DOCUMENT NO.: KP1/6C/13D/1/TSP/14/023

Kenya Power

PORTABLE THREE PHASE WORKING STANDARD FOR TESTING ELECTRICITY METERS - SPECIFICATION

A Document of the Kenya Power & Lighting Co. Ltd
September 2023

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0.1 CIRCULATION LIST

COPY NO.	COPY HOLDER
1	Manager, Standards
2	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.

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Issued by: Head of Section, Standards Development	Authorized by: Head of Department, Standards
Signed:	Signed:
Date: 2023-09-28	Date: 2023-09-28

0.2 AMENDMENT RECORD

Rev No.	Date (YYYY-MM-DD)	Description of Change	Prepared by (Name & Signature)	Approved by (Name & Signature)
Issue 3	September 2009			
Issue 4	December 2014		Aggrey Machasio	Joshua Mutua
Issue 5	2022-06-07	New Issue	Nancy Wairimu	Eng. Simon Kimitei
Issue 5 Revision 1	2023-09-28	1.Changed the document number to KP1/6C/13D/1/TSP/14/023 on cover page. 2.Changed the operating system and processor requirements on the laptop computer. 3.Included the requirements of appendix B3, C1,C2 and C3 on the GTPs.	Nancy Wairimu	Dr. Eng. Peter Kimemia

FOREWORD

This specification is prepared by the Standards Department in collaboration with Commercial Services & Sales divisions, both of The Kenya Power and Lighting Company Plc (KPLC) and it lays down requirements for the portable three phase working standard for testing electricity meters. It is intended for procurement of the equipment.

This specification was prepared to establish and promote uniform requirements for portable three-phase watt-hour working standard.

This specification stipulates the minimum requirements for portable three phase working standard for testing electricity meters acceptable for use in the company and it shall be the responsibility of the supplier 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 of the equipment for KPLC.

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

Name	Division
Peter Wanyonyi	Commercial Services & Sales
Nancy Wairimu	Institute of Energy Studies and Research

1. SCOPE

1.1. This specification is for a **portable three-phase watt-hour working standard** (further Herein referred simply as "The Standard") for measurement of power and energy in domestic, industrial and commercial meter installations.

1.2. This specification covers Class 0.05 **portable three-phase watt-hour working**.

1.3. The specification stipulates the minimum requirements of the standard and a laptop, tests and inspection as well as schedule of Guaranteed Technical Particulars.

2. NORMATIVE REFERENCES

The following standards contain provisions, 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.

IEC 61326-1:	Electrical equipment for measurement, control and laboratory use – EMC requirement – Part 1: General requirements.
IEC 61000-4-30:	Electromagnetic Compatibility (EMC) – Part 4-30: Testing and measurement techniques – Power Quality Measurement methods
IEC 62052-11:	Electricity Metering Equipment (A.C.) – General Requirements, Tests and Test Conditions – Part 11: Metering Equipment
IEC 62053-21:	Electricity Metering Equipment – Particular Requirements – Part 21: Static Meters for AC Active Energy (Class 0.5, 1 and 2)
IEC 60529	Degrees of protection provided by Enclosures (IP Code)
IEC 61010-1:	Safety requirements for electrical equipment for measurement, control, and laboratory use -Part 1: General requirements
ISO 9001:2015:	Quality management systems — Requirements

3. DEFINITIONS AND ABBREVIATIONS

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

IEC:	International Electrotechnical Commission
ISO:	International Organization for Standardization

4. REQUIREMENTS

4.1. SERVICE CONDITIONS

The standard shall be suitable for use indoors in tropical areas and harsh climatic conditions including areas exposed to:

a) At altitudes of up to 2200m above sea level
b) humidity of up to 95%,
c) Average ambient temperature of +30^{0}C with a minimum of -1^{0}C and a maximum of +50^{0}C.
d) Pollution: Design pollution level to be taken as "Heavy" (Pollution level III) for inland and "Very Heavy" (Pollution level IV) for coastal applications in accordance with IEC 60815.
e) Heavy saline conditions along the coast.

4.2. DESIGN AND CONSTRUCTION FEATURES

4.2.1. The standard shall be designed and constructed to comply with IEC 61000-4-30 on Power Quality Measurement Methods.

