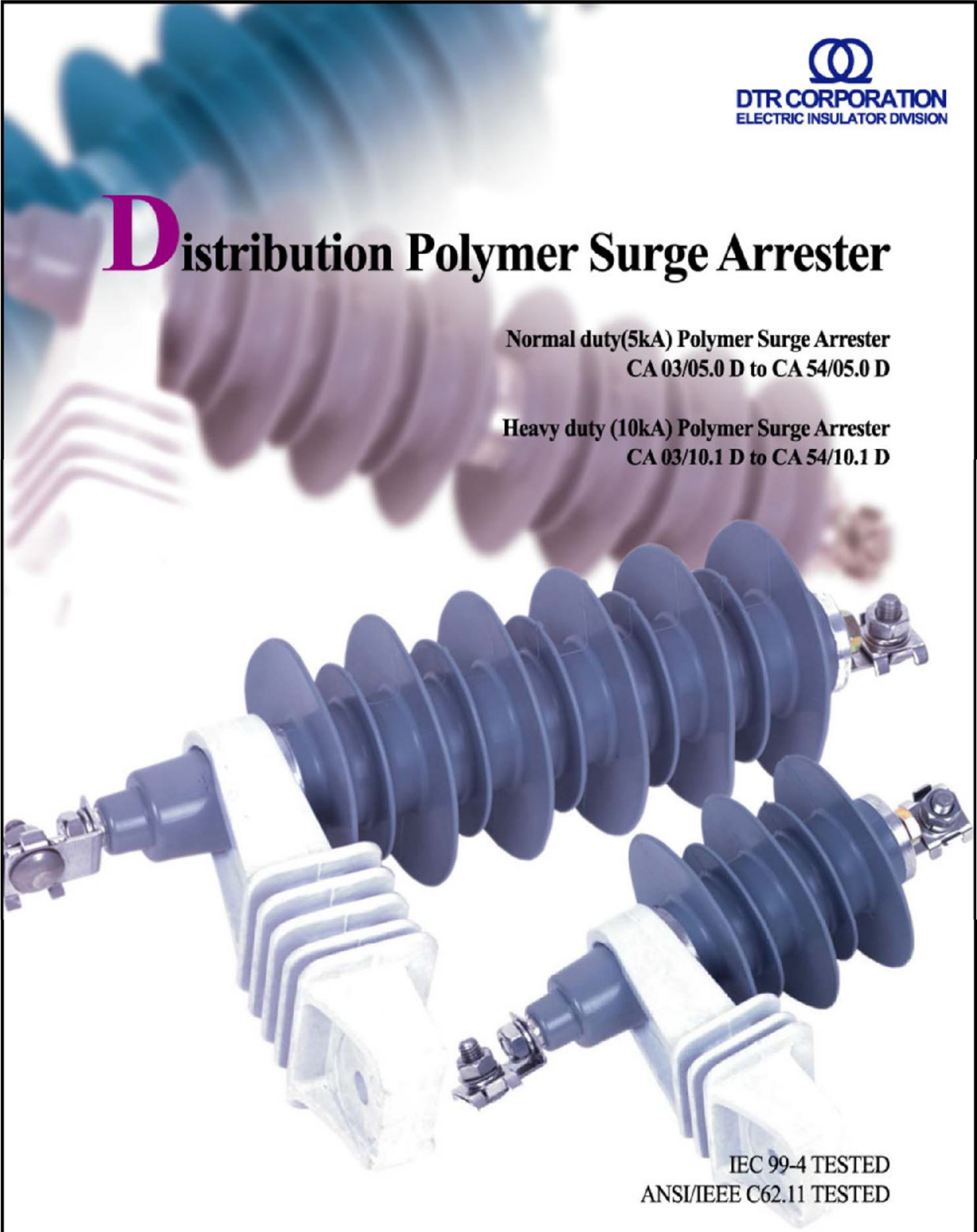
DTR CORPORATION
ELECTRIC INSULATOR DIVISION

Distribution Polymer Surge Arrester

Normal duty(5kA) Polymer Surge Arrester
CA 03/05.0 D to CA 54/05.0 D

Heavy duty (10kA) Polymer Surge Arrester
CA 03/10.1 D to CA 54/10.1 D



IEC 99-4 TESTED
ANSI/IEEE C62.11 TESTED

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Normal duty(5kA) Polymer Surge Arrester

