



Kenya Power

**INSULATED PLATFORM TOOLS FOR AIRMOBILE
— SPECIFICATION**

A Document of the Kenya Power & Lighting Company Plc.

January 2023

TABLE OF CONTENTS

01. Circulation List	3
0.2 Amendment Record	4
FOREWORD	5
1. SCOPE	6
2. NORMATIVE REFERENCES	6
3. DEFINITIONS AND ABBREVIATIONS	6
4. REQUIREMENTS	7
4.1. SERVICE CONDITIONS	7
4.2. TELESCOPIC STICK	7
4.2.1. General	7
4.2.2. Weight and Dimensional Requirements	8
4.2.3. Surface Finish	9
4.2.4. Lock Assembly and End Caps	9
4.2.5. Universal Heads (Accessories)	9
4.3. LADDER PLATFORM	11
4.4. A-SHAPED LADDER	11
4.5. BARE-HAND WORKING CHAIR	12
4.6. INSPECTION TROLLEY	12
4.7. CRADLE SUPPORT	12
4.8. ADJUSTABLE STRAIN POLE ASSEMBLY	13
4.9. VOLTAGE DETECTOR	14
5. TESTS AND INSPECTION	14
5.1. General	14
5.2. Telescopic Stick	14
6. MARKING AND PACKING	15
6.1. MARKING	15
6.2. PACKING	15
APPENDICES	16
APPENDIX A: TESTS AND INSPECTION (NORMATIVE)	16
APPENDIX B: QUALITY MANAGEMENT SYSTEM (Normative)	16
APPENDIX C: DOCUMENTATION (Normative)	17
APPENDIX D: GUARANTEED TECHNICAL PARTICULARS (Normative)	19

Issued by: Head of Section, Standards Development

Authorized by: Head of Department, Standards

Signed:

Signed:

Date: 2023-01-25

Date: 2023-01-25



TITLE:
**INSULATED PLATFORM TOOLS FOR
AIRMOBILE — SPECIFICATION**

Doc. No.	KP1/13D/4/1/TSP/09/119
Issue No.	1
Rev. No.	0
Date of Issue	2023-01-25
Page 3 of 23	

01. Circulation List

COPY NO.	COPY HOLDER
1	Manager, Standards
Electronic copy (pdf) on Kenya Power server (http://172.16.1.40/dms/browse.php?fFolderId=23)	

REVISION OF KPLC STANDARDS

In order to keep abreast of progress in the industry, KPLC standards shall be regularly reviewed. Suggestions for improvements to approved standards, addressed to the Manager, Standards Department, are welcome.

© Kenya Power & Lighting Company Plc.

Users are reminded that by virtue of section 25 of the Copyright Act, 2001 (Revised 2014) Cap 130 of the Laws of Kenya copyright subsists in all KPLC standards and except as provided under section 26 of this act, no KPLC standard produced by KPLC may be reproduced, stored in retrieval system by any means without prior permission from the Managing Director & CEO, KPLC.

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25



TITLE:
**INSULATED PLATFORM TOOLS FOR
AIRMOBILE — SPECIFICATION**

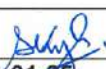
Doc. No.	KPI/13D/4/1/TSP/09/119
Issue No.	1
Rev. No.	0
Date of Issue	2023-01-25
Page 4 of 23	

0.2 Amendment Record

Rev No.	Date (YYYY-MM-DD)	Description of Change	Prepared by (Name & Signature)	Approved by (Name & Signature)
Issue 1 Rev 0	2023-01-25	New Issue	Rotich Benard	Eng. Dr. P. Kimemia

Issued by: Head of Section, Standards Development

Authorized by: Head of Department, Standards

Signed: 

Signed: 

Date: 2023-01-25

Date: 2023-01-25

FOREWORD

This Specification has been prepared by the Standards Department in collaboration with Transmission Department, both of the Kenya Power and Lighting Company Plc (herein called KPLC), and it lays down requirements for Insulated Platform Tools for Airmobile (132KV & 220kV).

