

 Eskom	Standard	Distribution
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Title: **TECHNICAL EVALUATION CRITERIA FOR ZINC-COATED STRANDED STEEL WIRE CONDUCTORS AND STAYS FOR DISTRIBUTION LINES** Unique Identifier: **240-171000554**
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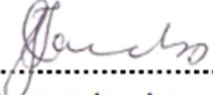
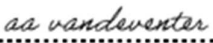
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1. Introduction

This document aims to describe the criteria which will govern the evaluation of tender submissions by manufactures and suppliers intending to supply overhead zinc-coated stranded steel wire conductors. The criteria for each zinc coated steel wire conductor type are tabulated in the annexures at the end of this document. The criteria necessary to perform both the desktop and factory evaluations is outlined here. This document is meant as an assistive document for new zinc-coated steel wire conductor contracts and does not replace the existing zinc-coated stranded steel wire conductor's standard (240-75883116).

2. Supporting clauses

2.1 Scope

This document explains the technical evaluation process and criteria associated with overhead zinc coated stranded steel wire conductors.

2.1.1 Purpose

The purpose of this document is to describe the criteria which are to be used when evaluating tender submissions for the supply of overhead zinc coated stranded steel wire conductors and stays for Eskom Distribution Lines.

2.1.2 Applicability

This document shall apply throughout Eskom Distribution division, subsidiaries and entities wherein Eskom Distribution has a controlling interest.

2.2 Normative/informative references

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

- [1] ISO 9001, Quality Management Systems.
- [2] 32-1034 - Eskom Procurement and Supply Management Procedure.
- [3] 240-75883116 - Zinc-coated stranded steel wire conductors and stays for distribution lines
- [4] SANS 182-5:2001, Conductors for overhead electrical transmission lines, Part 5: Zinc-coated steel wires for conductors and stays.

2.2.2 Informative

- [5] 32-9: Definition of Eskom documents.
- [6] 32-644: Eskom documentation management standard.
- [7] 474-65: Operating manual of the Steering Committee of Technologies (SCOT).

2.3 Definitions

2.3.1 General

Abbreviation	Description
Unsupplied zinc-coated steel wire conductors	Zinc coated stranded steel wire conductors that were previously not supplied to Eskom and are not included in the tender enquiry but are manufactured by the OEM and supplied to clients other than Eskom.

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2.3.2 Disclosure classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

2.4 Abbreviations

Abbreviation	Description
IEC	International Electrotechnical Commission
ISO	International Organisation for Standardisation
ISPM	International Standards for Phytosanitary Measures
PLS-CADD	Power Line Systems - Computer Assisted Design and Drawing
SANS	South African National Standards

2.5 Roles and responsibilities

It is the responsibility of the engineers, commercial representatives, end user and manufacturers to completely abide by the criteria set out in this standard together with the requirements mentioned in the referenced documentation.

2.6 Process for monitoring

This document will be reviewed once every five years.

2.7 Related/supporting documents

- [1] IEC 60888: 1987, Zinc-coated steel wires for stranded conductors.
- [2] SANS 61089: 1991, Round wire concentric lay overhead electrical stranded conductors.
- [3] IEC 61394: 1997, Characteristics of greases for aluminium, aluminium alloy and steel bare conductors.
- [4] SANS 935:2007, Hot-dip (galvanised) zinc coatings on steel wire.
- [5] SANS 10005: 2006. The preservative treatment of timber.
- [6] SANS 1288: 2007. Preservative-treated timber.
- [7] ISPM 15: Guidelines for regulating wood packaging material in international trade.

3. Technical Tender Evaluation Procedure

The technical evaluation procedure is specific to each item type. The items are zinc-coated stranded steel wire conductors of various sizes.

The complete evaluation of any potential supplier would involve a desktop evaluation as well as a factory evaluation. The factory evaluation is necessary to verify if the supplier possesses the capabilities which they have documented in their tender submissions.

3.1 Desktop Evaluation

The desktop evaluation forms the first aspect of the assessment. The desktop evaluation will require the submission of evidence demonstrating compliance to the Mandatory Technical Criteria. This evaluation exercise is performed by Eskom evaluating representatives. This part of the evaluation starts when submissions are opened for the first time. It begins by evaluating the tender documentation submitted by potential suppliers against the mandatory criteria (Level 1), then proceeds to the scoring – Level 2, and refers to the relevant Annexures A, B, C and D Tables for each item required.

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The relevant test certificates together with the complete test reports shall be in English and shall be supplied to the purchaser in hardcopy and electronic format. The relevant product specific technical schedules shall be completed in full for each item and no spaces shall be left blank. Technical schedules A/B are provided in this document for each item and will also be made available in excel format with the tender enquiry package.

