

A decorative graphic on the left side of the slide, consisting of three overlapping circular frames. The top frame shows a close-up of solar panels. The middle frame shows a large industrial facility with several tall, cylindrical cooling towers and a body of water in the foreground. The bottom frame shows a helicopter performing a hoist rescue or maintenance on a high-voltage power line tower. The frames are connected by a series of overlapping, light-colored circular lines.

# Surge Arresters: Technical Requirements

November 2021

Where you normally go wrong

Scoring

Level 1 criteria (summary)

Level 1 criteria (detail)

Level 2 – scoring criteria

Questions

# Where you normally go wrong

1. Annex B (A/B schedules): Not correctly completed!
2. Type tests per item not submitted.
3. Eskom Type test summary not submitted (Annex C).
4. Type tests not from Accredited Authority.
5. Declaration forms not submitted / signed (Annex E).
6. Memory stick corrupt / unreadable.

1. **Submissions that pass Level 1 will be allocated 90 points** within the framework of the Eskom scoring mechanism.
2. Submissions that obtain a NO for any of the level 1 criteria will be scored 0 out of 90.
3. Scoring in Level 2 consists of discretionary criteria and will be assessed out of 10 points.
4. Thus, the full score attainable will be 100 points if all criteria are met in levels 1 and 2, and the **threshold for acceptable tenderers is 90%**.

1. Tender Deliverables
2. SA Functional Requirements
3. Type Test Requirements: All tests shall be conducted in accordance to IEC60099 and IEC60815, and passed

## 1.1.1 Is completed Technical Schedule B submitted?

### Annex B, per item

NB! Do not change our Schedule A!

**Any change of Schedule A is seen as non-compliance, and results in disqualification**

- Fill in accurately and completely
- Correct schedule to be used
- Do not tick (v) or “yes” or “comply” where we require a value

1.1.2 Is the test report summary sheet (ANNEX C) completed and submitted together with all the required test reports and other requested information?

**All type tests shall be conducted at an accredited testing laboratory. An accredited testing laboratory is defined as that which is ISO 17025 accredited and/or that which holds valid certification issued by ILAC (International Laboratory Accreditation Corporation) or one of its members.**

**Per item**

1.1.3 Have the outlines and characteristic curves been submitted?

**Please submit drawings and curves per item**

**Ensure Annex D are given per item**

1.1.4 Is the Deviations and Declaration form (Annex E) submitted and signed?

**Please sign and submit per item.**

1.1.5 Is all required information submitted in English?

1.1.6 Has evidence supporting that all required type testing has been **performed at an accredited test facility** been submitted?

OR

1.1.7 At the factory and **witnessed by an accredited body** and supporting information supplied?

2.1.1 Electrical characteristics meet requirement for specific voltage level

**Annex B-2 for each specific item**

2.1.2 Arrester housing meet requirements

**3.1.2, and Annex B-4 for each specific item**

2.1.3 Mounting arrangement meet requirements

**3.1.3.2, and Annex B-5 for each specific item**

2.1.4 Terminal arrangement meet requirements

**3.1.3.3, and Annex B-6 & B-7 for each specific item**

# 3. Type Test Requirements (per item)

- 3.1.1 Insulation withstand test on the arrester housing
- 3.1.2 Residual voltage test
- 3.1.3 Test to verify long term stability under continuous operating voltage
- 3.1.4 Repetitive charge transfer withstand
- 3.1.5 Heat dissipation behaviour verification of test sample
- 3.1.6 Operating duty test
- 3.1.7 Power-frequency voltage versus time
- 3.1.8 Short-circuit tests
- 3.1.9 Bending test
- 3.1.10 Environmental tests (Applicable to Porcelain housings)
- 3.1.11 Seal leak rate (Applicable to Porcelain housings)
- 3.1.12 Radio interference voltage (RIV) test
- 3.1.13 Weather ageing
- 3.1.14 Polymer arresters at 132kV and below test requirements

## Packaging, Transport and Storage information

**Per item**

## Installation and assembly information

**Per item**



# Questions?