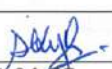
Insulated Platform Tools for Airmobile are a set of tools to be used for live work on the 132kV & 220kV network. They constitute the telescopic stick, ladder platform, bare-hand working chair, inspection trolley, cradle with fittings and the adjustable strain pole assembly.

This specification stipulates the minimum requirements for Insulated Platform Tools acceptable for use in the company and it shall be the responsibility of the suppliers and manufacturer to ensure that the offered design is of the highest quality and guarantees excellent service to KPLC, good workmanship and good engineering practice in the manufacture for KPLC.

Users of this KPLC specification are responsible for its correct interpretation and application.

The following are members of the team that developed this specification:

No	Name	Department
1.	Eng. Dedan Njoroge	Transmission
2.	Eng. David Mutitu	Transmission
3.	Rotich Benard	Standards

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

1. SCOPE

This specification covers Insulated Platform Tools for use in live work on the 132kV and 220kV network by airmobile team of KPLC.

2. NORMATIVE REFERENCES

The following standard and guidelines contain provision, which, through reference in this text, constitute provisions of this specification. For dated editions, the cited edition will apply; for undated editions, the latest edition of the referenced document shall apply:

ASTM D877 – 02: Standard Test Method for Dielectric Breakdown Voltage of Insulating Liquids Using Disk Electrodes

ASTM F1826 – 00: Standard Specification for Live Line and Measuring Telescoping Tools

ASTM F711 – 02: Standard Specification for Fibre Glass Reinforced (FRP) Rod and Tube Used in Live Line

BS EN 62193: Live working — Telescopic sticks and Telescopic measuring sticks

IEC 60832-1: Live Working: Insulating Sticks and Attachable Devices: Part 1 – Insulating Sticks

IEC 60832-2: Live Working: Insulating Sticks and Attachable Devices: Part 2 – Attachable Devices

IEC 60855-1: Live Working – Insulated Foam-Filled Tubes and Solid Rods – Part 1: Tubes and Rods of a Circular Cross-Section

IEC 61235: Live Working – Insulating Hollow Tubes for Electrical Purposes

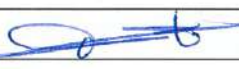
IEC 61243-1: Live working - Voltage detectors - Part 1: Capacitive type to be used for voltages exceeding 1 kV AC

IEC 61318: Live Working – Conformity Assessment Applicable to Tools, Devices and Equipment

IEC 62193: Live Working: Telescopic Sticks and Telescopic Measuring Sticks

3. DEFINITIONS AND ABBREVIATIONS

For the purpose of this specification, the definitions and abbreviations given in the reference standards shall apply together with the following:

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

Telescopic stick: Hand stick made of retractable insulating tubes including at least one filled or solid section which is fitted with a universal splined-head or other fitting and intended to be used under tension/compression and/or torque

4. REQUIREMENTS

4.1. SERVICE CONDITIONS

The Insulated Platform Tools for Airmobile shall be suitable for use in tropical climatic conditions including areas exposed to:

- Altitudes of up to 2200m above sea level;
- Humidity of up to 95% without condensing;
- Average ambient temperature of +30°C with a minimum of -1°C and a maximum of +40°C;
- Heavy Saline conditions along the coast.
- Designed to withstand wind speeds of up to 40m/s

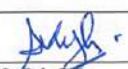
4.2. TELESCOPIC STICK

4.2.1. General

4.2.1.1. The telescopic sticks shall be designed as per BS EN 62193 and IEC 60855-1 and shall accept attachments that meet appropriate live working standards and together with these attachments, used to perform mechanical work on live parts at a distance.