Medium voltage arrester Type series CA03/05.0D to CA54/05.0D

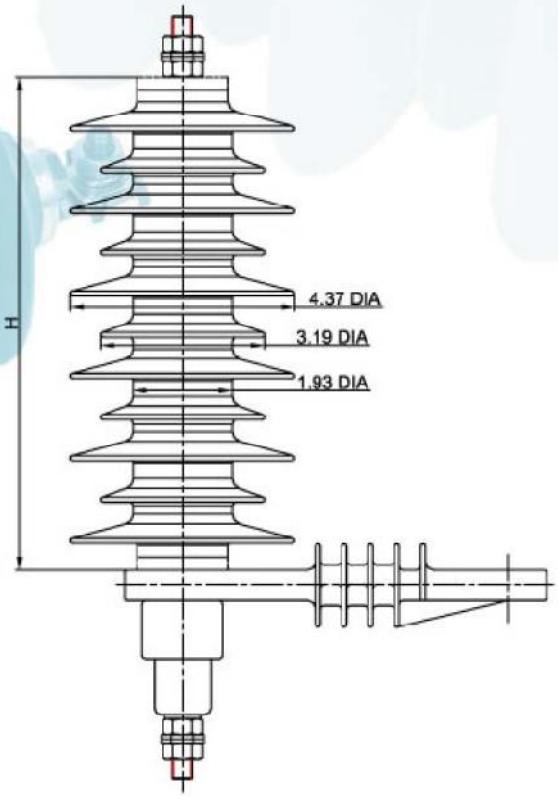
DTR CORPORATION
ELECTRIC INSULATOR DIVISION

Guaranteed protective data

Type	Rated voltage	MCOV	Range of critical operating voltage V1mA(DC)		TOV		Residual voltage at lightning impulse current(8/20μs)				Residual voltage at switching impulse current(30/75μs)	
					1sec	10sec						
	kV	kVrms	Min.	Max.	kV	kV	2.5kA	5kA	10kA	20kA	250A	500A
CA 03/05.0D	3	2.55	4.80	5.40	3.24	3.03	9.91	10.61	11.58	12.83	6.8	7.0
CA 06/05.0D	6	5.10	9.60	10.80	6.48	6.06	18.82	20.22	22.17	24.65	13.6	14.0
CA 09/05.0D	9	7.65	14.40	16.20	9.72	9.09	27.73	29.84	32.75	36.48	20.4	21.0
CA 10/05.0D	10	8.50	16.00	18.50	10.80	10.10	31.53	33.93	37.26	41.52	22.7	23.3
CA 12/05.0D	12	10.20	19.20	21.60	12.96	12.12	36.64	39.45	43.34	48.30	27.2	28.0
CA 15/05.0D	15	12.75	24.00	27.00	16.20	15.15	45.55	49.06	53.92	60.13	34.0	35.0
CA 18/05.0D	18	15.30	28.80	32.40	19.44	18.18	54.46	58.67	64.50	71.96	40.8	42.0
CA 21/05.0D	21	17.85	33.60	37.80	22.68	21.21	63.37	68.28	75.09	83.78	47.6	49.0
CA 24/05.0D	24	20.40	38.40	43.20	25.92	24.24	72.28	77.90	85.67	95.61	54.4	56.0
CA 27/05.0D	27	22.95	43.20	48.60	29.16	27.27	81.19	87.51	96.26	107.43	61.2	63.0
CA 30/05.0D	30	25.50	48.00	54.00	32.40	30.30	90.10	97.12	106.84	119.26	68.0	70.0
CA 33/05.0D	33	28.05	52.80	59.40	35.64	33.33	99.01	106.73	117.42	131.09	74.8	77.0
CA 36/05.0D	36	30.60	57.60	64.80	38.88	36.36	107.92	116.34	128.01	142.91	81.6	84.0
CA 39/05.0D	39	33.15	62.40	70.20	42.12	39.39	116.83	125.96	138.59	154.74	88.4	91.0
CA 42/05.0D	42	35.70	67.20	75.60	45.36	42.42	125.74	135.57	149.18	166.56	95.2	98.0
CA 45/05.0D	45	38.25	72.00	81.00	48.60	45.45	134.65	145.18	159.76	178.39	102.0	105.0
CA 48/05.0D	48	40.80	76.80	86.40	51.84	48.48	143.56	154.79	170.34	190.22	108.8	112.0
CA 51/05.0D	51	43.35	81.60	91.80	55.08	51.51	152.47	164.40	180.93	202.04	115.6	119.0
CA 54/05.0D	54	45.90	86.40	97.20	58.32	54.54	161.38	174.02	191.51	213.87	122.4	126.0

