## Technical specifications for 110 kV zinc oxide surge arresters

The technical offer must be prepared according to the substation single-line diagram, which can be found in the substations design order or as a separate document.

1. **Technical requirements**

| **Description** | **Required** | **Offered** |
| --- | --- | --- |
| Quantity  | According to substation single-line diagram |  |
| Type of neutral earthing | effective |  |
| Connection of the arrester | phase - ground |  |
| Arrester class/designation | Station/SM |  |
| Continuous operating voltage (*Uc*) | 77kV |  |
| Rated voltage (*Ur*) | 96kV |  |
| Rated frequency (*fr*) | 50 Hz |  |
| Nominal discharge current (*In*) | 10kA |  |
| Maximum system voltage (*Us*) | 123 kV |  |
| Creepage distance (based on Um/√3) | ≥ 43.3 mm / kV |  |
| Ambient air temperature range | -40°C up to +40°C |  |
| Intended for out-door installation | yes |  |
| Surge arresters shall be designed, type tested and passed routine tests before delivery according to IEC 60099-4 | yes |  |
| Silicone polymer housed insulator | yes |  |
| Distance between hole centres of terminals | 45 × 45 mm |  |
| Vertical mounting – grounded without insulating base | yes |  |
| Specified long-term load (SLL)  | ≥ 2500Nm |  |
| To the tender should be attached operating, maintenance and installation manuals in Latvian or English and preliminary drawing of offered equipment | yes  |  |
| All nameplates in Latvian | yes |  |
| Informative part: | **See below** |  |
| Manufacturer | please specify |  |
| Type No. | please specify |  |
| Country of origin | please specify |  |
| Specified short-term load (SSL)  | Nm |  |

1. **Technical documentation**

|  |  |  |
| --- | --- | --- |
| **Description** | **Required** | **Offered** |
| Operations, Maintenance and Installation manuals in Latvian and English in electronical PDF format | Not later than two months before delivery of equipment |  |
| Preliminary drawings of surge arrester in electronical PDF format:Dimensional drawingRating plate drawing | Within 60 days after signing of Contract |  |
| The corrected drawings of surge arrester in electronical PDF format:Dimensional drawing (also in .dwg format)Rating plate drawing | Within 14 days after Purchaser’s approval |  |
| Routine test reports in electronical PDF format | On time of surge arresters delivery |  |
| Technical data sheet in electronical PDF format |  |