

General Introduction

Polymer lightning arrester is a device to protect electrical equipment from over-voltage transients caused by external (lightning) or internal (switching) events. Also called a surge protection device (SPD) or transient voltage surge suppressor (TVSS), this class of device is used to protect equipment in power transmission and distribution systems. (For consumer equipment protection, different products called surge protectors are used.) The energy criterion for various insulation material can be compared by impulse ratio, the surge arrester should have a low impulse ratio, so that a surge incident on the surge arrester may be bypassed, to the ground instead of passing through the apparatus.

Working Conditions

1. The ambient air temperatures is no higher than +40°C, no lower than -40°C;
2. The altitude above sea level dose not exceed 1000-2000m(the plateau ares should be indicated when order);
3. AC system frequency is 50Hz or 60Hz;
4. Power i frequency voltage brought to bear on arrester for a long time does not exceed arrester's continuous operation voltage;
5. Maximum wind speed does not exceed 35m/s;
6. The earthquake intensity does not exceed 7 degrees;
7. The filthy area should be given clear indication.

Application & Characteristics

The polymer lightning arrester can be applied to a variety of systems including substation equipment, railway power system and power distribution units ranging from 0.28kV to 500kV systems. These surge arresters demonstrate excellent protection properties. Our surge arresters incorporate non-linear resistor ZnO elements with superior non-linear current-voltage characteristics, high quality and reliability. Metal oxide type surge arresters offer such special features inherent in the gapless structure, such as a quick response to surge voltage, high energy dissipation capability, safe operation, compactness / lightweight and freedom from pollution.

Technical Performance

The technical performance of the product conforms to GB11032-2000, IEC60099-4, IEEE.C62.11 standard thchnic requirements.

