

 Eskom	Report	Transmission
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Title: **TECHNICAL EVALUATION
CRITERIA FOR OVERHEAD
PHASE CONDUCTOR**

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1. Introduction

This document aims to describe the criteria which will govern the evaluation of tender submissions by external contractors intending to supply overhead phase conductors. The criteria for each phase conductor type are tabulated in the annexures at the end of this document.

The criteria necessary to perform both the desktop and factory evaluations are outlined. This document is meant as an assistive document for new conductor contracts and does not replace the existing phase conductor specification (240-152844641).

2. Supporting clauses

2.1 Scope

This document explains the technical evaluation process and criteria associated with overhead phase 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 phase conductors.

2.1.2 Applicability

This document shall apply throughout Eskom Holdings Limited Divisions.

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] 32-1034 - Eskom Procurement and Supply Management Procedure.
- [2] ISO 9001 Quality Management Systems.

2.2.2 Informative

- [3] 32-9: Definition of Eskom documents.
- [4] 32-644: Eskom documentation management standard.
- [5] 474-65: Operating manual of the Steering Committee of Technologies (SCOT).

2.3 Definitions

2.3.1 General

None

2.3.2 Disclosure classification

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

2.4 Abbreviations

Abbreviation	Description
ACSR	Aluminium Conductor Steel Reinforced
AAAC	All Aluminium Alloy Conductor
AAC	All Aluminium Conductor
PLS-CADD	Power Line Systems - Computer Assisted Design and Drawing

2.5 Roles and responsibilities

Not applicable.

2.6 Process for monitoring

Not applicable.

2.7 Related/supporting documents

- [1] SANS IEC 61089: 1991, Round wire concentric lay overhead electrical stranded conductors
- [2] IEC 888: 1987, Zinc-coated steel wires for stranded conductors
- [3] IEC 889: 1987, Hard-drawn aluminium wire for overhead line conductors
- [4] IEC 61394: 2011 Requirements for greases for aluminium, aluminium alloy and steel bare conductors
- [5] IEC 61395: 1998 Overhead Electrical Conductors – Creep Test procedures for stranded conductors
- [6] 240-152844641: Phase Conductor for Eskom Overhead Lines
- [7] ASTM B117: Salt Fog Testing

3. Technical Tender Evaluation Procedure

The technical evaluation procedure is specific to each item type. The items include ACSR, AAAC and AAC conductors.

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. During this process, the tender documentation submitted by potential suppliers is evaluated against the criteria listed in the attached ANNEXURES A, B, and C. Generic A/B schedules are provided in the document, but the full schedules and tick sheets will be available in excel format with the tender enquiry package. The Eskom evaluating representatives will go through the details of the returnable submissions that are required and will ensure that the Gatekeeper criteria are met. If submissions that receive a "No" on any of the Gatekeeper criteria, the supplier will not be able to proceed to the Desktop Evaluation and therefore will fail the technical evaluation.

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

3.1.1 Conductor Evaluation – the tenderers will be scored according to score sheets in Annexures A, B, and C once they meet the Gatekeeper requirements, also found in the Annexures.

- a) Specifications of the various phase conductors which the supplier proposes, and has the capability to, manufacture and supply. Tenderers are required to completely populate the relevant A/B schedules (found in Annexure C) submitted for all phase conductors that can be manufactured. A minimum or nearest equivalent (to be approved by Line Engineering Services) to the greased and ungreased options of phase conductors must be submitted.
- b) Tenderers are required to submit type test reports for every conductor tendered upon. Where type tests are not available for conductors not previously manufactured (e.g. IEC 630 ACSR) type tests will be required after order placement but before full production of the order (Eskom and the supplier shall agree on the timeframes for the submission of type tests)
- c) The supplier shall submit phase conductor information for use in PLS-CADD software applications with the cable creep test co-efficients as requested and within a year of contract award.
- d) Tenderers to submit details of manufacturing premises, location, staff and equipment, testing facilities, manufacturing lead times.
- e) Tenderers shall ensure that they cater for the manufacture of previously unsupplied conductors that may be requested during the contract lifetime. Tenderers shall also produce all the above- mentioned information for each of the unsupplied conductors they wish to supply as part of the contract.
- f) The phase conductor technical tender returnable shall have the following deliverables:

3.1.2 Phase conductor contract returnable list and gatekeepers

Item	Criteria	Number/Score	Submitted	Scoring	Gatekeepers
1.1	Completed A/B schedules for all conductors in Eskom spec.	47 possible conductor types (1 point will be allocated if a tenderer submits a completed conductor schedule per proposed conductor type)		The total score will be determined based on the number of completed schedules that the tenderer proposes to supply.	✓
1.2	Conductor Schedule Summary (Annexure A)	47		Will be done based on number of schedules and conductor that can be made by tenderer.	✓
1.3	Type test report summary (Annexure A)	47		Tenderer to fill in the list of conductors where a valid type test report is available and when the remaining will be done.	✓
1.4	Submission of file containing information for: Analysis of ACSR, AAC and AAAC manufacturers.	42 (as per analysis table in Annexure B)		A file must be submitted by the tenderer with requested information.	✓

3.2 Factory assessment

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 phase 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 B 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 phase 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 70% 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 70% to meet the technical requirements threshold.

Eskom performs these factory assessments to assess the ability and readiness of the tenderer for supplying/manufacturing of phase conductors for Eskom should the need arise and to verify the information submitted in the tender responses.

Criteria (Technical)				
Item	Final scoring - desktop	Scoring	Final score	Criteria
A/B schedules	Acceptable submitted/submitted	100%	50% of final score	Minimum 70% gatekeeper score
Conductor schedules summary	Verify number of conductors	N/A	0% towards final score	Used to verify number of products that the tenderer can manufacture.
Type test reports	Submitted acceptable and	N/A	0% towards final score	Used to verify the status of type testing for products tendered for.
Analysis of ACSR, AAAC and AAC conductor information submitted.	Inspection of file submitted as requested.	100%	50% of item score	Minimum 70% gatekeeper score
Total			100%	
Overall minimum threshold for qualification(s)			70%	

4. Authorization

This document has been seen and accepted by:

Name and surname	Designation
Ravi Singh	Chief Engineer Line Engineering Services
F. Mokhonoana	Senior Manager Line Engineering Services (Acting)
Prashant Mathuradas	Senior Engineer Line Engineering Services

5. Revisions

Date	Rev	Compiler	Remarks
Sept 2017	1	P. Mathuradas	New document for the evaluation of the phase conductor contract to be issued in 2017.
July 2022	2	P. Mathuradas	Updates to document for new conductor contract to be issued in 2024

6. Development team

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

- Prashant Mathuradas
- Ravi Singh
- Bharat Haridass

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- Bertie Jacobs
- Kiresh Singh

7. Acknowledgements

Not applicable.