4.2.1.2. The telescopic stick shall, together with the appropriate tools, be used to perform the following range of operations in high voltage installations:

- Connection and disconnection of disconnectors or other equipment
- fuse replacement with an attached tool
- voltage absence verification, using a detector as a separate device in accordance with EN 61243-1
- earthing and short circuiting installations, using devices in accordance with EN 61230;
- placing insulating screens in order to provide protection against adjacent live parts;
- testing and measurement;
- any other operation or verification on the electrical installation,

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

- 4.2.1.3. Telescopic sticks shall also be designed to accept diagnostic devices that meet appropriate live working standards and are used to make the diagnostic devices to reach parts of an installation to be tested.
- 4.2.1.4. The telescopic stick shall be made of a single continuous tube or rod or multiple tube or rod sections connected to each other, to be used both indoors and outdoors on electrical systems for voltages of up to 245 kV a.c., frequencies of 50 Hz and in conditions given in 4.1.
- 4.2.1.5. Shape(s) of all sections of the telescopic stick shall allow telescoping. Any attachments or end fittings shall not degrade the electrical and mechanical properties of the stick and shall comply with IEC 60832-1&2.
- 4.2.1.6. Except for the diameters, the raw material used for manufacturing of the tip section with circular cross-section shall comply with the requirements of IEC 60855.
- 4.2.1.7. All sections of the telescopic stick shall be made from fiberglass material for greater strength and high dielectric properties.

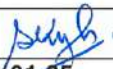
4.2.2. Weight and Dimensional Requirements

- 4.2.2.1. The telescopic stick shall have a retractable length of not less than 2m and extensible of up to 12m, and the net weight (without any accessory) shall not exceed 8 kg. The base section diameter shall not be more than 75mm.
- 4.2.2.2. The maximum tolerances permitted on the declared outer diameter (d) of tubes and rods shall be as specified in Table 1 of IEC 60855-1:

Table 1: Tolerances on outer diameter d

Outer Diameter mm	$d < 30$	$30 \leq d < 40$	$40 \leq d < 50$	$50 \leq d < 60$	$60 \leq d < 70$	$70 \leq d < 80$	$80 \leq d$
Tolerance mm	± 0.5	± 0.55	± 0.6	± 0.65	± 0.7	± 0.75	± 0.8

- 4.2.2.3. All external and internal dimensions of the different sections of the stick shall be sized to allow the sections to telescope easily in and out with minimum amount of play between sections.

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

4.2.3. Surface Finish

- 4.2.3.1. The external surface of the telescopic stick shall exhibit hydrophobic properties.
- 4.2.3.2. The external and internal surfaces shall be free of any abrasions, surface defects such as scratches, bruises, delamination, exposed fibres and blemishes that may capture an impurity and impair the dielectric integrity of the product.
- 4.2.3.3. Where a finish coating is applied, physical, electrical, and mechanical requirements shall be maintained.

4.2.4. Lock Assembly and End Caps

- 4.2.4.1. The lock assembly and end caps shall not reduce the electrical insulation of the tool below the requirements included in this standard.
- 4.2.4.2. The lock assembly shall be such that it provides a positive means of securing the sections of the tool in the extended position during use. It shall also permit manual retraction of the sections.
- 4.2.4.3. The lock assembly, or any other part of the tool, shall have no protruding parts capable of causing damage to the exterior or interior surface of the tool.
- 4.2.4.4. The lock assemblies shall support all mechanical working stresses without deformation or failure.

4.2.5. Universal Heads (Accessories)

- 4.2.5.1. The telescopic stick shall be supplied with universal heads (accessories) for carrying out the various live line operations work as listed in 4.2.1.2.
- 4.2.5.2. The telescopic stick head shall have a means of attaching the accessories. The means shall consist of a universal aluminium head tool, thumbscrew, reinforced plastic coupling pins, closure and rubber terminal. The manufacturer shall provide drawings of the means of attachment.
- 4.2.5.3. The following universal heads, as shown in Fig. 1, shall be provided, including a Canvas carrier bag:
- a) Pin remover universal head
 - b) Ratchet wrench universal head
 - c) Fuse Operating head

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

- d) Ball socket head
- e) Prong head
- f) Link stick head
- g) Shepherd hook head
- h) Universal adapter head
- i) Hammer head



Pin Remover Head



Ratchet Wrench Head



Fuse Operating Head



Ball Socket Head



Prong Head



Link Stick Head



Shepherd Hook Head



Universal Adapter Head



Hammer Head

Figure 1: Universal Heads to be Supplied

Issued by: Head of Section, Standards Development

Signed:

