

1. General

Three-Phase integrated lighting arrester is a new type of lightning arrester which is mainly used to protect transformer, switch, bus bar, electrometer, parallel compensating capacitor in 35kV electric system. It also can limit over-voltage of air, vacuum circuit breaker, phase to earth, phase to phase. Three-Phase integrated lightning arrester consists of four lightning arresters by four-stars type. So, it can protect each phase to earth and phase to phase from over-voltage. Because of its smart structure, its function is equal to six lightning arresters. It also solves the problem that lightning arresters can't protect phase to phase very well. Three-Phase integrated lightning arrester can be either gap or no gap in series.

2. Model and meaning

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Rated voltage (kV)

Using Area (N: Indoor, W: Outdoor);

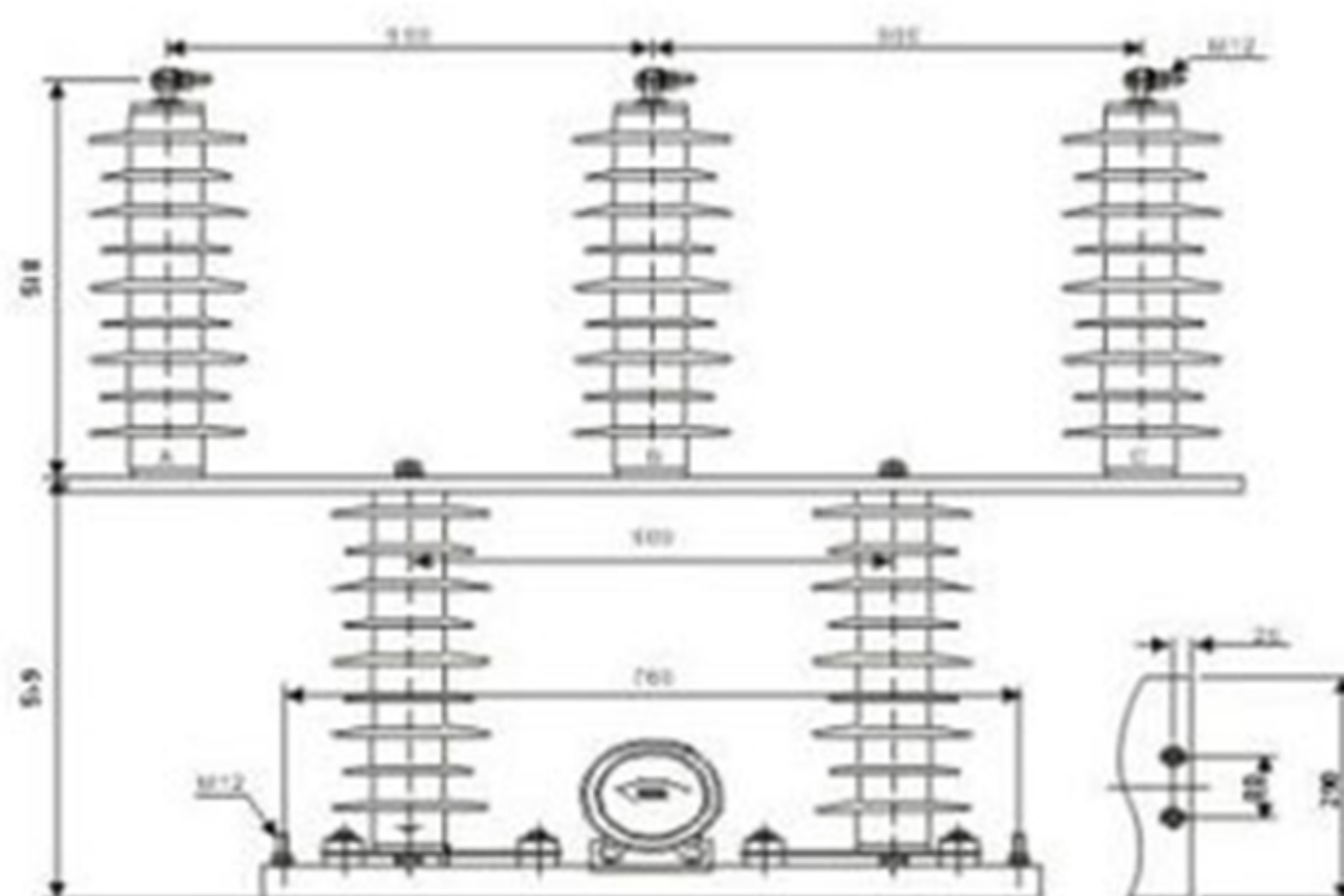
The object of protection;

Three-Phase Integrated Lightning Arrester.



