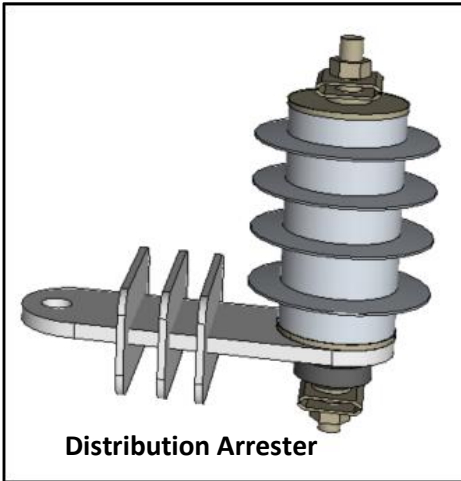


IEEE Certified Arrester QuickFacts

ArresterFacts 045

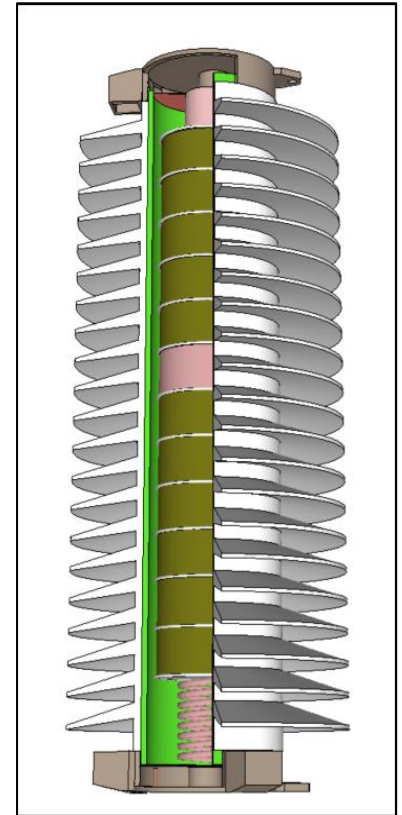
www.ArresterWorks.com

IEC Version of QuickFacts

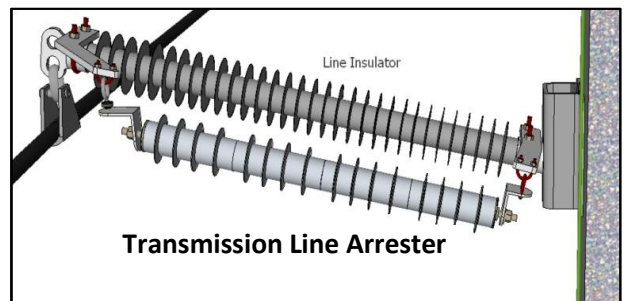
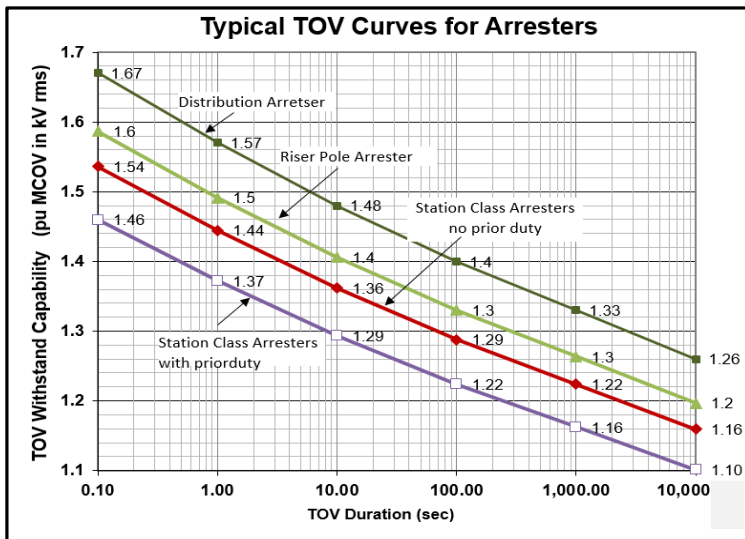