Date: 2023-01-25

Authorized by: Head of Department, Standards

Signed:

Date: 2023-01-25

4.3. LADDER PLATFORM

- 4.3.1. The ladder shall be made from fiberglass material, and shall consist of a 2m ladder and a stepping platform of not less than 0.1m² with a non-slip surface.
- 4.3.2. The ladder platform shall allow the electrician to work from a standing or sitting position.
- 4.3.3. The ladder platform shall have adjustable hooks for mounting onto a structure.
- 4.3.4. The ladder platform shall be foldable for easier transport and storage.
- 4.3.5. The ladder platform shall weigh not more than 30kg.

4.4. A-SHAPED LADDER

- 4.4.1. The A-shaped ladder shall be made of fiberglass material.
- 4.4.2. The parameters are as shown on Table 2:

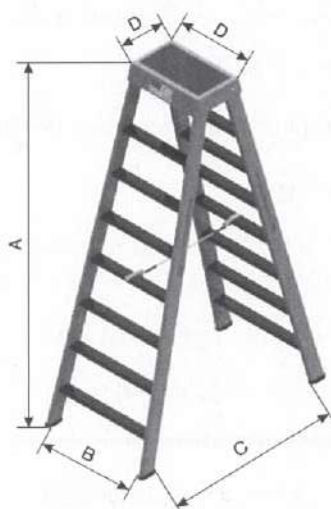


Figure 2: A-Shaped ladder

Table 2: Parameters of the A-Shaped ladder

Approximate Rated Length (M)				Weight (kg)	Inter-Step Distance (mm)
A (min)	B	C	D		
5.0	1.0	3.0	0.4 x 0.3	<70	300

Issued by: Head of Section, Standards Development

Authorized by: Head of Department, Standards

Signed:

Signed:

Date: 2023-01-25

Date: 2023-01-25

4.5. BARE-HAND WORKING CHAIR

- 4.5.1. The bare-hand working chair shall be made from fiberglass material with aluminium fittings.
- 4.5.2. The bare-hand working chair shall weigh not more than 25kg and have solid construction design that allows vertical and horizontal movement towards the point of work.
- 4.5.3. The bare-hand working chair shall be detachable for easier packing and storage.
- 4.5.4. The bare-hand working chair shall be accessorized by a canvas carry bag for portability.
- 4.5.5. The bare-hand working chair's workload capacity shall be up to 130kg.

4.6. INSPECTION TROLLEY

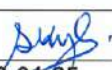
- 4.6.1. The trolley shall be made from aluminium alloy with the wheels mounted on ball-bearings.
- 4.6.2. It shall have a parking brake and equipped with a meter counter.
- 4.6.3. It shall accommodate two linemen and have a total workload capacity of up to 250kg.
- 4.6.4. It shall weigh not more than 35kg.
- 4.6.5. It shall be equipped with a negative disc brake that is manually controlled.

4.7. CRADLE SUPPORT

- 4.7.1. The cradle support shall be made from a fiberglass tube material that has a heat-treated aluminium head with forged steel swivel eye and three pairs of hooks.
- 4.7.2. It shall have a spiral link pole that acts as support.
- 4.7.3. It shall have an insulating length of up to 2.7m.
- 4.7.4. It shall weigh not more than 15kg.
- 4.7.5. It shall have a rated work capacity of at least 210daN.

Issued by: Head of Section, Standards Development

Authorized by: Head of Department, Standards

Signed: 

Signed: 

