**TECHNICAL SPECIFICATIONS (Daugavpils)**

# Vispārīgi norādījumi / General

*Norādījumi Pretendentiem Tehniskās specifikācijas aizpildīšanai:*

* Aizpildot Tehniskās specifikācijas aili “Piedāvāts”, Pretendentam jāatzīmē (JĀ / NĒ), vai piedāvātās iekārtas izpilda prasīto funkciju vai parametru.
* Ja piedāvātajai iekārtai ir atšķirīgs tehniskā parametra lielums kā norādīts ailē “Prasības”, tad Pretendentam jāatzīmē attiecīgā parametra lielums.
* Ja ailē “Prasības” prasītā tehniskā parametra lielums nav specificēts, Pretendentam ailē “Piedāvāts” ir jāatzīmē piedāvātās iekārtas attiecīgā parametra lielums.

*Notes for the Tenderers to fill-in the Technical Specifications form:*

* Filling in the column “Offered” of the Technical Specifications form the Tenderer shall indicate (YES / NO) – whether the proposed equipment meet the requested function or feature.
* If the proposed equipment has different technical parameter value than specified in the column “Required”, the Tenderer shall indicate the actual value of requested parameter in the column “Offered”.
* If the requested technical parameter is left unspecified in the column “Required”, the Tenderer shall indicate the actual technical data of the proposed equipment in the column “Offered”.

**General requirements:**

|  |  |  |
| --- | --- | --- |
| Description: | Requested: | Offered: |
| All offered equipment shall be type tested and passed routine tests before delivery. The type test reports shall be available to the Purchaser. | yes |  |
| The tests shall comply with the IEC/CENELEC standards for each type of equipment unless otherwise requested below. | yes |  |
| Instrument transformers shall be accompanied with valid certificate of Latvian National Metrology Centre at the time of delivery | yes |  |
| All steel parts hot-dip galvanised or of stainless steel | yes |  |

## 1. 10 kV current transformers

| Description: | Requested: | Offered: |
| --- | --- | --- |
| Manufacturer | Ritz |  |
| Type No. | GIF 20-48 |  |
| Technical requirements | See below: |  |
| Quantity | 6 phases |  |
| Rated primary current | 2500 A |  |
| Measuring transformer hermetically sealed, head type, for out-door installation | yes |  |
| Rated short-time withstand current (3 s) | 20 kA |  |
| Rated peak withstand current | 50 kA |  |
| 1-st core accuracy class | 0,5 S |  |
| Secondary current | 1 A |  |
| Rated output | 30 VA |  |
| 2-nd core accuracy class | 0,5 Fs5 |  |
| Secondary current | 1 A |  |
| Rated output | 30 VA |  |
| 3-rd core accuracy class | 5 P 20 |  |
| Secondary current | 1 A |  |
| Rated output | 30 VA |  |
| Rated voltage | 24 kV |  |
| Insulation test voltage 50 Hz 1 min. | 50 kV |  |
| Rated lightning impulse withstand voltage | 125 kV |  |
| Rated frequency | 50 Hz |  |
| Creepage distance (phase to ground) | ≥ 43,3 mm/kV |  |
| Ambient air temperature range | -40°C up to +40°C |  |
| Total weight of 1 phase-unit | kg |  |
| Standard | IEC 61869-1,  IEC 61869-2 |  |
| Rated continuous thermal current factor | 1,2 In |  |
| Inner and outer insulation: cast-resin | yes |  |
| Cantilever strenght | kN |  |
| Flat primary terminals with 4 drillholes positioned in square | yes |  |
| Distance between hole centres of terminals | 45 × 45 mm |  |
| Secondary terminals | yes |  |
| Marking of all secondary wiring and terminals should be made | yes |  |
| Terminal box of cast aluminium and sealed | yes |  |
| Terminal box cover sealing screw heads with bore | yes |  |
| Secondary cable entrance in secondary terminal box | Pg type stainless steel cable gland |  |
| Degree of protection for terminal box | ≥IP-54 |  |
| Nameplate in Latvian | yes |  |
| Scheme plate | yes |  |
| Manual of mounting and maintenance in Latvian and English | yes |  |
| Routin test report in electronic format after equipment delivery | yes |  |
| The following check procedures/measurements of instrument transformer should be done by supplier on site:   * Polarity check; * Ratio check; * Current circuit resistance measurement; * VA characteristics for all windings; * Earthing check; * Secondary wiring check; * Isolation measuring with 1kV megohmmeter | yes |  |
| Silicone pasta (Wacker Powersil®) with technical datasheet in Latvian | 1 tube (90ml) per 1 unit |  |