The Eskom assessment representatives will go through the details of the returnable submissions that are required and will ensure that all Level 1 qualification criteria are met. If submissions obtain a “No” on any of the Mandatory (Gatekeeper) criteria, the supplier will not be able to proceed to Level 2 evaluation and therefore will fail the technical evaluation. Scoring in Level 2 consists of functional criteria and will be assessed out of 100 points. A Level 2 score of 80% or more will qualify for the Factory Assessment – Level 3.

From a technical perspective, the submitted documentations should consist of but not be limited to:

3.1.1 Level 1: Mandatory (Gatekeeper) Criteria and Returnable

This evaluation will be conducted per SAP number or item. The following evidence is required to meet the Level 1 Mandatory (Gatekeeper) Criteria per SAP number or item:

Table 1: Zinc-coated stranded steel wire conductor contract returnable list and gatekeepers

Item	Criteria	Compliance [Yes or No]	Qualification Criteria
1.1	Is the Technical Schedule A&B completed correctly and submitted for each SAP number stated on the enquiry?		Mandatory requirement
1.2	Is the test report matrix completed, relevant and submitted for each SAP number stated on the enquiry?		Mandatory requirement
1.3	Proof submitted that all required Design/Type testing has been performed at an accredited test facility? OR At the factory and witnessed by an accredited person and supporting information supplied?		Mandatory requirement
1.4	Complete and approved (signed) Manufacturer Drawings submitted for each SAP number stated on the enquiry?		Mandatory requirement
1.5	Product meets ESKOM requirements as stipulated in Technical Schedule. No deviations found or deviations identified during detailed evaluation are considered minor i.e., negligible impact on technical and economic performance for the full product life cycle and/or considered correctable before contract award.		Mandatory requirement
1.6	Submission of a letter confirming that all zinc coated stranded steel wire conductors of length exceeding 100 metres will be supplied on returnable hybrid (steel and wood) drums. OR Submission of Hybrid Conductor Drum Information (Drawing)		Mandatory requirement

Notes:

- Tenderers to submit details of manufacturing premises, location, staff and equipment, testing facilities, manufacturing lead times.
- Schedules will be considered incomplete if any criteria in Schedule B is returned blank or with non-technical responses such as "N/A", "Will be submitted later", etc.
- Specific deviations to the Schedule A requirements are to be clearly stated in the Deviation Schedule with details related to the deviation and motivation for Eskom to consider a concession.
- The drawings must be provided for each unique SAP number. The SAP number may be stated on the drawing, or the document title can describe the product. The drawings must have the Manufacturer's name included. "Approved" means there is an approval signature on the drawing. Evidence for any other SAP number will not be accepted.
- Test Schedules will be considered incomplete if any test report number is left blank. If the test report is not available (e.g., the specific test has not been executed on the specific product) then state "Not Available". Where "Not Available" is stated, this deviation (per test) is to be clearly stated in the Deviation Schedule with details related to the deviation and motivation for Eskom to consider a concession for the testing requirements.
- The supplier shall submit zinc coated stranded steel wire conductor information for use in PLS-CADD software applications with the cable creep test co-efficient as requested and within a year of contract award.
- Tenderers shall ensure that they cater for the manufacture of previously unsupplied zinc coated stranded steel wire conductors that may be requested during the contract lifetime. Tenderers shall also produce all the above- mentioned information for each of the unsupplied zinc coated stranded steel wire conductors they wish to supply as part of the contract.
- Submissions meeting 100% of the Level 1 requirements will proceed to the next level of the technical evaluation.
- Submissions failing to meet 100% of the Level 1 requirements will be deemed non-responsive; the submission will be disqualified and not evaluated further.

3.1.2 Level 2: Functional (Scoring) Criteria and Returnable (only submission that pass Level 1)

This evaluation will be conducted per SAP number or item. The following evidence is required to meet the Level 2 Functional Criteria per SAP number or item:

Table 2: Functional (Scoring) Criteria and Returnable

No	Criteria	Weight [%]	Score
1	Proof of 10 years manufacturing experience	10	10 if > 10 years 5 if > 5 years 2 if < 5 years
2	Completeness and compliance of the evidence stated in the Schedule B column of the Technical A&B Schedules	10	0 – Not compliant 5 – Partially completed 10 – Completed and Fully Compliant
3	Detailed Drawings provided	20	0 – No drawing 10 – Partial itemised drawing 20 – Complete itemised drawing
4	Type tests certificates/reports are signed by an accredited institution/person.	10	0 – Not Acceptable 10 – Acceptable
5	Transport, Handling, Storage and Installation Guidelines provided.	10	0 – No information 5 – Partial Information 10 – Complete Information
6	Ability to perform sample tests and provide reports	5	0 – No information 5 – Acceptable Information