4.2.2. The Standard shall be designed to comply with international standard IEC 61326-1 and IEC 61000-4-30 on Electromagnetic compatibility (EMC).

4.2.3. The Standard shall be equipped with safety terminals for connection and designed to comply with international safety standard IEC 61010-1.

4.2.4. The Standard shall have the capability of testing both single phase and three phase electromechanical and electronic energy meters at site.

4.2.5. The standard's accuracy shall be class 0.05.

4.2.6. The standard shall be made of hard plastic and /or light aluminium profile or equivalent material to allow a weight of not more than 4kg.

4.2.7. The Standard shall be capable of checking meter installation parameters and associated circuits.

4.2.8. The Standard shall be used for both direct and via split core transformers (Current clamps) connection in current measurements.

4.2.9. The Standard shall measure active, reactive and apparent power and energy measurements for single-phase (2-wire circuit) and three-phase (3-or-4 wire circuits) with integrated error calculator.

4.2.10. The standard shall be capable of 4 quadrant power measurement.

4.2.11. The standard shall be able to determine the operating burden on instrument transformers for CT and PT.

4.2.12. The standard shall be able to perform turns ratio test by simultaneously measurement of both primary and secondary currents in CT connected measuring systems.

4.2.13. The standard shall be capable of measuring currents up to a maximum of 2000 A per phase through external clip-on CTs. These Clip-on CTs shall be listed and supplied with equipment.

4.2.14. The Standard shall have a wide measuring range with auto ranging and definite step ranges on the voltage and current ranges.
4.2.15. The Standard shall display vector diagram for analysis of mains conditions and meter connections, phase sequence and relevant instantaneous values.
4.2.16. The Standard shall measure and display waveforms.
4.2.17. The Standard shall be able to detect circuit connection faults.
4.2.18. The Standard shall perform accuracy test, calculate and display the error.
4.2.19. The Standard shall be capable of measuring and displaying True RMS values of current and voltage, phase angles, power factor, frequency and phase rotation.
4.2.20. Either the standard shall have a display that is at least 6 x 4" with high resolution of at least 320x240 pixels or the display shall be connected wirelessly to a tablet to display the measurement results.
4.2.21. The standard shall display voltage sequence indication (U1, U2, and U3).
4.2.22. The Standard shall have test data storage of at least 500 measurements, which is capable of being sent, through serial interface to an external PC after measurement by Windows based data management software.
4.2.23. The data management software shall be provided without license/ license costs
4.2.24. The standard shall measure harmonics in voltage and current up to 40th THD.
4.2.25. The Standard shall have pulsed output for energy (galvanic isolation).
4.2.26. The Standard shall have features like Hold-function to read the instantaneous values. During meter testing and integrated START/STOP-push button for a quick visual meter check, without scanning head.
4.2.27. The standard shall have a provision for insertion of a scanning head for testing both electromechanical and static (electronic) meters.
4.2.28. The standard shall have selective power measurement.
4.2.29. The standard shall be able to test power and energy registers.
4.2.30. The standard shall be delivered with a MS-Windows analyzer and simulation software for vectorial diagrams.
4.2.31. The standard shall be fitted with a handle and a belt to make it possible for the operator to be able to hang it on shoulder or neck while operating at site.
4.2.32. The Photoelectric Scanning head shall be suitable for use with both LED pulsed electronic meters and Ferraris meters, selectable via a selector switch.
4.2.33. The Photoelectric Scanning head support shall have a spring mechanism with different adjusting possibilities to make it possible to attach as desired the scanning head to the meter.
4.2.34. The standard shall be fitted with a battery pack to power the standard to enable testing without the aid of an auxiliary power source.
4.2.35. The standard shall be powered through either of the following conditions; an auxiliary source, a battery pack or grid supply.