HYWS1 Serise Arrester



Technical Specification

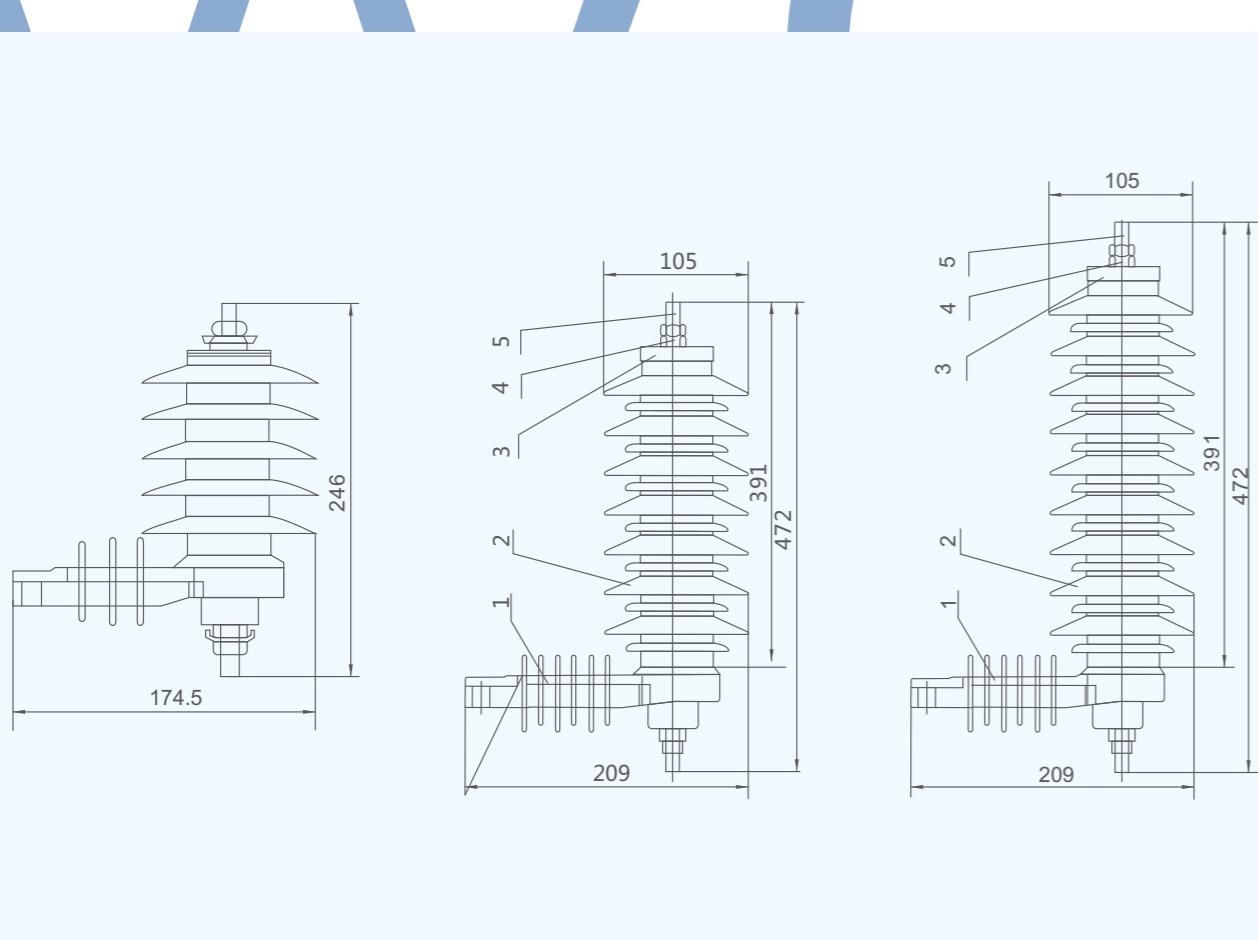
Type	System Rated voltage KV(rms)	Arrester Rated voltage KV(rms)	Continuous Rated voltage KV(rms)	DC1mA voltage (kv)	Lightning Impulse residual voltage (kv)	Steep wave Impulse residual voltage (kv)	2ms square wave Impulse current withstand (A)
HYWS -3.8/17	3	3.8	2.4	7.5	17.0	19.6	100
HYWS -7.6/30	6	7.6	4.0	15.0	30.0	34.5	100
HYWS -12.7/50	10	12.7	6.6	26.0	50.0	57.5	150
HYWS17/50	10	17	13.6	26.5	50.0	57.5	150
HYWZ-7.6/27	6	7.6	4.0	14.5	27.0	31.0	200
HYWZ-12.7/45	10	12.7	6.6	24.0	45.0	51.8	200
HYWZ-17/45	10	17	12.7	24.0	45.0	51.8	200
HYWZ-42/134	35	52	40.8	78.0	134.0	154.0	400
HY2.5WD-7.6/19	605	7.6	4.8	11.5	19.0	21.9	200, 400
HY2.5WD-12.7/31	10.5	12.7	6.6	19.0	31.0	35.7	200, 400
HY2.5WD-16.7/40	13.8	16.7	9.0	25.0	40.0	46.0	400
HY2.5WD-19/45	15.7	19	10.0	28.5	45.0	51.8	400
HY5WR-7.6/27	6	7.6	4.8	13.8	27.0	20.8	400
HY5WR-12.7/45	10	12.7	6.6	23.0	45.0	35.0	400
HY5WR-42/134	35	52	23.4	73.0	134.0	105.0	400

Application

Take HY5WS-17/50 as an example: H-Compound coat in organism ;Y-Metals oxide lightning arrester; 5-The mark calls to turn on electricity the electric current(KV);W-TheW mean to have no clefthe C means to establish the cleft; S-The S means to go together with the electricity; Z electricity stands; D electrical engineering type; R electric capacity type 17-Avoiding the thunder sum settles the electric voltage(KV)50-

The mark calls to turn on electricity electric current bottom biggest press(KV).