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No	Criteria	Weight [%]	Score
7	Production capacity letter provided	5	0 – No information 5 – Acceptable Information
8	Allowance for manufacturing, inspections and witnessing of tests letter provided.	5	0 – No information 5 – Acceptable Information
9	Confirmation that offered product complies fully with IEC/SANS 182-5 requirements.	25	0 – No information 15 – Partial information 25 - Acceptable Information
	Total	100%	

Notes:

- The Level 2 Threshold is 80.00%. Compliance to the technical standards included in the criteria is critical, due to the high risk introduced by non-compliance. Eskom Distribution systems overhead powerlines components are considered high risk items, meaning that, when component failure occurs, serious harm, injury or death may be caused to the public, animals or the environment. It also places the network at risk and could adversely affect both the performance as well as continuity of supply.
- Full points will be awarded for fully compliant submissions. "Fully compliant" means that the evidence stated in the Schedule B column of the Technical A&B Schedule complies with specified requirements in Schedule A; there are no deviations, omissions or incomplete/blank/irrelevant responses.
- Submissions meeting 80.00% of the Level 2 requirements will proceed to the next level of the technical evaluation.
- Submissions failing to meet 80.00% of the Level 2 requirements will be deemed non-compliant; the submission will be disqualified and not evaluated further.

3.2 Factory Evaluation

The assessments are performed to assess the tenderer's capability to enter into a contract with Eskom with respect to a specific product or service and meet Eskom's requirements.

This report and any actions that are listed or recommended as a result of this assessment, is by no means a confirmation or guarantee that any contract will be entered into by Eskom and the supplier or that post contract performance has been achieved.

Any actions undertaken by the tenderer as a consequence of this report is for the tenderer's account. Any liability for the said actions undertaken by the tenderer is not transferrable to Eskom in any way.

The assessment team has no authority or responsibility in the decision taken by Eskom with respect to contracting for a product or service.

Any statements, intentions and/or actions expressed by the assessment team during the assessment and after the assessment should not be interpreted as the awarding of a contract and does not constitute any liability to Eskom with regards to contract placement or post-contract performance guarantees.

3.2.1 Scope

Eskom will do factory assessments to assess the ability and readiness of the tenderer for supplying/manufacturing of zinc coated stranded steel wire conductors for Eskom should the need arise. Eskom assessment representative(s) will arrange visits to the factories that have qualified for factory evaluations. At the factory, the Eskom assessment representative(s) will conduct the assessment through the use of checklists. A generic checklist is provided in Annexure C and may serve as a guide on the aspects which the Eskom representative(s) will look to assess. The checklists are used to verify capability of the factory to supply the required products and to comply with the relevant specifications and tender submission documents.

3.2.2 Purpose

Assessments are performed as part of the standard practice within Eskom to determine whether a supplier has the capability to manufacture the required products, from a business, technical and quality perspective. The assessment also confirms the supplier's compliance to the governing specifications and tender submission documents. This document is intended to formalise the factory assessment procedure followed for zinc-coated stranded steel wire conductors.

3.2.3 Confidentiality

All information reviewed, observed, recorded during and reported as a result of the assessments will be treated as, and will remain highly confidential. The procurement team and the supplier team will be the only parties included in the distribution list.

3.2.4 Assessment Methodology

A factory assessment will only be conducted if a minimum score of 80% is achieved for the desktop assessment. In the event that a factory assessment is conducted, the tenderer will still be required to achieve a minimum score of 80% to meet the technical requirements threshold. Eskom performs these factory assessments to assess the ability and readiness of the tenderer for supplying/manufacturing of zinc coated stranded steel wire conductors for Eskom should the need arise and to verify the information submitted in the tender responses.

4. Authorization

This document has been seen and accepted by:

Name and surname	Designation
Al' Louise Van Deventer	General Manager: Technology and Engineering
Thomas Jacobs	Senior Manager: Technology and Engineering (Acting)
Lucy Sangweni	High Voltage Overhead Lines Study Committee Chairperson
Pravind Orrie	Asset Creation Senior Manager - Limlanga Cluster
Brenda Cebekhulu	Asset Creation Senior Manager - Central East Cluster
Thandiwe Nkambule	Asset Creation Senior Manager - Gauteng Cluster
Cynthia Ngomane	Asset Creation Senior Manager - Gemma Cluster
Paul Matiwani	Asset Creation Senior Manager - Cape Coastal Cluster

5. Revisions

Date	Rev.	Compiler	Remarks
Feb 2026	1	L.S Sangweni	First issue.