4.2.36. The Standard shall have a multirange power supply to accommodate inputs of up to 265 volts.

4.2.37. The standard shall have overvoltage protection.

4.3. RATING

4.3.1. The Standard shall comply with the ratings outlined below:

NO.	ITEM DESCRIPTIONS	REQUIREMENT
		Class 0.05
1.	Auxiliary Supply	80.....265VAC , 47.....63 Hz
2.	Power Supply through test voltage	80.....265VAC , 47.....63 Hz
3.	Power Consumption	≤ 138 VA
4.	Voltage Measurement	1mV 300V
5.	Influence of auxiliary voltage on the measuring circuits	≤ ± 0.005 % at 10 % variation
6.	Test Current, direct connection	1 mA.....12 A
7.	Test Current, clamp-on	5 mA.....120 A
8.	Fundamental Frequency	15.....70 Hz
9.	Measuring modes	4 Wire active/-reactive/apparent 3 Wire active /- reactive/apparent 2 Wire active /- reactive/apparent
10.	Accuracy class	0.05
11.	Voltage measurement error (90....300 V)	≤ 0.025 %
12.	Current measurement error, direct (1 mA....12 A)	≤ 0.025 %
13.	Current measurement error, via CT(500 mA.....120 A)	≤ 0.1 %
14.	Current measurement error, via CT (up to 2000 A)	≤ 0.2 %
15.	Power/energy measurement error	≤ 0.05 % (direct measurement)
16.	Power/energy measurement error	≤ 0.05 % (with CT's)
17.	Angle measurement (direct measurement)	≤ ± 0.01°
18.	Angle measurement (with clamps/CTs)	≤ ± 0.1°
19.	Frequency measurement	± 0.01 Hz
20.	Temperature range (Operation)	–1.....+ 50 °C
21.	Relative Humidity	Up to 80%Not condensing

NO.	ITEM DESCRIPTIONS	REQUIREMENT
		Class 0.05
22.	Sampling Rate	Minimum 16 bit 504 samples per period
23.	Safety protection	IEC 61010-1
24.	Degree of protection	Minimum IP-30
25.	Certification	**CE**, IEC 61000-4-30.

4.4. COMPUTER REQUIREMENTS

4.4.1. The Standard shall be supplied with one laptop computer loaded with the operating software.

Description	Mandatory Minimum Requirements
Processor	Intel Core i7 11th Generation or later (2.60GHz 1600MHz 3MB, 8 Cores)
RAM	8GB DDR4-2133MHz SODIMM
Operating System	Windows 11 pro 64 bit
Optical Drive	Super Multi DVD-RW or DVD Recordable Burner
Hard Disk	1TB 7200 rpm Hard Drive or 500 SSD
Display Panel	15.6" FHD LED Glossy (1920x1080) with integrated Webcam 720p camera
Graphics	Integrated Intel HD Graphics 520
Internal Audio	Integrated HD audio internal speaker (standard) or Stereo with Dolby Audio TM, 1xMic Headphones Combo
Communications	56K Modem, Integrated Intel Gigabit Network Connection (10/100/1000 NIC)
Wireless	Intel 802.12 AC WLAN and Bluetooth(R)
Interfaces	VGA, MDP, 4-in-1 Card Reader, Smart Card Reader. RJ-45, Headphone and Microphone Jack, Mechanical Docking, 2 x USB 3.0, W/WAN SIM, Express Card Slot, 1 HDMI port, Bluetooth, Wi-Fi enabled
Pointing Devices	Touchpad with scroll zone, Two Pick Buttons or Pick Stick, Two Pick Buttons
Keyboard	Keyboard with Number Pad – English (Standard)
Mouse	External USB Mouse
Warranty	1 Year
Power	4-cell 41WHr Lithium-ion Battery; External AC adapter
Power Supply	230V AC, 50 Hz, British plugs
Carrying Case	Genuine Leather Carrying Case

5. ACCESSORIES

The standard shall have

i. A set of Test leads (quick connecting cable set),
ii. CT's (120 A), Accessories,
iii. Photoelectric Scanning head with its support contained, and
iv. An additional Scanning head with magnet and
v. Sucker for expedient testing of LEDs.

6. TESTS REQUIREMENTS

The Standard shall be inspected and tested in accordance with the requirements of IEC standards and other relevant standards and provisions of this specification.