Annex A**Annexure A: Conductor Schedule Summary (confirms which tests were submitted for different phase conductor types)**

Conductor	Greased	Ungreased	Type Test	Schedules submitted (greased)	Schedules submitted (ungreased)
Squirrel	x	x			
Magpie	x	x			
Fox	x	x			
Mink	x	x			
Horse	x	x			
Hare	x	x			
Tiger	x	x			
Oden (AC)	x	x			
Oden (DC)	x	x			
Wolf	x	x			
Chickadee	x	x			
Pelican	x	x			
Panther	x	x			
Bear	x	x			
Kingbird	x	x			
IEC 315	x	x			
Goat	x	x			
Tern	x	x			
Zebra	x	x			
IEC 450	x	x			
Rail	x	x			
IEC 500	x	x			
IEC 560	x	x			
Zambezi	x	x			
IEC 630	x	x			
Dinosaur	x	x			
Bersfort	x	x			
IEC 800	x	x			
Acacia	x	x			
Code 35	x	x			
Pine	x	x			
Oak	x	x			
IEC 160	x	x			
Sycamore	x	x			
IEC 315	x	x			
IEC 400	x	x			
IEC 450	x	x			

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IEC 500	x	x			
IEC 560	x	x			
IEC 630	x	x			
IEC 710	x	x			
IEC 800	x	x			
Hornet	x	x			
Centipede	x	x			
Bull	x	x			
IEC 315 ACSR Trapezoidal equivalent	For the ACSR trapezoidal equivalents listed to the left, technical specifications and costing is required. Equivalent conductor refers to an ACSR conductor that has trapezoidal stranding instead of concentric stranding. These equivalents can either be equivalent to the existing conductor with respect to diameter or Aluminium area. The equivalency must be specified as part of the submission. Information must be provided if special construction and installation practices are required for the ACSS and ACCC proposed e conductors (e.g. special joints, special manufacturing processes, disposal of waste etc.).				
Tern ACSR Trapezoidal equivalent					
Bersfort ACSR Trapezoidal equivalent					

Annex B - Analysis sheet of ACSR and AAAC manufacturers

	Criteria for ACSR manufacturers- Technical	Total score achievable
1	Manufacturing Methods/Product Conformance	
1.1	Do you have the ability to draw down raw aluminium material to required strand sizes? (Yes or no response required)	1
1.2	Do you have the ability to produce complete stranded ACSR conductor? (Yes or no response required)	1
1.3	Are all conductors manufactured according to the Eskom conductor specification? (Yes or No response required)	2
1.4	Do you have the capability to design a conductor to a user requirement? (Yes or No response required)	1
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 conductor technical data? Provide a sample drawing.	2
1.7	Provide a history and list of external customers that you have supplied similar products to.	3
1.8	Do you have the ability to or have access to a supplier of services to conduct creep testing in accordance with IEC 61395?	3
1.9	Will you supply certified test reports of conductor greases in accordance with IEC 61394? (Yes or no response required)	2
1.10	Does the supplier have access to facilities to conduct all types of tests required as per the Phase conductor standard for Eskom overhead lines (240-152844641)?	4
1.11	Show evidence of an example of Type testing in accordance with the Phase conductor standard for Eskom overhead lines (240-152844641). A type test report must be submitted.	4
1.12	Show evidence of Sample testing on each individual product in accordance with the relevant IEC standards and the Phase conductor standard for Eskom overhead lines (240-152844641). Sample test format and report to be submitted.	4
1.13	Supplier must provide typical drawings of wood and hybrid drums and packaging details of items after manufacture	2
1.14	Indicate ability and process to be used to mark aluminium strands as per Eskom requirements (Yes or No response required).	1
1.15	Submit example drawings of the hybrid and wooden drum details along with packaging details of items after manufacture (1point per drum type). Indicate the following key dimensions and material used per drum type (1 point per complete drawing): • 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)	4
1.16	Supply a sample drawing of the marking to be applied on the drums as per Eskom requirements:	1

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	• 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	
1.17.	Supply handling and long term (>6 months) storage requirements of the product in an open environment.	2
2	Quality control Practices	
2.1	Submit calibration certificates of all testing equipment	1
2.2	Do you have competent technicians operating the testing equipment?	1
2.3	Are the testing procedures in alignment with the relevant IEC specifications?	1
2.4	Provide examples of quality test reports	1
		42

Annex C – Generic Phase Conductor A/B Schedules**Squirrel ACSR conductor****ALTERNATIVE phase conductor**

- Resistance (Ohms/km) ≤ 1.3677
- Conductor diameter (mm) ≈ 6.33
- Ultimate Tensile Strength (kN) ≥ 8.02
- Conductor linear mass (kg/km) - ungreaed value ≈ 85.2
- Modulus of elasticity final (MPa) ≈ 80400
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 19.31 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	20.98-A1/S1A-6/1/2.11	
Conductor Overall Diameter (mm)	6.33	
Area Aluminium (mm ²)	20.98	
Area Total (mm ²)	24.48	
Aluminium wires (number off) / (diameter mm)	6/2.11	
Steel wires (number off) / (diameter mm)	1/2.11	
Conductor linear mass (kg/km)- ungreaed value	85.2	
Ultimate Tensile Strength (kN)	8.02	
Resistance DC @ 20°C (Ohms/km)	1.3677	
Modulus Elasticity Final (MPa)	80400	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	19.31×10^{-6}	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed	

Magpie ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 2.707
- Conductor diameter (mm) ≈ 6.35
- Ultimate Tensile Strength (kN) ≥ 18.573
- Conductor linear mass (kg/km)- ungreaed value ≈ 139.7
- Modulus of elasticity final (MPa) ≈ 133760
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 13.68 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	10.58-A1/S1A-3/2.118-4/2.118	
Conductor Overall Diameter (mm)	6.35	
Area Aluminium (mm ²)	10.58	
Area Total (mm ²)	24.71	
Aluminium wires (number off) / (diameter mm)	3/2.118	
Steel wires (number off) / (diameter mm)	4/2.118	
Conductor linear mass (kg/km)- ungreaed value	139.7	
Ultimate Tensile Strength (kN)	18.573	
Resistance DC @ 20°C (Ohms/km)	2.707	
Modulus Elasticity Final (MPa)	133760	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	13.68×10^{-6}	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed	