6. Development team

The following people were involved in the development of this document:

- Lucy Sangweni

7. Acknowledgements

High Voltage Overhead Powerlines Study Committee and reviews received from various operating units

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Annex A – Zinc Coated Stranded Steel Wire Conductor Test Matrix

Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)														
D-DT	REV .	SAP No.	Item Description	Accredited Test organisation/ person	Material grade certification	Dimensional and material verification	Visual Examination test	Resistance test	Short circuit test	Breaking strength test	Elongatio n at break test	Lappin g test	Twistin g test	Zinc Coating tests
D-DT7036	5	185944	STEEL WIRE STRAND, ST 3X4.00, 1100MPa D7036											
D-DT7036	5	401339	STEEL WIRE STRAND, ST 19X2.65, 1100MPa D7036											
D-DT7036	5	401341	STEEL WIRE STRAND, ST 7X3.35, 1100MPa D7036											
D-DT7036	5	595551	STEEL WIRE STRAND, 7X3.51, 1290MPa GRS D7036											
D-DT7036	5	595552	STEEL WIRE STRAND, 19X2.7, 1310MPa GRS D7036											
D-DT3124	8	163344	WIRE STRAND, ST 3x3.35 1100MPA 100m D3124											
D-DT3124	8	401337	WIRE STRAND, ST 7x4.00 1100MPA 100m D3124											
D-DT3124	8	163345	WIRE STRAND, ST 3x3.35 1100MPA 1500m D3124											
D-DT3124	8	163343	WIRE STRAND, ST 7x4.0 1100MPA 1500m D3124											
D-DT3124	8	248353	WIRE STRAND, ST 19x2.65 1100MPA 100m D3124											

Annex B – A and B Schedules for Zinc-Coated Stranded Steel Wire Conductors

Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	3/4.00	
2.2	Drawing Reference	D-DT 7036	
2.3	SAP No.	185944	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacturer (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1100 MPa	

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5.1.3	Strand configuration number/diameter	3/4.00	
5.1.4	Individual strand diameter	4mm	
5.1.5	Number of strands	3	
5.1.6	Nominal overall diameter	8.79mm	
5.1.7	Total steel cross section area	37.70mm ²	
5.1.8	Ultimate Tensile Strength	41.157kN	
5.1.9	Steel wire mass	306kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<>18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing (case 4)	No	
5.1.15	Drum length	1500m	
5.1.16	Drum type	Hybrid Drum	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥8kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥4.69kA	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	
6.4	Visual Examination test	Sample test	

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6.5	Resistance test	Sample test	
6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
6.8	Elongation at break test	Sample test	
6.9	Lapping test	Sample test	
6.10	Twisting test	Sample test	
6.11	Zinc Coating tests	Sample test	
7	Comments and Deviations:		

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Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	19/2.65	
2.2	Drawing Reference	D-DT 7036	
2.3	SAP No.	401339	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacturer (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1100 MPa	
5.1.3	Strand configuration number/diameter	19/2.65	

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5.1.4	Individual strand diameter	2.65mm	
5.1.5	Number of strands	19	
5.1.6	Nominal overall diameter	13.25mm	
5.1.7	Total steel cross section area	104.84mm ²	
5.1.8	Ultimate Tensile Strength	115.3kN	
5.1.9	Steel wire mass	820.12kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<>18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing (case 4)	No	
5.1.15	Drum length	1500m	
5.1.16	Drum type	Hybrid Drum	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥21.75kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥12.5kA	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	
6.4	Visual Examination test	Sample test	
6.5	Resistance test	Sample test	

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6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
6.8	Elongation at break test	Sample test	
6.9	Lapping test	Sample test	
6.10	Twisting test	Sample test	
6.11	Zinc Coating tests	Sample test	
7	Comments and Deviations:		

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Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	7/3.35	
2.2	Drawing Reference	D-DT 7036	
2.3	SAP No.	401341	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacturer (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1100 MPa	

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5.1.3	Strand configuration number/diameter	7/3.35	
5.1.4	Individual strand diameter	3.35mm	
5.1.5	Number of strands	7	
5.1.6	Nominal overall diameter	10.3mm	
5.1.7	Total steel cross section area	61.72mm ²	
5.1.8	Ultimate Tensile Strength	67.90kN	
5.1.9	Steel wire mass	484kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<>18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing (case 4)	No	
5.1.15	Drum length	1500m	
5.1.16	Drum type	Hybrid Drum	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥12.9kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥7.45kA	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	
6.4	Visual Examination test	Sample test	