7. MARKING, LABELLING AND PACKING

7.1. The Standard shall be marked legibly and indelibly in English and with at least 4mm figure height with the following information:

a) Name or trade mark of the manufacturer;
b) Country of origin;
c) Type/model;
d) Serial no;
e) Nominal input voltage and frequency
f) Power Consumption in Watts or VA's
g) Fuse ratings;
h) The inscription "Property of KPLC";
i) Year of manufacture.

7.2. The Standard shall be packaged in such a manner as to minimize damage and entry of moisture during transportation, storage and handling.

7.3. A rugged transportation case shall be provided to store and/or transport the standard and its accessories.

APPENDICES

A. TESTS AND INSPECTION (Normative)

A.1 It shall be the responsibility of the manufacturer to perform or to have performed all the tests specified.

A.2 Copies of Type Test Certificates and Type Test Reports issued by a third-party testing laboratory that is accredited to ISO/IEC 17025 shall be submitted with the tender for the purpose of technical evaluation. A copy of the accreditation certificate to ISO/IEC 17025 for the testing laboratory shall also be submitted. Any translations of certificates and test reports into English language shall be signed and stamped by the Testing Laboratory that carried out the tests.

A.3 The Standard shall be subject to acceptance tests at the manufacturer's premises before dispatch. Acceptance tests shall be witnessed by two Engineers appointed by The Kenya Power and Lighting Company Plc. (KPLC).

A.4 **Testing Facility**

A.4.1 The bidder shall provide current e-mail address, fax and telephone numbers and contact person at the Testing Laboratory where Type Tests were carried out.

A.4.2 All test and measuring equipment to be used during acceptance testing shall have been calibrated and copies of valid calibration certificates shall be provided to KPLC Engineers. A detailed list of workshop tools, test/measuring equipment and list of tests that can be carried out by the manufacturer shall be submitted with the tender for evaluation.

A.5 Test reports for the Standard shall be submitted to The Kenya Power and Lighting Company for approval before shipment.

A.6 During delivery of Standard, KPLC will inspect them and may perform or have performed any of the relevant tests in order to verify compliance with the specification. The supplier shall replace/rectify without charge to KPLC, the Standard that fails to meet any or all of the requirements in the specification.

B. QUALITY MANAGEMENT SYSTEM (Normative)

B.1 The bidder shall submit a quality assurance plan (QAP) that will be used to ensure that the Standard design, material, workmanship, tests, service capability, maintenance 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, this specification and copies of quality management certifications including copy of valid and relevant ISO 9001 certificate shall be submitted with the tender for evaluation.

B.3 The bidder shall indicate the delivery time of the Standard, experience, a detailed list and contact addresses (including e-mail) of previous utilities to which the standard has been supplied. The number of standards sold over a period of 5 years shall not be less than 100 standards.

C. DOCUMENTATION AND DEMONSTRATION (Normative)

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

a) Fully filled clause by clause Guaranteed Technical Particulars (GTP) signed by the manufacturer,

b) Copies of the manufacturer's catalogues, brochures, Standard drawings and wiring diagrams and technical data showing description leaflet, programming details and manuals,

c) Sales records for the last five years and at least four customer reference letters,

d) Details of manufacturing capacity and the manufacturer's experience.

e) Copies of required type test certificates and type test reports by a third-party testing laboratory accredited to ISO/IEC 17025,

f) Copy of accreditation certificate to ISO/IEC 17025 for the third-party testing laboratory,

g) Manufacturer is guaranteed and guarantee; subject to 60 months from date of acceptance by KPLC laboratory.

h) Manufacturer's letter of authorization, copy of the manufacturer's ISO 9001:2015 certificate, ISO 17025: 2017 certificate.

C.2 The successful bidder (supplier) shall submit the following documents/details to The Kenya Power & Lighting Company for approval before manufacture:

a) Fully filled clause by clause Guaranteed Technical Particulars (GTP) signed by the manufacturer,

b) Design drawings and wiring diagrams of the Standard,

c) Original software, software manuals and operation manuals shall be submitted,

d) Quality assurance plan (QAP) that will be used to ensure that the design, material, workmanship, tests, service capability, maintenance and documentation will fulfill the requirements stated in the contract documents, standards, specifications and regulations. The QAP shall be based on and include relevant parts to fulfill the requirements of ISO 9001:2015,

e) Detailed test program to be used during factory testing,

f) Marking details and method to be used in marking the Standard,

g) Manufacturer's undertaking to ensure adequacy of the design, good engineering practice, adherence to the specification and applicable standards and regulations as well as ensuring good workmanship in the manufacture of the Standard for The Kenya Power & Lighting Company,

h) Packaging details (including packaging materials).