Arrester Class and Classifying Characteristics				
Distribution Arresters	Classifying Current	LCLD Current	Lightning Impulse Limit	Pressure Relief
Heavy Duty	10 kA	250 A	100 kA	10-20kA
Normal Duty	5 kA	75 A	65 kA	10-20kA
Light Duty	5 kA	75 A	40 kA	10-20kA
Station and Intermediate Arresters	Classifying Current	Switching Surge Energy kJ/kV MCOV	Switching Impulse Limit Coulombs	Pressure Relief
Class A	10 kA	3.0	~ .8	40-80 kA
Class B	10 kA	4.5	~ 1	
Class C	10 kA	6.0	~1.3	
Class D	10 kA	7.5	~1.6	
Class E	10 kA	9.0	~ 2.4	

System line-to-line voltages (kV rms)		Recommended Arrester Ratings Rating (MCOV) kV rms		
Nominal	Assumed Maximum	Four-wire wye Multi-grounded Neutral	Three-wire or Four-wire Wye Solidly Grounded@ Source	Delta and Ungrounded Wye
12.47	13.1	9 (7.65)	9 (7.65) or 10 (8.40)	15 (12.7) or 18 (15.3)
13.2	13.9	10 (8.40)	10 (8.40) or 12 (10.2)	15 (12.7)
13.8	14.5	10 (8.40)	10 (8.40) or 12 (10.2)	15 (12.7) or 18 (15.3)
22.86	24	18 (15.3)	18 (15.3) or 21 (17.0)	24 (19.5) or 27 (22.0)
24.9	26.2	18 (15.3)	18 (15.3) or 21 (17.0)	24 (19.5) or 27 (22.0)
34.5	36.2	27 (22.0)	27 (22.0) or 30 (24.4)	36 (29.0) or 39 (31.5)
46	48.3	N/A	36 (29.0) or 39 (31.5)	48 (39.0)
69	72.5	N/A	54 (42.0) or 60 (48.0)	72 (57.0)
115	121	N/A	90 (70.0) or 96 (76.0)	108 (84.0)
138	145	N/A	108 (84.0) or 120 (98.0)	132 (106) or 144 (115)
161	169	N/A	120 (98.0) or 144 (115)	144 (115) or 168 (131)
230	242	N/A	172 (140) or 192 (152)	228 (180) or 240 (190)
345	362	N/A	258 (209)	276 (220)
500	550	N/A	420 (336)	444 (353)

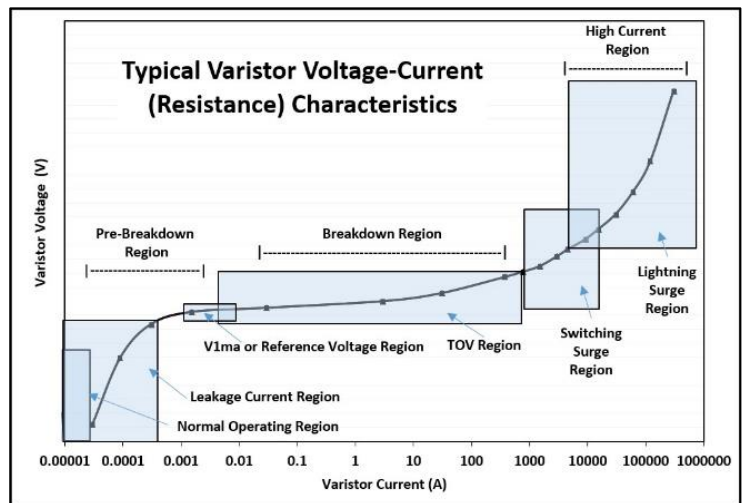
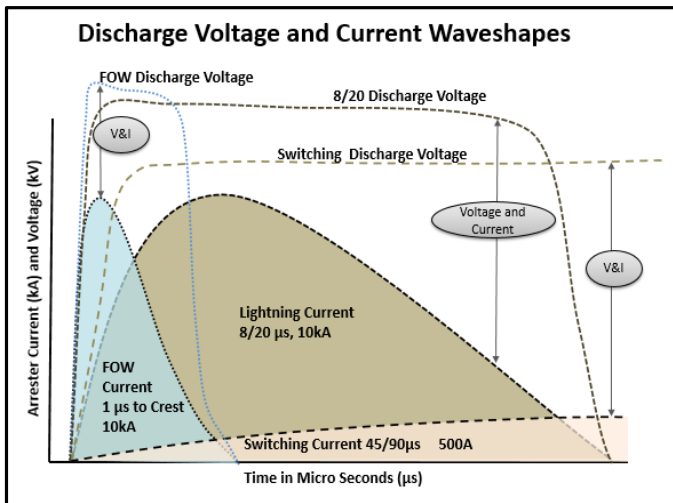