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TECHNICAL EVALUATION CRITERIA FOR ZINC-COATED STRANDED STEEL WIRE CONDUCTORS AND STAYS FOR DISTRIBUTION LINES

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6.5	Resistance test	Sample test	
6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
6.8	Elongation at break test	Sample test	
6.9	Lapping test	Sample test	
6.10	Twisting test	Sample test	
6.11	Zinc Coating tests	Sample test	
7	Comments and Deviations:		

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Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	7/3.51	
2.2	Drawing Reference	D-DT 7036	
2.3	SAP No.	595551	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacture (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1290 MPa	

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5.1.3	Strand configuration number/diameter	7/3.51	
5.1.4	Individual strand diameter	3.51mm	
5.1.5	Number of strands	7	
5.1.6	Nominal overall diameter	10.53mm	
5.1.7	Total steel cross section area	67.73mm ²	
5.1.8	Ultimate Tensile Strength	87.4kN	
5.1.9	Steel wire mass	553.2kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<>18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing	Yes	
5.1.15	Drum length	1500m	
5.1.16	Drum type	Hybrid Drum	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥12.9kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥7.45kA	
5.2.5	Resistance	2.86Ω/km	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	

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6.4	Visual Examination test	Sample test	
6.5	Resistance test	Sample test	
6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
6.8	Elongation at break test	Sample test	
6.9	Lapping test	Sample test	
6.10	Twisting test	Sample test	
6.11	Zinc Coating tests	Sample test	
7	Comments and Deviations:		

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Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	19/2.7	
2.2	Drawing Reference	D-DT 7036	
2.3	SAP No.	595552	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacturer (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1310 MPa	
5.1.3	Strand configuration number/diameter	19/2.7	

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5.1.4	Individual strand diameter	2.7mm	
5.1.5	Number of strands	19	
5.1.6	Nominal overall diameter	13.48mm	
5.1.7	Total steel cross section area	108.78mm ²	
5.1.8	Ultimate Tensile Strength	142.5kN	
5.1.9	Steel wire mass	857kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing	Yes	
5.1.15	Drum length	1500m	
5.1.16	Drum type	Hybrid Drum	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥21.75kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥12.5kA	
5.2.5	Resistance	1.794Ω/km	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	
6.4	Visual Examination test	Sample test	

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6.5	Resistance test	Sample test	
6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
6.8	Elongation at break test	Sample test	
6.9	Lapping test	Sample test	
6.10	Twisting test	Sample test	
6.11	Zinc Coating tests	Sample test	
7	Comments and Deviations:		

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Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	3/3.35	
2.2	Drawing Reference	D-DT 3124	
2.3	SAP No.	163345	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacturer (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1100 MPa	
5.1.3	Strand configuration number/diameter	3/3.35	

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5.1.4	Individual strand diameter	3.35mm	
5.1.5	Number of strands	3	
5.1.6	Nominal overall diameter	7.22mm	
5.1.7	Total steel cross section area	26.44mm ²	
5.1.8	Ultimate Tensile Strength	29.1kN	
5.1.9	Steel wire mass	206kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<>18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing (case 4)	No	
5.1.15	Drum length	1500m	
5.1.16	Drum type	Hybrid Drum	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥ 8kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥ 4.69kA	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	
6.4	Visual Examination test	Sample test	
6.5	Resistance test	Sample test	

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6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
6.8	Elongation at break test	Sample test	
6.9	Lapping test	Sample test	
6.10	Twisting test	Sample test	
6.11	Zinc Coating tests	Sample test	
7	Comments and Deviations:		

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Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	7/4	
2.2	Drawing Reference	D-DT 3124	
2.3	SAP No.	401337	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacturer (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1100 MPa	

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5.1.3	Strand configuration number/diameter	7/4	
5.1.4	Individual strand diameter	4mm	
5.1.5	Number of strands	7	
5.1.6	Nominal overall diameter	12mm	
5.1.7	Total steel cross section area	87.96mm ²	
5.1.8	Ultimate Tensile Strength	96.8kN	
5.1.9	Steel wire mass	686kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<>18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing (case 4)	No	
5.1.15	Drum length	100m	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥12.9kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥7.45kA	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	
6.4	Visual Examination test	Sample test	
6.5	Resistance test	Sample test	

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6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
6.8	Elongation at break test	Sample test	
6.9	Lapping test	Sample test	
6.10	Twisting test	Sample test	
6.11	Zinc Coating tests	Sample test	
7	Comments and Deviations:		