C.3 The successful bidder and Manufacturer shall demonstrate the design, connection and measurement of all parameters of all the parameters the standard is able to measure at their cost to at least 20 KPLC staff locally.

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. .....

Bidder's name and Address.....

Clause number	KPLC requirement	Bidder's offer
Manufacturer's Name and address		State
Country of Manufacture		State
Bidder's Name and address		State
1.	Scope	State
2.	Normative references	State
3.	Definitions and Abbreviations	State
4	**Requirements**	
4.1	**Service Conditions**	
	The Standard shall be suitable for use indoors in tropical areas and harsh climatic conditions including areas exposed to:	
a)	At altitudes of up to 2200m above sea level and,	State
b)	humidity of up to 95%	State
c)	Average ambient temperature of $+30^0$C with a minimum of -1^0C and a maximum of $+50^0$C.	State
d)	Pollution: Design pollution level to be taken as "Heavy" (Pollution level III) for inland and "Very Heavy" (Pollution level IV) for coastal applications in accordance with IEC 60815.	State
e)	Heavy saline conditions along the coast	State
4.2.	**DESIGN FEATURES**	
4.2.1	The Standard of manufacture	State
4.2.2	The Standard shall be designed to comply with international standard EN 61326-1 and EN 61000-4-30 on Electromagnetic compatibility (EMC)	State
4.2.3	The Standard shall be equipped with safety terminals for connection to prevent shock and designed to comply with international safety standard IEC 61010-1.	State

Clause number	KPLC requirement	Bidder's offer
4.2.4	The Standard the capability of testing both single phase and three phase electromechanical and electronic energy meters at site	State
4.2.5	The Standard's accuracy	State
4.2.6	The Standard material of manufacture and weight.	State
4.2.7	The Standard capability of checking meter installation parameters and associated circuits.	State
4.2.8	The Standard shall use for both direct and via split core transformers (Current clamps) connection in current measurements.	State
4.2.9	The standard's measurands	State
	Capability of measuring single-phase (2-wire circuit) and three-phase (3-or-4 wire circuits) with integrated error calculator	State
4.2.10	The standard shall be capable of 4 quadrant power measurement	State
4.2.11	The standard shall be able to determine the operating burden on instrument transformers for CT and PT	State
4.2.12	The standard shall be able to perform turns ratio test by simultaneously measurement of both primary and secondary currents in CT connected measuring systems	State
4.2.13	The standard shall be capable of measuring currents up to a maximum of 2000 A per phase through external clip-on CTs.	State
	Clip-on CTs shall be listed and supplied with equipment	State
4.2.14	The Standard shall have a wide measuring range with auto ranging and definite step ranges on the voltage and current ranges.	State
4.2.15	The Standard shall display vector diagram for analysis of mains conditions and meter connections and relevant instantaneous values	State
4.2.16	The Standard shall measure and display waveforms	State
4.2.17	The Standard shall be able to detect circuit connection faults	State
4.2.18	The Standard shall perform accuracy test, calculate and display the error	State
4.2.19	The Standard shall be capable of measuring and displaying True RMS values of current and voltage, phase angles, power factor, frequency and phase rotation	State
4.2.20	The display shall be of at least 6 x 4" with high resolution of at least 320x240 pixels	State
	The display shall be connected wirelessly to a tablet to display the measurement results.	State
4.2.21	The standard shall display voltage sequence indication (U1, U2, and U3)	State
4.2.22	The standard storage capacity	State