HY5W, HY10W Serise Polymer Type Lightning Arrester



Technical Specification

5KA Gapless Arrester

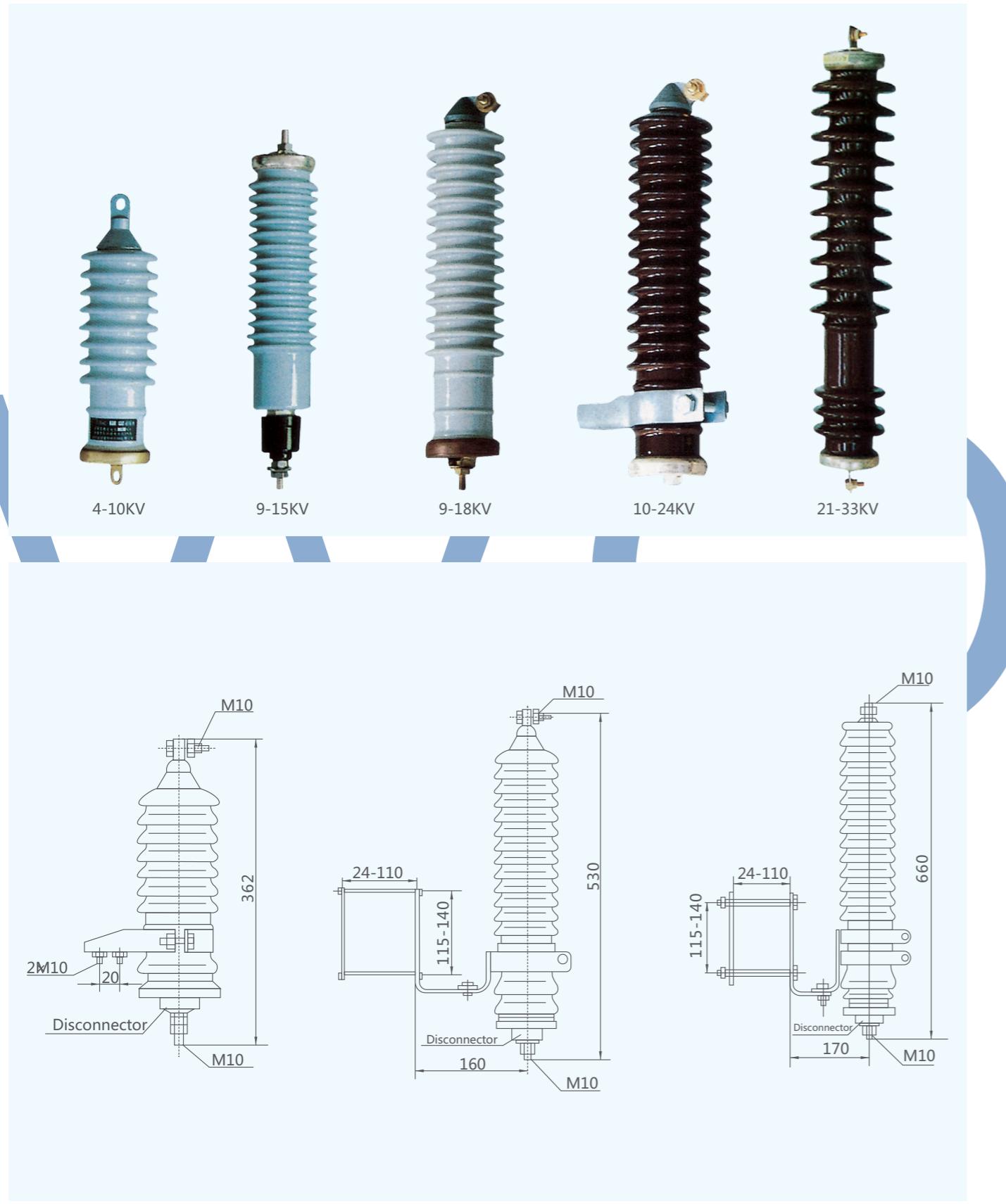
Type	Rated voltage (kV)	MCOV (kV)	Residual voltage(kV)			2000μs square wave impulses current withstand	4/10μs high current impulses
			Steep current impulse	Switching current impulse	8/20μs Lighting current impulse		
HY5W-3	3	2.55	9.5	7.7	9	100	65
HY5W-6	6	5.1	19.0	15.4	18	100	65
HY5W-9	9	7.65	28.5	23.1	27	100	65
HY5W-12	12	10.2	38.0	30.8	36	100	65
HY5W-15	15	12.7	47.5	38.5	45	100	65
HY5W-18	18	15.3	57.0	46.2	54	100	65
HY5W-21	21	17.0	66.5	53.9	63	100	65
HY5W-24	24	19.2	76.5	61.6	72	100	65
HY5W-27	27	21.9	85.5	69.3	81	100	65
HY5W-30	30	24.4	95.0	76.5	90	100	65
HY5W-33	33	26.8	104.5	84.7	99	100	65
HY5W-36	36	29	114.0	91.4	108	100	65
HY5W-42	42	34.1	132.3	100.1	126	100	65