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Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	3/3.35	
2.2	Drawing Reference	D-DT 3124	
2.3	SAP No.	163344	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacturer (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1100 MPa	

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5.1.3	Strand configuration number/diameter	3/3.35	
5.1.4	Individual strand diameter	3.35mm	
5.1.5	Number of strands	3	
5.1.6	Nominal overall diameter	7.22mm	
5.1.7	Total steel cross section area	26.44mm ²	
5.1.8	Ultimate Tensile Strength	29.1kN	
5.1.9	Steel wire mass	206kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<>18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing (case 4)	No	
5.1.15	Drum length	100m	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥ 8kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥ 4.69kA	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	
6.4	Visual Examination test	Sample test	
6.5	Resistance test	Sample test	

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6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
6.8	Elongation at break test	Sample test	
6.9	Lapping test	Sample test	
6.10	Twisting test	Sample test	
6.11	Zinc Coating tests	Sample test	
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Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	7/4	
2.2	Drawing Reference	D-DT 3124	
2.3	SAP No.	163343	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacturer (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1100 MPa	

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5.1.3	Strand configuration number/diameter	7/4	
5.1.4	Individual strand diameter	4mm	
5.1.5	Number of strands	7	
5.1.6	Nominal overall diameter	12mm	
5.1.7	Total steel cross section area	87.96mm ²	
5.1.8	Ultimate Tensile Strength	96.8kN	
5.1.9	Steel wire mass	686kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<>18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing (case 4)	No	
5.1.15	Drum length	1500m	
5.1.16	Drum type	Hybrid Drum	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥12.9kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥7.45kA	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	
6.4	Visual Examination test	Sample test	

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6.5	Resistance test	Sample test	
6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
6.8	Elongation at break test	Sample test	
6.9	Lapping test	Sample test	
6.10	Twisting test	Sample test	
6.11	Zinc Coating tests	Sample test	
7	Comments and Deviations:		

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Item no.	Description	Schedule A: Eskom's Minimum Requirements	Schedule B: Equipment Guarantees and Particulars
1	Eskom standard and specifications referred to: [1] 240-75883116; SANS 182-5; SANS 61089; IEC 60888		
2	General		
2.1	Steel Wire type	19/2.65	
2.2	Drawing Reference	D-DT 3124	
2.3	SAP No.	248353	
3	Purchasing Details		
3.1	Supplier's name		
3.2	Original Equipment Manufacturer (OEM)		
3.3	Manufacture product type designation/code/model/serial number		
3.4	Compliance with IEC 182-5	Test Certificates	
3.5	Required Life Expectancy	30 years	
3.6	Markings	Trademark, Date of manufacture and Mechanical failing Load	
4	Site Operating Temperature		
4.1	Maximum ambient temperature	50 °C	
4.2	Minimum ambient temperature	-10 °C	
4.3	Maximum daily average	35 °C	
4.4	Maximum daily variation	35 °C	
4.5	Altitude above sea level	1800m	
5	TECHNICAL REQUIREMENTS		
5.1	Mechanical Requirements		
5.1.1	Material	Zinc Coated Steel	
5.1.2	Steel grade	1100 MPa	

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5.1.3	Strand configuration number/diameter	19/2.65	
5.1.4	Individual strand diameter	2.65mm	
5.1.5	Number of strands	19	
5.1.6	Nominal overall diameter	13.25mm	
5.1.7	Total steel cross section area	104.84mm ²	
5.1.8	Ultimate Tensile Strength	115.3kN	
5.1.9	Steel wire mass	820.12kg/km	
5.1.10	Lay direction	Opposite directions of lay whereas the outermost layer shall have a right-hand lay	
5.1.11	Lay ratio	12<>18	
5.1.12	Zinc coating in accordance with specification	Yes	
5.1.13	Zinc coating mass per unit area	Grade I	
5.1.14	Greasing (case 4)	No	
5.1.15	Drum length	100m	
5.2	Electrical Requirements		
5.2.1	Continuous operating temperature	Ambient temperature	
5.2.2	Maximum temperature under short-circuit condition	≥ 200 °C	
5.2.3	One second Short-Circuit Current Rating Withstand	≥21.75kA	
5.2.4	Three seconds Short-Circuit Current Rating Withstand	≥12.5kA	
6	Test Requirements (According to SANS 182-5; SANS 6282-1; SANS 6283; SANS 935; IEC 60888; IEC 61089)		
6.1	Test authority (approved person/organisation)	SABS/CSIR	
6.2	Material grade certification	Required	
6.3	Dimensional and material verification	Sample test	
6.4	Visual Examination test	Sample test	
6.5	Resistance test	Sample test	