Clause number	KPLC requirement	Bidder's offer
4.2.23	Data management software shall be provided without license/ license cost	State
4.2.24	The standard shall measure harmonics in voltage and current up to 40th THD	State
4.2.25	The Standard shall have pulsed output for energy (galvanic isolation)	State
4.2.26	The Standard features	State
4.2.27	The standard shall have a provision for insertion of a scanning head for testing both electromechanical and static (electronic) meters	State
4.2.28	The standard shall have selective power measurement	State
4.2.29	The standard shall be able to test power and energy registers	State
4.2.30	The standard shall be delivered with a MS-Windows analyzer and simulation software for vectorial diagrams	State
4.2.31	The standard shall be fitted with a belt to make it possible for the operator to be able to hang it on shoulder or neck while operating at site.	State
4.2.32	The Photoelectric Scanning head shall be suitable for use with both LED pulsed electronic meters and Ferraris meters, selectable via a selector switch.	State
4.2.33	The Photoelectric Scanning head support shall have a spring mechanism with different adjusting possibilities to make it possible to attach as desired the scanning head to the meter.	State
4.2.3.4	The standard power supply	State
4.2.3.5	The standard powering conditions	State
4.2.3.6	The Standard shall have a multirange power supply to accommodate inputs of up to 265 volts.	State
4.2.3.7	Overvoltage protection	State
4.3	**Rating**	
	Auxiliary Supply	State
	Power Supply through test voltage	State
	Power Consumption	State
	Voltage Measurement	State
	Influence of auxiliary voltage on the measuring circuits	State
	Test Current, direct connection	State
	Test Current, clamp-on	State
	Fundamental Frequency	State
	Measuring modes	State
	Accuracy class	State
	Voltage measurement error (90....300 V)	State
	Current measurement error, direct (1 mA....12 A)	State

Clause number	KPLC requirement	Bidder's offer
	Current measurement error, via CT(500 mA.....120 A)	State
	Current measurement error, via CT (up to 2000 A)	State
	Power/energy measurement error	State
	Power/energy measurement error	State
	Angle measurement (direct measurement)	State
	Angle measurement (with clamps/CTs)	State
	Frequency measurement	State
	Temperature range (Operation)	State
	Relative Humidity	State
	Sampling Rate	State
	Safety protection	State
	Degree of protection	State
	Certification	
4.4.	**COMPUTER REQUIREMENTS**	
	The Standard shall be supplied with one laptop computer loaded with the operating software and the specifications outlined as per the table in clause 4.4.1	Specify
5.	**ACCESSORIES**	
	The accessories associated with the Standard	List
6.	**TESTS REQUIREMENT**	State
7	**MARKING, LABELLING AND PACKING**	
7.1	The Standard shall be marked legibly and indelibly in English with the following information:	State
a)	Name or trade mark of the manufacturer;	State
b)	Country of origin;	State
c)	Type/model;	State
d)	Serial no:	State
e)	Nominal input voltage and frequency	State
f)	Power Consumption in Watts or VA's	State
g)	Fuse ratings	State
i)	The inscription "Property of KPLC"	State
j)	Year of manufacture.	State
7.2	The Standard shall be packaged in such a manner as to minimize damage and entry of moisture during transportation and handling.	State

Clause number	KPLC requirement	Bidder's offer
7.3	A rugged transportation case shall be provided to store and/or transport the standard and its accessories.	State
	APPENDICES	
A.	**TESTS AND INSPECTION (Normative)**	
A.1	Responsibility of carrying out tests	State
A.2	Copies of Type Test Reports to be submitted with tender	Provide
A.3	Contacts of testing laboratory	Provide
A.4	Acceptance tests at the manufacturers works	State compliance
A.5	Test certificates to be submitted by supplier to KPLC for approval before supply/delivery	State compliance
A.6	Inspection at the stores and replacement of rejected items	State compliance
B	**Quality Management System**	
B.1	Quality Assurance Plan	Provide
B.2	Copy of ISO 9001:2015 Certificate	Provide
B.3	Manufacturer's experience	State
	Manufacturing Capacity (units per month)	State
	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
C.3	Demonstration locally	State
	Statement of compliance to specification (indicate deviations if any & supporting documents)	State compliance

Words like "confirmed", "noted", "agreed" "As per KPLC specification" etc. shall not be accepted and shall be considered as non-responsive where a specific response is called for.

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Manufacturer's Name, Signature, Stamp and Date