Fox ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.7822
- Conductor diameter (mm) ≈ 8.37
- Ultimate Tensile Strength (kN) ≥ 13.1
- Conductor linear mass (kg/km)- ungreased value ≈ 149
- Modulus of elasticity final (MPa) ≈ 80400
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 19.31 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	36.68-A1/S1A-6/1/2.79	
Conductor Overall Diameter (mm)	8.37	
Area Aluminium (mm^2)	36.68	
Area Total (mm^2)	42.8	
Aluminium wires (number off) / (diameter mm)	6/2.79	
Steel wires (number off) / (diameter mm)	1/2.79	
Conductor linear mass (kg/km)- ungreased value	149	
Ultimate Tensile Strength (kN)	13.1	
Resistance DC @ 20°C (Ohms/km)	0.7822	
Modulus Elasticity Final (MPa)	80400	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	19.31×10^{-6}	
Drum Lengths (m)	1000/1500/2000/2500	
Matched Sets	Yes	
Greased	Greased and ungreased	

Mink ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.4546
- Conductor diameter (mm) ≈ 10.98
- Ultimate Tensile Strength (kN) ≥ 21.9
- Conductor linear mass (kg/km)- ungreaed value ≈ 257
- Modulus of elasticity final (MPa) ≈ 80400
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 19.31 * 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	63.13-A1/S1A-6/1/3.66	
Conductor Overall Diameter (mm)	10.98	
Area Aluminium (mm^2)	63.13	
Area Total (mm^2)	73.65	
Aluminium wires (number off) / (diameter mm)	6/3.66	
Steel wires (number off) / (diameter mm)	1/3.66	
Conductor linear mass (kg/km)- ungreaed value	257	
Ultimate Tensile Strength (kN)	21.9	
Resistance DC @ 20°C (Ohms/km)	0.4546	
Modulus Elasticity Final (MPa)	80400	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	$19.31 * 10^{-6}$	
Drum Lengths (m)	1000/1500	
Matched Sets	Yes	
Greased	Greased and ungreaed	

Horse ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.3939
- Conductor diameter (mm) ≈ 13.95
- Ultimate Tensile Strength (kN) ≥ 60.7
- Conductor linear mass (kg/km)- ungreased value ≈ 541
- Modulus of elasticity final (MPa) ≈ 108000
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 15.84 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	73.36-A1/S1A-12/7/2.79	
Conductor Overall Diameter (mm)	13.95	
Area Aluminium (mm^2)	73.36	
Area Total (mm^2)	116.16	
Aluminium wires (number off) / (diameter mm)	12/2.79	
Steel wires (number off) / (diameter mm)	7/2.79	
Conductor linear mass (kg/km)- ungreased value	541	
Ultimate Tensile Strength (kN)	60.7	
Resistance DC @ 20°C (Ohms/km)	0.3939	
Modulus Elasticity Final (MPa)	108000	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	15.84×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreased	

Hare ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.2733
- Conductor diameter (mm) ≈ 14.16
- Ultimate Tensile Strength (kN) ≥ 36
- Conductor linear mass (kg/km)- ungreaed value ≈ 427
- Modulus of elasticity final (MPa) ≈ 80400
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 19.31 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	104.98-A1/S1A-6/1/4.72	
Conductor Overall Diameter (mm)	14.16	
Area Aluminium (mm^2)	104.98	
Area Total (mm^2)	122.48	
Aluminium wires (number off) / (diameter mm)	6/4.72	
Steel wires (number off) / (diameter mm)	1/4.72	
Conductor linear mass (kg/km)- ungreaed value	427	
Ultimate Tensile Strength (kN)	36	
Resistance DC @ 20°C (Ohms/km)	0.2733	
Modulus Elasticity Final (MPa)	80400	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	19.31×10^{-6}	
Drum Lengths (m)	1000/1500	
Matched Sets	Yes	
Greased	Greased and ungreaed	

Tiger ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.2202
- Conductor diameter (mm) ≈ 16.52
- Ultimate Tensile Strength (kN) ≥ 70
- Conductor linear mass (kg/km)- ungreaed value ≈ 606
- Modulus of elasticity final (MPa) ≈ 83400
- Coefficient of linear expansion (1/°C) $\approx 18.43 \times 10^{-6}$

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	131.23-A1/S1A-30/7/2.36	
Conductor Overall Diameter (mm)	16.52	
Area Aluminium (mm ²)	131.23	
Area Total (mm ²)	161.85	
Aluminium wires (number off) / (diameter mm)	30/2.36	
Steel wires (number off) / (diameter mm)	7/2.36	
Conductor linear mass (kg/km)- ungreaed value	606	
Ultimate Tensile Strength (kN)	58.70	
Resistance DC @ 20°C (Ohms/km)	0.2202	
Modulus Elasticity Final (MPa)	83400	
Coefficient of Linear Expansion, α , (1/°C)	18.43×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Oden ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.2473
- Conductor diameter (mm) ≈ 17.6
- Ultimate Tensile Strength (kN) ≤ 93.62
- Conductor linear mass (kg/km)- ungreaed value ≈ 853
- Modulus of elasticity final (MPa) ≈ 108000
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 15.61 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	116.78-A1/S1A-12/7/3.52	
Conductor Overall Diameter (mm)	17.6	
Area Aluminium (mm ²)	116.78	
Area Total (mm ²)	184.9	
Aluminium wires (number off) / (diameter mm)	12/3.52	
Steel wires (number off) / (diameter mm)	7/3.52	
Conductor linear mass (kg/km)- ungreaed value	853	
Ultimate Tensile Strength (kN)	93.62	
Resistance DC @ 20°C (Ohms/km)	0.2473	
Modulus Elasticity Final (MPa)	108000	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	15.61×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and Ungreased.	

Wolf ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.1828
- Conductor diameter (mm) ≈ 18.13
- Ultimate Tensile Strength (kN) ≥ 69.2
- Conductor linear mass (kg/km)- ungreased value ≈ 730
- Modulus of elasticity final (MPa) ≈ 83400
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 18.43 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	158.06-A1/S1A-30/7/2.59	
Conductor Overall Diameter (mm)	18.13	
Area Aluminium (mm^2)	158.06	
Area Total (mm^2)	194.94	
Aluminium wires (number off) / (diameter mm)	30/2.59	
Steel wires (number off) / (diameter mm)	7/2.59	
Conductor linear mass (kg/km)- ungreased value	730	
Ultimate Tensile Strength (kN)	69.2	
Resistance DC @ 20°C (Ohms/km)	0.1828	
Modulus Elasticity Final (MPa)	83400	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	18.43×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreased	

Chicadee ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.1427
- Conductor diameter (mm) ≈ 18.87
- Ultimate Tensile Strength (kN) ≥ 44.9
- Conductor linear mass (kg/km)- ungreased value ≈ 643
- Modulus of elasticity final (MPa) ≈ 66200
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 21.44 * 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	200.93-A1/S1A-18/1/3.77	
Conductor Overall Diameter (mm)	18.87	
Area Aluminium (mm^2)	200.93	
Area Total (mm^2)	212.09	
Aluminium wires (number off) / (diameter mm)	18/3.77	
Steel wires (number off) / (diameter mm)	1/3.77	
Conductor linear mass (kg/km)- ungreased value	643	
Ultimate Tensile Strength (kN)	44.9	
Resistance DC @ 20°C (Ohms/km)	0.1427	
Modulus Elasticity Final (MPa)	66200	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	$21.44 * 10^{-6}$	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreased	