3. Normal service conditions

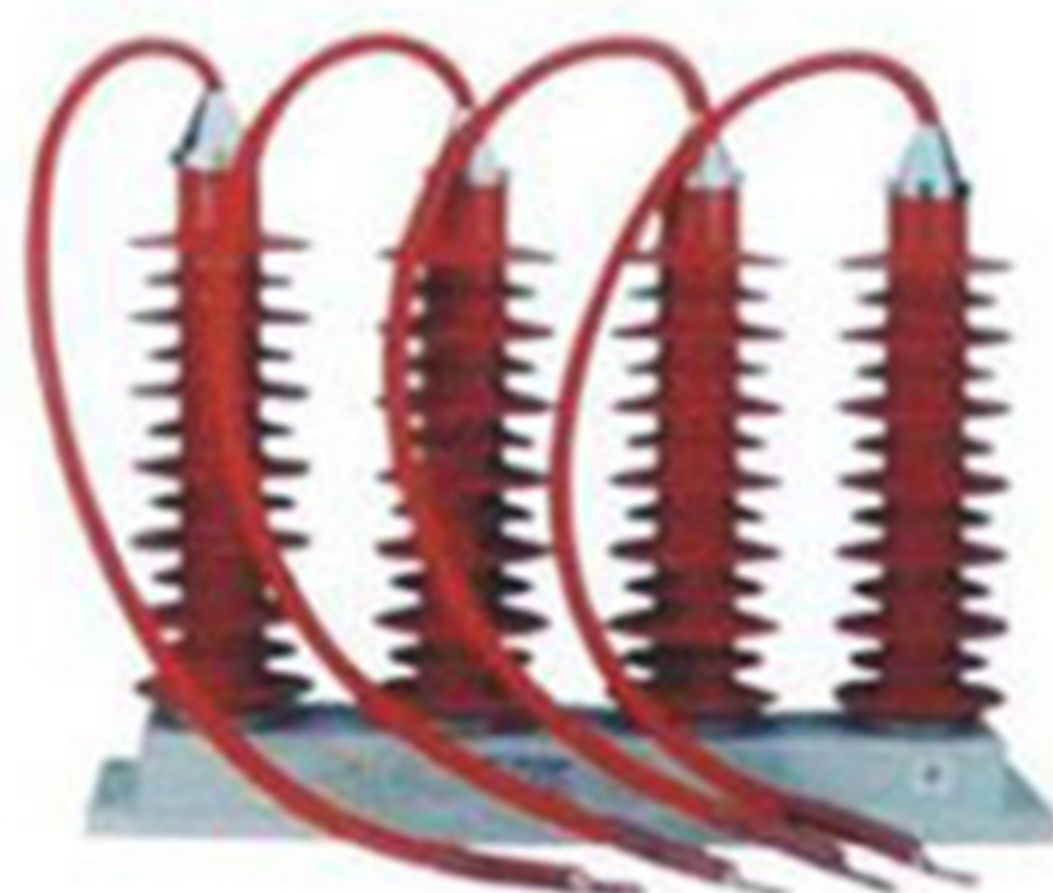
- Suitable for both indoor and outdoor;
- Ambient temperature: -10°C to 40°C ;
- Altitude: $\leq 2500\text{m}$;
- Power frequency: between 48Hz and 62Hz;
- Wind speed: $\leq 35\text{m/s}$;
- Earthquake: no more than seven grade;
- It can't operate long time in a voltage which over the continuous operation voltage.



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|--|----------------------|------|------|
| TBP-C Series (Capacitor Type) | | 6.3 | 10.5 |
| System Rated voltage (kV) | Virtual & #118 value | 7.6 | 12.7 |
| Lightning Arrester Rated voltage (kV) | | 15.0 | 25.0 |
| Power frequency discharge | | 11.2 | 29.0 |
| DC (U1mA) Ref. Voltage (\leq kV) | Peak | 17.0 | 18.6 |
| Residual voltage of 500A operating impulse current (\geq kV) | | 13.6 | 29.0 |
| (kV) Residual voltage of 5A lightning impulse current (\geq kV) | | 17.0 | 23.0 |
| 2000 μs Square wave impulse current (A) | | 400 | 400 |
| Safe net distance (\leq mm) | | 95 | 120 |
| Surface creepage distance (\leq mm) | | 140 | 235 |
| Min. phase to phase distance (mm) | | 115 | 145 |



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|--|--------------------|------|------|-------|
| System Rated voltage(kV) | | 6 | 10 | 35 |
| Lightning Arrester Rated voltage(kV) | Virtual & #118alue | 7.6 | 12.7 | 42 |
| Power frequency discharge | | 16.0 | 26.0 | 80.0 |
| DC(U1mA)Ref.Voltage(≤kV) | | 14.4 | 24 | 73 |
| Residual voltage of 500A operating impulse current(≥kV) | | 24.0 | 41.0 | 124.0 |
| (kV)Residual voltage of 5A lingting impulse current(≥kV) | | 19.0 | 32.0 | 99.0 |
| 2000μs Square wave impulse current (A) | Peak | 400 | 400 | 400 |
| Safe net distance (≤mm) | | 95 | 120 | 285 |
| Surface creepage distance (≤mm) | | 140 | 235 | 1020 |
| Min.phase to hphase distance(mm) | | 115 | 145 | 470 |



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