Technical data for housings

Type	Rated voltage	Hight H		Weight		Creep		Insulation of arrester housing		
								P.F. withstand voltage (Dry) kV	P.F. withstand voltage (Wet) kV	L.I. Withstand voltage kV
	kV	mm	Inches	kg	Pounds	mm	Inches			
CA 03/05.0D	3	112.0	4.4	2.7	5.95	323	12.7	11	9	14
CA 06/05.0D	6	112.0	4.4	2.74	6.04	323	12.7	20	18	26
CA 09/05.0D	9	162.5	6.4	3.06	6.75	442	17.4	30	26	39
CA 10/05.0D	10	162.5	6.4	3.08	6.79	443	17.4	34	30	44
CA 12/05.0D	12	162.5	6.4	3.1	6.83	442	17.4	39	35	51
CA 15/05.0D	15	243.0	9.6	3.72	8.20	680	26.8	49	43	64
CA 18/05.0D	18	243.0	9.6	3.76	8.29	680	26.8	58	52	76
CA 21/05.0D	21	325.0	12.8	4.28	9.44	884	34.8	68	60	89
CA 24/05.0D	24	325.0	12.8	4.32	9.52	884	34.8	77	69	101
CA 27/05.0D	27	405.5	16.0	4.86	10.71	1122	44.2	87	77	114
CA 30/05.0D	30	405.5	16.0	4.9	10.80	1122	44.2	96	85	126
CA 33/05.0D	33	486.0	19.1	5.42	11.95	1360	53.5	106	94	139
CA 36/05.0D	36	486.0	19.1	5.46	12.04	1360	53.5	115	102	151
CA 39/05.0D	39	568.0	22.4	5.98	13.18	1564	61.6	125	111	164
CA 42/05.0D	42	568.0	22.4	6.02	13.27	1564	61.6	134	119	176
CA 45/05.0D	45	648.5	25.5	6.64	14.64	1802	70.9	144	128	189
CA 48/05.0D	48	648.5	25.5	6.68	14.73	1802	70.9	153	136	201
CA 51/05.0D	51	729.0	28.7	7.12	15.70	2040	80.3	163	145	214
CA 54/05.0D	54	729.0	28.7	7.16	15.79	2040	80.3	172	153	226



Heavy duty(10kA) Polymer Surge Arrester

Medium voltage arrester Type series CA03/10.1D to CA54/10.1D

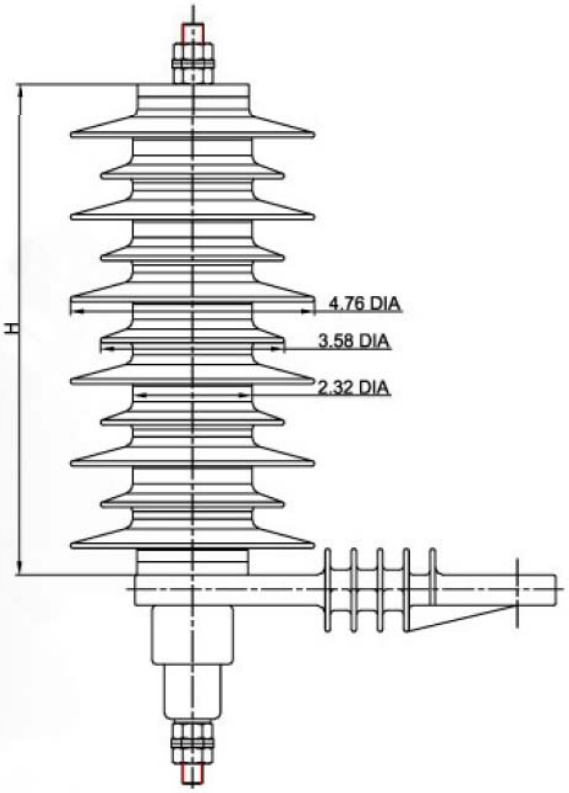
DTR CORPORATION
ELECTRIC INSULATOR DIVISION

