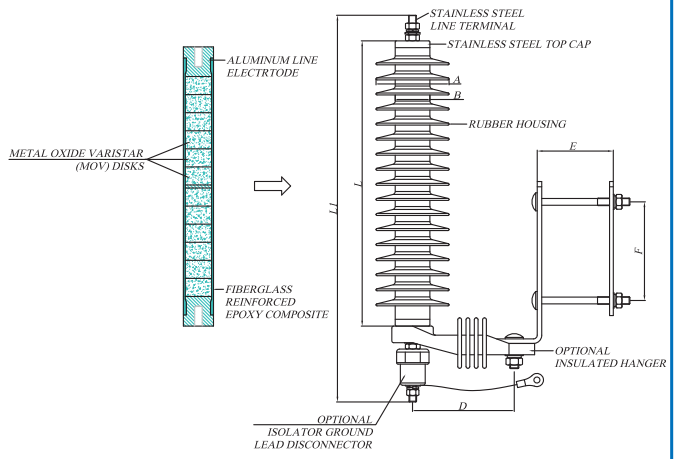
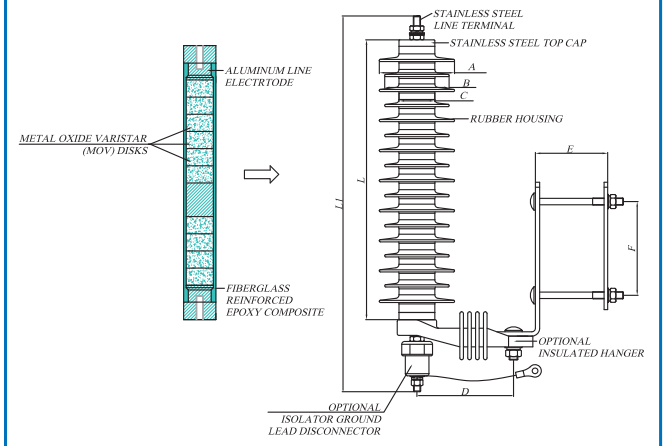
MV Surge Arrester

Cutaway instance housed arrester



GOTO ARRESTER, IN = 15 kA IEC 60099-4



GOTO ARRESTER, IN = 10 kA IEC 60099-4

Arrester Routine Tests

A complete automated production check

Program ensures a quality product.

Every metallic oxide varistor receives a collection of electrical tests.

Quality is further demonstrated by way of checks

Achieved to destruction on samples from each lot of varistor

Indexed are the varistor assessments performed in accordance with IEC 60099-4:

Physical Inspection
Discharge Voltage
Leakage current at 80% of V1mA/cm2 Voltage
Excessive present day short duration face up to
Thermal Stability
Aging

Every fully assembled Goto arrester must pass the subsequent ordinary exams:

Physical Inspection
Reference Voltage Test
Partial Discharge take a look at@ 1.05 x Uc
≤ 10PC

TABLE 1 Commonly Applied Voltage Ratings (Ur) Arrester

System Voltage (kV rms)		Arrester Rating — Ur (kV rms)		
Nominal	Maximum	4-WireStar Multi -Grounded neutral	3-cord star Solidly Grounded impartial at source	Delta,Ungrounded,& Resonant Impedance Grounded superstar
3.3	3.7	3	6	6
6.6	7.3	6	9	9
10	11.5	9	12	12-15
11	12	9-11	12	12-15
16.4	18	15	-	18-21
22	24	18-21	24	24-27
33	36.3	27-30	36	36-36

