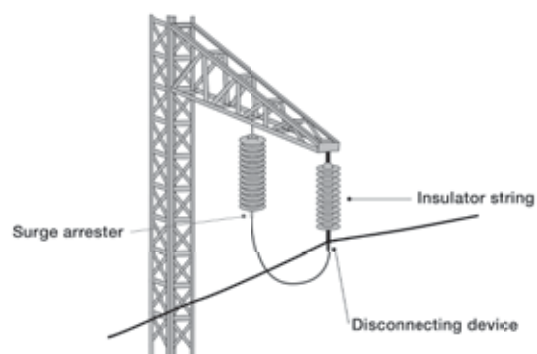
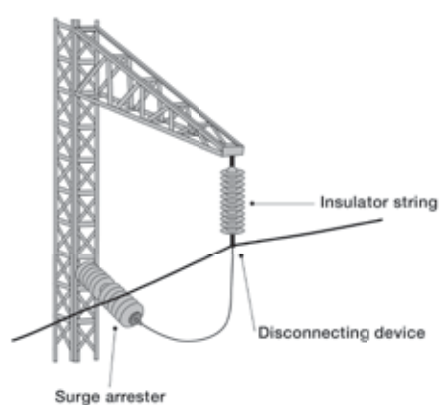
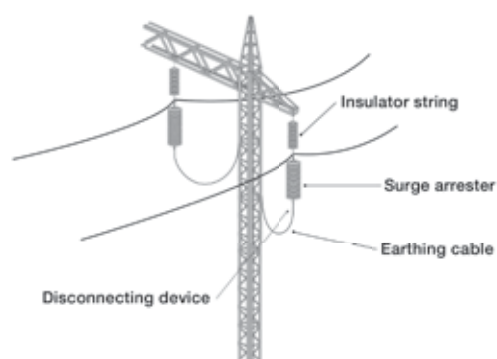
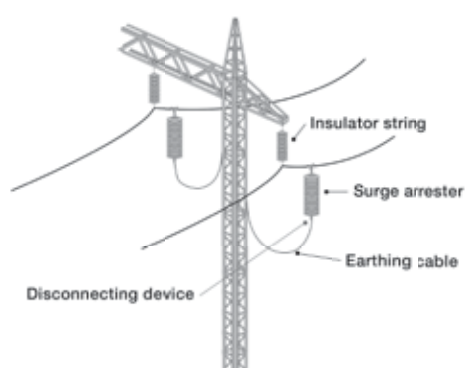


Figure 3

Figure 3

Tower installations



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