Guaranteed protective data

Type	Rated voltage	MCOV	Range of critical operating voltage V1mA(DC)		TOV		Residual voltage at lightning impulse current(8/20μs)				Residual voltage at switching impulse current(30/75μs)	
					1sec	10sec						
	kV	kVrms	Min.	Max.	kV	kV	5kA	10kA	20kA	40kA	250A	500A
CA 03/10.1D	3	2.55	4.80	5.40	3.39	3.18	9.07	9.88	10.91	12.37	6.8	7.0
CA 06/10.1D	6	5.10	9.60	10.80	6.78	6.36	18.14	19.76	21.82	24.73	13.6	14.0
CA 09/10.1D	9	7.65	14.40	16.20	10.17	9.54	27.22	29.65	32.72	37.10	20.3	21.0
CA 10/10.1D	10	8.50	16.00	18.50	11.30	10.60	31.08	33.86	37.37	42.37	22.6	23.3
CA 12/10.1D	12	10.20	19.20	21.60	13.56	12.72	36.29	39.53	43.63	49.46	27.1	27.9
CA 15/10.1D	15	12.75	24.00	27.00	16.95	15.90	45.36	49.41	54.54	61.83	33.9	34.9
CA 18/10.1D	18	15.30	28.80	32.40	20.34	19.08	54.43	59.29	65.45	74.20	40.7	41.9
CA 21/10.1D	21	17.85	33.60	37.80	23.73	22.26	63.50	69.17	76.36	86.56	47.5	48.9
CA 24/10.1D	24	20.40	38.40	43.20	27.12	25.44	72.58	79.06	87.26	98.93	54.2	55.9
CA 27/10.1D	27	22.95	43.20	48.60	30.51	28.62	81.65	88.94	98.17	111.29	61.0	62.9
CA 30/10.1D	30	25.50	48.00	54.00	33.90	31.80	90.72	98.82	109.08	123.66	67.8	69.8
CA 33/10.1D	33	28.05	52.80	59.40	37.29	34.98	99.79	108.70	119.99	136.03	74.6	76.8
CA 36/10.1D	36	30.60	57.60	64.80	40.68	38.16	108.86	118.58	130.90	148.39	81.4	83.8
CA 39/10.1D	39	33.15	62.40	70.20	44.07	41.34	117.94	128.47	141.80	160.76	88.1	90.8
CA 42/10.1D	42	35.70	67.20	75.60	47.46	44.52	127.01	138.35	152.71	173.12	94.9	97.8
CA 45/10.1D	45	38.25	72.00	81.00	50.85	47.70	136.08	148.23	163.62	185.49	101.7	104.8
CA 48/10.1D	48	40.80	76.80	86.40	54.24	50.88	145.15	158.11	174.53	197.86	108.5	111.7
CA 51/10.1D	51	43.35	81.60	91.80	57.63	54.06	154.22	167.99	185.44	210.22	115.3	118.7
CA 54/10.1D	54	45.90	86.40	97.20	61.02	57.24	163.30	177.88	196.34	222.59	122.0	125.7

Technical data for housings

Type	Rated voltage	Hight H		Weight		Creep		Insulation of arrester housing		
								P.F. withstand voltage (Dry) kV	P.F. withstand voltage (Wet) kV	L.I. Withstand voltage kV
	kV	mm	Inches	kg	Pounds	mm	Inches			
CA 03/10.1D	3	112.0	4.4	3.02	6.66	323	12.7	10	9	13
CA 06/10.1D	6	112.0	4.4	3.1	6.83	323	12.7	20	17	26
CA 09/10.1D	9	162.5	6.4	3.52	7.76	442	17.4	29	26	39
CA 10/10.1D	10	162.5	6.4	3.54	7.80	443	17.4	34	30	44
CA 12/10.1D	12	162.5	6.4	3.6	7.94	442	17.4	39	35	51
CA 15/10.1D	15	243.0	9.6	4.45	9.81	680	26.8	49	43	64
CA 18/10.1D	18	243.0	9.6	4.53	9.99	680	26.8	59	52	77
CA 21/10.1D	21	325.0	12.8	5.29	11.66	884	34.8	68	61	90
CA 24/10.1D	24	325.0	12.8	5.37	11.84	884	34.8	78	70	103
CA 27/10.1D	27	405.5	16.0	6.12	13.49	1122	44.2	88	78	116
CA 30/10.1D	30	405.5	16.0	6.2	13.67	1122	44.2	98	87	128
CA 33/10.1D	33	486.0	19.1	6.93	15.28	1360	53.5	108	96	141
CA 36/10.1D	36	486.0	19.1	7.01	15.45	1360	53.5	117	104	154
CA 39/10.1D	39	568.0	22.4	7.77	17.13	1564	61.6	127	113	167
CA 42/10.1D	42	568.0	22.4	7.85	17.31	1564	61.6	137	122	180
CA 45/10.1D	45	648.5	25.5	8.7	19.18	1802	70.9	147	130	193
CA 48/10.1D	48	648.5	25.5	8.78	19.36	1802	70.9	157	139	206
CA 51/10.1D	51	729.0	28.7	9.41	20.75	2040	80.3	166	148	218
CA 54/10.1D	54	729.0	28.7	9.49	20.92	2040	80.3	176	157	231