Pelican ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.1189
- Conductor diameter (mm) ≈ 20.70
- Ultimate Tensile Strength (kN) ≥ 53.8
- Conductor linear mass (kg/km)- ungreaed value ≈ 775
- Modulus of elasticity final (MPa) ≈ 66200
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 21.44 * 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	242.31-A1/S1A-18/1/4.14	
Conductor Overall Diameter (mm)	20.70	
Area Aluminium (mm^2)	242.31	
Area Total (mm^2)	255.77	
Aluminium wires (number off) / (diameter mm)	18/4.14	
Steel wires (number off) / (diameter mm)	1/4.14	
Conductor linear mass (kg/km)- ungreaed value	775	
Ultimate Tensile Strength (kN)	53.8	
Resistance DC @ 20°C (Ohms/km)	0.1189	
Modulus Elasticity Final (MPa)	66200	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	$21.44 * 10^{-6}$	
Drum Lengths (m)	1000	
Matched Sets	Yes	
Greased	Greased and ungreaed	

Panther ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.1363
- Conductor diameter (mm) ≈ 21.00
- Ultimate Tensile Strength (kN) ≥ 90.80
- Conductor linear mass (kg/km)- ungreased value ≈ 970
- Modulus of elasticity final (MPa) ≈ 83400
- Coefficient of linear expansion $(1/^{\circ}\text{C})$ $\approx 18.43 * 10^{-6}$

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	212.06-A1/S1A-30/7/3.00	
Conductor Overall Diameter (mm)	21.00	
Area Aluminium (mm ²)	212.06	
Area Total (mm ²)	261.54	
Aluminium wires (number off) / (diameter mm)	30/3.00	
Steel wires (number off) / (diameter mm)	7/3.00	
Conductor linear mass (kg/km)- ungreased value	970	
Ultimate Tensile Strength (kN)	90.80	
Resistance DC @ 20°C (Ohms/km)	0.1363	
Modulus Elasticity Final (MPa)	83400	
Coefficient of Linear Expansion, α , (1/ $^{\circ}\text{C}$)	$18.43 * 10^{-6}$	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreased.	

Bear ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.1093
- Conductor diameter (mm) ≈ 23.45
- Ultimate Tensile Strength (kN) ≥ 112
- Conductor linear mass (kg/km)- ungreased value ≈ 1220
- Modulus of elasticity final (MPa) ≈ 83400
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 18.43 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	264.42-A1/S1A-30/7/3.35	
Conductor Overall Diameter (mm)	23.45	
Area Aluminium (mm^2)	264.42	
Area Total (mm^2)	326.12	
Aluminium wires (number off) / (diameter mm)	30/3.35	
Steel wires (number off) / (diameter mm)	7/3.35	
Conductor linear mass (kg/km)- ungreased value	1220	
Ultimate Tensile Strength (kN)	112	
Resistance DC @ 20°C (Ohms/km)	0.1093	
Modulus Elasticity Final (MPa)	83400	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	18.43×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreased	

Kingbird ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) $\leq 0,0891$
- Conductor diameter (mm) ≈ 23.90
- Ultimate Tensile Strength (kN) ≥ 71.32
- Conductor linear mass (kg/km)- ungreaed value ≈ 1038
- Modulus of elasticity final (MPa) ≈ 66200
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 21.69 \times 10^{-6}$

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	323.01-A1/S1A-18/1/4.78	
Conductor Overall Diameter (mm)	23.90	
Area Aluminium (mm^2)	323.01	
Area Total (mm^2)	340.96	
Aluminium wires (number off) / (diameter mm)	18/4.78	
Steel wires (number off) / (diameter mm)	1/4.78	
Conductor linear mass (kg/km)- ungreaed value	1038	
Ultimate Tensile Strength (kN)	71.32	
Resistance DC @ 20°C (Ohms/km)	0.0891	
Modulus Elasticity Final (MPa)	66200	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	21.69×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 315 ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) $\leq 0,0917$
- Conductor diameter (mm) ≈ 23.9
- Ultimate Tensile Strength (kN) ≥ 79.03
- Conductor linear mass (kg/km)- ungreaed value ≈ 1039.6

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	315-A1/S1A-45/2.99-7/1.99	
Conductor Overall Diameter (mm)	23.9	
Area Aluminium (mm ²)	315	
Area Total (mm ²)	337	
Aluminium wires (number off) / (diameter mm)	45/2.99	
Steel wires (number off) / (diameter mm)	7/1.99	
Conductor linear mass (kg/km)- ungreaed value	1039.6	
Ultimate Tensile Strength (kN)	79.03	
Resistance DC @ 20°C (Ohms/km)	0.0917	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Goat ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0891
- Conductor diameter (mm) ≈ 25.97
- Ultimate Tensile Strength (kN) ≥ 136
- Conductor linear mass (kg/km)- ungreased value ≈ 1500
- Modulus of elasticity final (MPa) ≈ 83400
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 18.43 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	324.31-A1/S1A-30/7/3.71	
Conductor Overall Diameter (mm)	25.97	
Area Aluminium (mm^2)	324.31	
Area Total (mm^2)	399.98	
Aluminium wires (number off) / (diameter mm)	30/3.71	
Steel wires (number off) / (diameter mm)	7/3.71	
Conductor linear mass (kg/km)- ungreased value	1500	
Ultimate Tensile Strength (kN)	136	
Resistance DC @ 20°C (Ohms/km)	0.0891	
Modulus Elasticity Final (MPa)	83400	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	18.43×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreased	

Tern ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) $\leq 0,0718$
- Conductor diameter (mm) ≈ 27.00
- Ultimate Tensile Strength (kN) ≥ 98.70
- Conductor linear mass (kg/km)- ungreaed value ≈ 1340
- Modulus of elasticity final (MPa) ≈ 66600
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 21.12 * 10^{-6}$