Date: 2023-01-25

Date: 2023-01-25

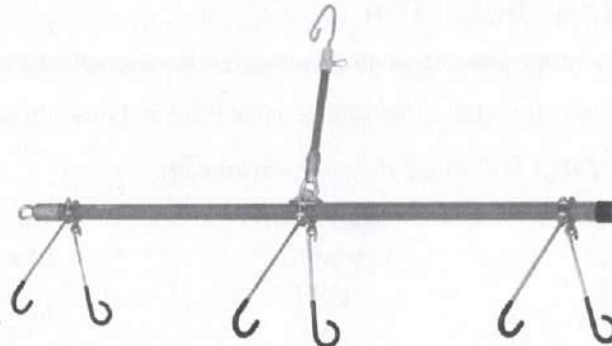


Figure 3: Cradle Support

4.8. ADJUSTABLE STRAIN POLE ASSEMBLY

- 4.8.1. The pole assembly shall be made from fiberglass material with a clevis tarnished with high strength steel.
- 4.8.2. It shall have five stainless steel cross pins at 150mm intervals to support the trunnions or hooks.
- 4.8.3. The accessories to be supplied with shall be listed and shall include but not limited to the following:
- a) Adjustable pole clamp/sleeve
 - b) Strain jack 610mm long
 - c) Strain jack 915mm long
 - d) Steel pin to lock clevis bolt
 - e) Reversible ratchet wrench

Table 3: Parameters of adjustable strain poles

Description	Maximum Voltage (kV)	Insulating Length (m)	Total Length (m)	Approximate Weight (kg)
a) 7-ft Strain Pole	169	1.2	2.6	<9
b) 8-ft Strain Pole	242	1.6	3.0	<10
c) 10-ft Strain Pole	302	2.1	3.5	<12

Issued by: Head of Section, Standards Development

Authorized by: Head of Department, Standards

Signed:

Signed:

Date: 2023-01-25

Date: 2023-01-25

4.9. VOLTAGE DETECTOR

4.9.1. The voltage detector shall be designed for use with a switch stick.

4.9.2. The detector shall offer safe and accurate response through light and sound indications.

Table 4: Voltage detector parameters

Voltage Range (kV)	Operation Frequency (Hz)	Voltage Class	Approximate Weight (kg)
180 - 540	60	High	<1.0

5. TESTS AND INSPECTION

5.1. General

The Insulated Platform Tools for Airmobile, accessories and fittings shall be tested in accordance with the relevant requirements and this specification. It shall be the responsibility of the manufacturer to perform or to have performed all the tests specified.

5.2. Telescopic Stick

The manufacturer shall provide evidence that the following type tests have been carried out as per IEC 60855-1 on a minimum of three sticks for each type of construction assembly:

- A. Visual and dimensional checks
- B. Electrical tests
 - a. Dielectric test under dry condition
 - b. Dielectric test after exposure to water
 - c. Wet test
- C. Mechanical tests
 - a. Bending test
 - b. Torsion test
 - c. Crushing test on tube
 - d. Electrical test after mechanical ageing
 - e. Dye penetration test
 - f. Durability of marking

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

6. MARKING AND PACKING

6.1. MARKING

6.1.1. The telescopic stick shall be marked in a permanent and visible manner with the following:

- name or trade mark of the manufacturer;
- category reference;
- date of manufacture (year and, if possible, month) and/or lot number;
- exposed length of the tip section when extended;
- warning: “the tip section has to be fully extended when performing live working”;
- symbol IEC 60417-5216 (DB:2002-10) – Suitable for live working; double triangle
- provide for an area permitting the marking of the date of the current inspection or the date of the next required inspection and test.
- The words “**KPLC**”

6.1.2. Every air platform tools and accessories shall be marked with the following:

- Manufacturer’s Name
- Part Number
- The words “**KPLC**”

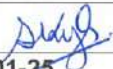
6.1.3. Each tool shall provide for an area permitting the marking of the date of the current inspection or the date of the next required inspection and test.

6.1.4. Markings shall be clearly visible and legible to a person with normal or corrected vision without additional magnification.

6.2. PACKING

6.2.1. The heads shall come with a storing box with slot for each universal head.

6.2.2. Instructions for installation and details on applicable tools shall be included in each package, all in English language.