Technical Data for Surge Arrester

DTR CORPORATION
ELECTRIC INSULATOR DIVISION

Field of application

Protection of transformers, switchgears and transmission lines against at mospheric and switching overvoltages. Selection of arresters has to be carried out according to IEC 60099-4/2004 and ANSI/IEEE C62.11/2005

Normal operating conditions

Ambient temperature	:	-50°C to +55°C
Design altitude	:	Max 3000 m
Rated frequency	:	15 Hz to 62 Hz

(different operating conditions on inquiry)

Technical parameters and Mechanical guarantee data

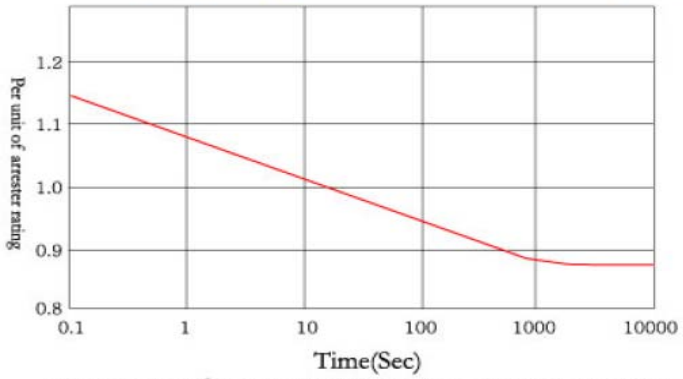
Normal duty(5kA) Polymer Surge Arrester

Type series CA 03/05.0D to CA 54/05.0D

Rated voltage Ur	:	3 kV to 54 kV
Nominal discharge current	:	5 kA
High current impulse	:	65 kA
Long duration current impulse	:	100 A / 2000 µs
Pressure relief class	:	B (20 kA)
Energy withstand capability	:	2,1 kJ/kV$_{Ur}$
Torsional strength (MML)	:	52 Nm
Bending strength (MML)	:	130 Nm
Tensile strength (MML)	:	800 N

(SML = 2,5 x MML)

Power frequency voltage versus time characteristic (TOV)



Preheated to 60℃ prestressed with 1 high current impulse 65kA

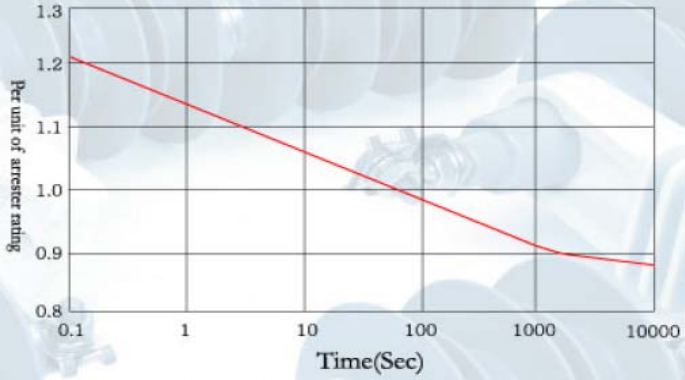
Heavy duty(10kA) Polymer Surge Arrester

Type series CA 03/10.1D to CA 54/10.1D

Rated voltage Ur	:	3 kV to 54 kV
Nominal discharge current	:	10 kA
High current impulse	:	100 kA
Long duration current impulse	:	250 A / 2000 µs
Pressure relief class	:	B (20 kA)
Line discharge cless	:	1(2,8 kJ/kV$_{Ur}$)
Torsional strength (MML)	:	78 Nm
Bending strength (MML)	:	230 Nm
Tensile strength (MML)	:	1400 N

(SML = 2,5 x MML)

Power frequency voltage versus time characteristic (TOV)



Preheated to 60℃ prestressed with 1 high current impulse 100kA