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	403.77-A1/S1A-45/3.38-7/2.25	
Conductor Overall Diameter (mm)	27.00	
Area Aluminium (mm^2)	403.77	
Area Total (mm^2)	431.60	
Aluminium wires (number off) / (diameter mm)	45/3.38	
Steel wires (number off) / (diameter mm)	7/2.25	
Conductor linear mass (kg/km)- ungreaed value	1340	
Ultimate Tensile Strength (kN)	98.70	
Resistance DC @ 20°C (Ohms/km)	0,0718	
Modulus Elasticity Final (MPa)	66600	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	$21.12 * 10^{-6}$	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Zebra ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0674
- Conductor diameter (mm) ≈ 28.62
- Ultimate Tensile Strength (kN) ≥ 133
- Conductor linear mass (kg/km)- ungreased value ≈ 1630
- Modulus of elasticity final (MPa) ≈ 73200
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 19.91 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	428.88-A1/S1A-54/7/3.18	
Conductor Overall Diameter (mm)	28.62	
Area Aluminium (mm^2)	428.88	
Area Total (mm^2)	484.48	
Aluminium wires (number off) / (diameter mm)	54/3.18	
Steel wires (number off) / (diameter mm)	7/3.18	
Conductor linear mass (kg/km)- ungreased value	1630	
Ultimate Tensile Strength (kN)	133	
Resistance DC @ 20°C (Ohms/km)	0.0674	
Modulus Elasticity Final (MPa)	73200	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	19.91×10^{-6}	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreased	

IEC 450 ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0642
- Conductor diameter (mm) ≈ 28.5
- Ultimate Tensile Strength (kN) ≥ 107.47
- Conductor linear mass (kg/km)- ungreaed value ≈ 1485.2

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	450-A1/S1A-45/3.57-7/2.38	
Conductor Overall Diameter (mm)	28.5	
Area Aluminium (mm ²)	450	
Area Total (mm ²)	481	
Aluminium wires (number off) / (diameter mm)	45/3.57	
Steel wires (number off) / (diameter mm)	7/2.38	
Conductor linear mass (kg/km)- ungreaed value	1485.2	
Ultimate Tensile Strength (kN)	107.47	
Resistance DC @ 20°C (Ohms/km)	0.0642	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Rail ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0598
- Conductor diameter (mm) ≈ 29.59
- Ultimate Tensile Strength (kN) ≥ 117
- Conductor linear mass (kg/km)- ungreaed value ≈ 1610
- Modulus of elasticity final (MPa) ≈ 66700
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 21.11 * 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	483.84-A1/S1A-45/3.70-7/2.47	
Conductor Overall Diameter (mm)	29.59	
Area Aluminium (mm ²)	483.84	
Area Total (mm ²)	517.39	
Aluminium wires (number off) / (diameter mm)	45/3.70	
Steel wires (number off) / (diameter mm)	7/2.47	
Conductor linear mass (kg/km)- ungreaed value	1610	
Ultimate Tensile Strength (kN)	117	
Resistance DC @ 20°C (Ohms/km)	0.0598	
Modulus Elasticity Final (MPa)	66700	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	$21.11 * 10^{-6}$	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 500 ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0578
- Conductor diameter (mm) ≈ 30.1
- Ultimate Tensile Strength (kN) ≥ 119.41
- Conductor linear mass (kg/km)- ungreaed value ≈ 1650.2

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	500-A1/S1A-45/3.76-7/2.51	
Conductor Overall Diameter (mm)	30.1	
Area Aluminium (mm ²)	500	
Area Total (mm ²)	535	
Aluminium wires (number off) / (diameter mm)	45/3.76	
Steel wires (number off) / (diameter mm)	7/2.51	
Conductor linear mass (kg/km)- ungreaed value	1650.2	
Ultimate Tensile Strength (kN)	119.41	
Resistance DC @ 20°C (Ohms/km)	0.0578	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 560 ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0516
- Conductor diameter (mm) ≈ 31.8
- Ultimate Tensile Strength (kN) ≥ 133.74
- Conductor linear mass (kg/km)- ungreaed value ≈ 1848.2

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	560-A1/S1A-45/3.98-7/2.65	
Conductor Overall Diameter (mm)	31.8	
Area Aluminium (mm ²)	560	
Area Total (mm ²)	599	
Aluminium wires (number off) / (diameter mm)	45/3.98	
Steel wires (number off) / (diameter mm)	7/2.65	
Conductor linear mass (kg/km)- ungreaed value	1848.2	
Ultimate Tensile Strength (kN)	133.74	
Resistance DC @ 20°C (Ohms/km)	0.0516	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Zambezi ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.051
- Conductor diameter (mm) ≈ 31.8
- Ultimate Tensile Strength (kN) ≥ 98.3
- Conductor linear mass (kg/km)- ungreaed value ≈ 1764

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	565.38-A1/S1A-42/4.14-7/2.32	
Conductor Overall Diameter (mm)	31.8	
Area Aluminium (mm ²)	565.38	
Area Total (mm ²)	594.97	
Aluminium wires (number off) / (diameter mm)	42/4.14	
Steel wires (number off) / (diameter mm)	7/2.32	
Conductor linear mass (kg/km)- ungreaed value	1764	
Ultimate Tensile Strength (kN)	98.3	
Resistance DC @ 20°C (Ohms/km)	0.051	
Modulus Elasticity Final (MPa)	73.2	
Coefficient of Linear Expansion, α , (1/°C)	21.49×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 630 ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0459
- Conductor diameter (mm) ≈ 33.8
- Ultimate Tensile Strength (kN) ≥ 150.45
- Conductor linear mass (kg/km)- ungreaed value ≈ 2079.2

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	630-A1/S1A-45/4.22-7/2.81	
Conductor Overall Diameter (mm)	33.8	
Area Aluminium (mm ²)	630	
Area Total (mm ²)	674	
Aluminium wires (number off) / (diameter mm)	45/4.22	
Steel wires (number off) / (diameter mm)	7/2.81	
Conductor linear mass (kg/km)- ungreaed value	2079.2	
Ultimate Tensile Strength (kN)	150.45	
Resistance DC @ 20°C (Ohms/km)	0.0459	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Dinosaur ACSR conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0437
- Conductor diameter (mm) ≈ 35.55
- Ultimate Tensile Strength (kN) ≥ 202.92
- Conductor linear mass (kg/km)- ungreased value ≈ 2493
- Modulus of elasticity final (MPa) ≈ 72200
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 19.91 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	661.72-A1/S1A-54/3.95-19/2.36	
Conductor Overall Diameter (mm)	35.55	
Area Aluminium (mm ²)	661.72	
Area Total (mm ²)	744.84	
Aluminium wires (number off) / (diameter mm)	54/3.95	
Steel wires (number off) / (diameter mm)	19/2.36	
Conductor linear mass (kg/km)- ungreased value	2493	
Ultimate Tensile Strength (kN)	202.92	
Resistance DC @ 20°C (Ohms/km)	0.0437	
Modulus Elasticity Final (MPa)	72200	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	19.91×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreased.	