Electrical Characteristics

YH5W, IN = 5 kA IEC 60099-4					HY10W, IN = 10 kA IEC 60099-4				
Ur Arrester Rating (kV rms)	Uc C V (kV rms)	Steep Current Residual Voltage (kV Crest)	Lightning Impulse Residual Voltage (kV Crest) 8/20 μs Current Wave		8/20 Wave Forms		1/2 Wave	30/60 Switching Surge	
			5kA	10kA	(10kV,peak) 5kA	(10kV,peak) 10kA	(10kV,peak) 10kA	(10kV,peak) 125kA	(10kV,peak) 500kA
3	2.55	10.9	10.4	11.4	9.1	9.9	10.8	7.1	7.6
6	5.1	21.8	20.8	22.7	18.2	19.8	21.5	14.1	15.1
9	7.65	31.4	30.0	32.8	27.3	29.8	32.4	21.3	22.7
10	8.4	32.7	31.2	34.1	39.0	31.6	34.4	22.6	24.1
12	10.2	41.1	39.2	42.9	36.4	39.7	43.2	28.3	30.3
15	12.7	51.3	49.0	53.6	44.0	48.0	52.2	34.3	36.6
18	15.3	61.6	58.8	64.3	54.7	59.6	64.8	42.6	45.5
21	17.0	65.4	62.4	68.2	58.0	63.2	68.8	45.1	48.2
24	19.5	76.3	72.8	79.6	67.0	73.1	79.5	52.2	55.8
27	22.0	86.3	82.4	90.1	77.9	84.9	92.4	60.6	64.8
30	24.4	96.2	91.8	100.0	84.7	92.4	100.5	66.0	70.5
33	27.0	107.0	102.0	112.0	96.3	105	114.2	75.0	80.1
36	29.0	115.0	110.0	120.0	102	111	120.8	79.3	84.7

Insulation withstand traits

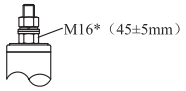
Housing Insulation face up to Voltages,

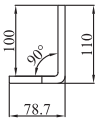
Ur three-36 kV, IN = 5 & 10 kA class 1

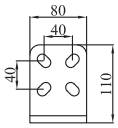
HV Surge arrester

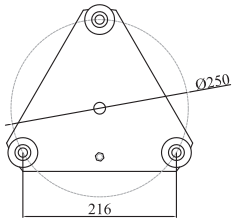
Electrical Characteristics											
Voltage Rating (kV-rms)	MCOV (kV-rms)	TOV [1]		Max Equiv FOW [2] (kV-Crest)	Max Switch Surge [3] (kV-Crest)	Maximum Discharge Voltage(kV-Crest) Usign an 8/20 μs Current Impulse					
		1s (kV-rms)	10s (kV-rms)			1.5kA	3.0kA	5.0kA	10kA	20kA	40kA
42	34.0	49.9	47.2	112.0	79.9	86.1	90.6	94.8	101.9	112.5	127.7
45	36.5	53.5	50.6	120.3	85.8	92.4	97.3	101.8	109.5	120.9	137.2
48	39	57.1	54	128.6	91.7	98.7	104	108.8	117.1	129.3	146.7
54	42	61.5	58.2	143.6	102.4	110.3	116.1	121.5	130.8	144.4	163.8
60	48	70.3	66.5	163.1	116.4	125.3	131.9	138.1	148.5	164	186.1
63	50.25	73.6	69.6	170.3	121.4	130.8	137.7	144.1	155	171.2	194.3
66	52.50	76.9	72.7	177.5	126.6	136.3	143.5	150.2	161.6	178.4	202.4
72	57	83.5	78.9	192.3	137.1	147.7	155.5	162.7	175.1	193.3	219.3
72	58	85	80.3	192.3	137.1	147.7	155.5	162.7	175.1	193.3	219.3
90	70	102.6	97	227.1	161.9	174.4	183.6	192.2	206.7	228.3	259
90	74	108.4	102.5	240.6	171.6	184.8	194.6	203.6	219	241.9	274.5
96	76	111.3	105.3	257.1	183.4	197.5	207.9	217.6	234.1	258.5	293.3
108	84	123.1	116.3	273.7	195.2	210.2	221.3	231.6	249.2	275.2	312
108	88	128.9	121.9	287.2	204.8	220.6	232.3	243.1	261.5	288.8	328
120	98	143.6	135.7	326	239.7	250.6	263.9	276.1	297.1	328	372
120	102	149.4	141.3	331	243	254	267.5	279.9	301	333	377
132	106	155.3	146.8	347	255	266.7	280.8	293.8	316	349	396
144	115	168.5	159.3	385	282.4	295.3	311	325	350	387	439