10KA Gapless Arrester

Type	Rated voltage (kV)	MCOV (kV)	Residual voltage(kV)			2000μs square wave impulses current withstand	4/10μs high current impulses
			Steep current impulse	Switching current impulse	8/20μs Lighting current impulse		
HY10W-3	3	2.55	9.5	7.7	9	1	100
HY10W-6	6	5.1	19.0	15.4	18	1	100
HY10W-9	9	7.65	28.5	23.1	27	1	100
HY10W-12	12	10.2	38.0	30.8	36	1	100
HY10W-15	15	12.7	47.5	38.5	45	1	100
HY10W-18	18	15.3	57.0	46.2	54	1	100
HY10W-21	21	17.0	66.5	53.9	63	1	100
HY10W-24	24	19.2	76.5	61.6	72	1	100
HY10W-27	27	21.9	85.5	69.3	81	1	100
HY10W-30	30	24.4	95.0	76.5	90	1	100
HY10W-33	33	26.8	104.5	84.7	99	1	100
HY10W-36	36	29	114.0	91.4	108	1	100
HY10W-42	42	34.1	133.0	100.1	126	1	100
HY10W-48	48	39	152.0	126.0	150	1	100
HY10W-54	54	43	171.0	139.0	162	1	100
HY10W-60	60	48	208.0	160.0	180	1	100
HY10W-66	66	52.8	230.0	172.0	198	1	100

Note: if is porcelain, without "H".

HY5W, Y5C, Y10W, Y10C Serise Arrester



Technical Specification

Type	System rated voltage (kv)	Arrester rated voltage (kv)	Continuous operation voltage (kv)	DC 1mA voltage (kv)	Lightning impulse residual voltage (kv)	Steep wave impulse residual voltage (kv)	2ms square wave Impulse current withstand(A)	Service scope
Y1.5W-0.28/1.3	0.28	0.22	0.24	0.6	1.3	-	75	Low-voltage S Power of distribution
Y1.5W-0.5/2.6	0.5	0.38	0.42	1.2	2.6	-	75	
Y5WS-3.8/1.7	3.8	3	2.0	7.5	17.0	19.6	100	
Y5WS-7.6/30	7.6	6	4.0	15	30	34.5	100	
Y5WS-10/30	10	6	8.0	15	30	34.5	100	
Y5WS-12.4/50	12.7	10	6.6	25	50	57.5	100	
Y5WS-17/50	17	10	13.6	25	50	57.5	100	
Y5WZ-3.8/13.5	3.8	3	2.0	7.2	13.5	14.5	200	
Y5WZ-7.6/27	7.6	6	4.0	14.4	27	31.0	200	
Y5WZ-10/27	10	6	8.0	14.4	27	31.0	200	
Y5WZ-12.7/45	12.7	10	6.6	24	45	51.8	200	Z Transformer substation
Y5WZ-17/45	17	10	13.6	24	45	51.8	200	
Y5WZ-42/134	42	35	23.4	73	134	154	400	
Y5WZ-51/134	51	35	40.8	73	134	154	400	
Y5WZ-100/260	100	110	78	145	260	291	400, 600	
Y10WE-100/260	100	100	78	145	260	291	600, 800	
Y2.5WD-3.8/9.5	3.8	3	2.0	5.7	9.5	10.7	400	D Circumvolve motor
Y2.5WD-7.6/19	7.6	6	4.0	11.2	19	21.9	400	
Y2.5WD-12.7/31	12.7	10	6.6	18.6	31	35.7	400	
Y5WR-3.8/13.5	3.8	3	2.0	7.2	13.5	14.8	400	
Y5WR-7.6/27	7.6	6	4.0	14.4	27	30.8	400	
Y5WR-10/27	10	6	8.0	14.4	27	31.0	400	
Y5WR-12.7/45	12.7	10	6.6	24	45	51	400	
Y5WR-17/45	17	10	13.6	24	45	51	400	
T5WR-51/134	51	35	40.5	73	134	154	400	
Y1.5W-2.4/6	2.4	3.2*	1.9	3.4	6	-	5	R Capacitor D Neuter point of motor
Y1.5W-4.8/12	4.8	6.3*	3.8	6.8	12	-	10	
Y1.5W-8/19	8	10.5	6.4	11.4	19	-	15.9	
Y1.5W-60/144	60	110	48	85	144	-	135	
Y1.5W-72/186	72	110	58	103	186	-	174	Neuter point of transfromer

Note: Please add an "H" before the spec. in the above table of composite organic housing zinc oxide arrester.
* is the rated voltage of motor.