Bersfort ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) $\leq 0,0420$
- Conductor diameter (mm) ≈ 35.58
- Ultimate Tensile Strength (kN) ≥ 177.65
- Conductor linear mass (kg/km)- ungreaed value ≈ 2386
- Modulus of elasticity final (MPa) ≈ 68800
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 20.68 \times 10^{-6}$

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS

Schedule A: Purchaser's specific requirements

Schedule B: Particulars of equipment to be supplied

Conductor Type

Description	Schedule A	Schedule B
IEC Code	687.36-A1/S1A-48/4.27-7/3.32	
Conductor Overall Diameter (mm)	35.58	
Area Aluminium (mm ²)	687.36	
Area Total (mm ²)	747.96	
Aluminium wires (number off) / (diameter mm)	48/4.27	
Steel wires (number off) / (diameter mm)	7/3.32	
Conductor linear mass (kg/km)- ungreaed value	2386	
Ultimate Tensile Strength (kN)	177.65	
Resistance DC @ 20°C (Ohms/km)	0.0420	
Modulus Elasticity Final (MPa)	68800	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	20.68×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 800 ACSR conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0361
- Conductor diameter (mm) ≈ 37.6
- Ultimate Tensile Strength (kN) ≥ 167.41
- Conductor linear mass (kg/km)- ungreaed value ≈ 2480.2

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	800-A1/S1A-72/3.76 -7/2.51	
Conductor Overall Diameter (mm)	37.6	
Area Aluminium (mm ²)	800	
Area Total (mm ²)	835	
Aluminium wires (number off) / (diameter mm)	72/3.76	
Steel wires (number off) / (diameter mm)	7/2.51	
Conductor linear mass (kg/km)- ungreaed value	2480.2	
Ultimate Tensile Strength (kN)	167.41	
Resistance DC @ 20°C (Ohms/km)	0.0361	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Acacia AAAC conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 1.39
- Conductor diameter (mm) ≈ 6.24
- Ultimate Tensile Strength (kN) ≥ 6.69
- Conductor linear mass (kg/km)- ungreased value ≈ 65
- Modulus of elasticity final (MPa) ≈ 61000
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 23 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	IEC Code 23.79-A2-7/2.08	
Conductor Overall Diameter (mm)	6.24	
Area Aluminium (mm ²)	23.79	
Area Total (mm ²)	23.79	
Aluminium wires (number off) / (diameter mm)	7/2.08	
Steel wires (number off) / (diameter mm)	N/A	
Conductor linear mass (kg/km)- ungreased value	65	
Ultimate Tensile Strength (kN)	6.69	
Resistance DC @ 20°C (Ohms/km)	1.39	
Modulus Elasticity Final (MPa)	61000	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	23×10^{-6}	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreased	

Code 35 AAAC conductor**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.785
- Conductor diameter (mm) ≈ 8.31
- Ultimate Tensile Strength (kN) ≥ 11.86
- Conductor linear mass (kg/km)- ungreaed value ≈ 115
- Modulus of elasticity final (MPa) ≈ 61000
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 23 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	IEC Code 42.18-A2-7/2.77	
Conductor Overall Diameter (mm)	8.31	
Area Aluminium (mm ²)	42.18	
Area Total (mm ²)	42.18	
Aluminium wires (number off) / (diameter mm)	7/2.77	
Steel wires (number off) / (diameter mm)	N/A	
Conductor linear mass (kg/km)- ungreaed value	115	
Ultimate Tensile Strength (kN)	11.86	
Resistance DC @ 20°C (Ohms/km)	0.785	
Modulus Elasticity Final (MPa)	61000	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	23×10^{-6}	
Drum Lengths (m)	1000/1500/2000/2500	
Matched Sets	Yes	
Greased	Greased and ungreaed	

Pine AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.462
- Conductor diameter (mm) ≈ 10.83
- Ultimate Tensile Strength (kN) ≥ 20.2
- Conductor linear mass (kg/km)- ungreaed value ≈ 196
- Modulus of elasticity final (MPa) ≈ 61000
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 23 * 10^{-6}$

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS

Schedule A: Purchaser's specific requirements

Schedule B: Particulars of equipment to be supplied

Conductor Type

Description	Schedule A	Schedule B
IEC Code	71.65-A2-7/3.61	
Conductor Overall Diameter (mm)	10.83	
Area Aluminium (mm^2)	71.65	
Area Total (mm^2)	71.65	
Aluminium wires (number off) / (diameter mm)	7/3.61	
Conductor linear mass (kg/km)- ungreaed value	196	
Ultimate Tensile Strength (kN)	20.2	
Resistance DC @ 20°C (Ohms/km)	0.462	
Modulus Elasticity Final (MPa)	61000	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	$23 * 10^{-6}$	
Drum Lengths (m)	1000/1500/2000/2500	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Oak AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.279
- Conductor diameter (mm) ≈ 13.95
- Ultimate Tensile Strength (kN) ≥ 33.33
- Conductor linear mass (kg/km)- ungreased value ≈ 325
- Modulus of elasticity final (MPa) ≈ 61000
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 23 * 10^{-6}$

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS

Schedule A: Purchaser's specific requirements

Schedule B: Particulars of equipment to be supplied

Conductor Type

Description	Schedule A	Schedule B
IEC Code	118.9-A2-7/4.65	
Conductor Overall Diameter (mm)	13.95	
Area Aluminium (mm^2)	118.9	
Area Total (mm^2)	118.9	
Aluminium wires (number off) / (diameter mm)	7/4.65	
Conductor linear mass (kg/km)- ungreased value	325	
Ultimate Tensile Strength (kN)	33.33	
Resistance DC @ 20°C (Ohms/km)	0.279	
Modulus Elasticity Final (MPa)	61000	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	$23 * 10^{-6}$	
Drum Lengths (m)	1000	
Matched Sets	Yes	
Greased	Greased and ungreased.	

IEC 160 AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.1798
- Conductor diameter (mm) ≈ 17.6
- Ultimate Tensile Strength (kN) ≥ 54.32
- Conductor linear mass (kg/km)- ungreaed value ≈ 506.1

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	184-A2-19/3.51	
Conductor Overall Diameter (mm)	17.6	
Area Aluminium (mm ²)	184	
Area Total (mm ²)	184	
Aluminium wires (number off) / (diameter mm)	19/3.51	
Conductor linear mass (kg/km)- ungreaed value	506.1	
Ultimate Tensile Strength (kN)	54.32	
Resistance DC @ 20°C (Ohms/km)	0.1798	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Sycamore AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.110
- Conductor diameter (mm) ≈ 22.61
- Ultimate Tensile Strength (kN) ≥ 85
- Conductor linear mass (kg/km)- ungreaed value ≈ 835

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	303.2-A2-37/3.23	
Conductor Overall Diameter (mm)	22.61	
Area Aluminium (mm ²)	303.2	
Area Total (mm ²)	303.2	
Aluminium wires (number off) / (diameter mm)	37/3.23	
Conductor linear mass (kg/km)- ungreaed value	835	
Ultimate Tensile Strength (kN)	85	
Resistance DC @ 20°C (Ohms/km)	0.110	
Modulus Elasticity Final (MPa)	58600	
Coefficient of Linear Expansion, α , (1/°C)	23 * 10 ⁻⁶	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 315 AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0916
- Conductor diameter (mm) ≈ 24.7
- Ultimate Tensile Strength (kN) ≥ 106.95
- Conductor linear mass (kg/km)- ungreaed value ≈ 998.9