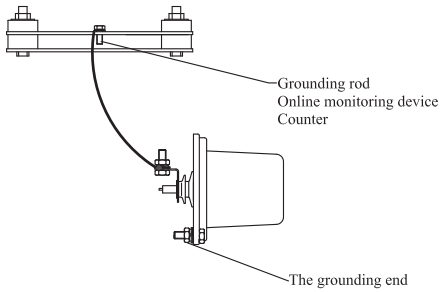
Notes: Please contact us for special MCOV levels.

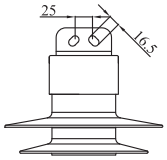

M16*（45±5mm）

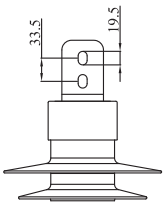

100
90°
110
78.7

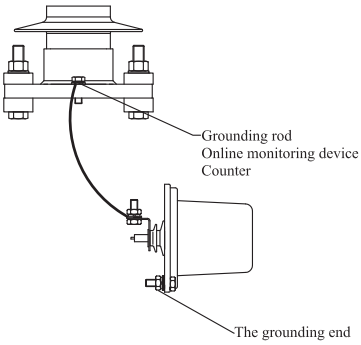

80
40
40
110

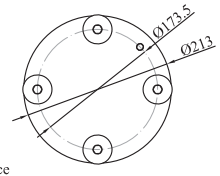

Ø250
216

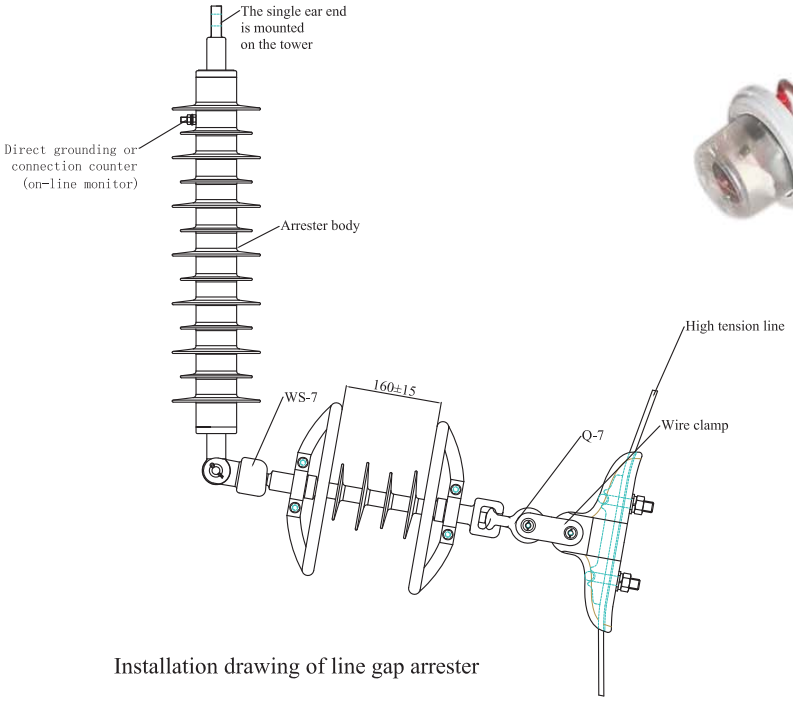

Grounding rod
Online monitoring device
Counter
The grounding end


25
16.5

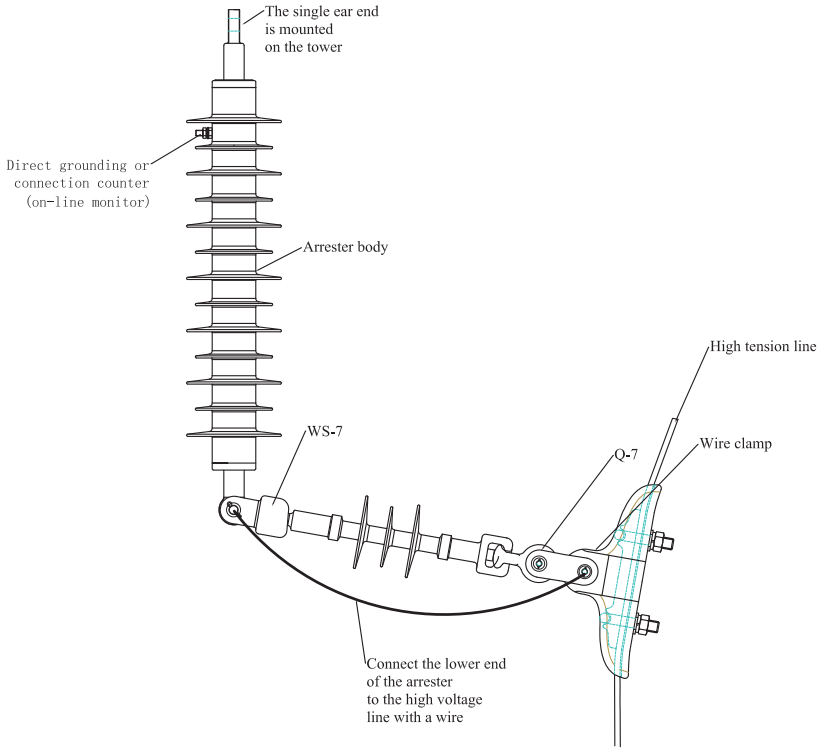

33.5
19.5


Grounding rod
Online monitoring device
Counter
The grounding end

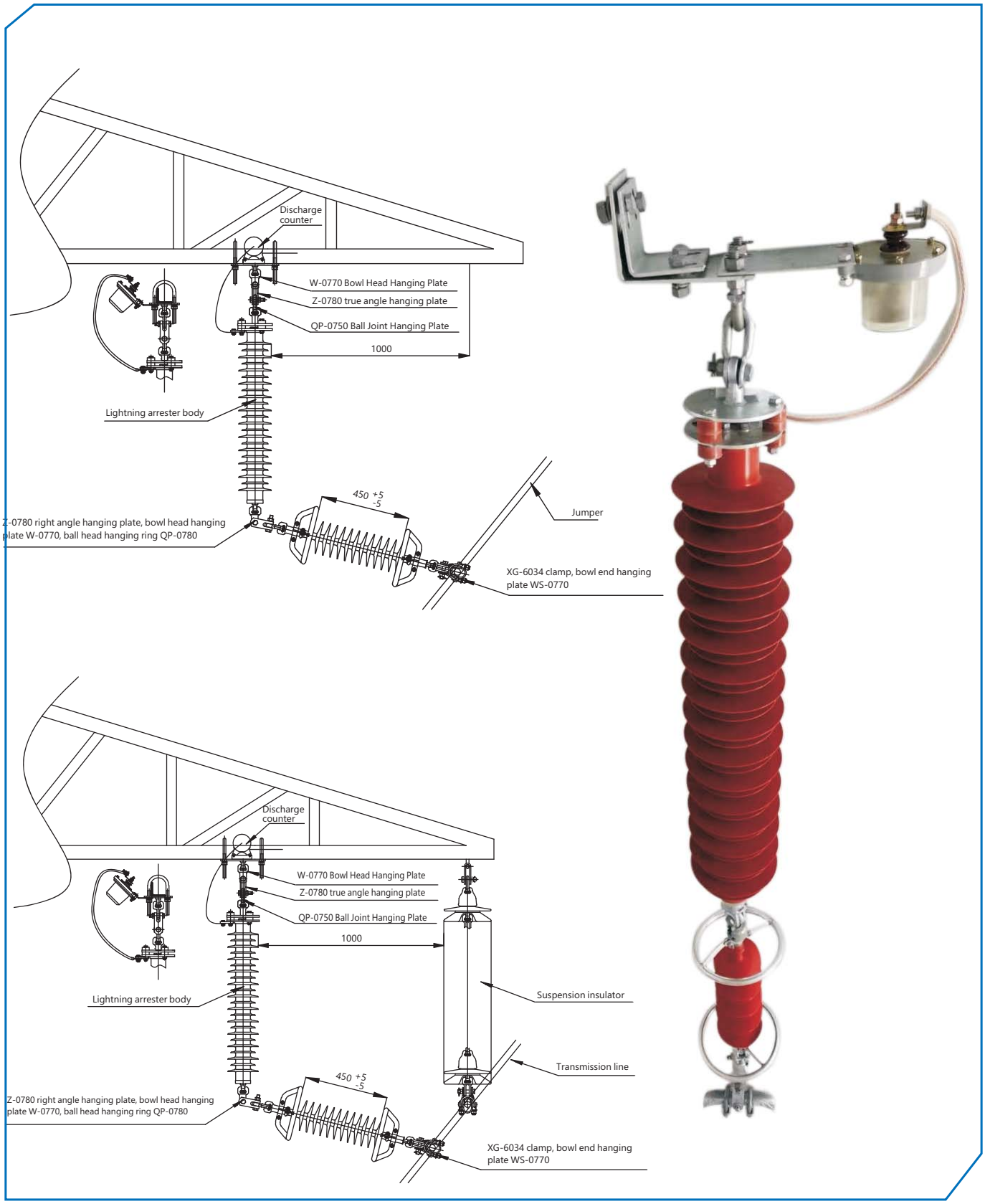

Ø173.5
Ø213



Installation drawing of line gap arrester



Installation drawing of line arrester without gap


Discharge counter
W-0770 Bowl Head Hanging Plate