Hollow Core Polymer Housed Station Arrester



Typical Discharge Voltage Table														
Arrester Rating	Arrester MCOV	TOV (kV rms)		Front of Wave Protective Level kV peak	Maximum Discharge Voltage (kV peak) 8/20µs Current Wave						Switching Surge Protective Level (kV peak) 45/90µs			
		1 Sec	10 Sec		1.5 kA	3kA	5kA	10kA	20kA	40kA	250 A	500 A	1000A	2000A
Heavy Duty Distribution Arresters														
3	2.55	4	3.75	11	8.2	8.7	9.1	9.9	10.9	12.3	7.5			
6	5.1	8	7.5	21.9	16.3	17.4	18.2	19.8	21.9	24.7	15			
9	7.65	11.9	11.2	33	24.6	26.1	27.3	29.8	33	37.1	22.5			
10	8.4	13.1	12.3	35	26	27.7	29	31.6	34.9	39.4	23.9			
12	10.2	15.9	15	43.9	32.7	34.8	36.4	39.7	43.9	49.5	30			
15	12.7	19.8	18.7	53.1	39.6	42.1	44	48	53.1	59.8	36.3			
18	15.3	23.9	22.5	66	49.1	52.3	54.7	59.6	65.9	74.2	45.1			
21	17	26.5	25	70	52.1	55.4	58	63.2	69.9	78.7	47.8			
24	19.5	30.4	28.7	80.9	60.2	64.1	67	73.1	80.8	91.1	55.3			
27	22	34.3	32.3	94	70	74.5	77.9	84.9	93.9	106	64.2			
30	24.4	38.1	35.9	102	76.1	81	84.7	92.4	102	115	69.9			
33	27	42.1	39.7	116	86.5	92.1	96.3	105	116	131	79.4			
36	29	45.2	42.6	123	91.5	97.3	102	111	123	138	83.9			
Station Class Arresters (3.0 and 4.5kJ/kV MCOV)														
54	42	61.5	58.6	147	115	121	127	137	151	171		107	111	
60	48	70.3	67	167	131	138	145	156	173	196		123	127	
72	57	83.5	79.5	200	156	164	172	186	205	233		145	151	
90	70	102.5	97.7	245	191	201	211	228	252	286		179	185	
96	76	111.3	106	265	208	219	229	247	274	310		194	201	
108	84	123	117.2	293	229	242	253	273	302	343		214	222	
120	98	143.5	136.7	321	255	269	279	298	328	366		238	247	
144	115	168.4	160.4	378	300	315	327	350	385	430		279	290	
172	140	205	195.3	459	365	384	398	426	468	523		340	352	
180	144	210.8	200.9	472	375	395	410	438	482	538		350	362	
192	152	222.5	212	499	396	417	432	463	509	568		369	383	
228	180	263.5	251.1	591	469	493	512	548	602	672		437	453	
Station Class Arrester (6.0 and 7.5kJ/kV MCOV)														
258	209	305	292	663	515	540	563	601	651	724			519	
276	220	321	308	698	542	568	592	632	685	762			546	
312	245	357	343	777	603	633	660	704	763	849			608	
396	318	464	445	1009	783	821	856	914	991	1102			790	
420	335	488	468	1063	825	865	902	963	1043	1161			832	
444	353	515	493	1120	869	912	950	1014	1100	1223			876	

* Includes the effects of Inductance on all components in the arrester



Arrester Application Support

Insulation Coordination Studies

Arrester Design Support

e-Consulting

Training

Arrester Failure Analysis