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	363-A2-37/3.53	
Conductor Overall Diameter (mm)	24.7	
Area Aluminium (mm ²)	363	
Area Total (mm ²)	363	
Aluminium wires (number off) / (diameter mm)	37/3.53	
Conductor linear mass (kg/km)- ungreaed value	998.9	
Ultimate Tensile Strength (kN)	106.95	
Resistance DC @ 20°C (Ohms/km)	0.0916	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 400 AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0721
- Conductor diameter (mm) ≈ 27.9
- Ultimate Tensile Strength (kN) ≥ 135.81
- Conductor linear mass (kg/km)- ungreaed value ≈ 1268.4

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	460-A2-37/3.98	
Conductor Overall Diameter (mm)	27.9	
Area Aluminium (mm ²)	460	
Area Total (mm ²)	460	
Aluminium wires (number off) / (diameter mm)	37/3.98	
Conductor linear mass (kg/km)- ungreaed value	1268.4	
Ultimate Tensile Strength (kN)	135.81	
Resistance DC @ 20°C (Ohms/km)	0.0721	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 450 AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0641
- Conductor diameter (mm) ≈ 29.6
- Ultimate Tensile Strength (kN) ≥ 152.79
- Conductor linear mass (kg/km)- ungreaed value ≈ 1426.9

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	518-A2-37/4.22	
Conductor Overall Diameter (mm)	29.6	
Area Aluminium (mm ²)	518	
Area Total (mm ²)	518	
Aluminium wires (number off) / (diameter mm)	37/4.22	
Conductor linear mass (kg/km)- ungreaed value	1426.9	
Ultimate Tensile Strength (kN)	152.79	
Resistance DC @ 20°C (Ohms/km)	0.0641	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 500 AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0577
- Conductor diameter (mm) ≈ 31.2
- Ultimate Tensile Strength (kN) ≥ 169.76
- Conductor linear mass (kg/km)- ungreaed value ≈ 1585.5

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	575-A2-37/4.45	
Conductor Overall Diameter (mm)	31.2	
Area Aluminium (mm ²)	575	
Area Total (mm ²)	575	
Aluminium wires (number off) / (diameter mm)	37/4.45	
Conductor linear mass (kg/km)- ungreaed value	1585.5	
Ultimate Tensile Strength (kN)	169.76	
Resistance DC @ 20°C (Ohms/km)	0.0577	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000/2500/3000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 560 AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0516
- Conductor diameter (mm) ≈ 33.0
- Ultimate Tensile Strength (kN) ≥ 190.14
- Conductor linear mass (kg/km)- ungreaed value ≈ 1778.4

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	645-A2-61/3.67	
Conductor Overall Diameter (mm)	33.0	
Area Aluminium (mm ²)	645	
Area Total (mm ²)	645	
Aluminium wires (number off) / (diameter mm)	61/3.67	
Conductor linear mass (kg/km)- ungreaed value	1778.4	
Ultimate Tensile Strength (kN)	190.14	
Resistance DC @ 20°C (Ohms/km)	0.0516	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 630 AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0458
- Conductor diameter (mm) ≈ 35.0
- Ultimate Tensile Strength (kN) ≥ 213.9
- Conductor linear mass (kg/km)- ungreaed value ≈ 2000.7

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

DESCRIPTION	SCHEDULE A	SCHEDULE B
IEC Code	725-A2-61/3.89	
Conductor Overall Diameter (mm)	35.0	
Area Aluminium (mm ²)	725	
Area Total (mm ²)	725	
Aluminium wires (number off) / (diameter mm)	61/3.89	
Conductor linear mass (kg/km)- ungreaed value	2000.7	
Ultimate Tensile Strength (kN)	213.9	
Resistance DC @ 20°C (Ohms/km)	0.0458	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 710 AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0407
- Conductor diameter (mm) ≈ 37.2
- Ultimate Tensile Strength (kN) ≥ 241.07
- Conductor linear mass (kg/km)- ungreaed value ≈ 2254.8

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	817-A2-61/4.13	
Conductor Overall Diameter (mm)	37.2	
Area Aluminium (mm ²)	817	
Area Total (mm ²)	817	
Aluminium wires (number off) / (diameter mm)	61/4.13	
Conductor linear mass (kg/km)- ungreaed value	2254.8	
Ultimate Tensile Strength (kN)	241.07	
Resistance DC @ 20°C (Ohms/km)	0.0407	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

IEC 800 AAAC conductor**ALTERNATIVE PHASE CONDUCTOR**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0361
- Conductor diameter (mm) ≈ 39.5
- Ultimate Tensile Strength (kN) ≥ 271.62
- Conductor linear mass (kg/km)- ungreaed value ≈ 2540.6

A/B SCHEDULES PHASE CONDUCTOR SPECIFICATION SHEETS**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

DESCRIPTION	SCHEDULE A	SCHEDULE B
IEC Code	921-A2-61/4.38	
Conductor Overall Diameter (mm)	39.5	
Area Aluminium (mm ²)	921	
Area Total (mm ²)	921	
Aluminium wires (number off) / (diameter mm)	61/4.38	
Conductor linear mass (kg/km)- ungreaed value	2540.6	
Ultimate Tensile Strength (kN)	271.62	
Resistance DC @ 20°C (Ohms/km)	0.0361	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, α , (1/°C)	Supplier to specify	
Drum Lengths (m)	1000/1500	
Matched Sets	Yes	
Greased	Greased and ungreaed.	