Z-0780 true angle hanging plate
QP-0750 Ball Joint Hanging Plate
1000
Lightning arrester body
450 +5 -5
Jumper
Z-0780 right angle hanging plate, bowl head hanging plate W-0770, ball head hanging ring QP-0780
XG-6034 clamp, bowl end hanging plate WS-0770
Discharge counter
W-0770 Bowl Head Hanging Plate
Z-0780 true angle hanging plate
QP-0750 Ball Joint Hanging Plate
1000
Lightning arrester body
Suspension insulator
Transmission line
450 +5 -5
Z-0780 right angle hanging plate, bowl head hanging plate W-0770, ball head hanging ring QP-0780
XG-6034 clamp, bowl end hanging plate WS-0770

Discharge Cornter & on-line Monitor

1.Overview

Monitor connected with surge arrester continuous operation in power system, measures change of leakage current on-ine and recording the discharging times of surge arrester, According to the change of leakage current the condition and abnormal condition during surge arrester operation could be clarified to avoid accident and improve the reliability of power system operation Discharge counter connected with surge arrester in series is used to record the discharging times of surge arrester Features of the counter:

.It is small in volume, light in weight and easy for installation.

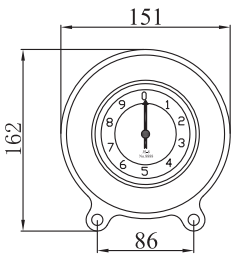
Adopting wide-angle milliammeter, electromagnetic counter of single/double-pointer can increase the distance available for recording.

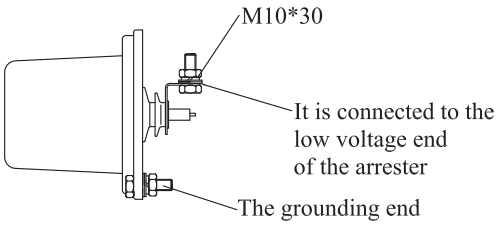
. Low residual voltage has no effect to surge arrester.