## 2. 10 kV voltage transformers

| Description: | Requested: | Offered: |
| --- | --- | --- |
| Manufacturer | Ritz |  |
| Type No. | VEF 12 |  |
| Technical requirements | See below: |  |
| Quantity | 6 phases |  |
| Measuring transformer hermetically sealed - outdoor | yes |  |
| Transformer ratio | kV |  |
| Rated continuous voltage factor | 1,2 Un |  |
| 8 h voltage factor | 1,9 Un |  |
| 1-st secondary measuring winding accuracy class | 0,5 |  |
| Rated output | 10 VA |  |
| 2-nd secondary measuring winding accuracy class | 0,5 |  |
| Rated output | 25 VA |  |
| Max thermal burden | VA |  |
| Rated voltage | 12 kV |  |
| Insulation test voltage 50 Hz 1 min. | 28 kV |  |
| Rated lightning impulse withstand voltage | 75 kV |  |
| Rated frequency | 50 Hz |  |
| Creepage distance (phase to ground) | ≥ 43,3 mm/kV |  |
| Ambient air temperature range | -40°C up to +40°C |  |
| Total weight of 1 phase-unit | kg |  |
| Standard | IEC 61869-1,  IEC 61869-3 |  |
| Inner and outer insulation: cast-resin | yes |  |
| Cantilever strength | kN |  |
| Primary terminal with external thread M8 | yes |  |
| Secondary terminals | yes |  |
| Marking of all secondary wiring and terminals should be made | yes |  |
| Terminal box of cast aluminium and sealed | yes |  |
| Terminal box cover sealing screw heads with bore | yes |  |
| Secondary cable entrance in secondary terminal box | Pg type stainless steel cable gland |  |
| Degree of protection for terminal box | ≥ IP-54 |  |
| Nameplate in Latvian | yes |  |
| Scheme plate | yes |  |
| Manual of mounting and maintenance in Latvian and English | yes |  |
| Routin test report in electronic format after equipment delivery | yes |  |
| The following check procedures/measurements of instrument transformer should be done by supplier on site:   * Earthing check; * Secondary wiring check; * Isolation measuring with 1kV megohmmeter | yes |  |
| Silicone pasta (Wacker Powersil®) with technical datasheet in Latvian | 1 tube (90ml) per 1 unit |  |

## 3. 10 kV zinc oxide surge arresters

| Description: | Required: | Offered: |
| --- | --- | --- |
| Quantity | 6 phases |  |
| Type of neutral earthing | Isolated (non-efective) |  |
| Connection of the arrester | phase - ground |  |
| Arrester class/designation | Distribution/DH |  |
| Continuous operating voltage (Uc) | 12-13kV |  |
| Rated voltage (Ur) | 15kV |  |
| Rated frequency | 50 Hz |  |
| Maximum system voltage (Us) | 12 kV |  |
| Creepage distance (phase - ground) | ≥ 43.3 mm / kV |  |
| Ambient air temperature range | -40°C up to +40°C |  |
| Intended for out-door installation | yes |  |
| Designed and tested in compliance with the standard IEC 60099-4 | yes |  |
| Silicone polymer housed insulator | yes |  |
| Clamp type connector (stainless steel) for line connection | yes |  |
| Mounting – grounded without insulating base | yes |  |
| To the tender should be attached preliminary drawing of offered equipment (only in electronic format) | yes |  |
| Informative part: | See below |  |
| Manufacturer | please indicate |  |
| Type No. | please specify type No. |  |