Hornet AAC conductor (Insulated and non-insulated)**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.1825
- Conductor diameter (mm) ≈ 16.25
- Ultimate Tensile Strength (kN) ≥ 26
- Conductor linear mass (kg/km)- ungreased value ≈ 435
- Modulus of elasticity final (MPa) ≈ 59650
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 23 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	157.95-A1-19/3.25	
Conductor Overall Diameter (mm)	16.25	
Area Aluminium (mm ²)	157.95	
Area Total (mm ²)	157.95	
Aluminium wires (number off) / (diameter mm)	19/3.25	
Steel wires (number off) / (diameter mm)	N/A	
Conductor linear mass (kg/km)- ungreased value	435	
Ultimate Tensile Strength (kN)	26	
Resistance DC @ 20°C (Ohms/km)	0.1825	
Modulus Elasticity Final (MPa)	59650	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	23×10^{-6}	
Drum Lengths (m)	1000/1500/2000	
Matched Sets	Yes	
Greased	Greased and ungreased	
Insulated (Specification) material, thickness	Insulated and non-insulated	

Centipede AAC conductor (Insulated and non-insulated)**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0694
- Conductor diameter (mm) ≈ 26.46
- Ultimate Tensile Strength (kN) ≥ 67.2
- Conductor linear mass (kg/km)- ungreased value ≈ 1150
- Modulus of elasticity final (MPa) ≈ 58600
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 23 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	415.22-A1-37/3.78	
Conductor Overall Diameter (mm)	26.46	
Area Aluminium (mm ²)	415.22	
Area Total (mm ²)	415.22	
Aluminium wires (number off) / (diameter mm)	37/3.78	
Steel wires (number off) / (diameter mm)	N/A	
Conductor linear mass (kg/km)- ungreased value	1150	
Ultimate Tensile Strength (kN)	67.2	
Resistance DC @ 20°C (Ohms/km)	0.0694	
Modulus Elasticity Final (MPa)	58600	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	23×10^{-6}	
Drum Lengths (m)	1000	
Matched Sets	Yes	
Greased	Greased and ungreased	
Insulated (Specification) material, thickness	Insulated and non-insulated	

Bull AAC conductor (Insulated and Non-insulated)**ALTERNATIVE phase conductor**

If an alternative conductor is offered, the following electrical and mechanical properties shall be observed:

- Resistance (Ohms/km) ≤ 0.0334
- Conductor diameter (mm) ≈ 38.25
- Ultimate Tensile Strength (kN) ≥ 139
- Conductor linear mass (kg/km)- ungreased value ≈ 2400
- Modulus of elasticity final (MPa) ≈ 57570
- Coefficient of linear expansion ($1/^{\circ}\text{C}$) $\approx 23 \times 10^{-6}$

A/B SCHEDULES phase conductor Specification Sheets**Schedule A: Purchaser's specific requirements****Schedule B: Particulars of equipment to be supplied****Conductor Type**

Description	Schedule A	Schedule B
IEC Code	865.36-A1-61/4.25	
Conductor Overall Diameter (mm)	38.25	
Area Aluminium (mm ²)	865.36	
Area Total (mm ²)	865.36	
Aluminium wires (number off) / (diameter mm)	61/4.25	
Steel wires (number off) / (diameter mm)	N/A	
Conductor linear mass (kg/km)- ungreased value	2400	
Ultimate Tensile Strength (kN)	139	
Resistance DC @ 20°C (Ohms/km)	0.0334	
Modulus Elasticity Final (MPa)	57570	
Coefficient of Linear Expansion, α , ($1/^{\circ}\text{C}$)	23×10^{-6}	
Drum Lengths (m)	1000	
Matched Sets	Yes	
Greased	Greased and ungreased	
Insulated (Specification) material, thickness	Insulated and non-insulated	

IEC 315 ACSR Trapezoidal conductor (equivalent in diameter or Aluminium area)**A/B SCHEDULES phase conductor Specification Sheets**

SCHEDULE A: PURCHASER'S SPECIFIC REQUIREMENTS

SCHEDULE B: PARTICULARS OF EQUIPMENT TO BE SUPPLIED

Conductor Type

DESCRIPTION	SCHEDULE A	SCHEDULE B
IEC Code	Supplier to specify	
Conductor Overall Diameter (mm)	Supplier to specify	
Area Aluminium (mm ²)	Supplier to specify	
Area Total (mm ²)	Supplier to specify	
Aluminium wires (number off) / (diameter mm)	Supplier to specify	
Steel wires (number off) / (diameter mm)	Supplier to specify	
Conductor linear mass (kg/km)	Supplier to specify	
Ultimate Tensile Strength (kN)	Supplier to specify	
Resistance DC @ 20°C (ohms/km)	Supplier to specify	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, β , (1/°C)	Supplier to specify	
Drum Length(m)	Supplier to specify	
Matched Sets	Supplier to specify	
Greased (Castrol BJ20 or equivalent. Equivalent products subject to Eskom's approval. All layers must be greased except the outside)	Supplier to specify	
Insulated (Specification) material, thickness	Supplier to specify	

Tern ACSR Trapezoidal conductor (equivalent in diameter or Aluminium area)**A/B SCHEDULES phase conductor Specification Sheets**

SCHEDULE A: PURCHASER'S SPECIFIC REQUIREMENTS

SCHEDULE B: PARTICULARS OF EQUIPMENT TO BE SUPPLIED

Conductor Type

DESCRIPTION	SCHEDULE A	SCHEDULE B
IEC Code	Supplier to specify	
Conductor Overall Diameter (mm)	Supplier to specify	
Area Aluminium (mm ²)	Supplier to specify	
Area Total (mm ²)	Supplier to specify	
Aluminium wires (number off) / (diameter mm)	Supplier to specify	
Steel wires (number off) / (diameter mm)	Supplier to specify	
Conductor linear mass (kg/km)	Supplier to specify	
Ultimate Tensile Strength (kN)	Supplier to specify	
Resistance DC @ 20°C (ohms/km)	Supplier to specify	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, β , (1/°C)	Supplier to specify	
Drum Length(m)	Supplier to specify	
Matched Sets	Supplier to specify	
Greased (Castrol BJ20 or equivalent. Equivalent products subject to Eskom's approval. All layers must be greased except the outside)	Supplier to specify	
Insulated (Specification) material, thickness	Supplier to specify	

Bersfort ACSR Trapezoidal conductor (equivalent in diameter or Aluminium area)**A/B SCHEDULES phase conductor Specification Sheets**

SCHEDULE A: PURCHASER'S SPECIFIC REQUIREMENTS

SCHEDULE B: PARTICULARS OF EQUIPMENT TO BE SUPPLIED

Conductor Type

DESCRIPTION	SCHEDULE A	SCHEDULE B
IEC Code	Supplier to specify	
Conductor Overall Diameter (mm)	Supplier to specify	
Area Aluminium (mm ²)	Supplier to specify	
Area Total (mm ²)	Supplier to specify	
Aluminium wires (number off) / (diameter mm)	Supplier to specify	
Steel wires (number off) / (diameter mm)	Supplier to specify	
Conductor linear mass (kg/km)	Supplier to specify	
Ultimate Tensile Strength (kN)	Supplier to specify	
Resistance DC @ 20°C (ohms/km)	Supplier to specify	
Modulus Elasticity Final (MPa)	Supplier to specify	
Coefficient of Linear Expansion, β , (1/°C)	Supplier to specify	
Drum Length(m)	Supplier to specify	
Matched Sets	Supplier to specify	
Greased (Castrol BJ20 or equivalent. Equivalent products subject to Eskom's approval. All layers must be greased except the outside)	Supplier to specify	
Insulated (Specification) material, thickness	Supplier to specify	