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

APPENDICES

APPENDIX A: TESTS AND INSPECTION (NORMATIVE)

- A.1 Copies of previous Test Certificates and Test Reports (for all applicable type tests) by a third party testing laboratory accredited to ISO/IEC 17025 shall be submitted with the offer for evaluation all in English language. Any translations of certificates and test reports into English language shall be signed and stamped by the Testing Authority. A copy of the accreditation certificate to ISO/IEC 17025 for the testing laboratory shall also be submitted (all in English language).
- A.2. Copies of Test Reports to be submitted for tender evaluation shall include the results of the type tests as per Clause 5 for the Insulated Platform Tools for Airmobile, accessories and fittings identical in all essential details with those to be supplied.
- A.3. After manufacture, KPLC shall nominate three engineers to witness acceptance tests at the factory. Routine and sample test reports for the tools, accessories and fittings to be supplied shall be submitted to KPLC for approval before shipment/delivery of the goods.
- A.4. On receipt of the Insulated Platform Tools at stores, KPLC will inspect them for acceptance and may perform or have tests performed in order to verify compliance with this specification. The supplier shall replace without charge to KPLC any tool, accessory or fitting which upon examination, test or use fail to meet any or all of the requirements in the specification.

APPENDIX B: QUALITY MANAGEMENT SYSTEM (Normative)

- B.1 The supplier shall submit a Quality Assurance Plan (QAP) that will be used to ensure that the Insulated Platform Tools physical properties, tests and documentation, will fulfil the requirements stated in the contract documents, standards, specifications and regulations. The QAP shall be based on and include relevant parts to fulfil the requirements of ISO 9001: 2015.
- B.2 The Manufacturer's Declaration of Conformity to applicable standards and copies of quality management certifications including copy of valid and relevant ISO 9001: 2015 certificate shall be submitted with the tender for evaluation.
- B.3 The bidder shall indicate the delivery time of the Insulated Platform Tools, manufacturer's monthly & annual production capacity and experience in the production of the type and size of items being offered.

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

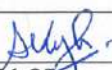
APPENDIX C: DOCUMENTATION (Normative)

C.1 The bidder shall submit its tender complete with technical documents for tender evaluation. The technical documents to be submitted (all in English language) for tender evaluation shall include the following:

- Fully-filled clause by clause Guaranteed Technical Particulars (GTP) signed by the manufacturer, specific values shall be filled in. Terms like “Yes”, “Agree”, “Complied” **shall not be acceptable**;
- Copies of the Manufacturer’s catalogues, brochures, drawings and technical data;
- ISO 9001:2015 Certificate and other technical documents required in the tender.
- Quality Assurance Plan (QAP) that will be used to ensure that the design, material, workmanship, tests, service capability, maintenance and documentation will fulfil the requirements stated in the contract documents, standards, specifications and regulations.
- Copies of required type test reports by a third party testing laboratory accredited to ISO/IEC 17025. The test reports shall not be more than five years old;
- Copy of accreditation certificate to ISO/IEC 17025 for the third party testing laboratory;
- Contacts and address of third party testing laboratory;
- Manufacturer’s warranty and guarantee; subject to 12 months from the date of delivery to KPLC stores.

C.2 The successful bidder (supplier) shall submit the following documents/details to KPLC for approval before manufacture:

- Fully-filled clause by clause Guaranteed Technical Particulars (GTP) signed by the manufacturer, specific values shall be filled in. Terms like “Yes”, “Agree”, “Complied” **shall not be acceptable**;
- Design Drawings with details of the Insulated Platform Tools for Airmobile to be manufactured for KPLC.
- Quality Assurance Plan (QAP) that will be used to ensure that the design, material, workmanship, tests, service capability, maintenance and documentation will fulfil the requirements stated in the contract documents, standards, specifications and

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25



TITLE:
**INSULATED PLATFORM TOOLS FOR
AIRMOBILE — SPECIFICATION**

Doc. No.	KP1/13D/4/1/TSP/09/119
Issue No.	1
Rev. No.	0
Date of Issue	2023-01-25
Page 18 of 23	

regulations. The QAP shall be based on and include relevant parts to fulfill the requirements of ISO 9001:2015.

- d) Detailed test program to be used during factory testing;
- e) Marking details
- f) Packaging details (including packaging materials).

.....**THIS SPACE IS INTENTIONALLY LEFT BLANK.**.....