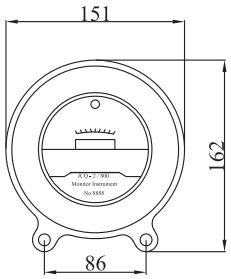
.Stainless enclosure can increases the capacity of anti-corrosion.

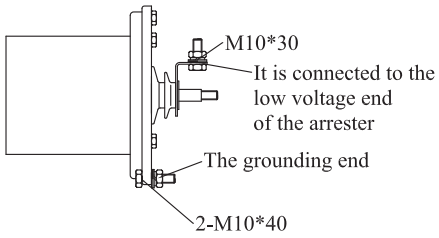
2 Application

The monitor is suitable for all kinds of surge arrester with voltage 500kY and below, the discharge counter is suitable for all kinds of surge arrester of voltage 330 kV and below The service condition is the same is the connected surge arrester,









Technical Data For Discharge Counter

Model	Nominal discharge current 8/20us (kAp)	Lower limit of operating current 8/20us (Ap)	Residual voltage under nominal discharge current ≤(kAp)	Withstand current of square wave 2000us 18 times (A)	High current impulse withstand capa.4/10us Twice (kAp)	Counting range (counting circularly)	Notes
JS-8	5/10	50	1.1	400~800	65	0~9	Single-pointer
			1.5	400~1000	100		

Technical Data For Monitor

Model	Nominal discharge current 8/20us (kAp)	Lower limit of operating current 8/20us (Ap)	Residual voltage under nominal discharge current ≤(kAp)	Withstand current of square wave 2000us 18 times (A)	High current impulse withstand capa.4/10us Twice (kAp)	Current measuring& indication error (mA)	Counting range (counting circularly)	Notes
2/800	10	50	1.5	400~1000	100	0~3±5%	0~999	Digital counter

Arrester Disconnector Description

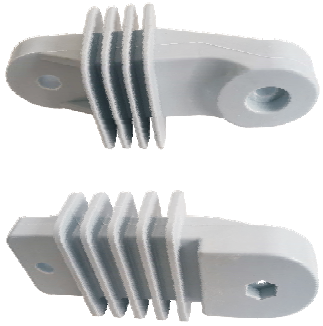
Our Arrester Disconnector is designed for use with all types of metal oxide surge arresters with voltage ratings up to 220kV. It is built to withstand the same service conditions as the surge arrester it is connected to. In the event of arrester failure, the Arrester Disconnector serves to disconnect the arrester from the system, preventing a persistent fault and providing visible indication of the failed arrester. Our product meets the IEC 60099-4 standard and is equipped with a thermal explosion disconnector for added safetysafety.

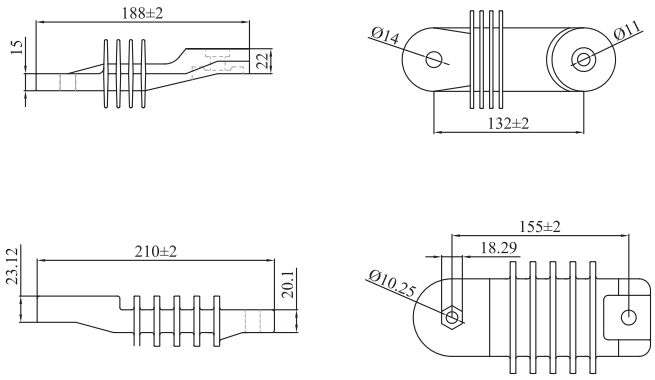
Current Level	Power frequency(A)			200μs Squqre wave impulse	4/10μs High current(KA)
	20.0	200	800	600	100
Operation time	0.5	0.04	0.02	8	8

DMC Bracket

Arrester DMC Bracket is a high-quality product designed for secure and reliable mounting of surge arresters in electrical systems. It is made of durable DMC material, providing excellent resistance to corrosion, high temperatures, and environmental factors such as wind, rain, and snow.

This product is easy to install and can be used with various surge arrester sizes and types. Its unique design ensures that the arrester is safely mounted and protected from damage in harsh outdoor environments.





Crossarm hanger