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6.6	Short circuit test	Type test	
6.7	Breaking strength test	Sample test	
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6.9	Lapping test	Sample test	
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7	Comments and Deviations:		

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Annex C – General Factory Assessment for Zinc-Coated Stranded Steel Wire Conductors

Item No:	Criteria for Conductor Manufacturers- Technical Evaluation	Total Score Achievable	Evidence and Comments
1	Manufacturing Methods/Product Conformance		
1,1	Do you have the ability to draw down raw steel material to required strand sizes? (Yes or no response required)	1	
1,2	Do you have the ability to produce complete stranded zinc-coated steel wire conductor? (Yes or no response required)	2	
1,3	Are all zinc coated stranded steel wire conductors manufactured according to the applicable IEC 182-5 and Eskom zinc-coated stranded steel wire conductor specifications? (Yes or No response required)	2	
1,4	How much of the items do you actually produce in-house?	2	
1,5	Are you affiliated to any international organisation/experts in the field? State affiliations.	1	
1,6	Do you have the ability to supply technical drawings indicating zinc-coated stranded steel wire conductor technical data? Provide sample drawings.	2	
1,7	Did you previously supplied zinc-coated stranded steel wire conductors to customers besides Eskom? If so, please provide a list of previous external customers to whom you have provided similar products.	1	
1,8	Do you have access to in-house or external testing facilities to conduct all tests required, such as Type tests and sample tests as per the applicable IEC and Eskom specifications? All Type tests must be performed at an accredited laboratory. Proof of accreditation must be provided.	3	
1,9	Show evidence of Type testing on each individual product in accordance with IEC and Eskom specs. Latest Type test report to be submitted.	3	

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1,10	Show evidence of Sample testing on each individual product. In accordance to IEC and Eskom spec. Sample test format to be submitted.	3	
1,11	Do you have the ability to or have access to a supplier of services to conduct creep testing in accordance with IEC 61395?	3	
1,12	Show evidence of material checking and verification from raw to final product stages.	2	
1,13	What techniques do you use to apply the zinc coating on the steel wire strands?	2	
1,14	Do you have ability and process to be used to mark steel strands as per Eskom requirements? Provide supporting evidence.	2	
1,15	Do you have the ability to supply stranded steel wire conductors on hybrid drum as per Eskom specification D-DT 7356?	3	
1,16	Submit an example drawing of the hybrid drum details along with packaging details of items after manufacture. Indicate the following key dimensions and material used per drum type: • Spindle diameter • Flange diameter • Barrel diameter • Total drum width • Material used for different sections of the drums (i.e. spindle material, flange material, barrel material)	3	
1,17	For the wooden parts of the hybrid drum, what kind of treatment and application do you use?	2	

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1,18	Supply a sample drawing of the marking to be applied on the drums as per Eskom requirements: • Matched sets to be marked • Measured length • Nett mass • Gross mass • Order number • Conductor type • Greased or non-greased • Eskom Logo and signature • Red dot • Drum rolling direction	3	
1,19	Supply handling and long term (>6 months) storage requirements of the product in an open environment.	2	
2	Workshop Practice		
2,1	Does the workshop have good housekeeping (Clean conditions, dust free and has clearly marked walkways)?	1	
2,2	What measures have been put in place to control dust in the workshop?	1	
2,3	What control measures are in place to minimise or eliminate negative impact on the environment as a result of your activities?	1	
2,4	How do you control scrap material? Provide supporting document if available.	2	
2,5	How is material/components handled and stored? Provide supporting document if available.	2	

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3	Design Practices and Application		
3,1	Describe your design criteria basis and guidelines	1	
3,2	Provide design process flowchart/systems	1	
3,3	What is the design team's composition/structure, numbers, experience levels? Provide Design office's organogram, CVs, highest qualifications and professional registration certificates	3	
3,4	Are all zinc-coated stranded steel wire conductor designs done in-house or outsourced? How much of your designs are outsourced and what controls are in place?	2	
3,5	How do you ensure internal design verification/ validation as part of your design process?	1	
3,6	Do you have a process to deal with design change requests (concession), internal or external? Please provide evidence.	2	
3,7	Following final design approval, how is the final design linked to the manufacturing process?	1	
3,8	Are the engineering tools used for the relevant designs up to date (using the latest version)? How is software upgrade to the latest version done?	2	
3,9	As design technology backup, who are your technology partners?	1	
3,10	How do you ensure continuous development of staff with respect to design systems and philosophy? (i.e., software and manually)	1	
3,11	Do you own your Research and Development (R&D)? If not, who are your R&D partners?	1	
3,12	How is R&D triggered in your organisation?	1	
3,13	What initiatives are you pursuing to introduce new technology?	1	