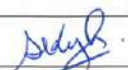
Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

APPENDIX D: GUARANTEED TECHNICAL PARTICULARS (Normative)

(To be filled and signed by the Manufacturer and submitted together with relevant copies of the Manufacturer's catalogues, brochures, drawings, technical data, sales records for previous five years, four customer reference letters, details of suppliers' capacity and experience; and copies of complete type test certificates and test reports for tender evaluation, all in English Language)

Tender No.

Clause number	KPLC requirement	Bidder's offer (indicate full details)
	Manufacturer's Name and address	<i>Specify</i>
	Country of Manufacture	<i>Specify</i>
	Bidder's Name and address	<i>Specify</i>
1.	Scope	<i>Specify</i>
2.	References	<i>Specify</i>
3.	Definitions and abbreviations	<i>State</i>
4.	Requirements	
4.1	Service Conditions	<i>State</i>
4.2	Telescopic Stick	
4.2.1	General	
4.2.1.1	Design and Standards met by the telescopic stick	<i>State</i>
4.2.1.2	Range of operations to be performed with the telescopic stick	<i>List</i>
4.2.1.3	Can be used with diagnostic devices that meet appropriate live working standards	<i>Specify</i>
4.2.1.4	Made of a single continuous tube or rod or multiple tube or rod sections	<i>Specify</i>
	Shape of the sections	<i>Specify</i>
	For both indoors and outdoors	<i>Specify</i>
	Highest voltage to be used with	<i>State</i>
4.2.1.5	all sections allow telescoping	<i>Specify</i>
	Attachments and end fittings do not degrade the electrical and mechanical properties of the stick and shall comply with IEC 60832-1&2	<i>Specify</i>
	Standard(s) complied with by the tip section's material of manufacture	<i>Specify</i>
4.2.1.6	Material of manufacture of the sections	<i>Specify</i>
4.2.2	Weight and Dimensional Requirements	
4.2.2.1	Least retractable length	<i>State</i>

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

Clause number	KPLC requirement	Bidder's offer (indicate full details)
	Longest extensible length	State
	Net weight	Specify
	Base section diameter	Specify
4.2.2.2	Diameters of each section and their tolerances	Specify
4.2.2.3	external and internal dimensions of the different sections are sized to allow the sections to telescope easily	
4.2.3	Surface Finish	
4.2.3.1	External surface properties of the telescopic stick	State
4.2.3.2	External and internal surfaces are free of any abrasions	State
4.2.3.3	Where a coating is applied	State
4.2.4	Lock Assembly and End Caps	
4.2.4.1	Lock assembly and end caps does not reduce the electrical insulation	State
4.2.4.2	Lock assembly is such that it provides a positive means of securing the sections	Specify
4.2.4.3	Lock assembly, or any other part of the tool, have no protruding parts	State
4.2.4.4	Lock assemblies supports all mechanical working stresses without deformation or failure.	Specify
4.2.5	Universal Heads	
4.2.5.1	Telescopic stick shall be supplied with universal heads (accessories)	Specify
4.2.5.2	Means of attaching the accessories to the stick	Specify
4.2.5.3	List of universal heads to be supplied	List
4.3	LADDER PLATFORM	
4.3.1	Material of manufacture	Specify
	Length of the ladder	State
	Stepping platform dimensions	State
4.3.2	Construction design	Attach drawing
	Electrician working position	Specify
4.3.3	Adjustable hooks	Specify
4.3.4	Foldable	Specify
4.3.5	Weight	Specify
4.4	A-Shaped Ladder	
4.4.1	Material of manufacture	Specify
4.4.2	Rated length - A, B, C, D	State

Issued by: Head of Section, Standards Development

Authorized by: Head of Department, Standards

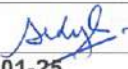
Signed: 

Signed: 

