



New Aquaria Electech Pvt Ltd

GAPLESS METAL OXIDE LIGHTNING ARRESTER / SURGE ARRESTER STATION CLASS



High voltage power systems experience over voltages, which are generated through occurrence faults, switching operations and lightning discharges. The duration & magnitude of these voltages vary depending on the type of surges. Under such voltage conditions, the insulation of the power system undergoes stresses that could lead to failure. Hence it is imperative that the power systems are protected from these over voltages at the time of occurrence. Using a device with variable impedance with respect to voltages can provide protection from over voltages. Such a device is a Gapless Metal Oxide Lightning Arrester which is connected in parallel to the system to be protected.

Product Range

3kV – 36kV

Type Tests

CPRI, Bangalore as per IEC 60099-4 (yr 2009) & IS 3070 Standards

In Process Testing

- Reference Voltage Test
- Partial Discharge Test
- Insulation Resistance Test (Megger)
- Seal Leak Test
- Residual Voltage Test

Advantages

- Competitively Priced
- Better Protective levels through improved residual voltage of MOV Blocks
- Excellent energy absorption capability & temporary overvoltage characteristics
- Negligible wattage dissipation
- Proper end sealing to prevent failure due to moisture ingress
- Compactness of size with minimal weight which ensures ease of transport & mounting
- Gapless design ensures maximum reliability & durability

Ordering Information

When ordering please state your requirements for the following options:

1) Model reference

3) Ground Terminal Bracket

5) Surge Monitor

2) Line Terminal Connector

4) Insulating Base

TECHNICAL DATA SHEET – STATION CLASS – 10kA

PARTICULARS	3SX1NAEPL	6SX1NAEPL	9SX1NAEPL	12SX1NAEPL	15SX1NAEPL	18SX1NAEPL	21SX1NAEPL	24SX1NAEPL	27SX1NAEPL	30SX1NAEPL	33SX1NAEPL	36SX1NAEPL
System Voltage (kVrms)	3.3	6.6	11.0	11.0	22.0	22.0	22.0	24.0	33.0	33.0	33.0	33.0
Rating (kVrms)	3.0	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0
MCOV (kVrms)	2.55	5.10	7.65	10.20	12.75	15.30	17.85	20.40	22.95	25.50	28.05	30.60
Nominal Discharge Current (kAp)	10.0											
Line Discharge class	Class I											
Rated Frequency (Hz.)	50.0											
Insulation Withstand Level												
a) Lightning impulse withstand (kVp)	60.0	60.0	75.0	75.0	125.0	125.0	125.0	125.0	170.0	170.0	170.0	170.0
b) Power Frequency withstand (Dry / Wet) kVrms	20.0	20.0	28.0	28.0	50.0	50.0	50.0	50.0	70.0	70.0	70.0	70.0
Reference Voltage (kVrms)	>3.0	>6.0	>9.0	>12.0	>15.0	>18.0	>21.0	>24.0	>27.0	>30.0	>33.0	>36.0
Reference Current (mAp)	1.0											
Maximum Lightning Impulse Residual voltage (8/20 μs impulse) at NDC (kVp)												
a) At 5.0kAp	7.4	14.8	24.4	32.5	40.7	48.8	56.9	65.1	73.2	81.3	89.5	97.6
b) At 10.0kAp	8.1	16.2	26.7	35.6	44.5	53.4	62.3	71.2	80.1	89.0	97.9	106.8
c) At 20.0kAp	8.9	17.8	29.5	39.3	49.2	59.0	68.8	78.7	88.5	98.3	108.2	118.0
Maximum Steep current Impulse Residual voltage (1/20 μs impulse) at NDC (kVp)	10.3	20.6	30.8	41.1	51.4	61.7	72.0	82.2	92.5	102.8	113.1	123.4
Max Switching Impulse Residual voltage (30/60μs impulse) at 500 A	6.7	13.5	20.3	27.0	33.8	40.5	47.3	54.0	60.8	67.5	74.3	81.0
Temporary Over voltage Capability (kVrms) at												
a) 1.0 sec	3.60	6.70	10.10	13.47	16.83	20.20	23.57	26.93	30.30	33.67	37.03	40.40
b) 10.0 sec	3.45	6.20	9.40	12.53	15.67	18.80	21.93	25.07	28.20	31.33	34.47	37.60
c) 100.0 secs	3.30	5.70	8.60	11.47	14.33	17.20	20.07	22.93	25.80	28.67	31.53	34.40
High Current Impulse Withstand (kA)	100.0											
Long Duration Current Withstand (A)	250.0											
Partial Discharge (pC)	< 10.0											
Minimum Creepage Distance (mm)	225.0	225.0	300.0	300.0	600.0	600.0	600.0	600.0	900.0	900.0	900.0	900.0
Leakage Current at MCOV												
a) Resistive current (μA)	< 400											
b) Capacitive current (μA)	~ 1200											
Cantilever strength (kg.m)	325.0											
Pressure Relief Class	Class "A"											
Pressure Relief Current (kArms)	40.0											
Diameter of the arrester (mm)	150 +/- 5.0											
Height of the arrester (mm)	150.0	150.0	390.0	390.0	500.0	500.0	500.0	500.0	570.0	570.0	570.0	570.0
Weight of the arrester (Kgs.)	2.50	3.25	5.50	6.00	8.25	9.00	9.50	10.25	12.50	13.00	13.50	14.00