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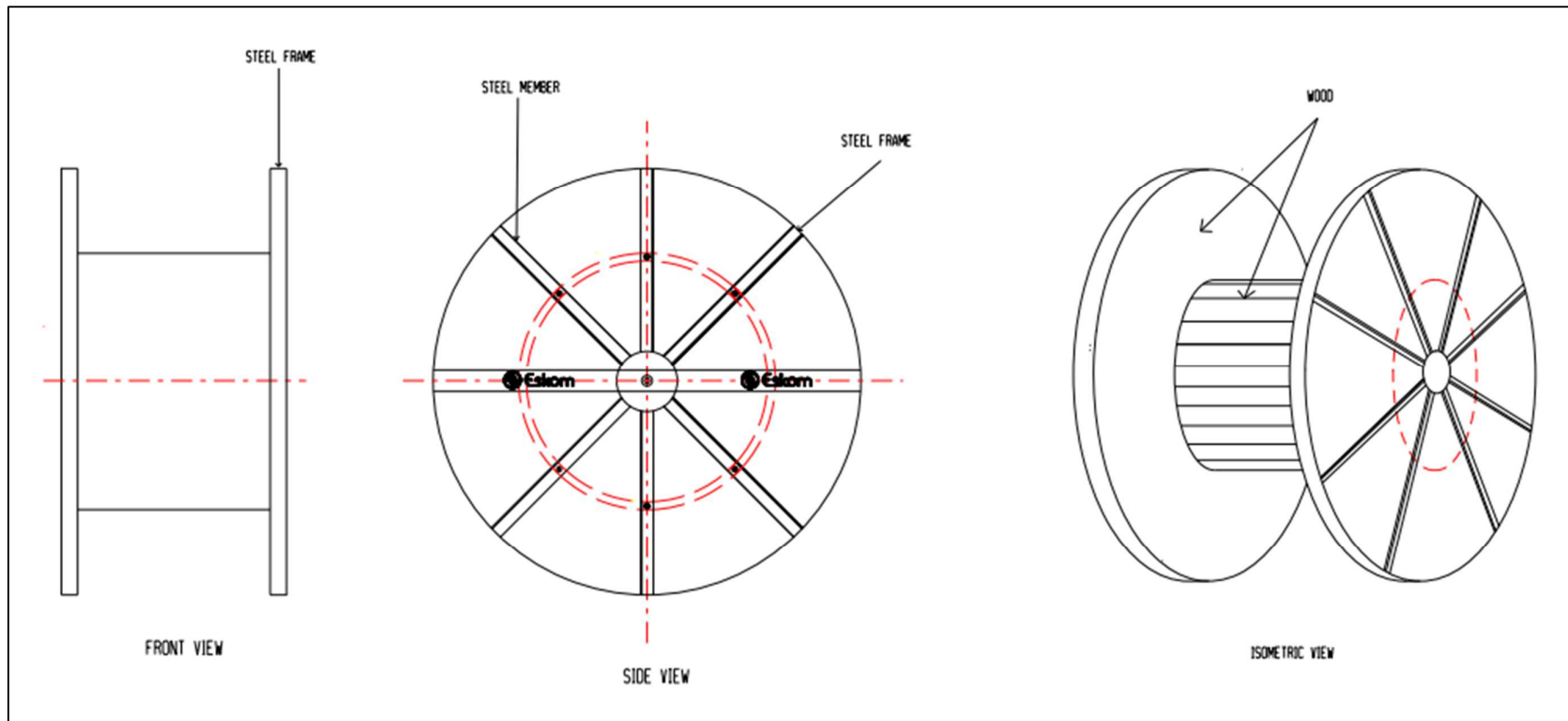
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4	Testing Facility and Practices		
4,1	Please provide proof of calibration of all test equipment	3	
4,2	Are all equipment still within their valid calibration period?	3	
4,3	Is calibration performed by an accredited institution? Please provide proof	3	
4,4	Are you able to perform routine and sample tests in-house? If so, sample test demonstration to be witnessed by Eskom during factory visit.	3	
4,5	Is the test bay area closed off?	3	
4,6	Are the testing equipment being operated by competent personnel, and how do you ensure that your operators remain up to date with the latest technologies?	3	
4,7	Are testing procedures aligned with applicable IEC standards?	3	
4,8	How is the quality and availability of test reports? Provide examples of quality test reports	2	
	Total	90	

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Annex D – Typical Hybrid Conductor Drum



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