Date: 2023-01-25

Date: 2023-01-25

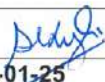
Clause number	KPLC requirement	Bidder's offer (indicate full details)
	Inter-Step Distance (mm)	Specify
	Weight	Specify
4.5	Bare-hand Working Chair	
4.5.1	Material of manufacture	Specify
4.5.2	Weight and construction design	Specify
4.5.3	Detachable	Specify
4.5.4	Carry bag	Specify
4.5.5	Maximum workload capacity	Specify
4.6	Inspection Trolley	
4.6.1	Material of manufacture	Specify
4.6.2	Parking brakes	Specify
4.6.3	Workload capacity	Specify
4.6.4	Weight	Specify
4.6.5	Negative disc brake	Specify
4.7	Cradle Support	
4.7.1	Material of manufacture	Specify
4.7.2	Type of support	Specify
4.7.3	Insulating length	Specify
4.7.4	Weight	State
4.7.5	Rated work capacity	State
4.8	Adjustable Strain Pole Assembly	
4.8.1	Material of manufacture	Specify
4.8.2	Cross pins	Specify
4.8.3	Accessories	
	a) 7-ft Strain pole	Maximum voltage
		Insulating length
		Total length
		Approximate weight
	b) 8-ft Strain pole	Maximum voltage
		Insulating length
		Total length
		Approximate weight
	c) 10-ft Strain pole	Maximum voltage
		Insulating length
		Total length
		Approximate weight

Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed: 	Signed: 
Date: 2023-01-25	Date: 2023-01-25

Clause number	KPLC requirement	Bidder's offer (indicate full details)
4.9	Voltage Detector	
4.9.1	Construction design	<i>Specify</i>
4.9.2	Response indicators	<i>Specify</i>
	Voltage range	<i>Specify</i>
	Operation frequency	<i>Specify</i>
	Voltage class	<i>Specify</i>
	Approximate weight	<i>Specify</i>
5	TEST REQUIREMENTS	
5.1	Test standards and responsibility of testing	<i>Specify</i>
5.2	Type tests – Telescopic stick	<i>Specify</i>
6	Marking and Packing	
6.1	Marking	
6.1.1	Markings on the telescopic stick	<i>Specify</i>
6.1.2	Marking on the other air platform tools	<i>Specify</i>
6.1.3.	Provision for an area permitting the marking of the date of the current inspection or the date of the next required inspection and test	<i>Specify</i>
6.1.4	Visibility and legibility of markings	<i>Specify</i>
6.2	Packing	<i>Specify</i>
6.2.1	Universal heads storage	
6.2.2	Instruction on installation	<i>Specify</i>
	APPENDICES	
A	TESTS AND INSPECTION	
A1	Copies of test certificates and certificates be submitted	
A2	Lists of tests in the submitted test reports	
A3	Factory acceptance tests (FAT) before shipment/delivery of the goods	List
A4	Supplier shall replace without charge to KPLC items that don't meet specification	State
B	Quality Management System	
B.1	Quality Assurance Plan	<i>Provide</i>
B.2	Manufacturer's ISO 9001:2015	<i>Provide</i>
B.3	Manufacturer's experience and delivery time	<i>State</i>
	Manufacturer's delivery time	<i>State</i>
	Manufacturing Capacity (units per month)	<i>State</i>

Issued by: Head of Section, Standards Development

Authorized by: Head of Department, Standards

Signed: 

Signed: 

Date: 2023-01-25

Date: 2023-01-25



TITLE:
**INSULATED PLATFORM TOOLS FOR
AIRMOBILE — SPECIFICATION**

Doc. No.	KP1/13D/4/1/TSP/09/119
Issue No.	1
Rev. No.	0
Date of Issue	2023-01-25
Page 23 of 23	

Clause number	KPLC requirement	Bidder's offer (indicate full details)
	List of previous customers	State
	Customer reference letters	State
C	Documentation	
C.1	Documents submitted with tender	State compliance
C.2	Documents to be submitted by supplier to KPLC for approval before manufacture	State compliance
	Statement of compliance to specification (indicate deviations if any & supporting documents)	State compliance

.....
Manufacturer's Name, Signature, Stamp and Date

Issued by: Head of Section, Standards Development

Authorized by: Head of Department, Standards

Signed:

Signed:

Date: 2023-01-25

Date: 2023-01-25

