

4.14 Ball Pein Hammer

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS
4.14.1	This shall be made of fiberglass handle for maximum strength	
4.14.2	The hammer shall be made of dropped forged carbon steel head	
4.14.3	The lower handle shall be made of shock absorbing rubber grip	
4.14.4	The finishing shall be of mirror polish	
4.14.5	The total length shall be a maximum of 320mm	
4.14.6	The maximum head weight shall be 500g	
4.14.7	The tenderer shall submit one sample on request.	
4.14.8	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.	
4.14.9	The tenderer shall submit copies of user manual and brochures.	

4.15 Set of Allen Keys (Metric Hex Key Sets)

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS
4.15.1	They shall be 9 piece with 1.5;2;2.5;3;4;5;6;8 and 10mm	
4.15.2	They shall be made from chrome vanadium	
4.15.3	The ends shall be beveled for easy screw access	
4.15.4	They shall have easy to select protective dispenser	
4.15.5	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.	
4.15.6	The tenderer shall submit copies of user manual and brochures.	
4.15.7	The tenderer shall submit one sample on request.	

4.16 Steel Trunking Hole Cutter (Sheet Metal Punch)

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS																		
4.16.1	The cutter shall be robust and engineered and heat treated for long keen cutting life																			
4.16.2	The cutter shall be able to cut mild steel up to 16swg(1.62mm),stainless steel up to 16swg(1.62mm),sheet copper,brass and aluminium up to 2.0mm																			
4.16.3	It shall have simple allen key operation which can be effected in less than one minute																			
4.16.4	It shall produce an accurate and burr free hole with no jagged edges																			
4.16.5	The cutter shall have black anti-corrosive surface finish to prevent rusting																			
4.16.6	The following allen keys should be provided: <table border="1" data-bbox="238 924 720 1174"> <thead> <tr> <th>Hole Size</th> <th>Allen Key</th> <th>Pilot Hole</th> </tr> </thead> <tbody> <tr> <td>16mm</td> <td>6mm</td> <td>9mm</td> </tr> <tr> <td>20mm</td> <td>8mm</td> <td>11mm</td> </tr> <tr> <td>22.5mm</td> <td>8mm</td> <td>11mm</td> </tr> <tr> <td>25mm</td> <td>8mm</td> <td>11mm</td> </tr> <tr> <td>32.5mm</td> <td>10mm</td> <td>13mm</td> </tr> </tbody> </table>	Hole Size	Allen Key	Pilot Hole	16mm	6mm	9mm	20mm	8mm	11mm	22.5mm	8mm	11mm	25mm	8mm	11mm	32.5mm	10mm	13mm	
Hole Size	Allen Key	Pilot Hole																		
16mm	6mm	9mm																		
20mm	8mm	11mm																		
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25mm	8mm	11mm																		
32.5mm	10mm	13mm																		
4.16.7	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.																			
4.16.8	The tenderer shall submit copies of user manual and brochures.																			
4.16.9	The tenderer shall submit one sample on request.																			

4.17 Mallet

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS
4.17.1	It shall be made from drop forged steel head as per DIN 6475 standards.	
4.17.2	The mallet shall have hickory handles with anti-slip grip	
4.17.3	The head to shaft reinforcement shall be done for maximum strength and safety	
4.17.4	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.	
4.17.5	The tenderer shall submit copies of user manual and brochures.	
4.17.6	The tenderer shall submit one sample on request.	

4.18 Retractable Knife (with 10 replacement knives)

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS
4.18.1	It shall be made from tough die cast construction	
4.18.2	It shall have adjustable for depth of cut high-grade steel	
4.18.3	There shall be room for spare blade storage in handle	
4.18.4	There shall be a convenient loop hole for storage	
4.18.5	The knife must have at least ten stainless steel spare blades with angular and cylindrical shapes for trimming/stripping of electric cables	
4.18.6	The tenderer shall submit one sample on request.	
4.18.7	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.	
4.18.8	The tenderer shall submit copies of user manual and brochures.	

4.19 Tool Box

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS
4.19.1	It shall be manufactured from sheet steel with tubular handles and lacquered finish	
4.19.2	It shall have five cantilever trays which open automatically when handle is depressed and close when lifted	
4.19.3	The lid form shall incorporate provision for a padlock	
4.19.4	The box shall have powder coat finish both internally and externally	
4.19.5	The maximum length shall be 430mm and maximum width shall be 205mm	
4.19.6	The tenderer shall submit one sample on request.	
4.19.7	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.	
4.19.8	The tenderer shall submit copies of user manual and brochures.	

4.20 Wire Stripping Pliers

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS
4.20.1	It shall be suitable for both hard and soft wire and shall have superb ergonomic handle.	
4.20.2	It shall be made of high grade carbon steel	
4.20.3	The pliers shall have finger stops to prevent slipping	
4.20.4	The pliers shall have adjustable screw for wires up to 20mm ² with dual compound handle and chrome plated	
4.20.5	The tenderer shall submit one sample on request.	
4.20.6	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.	
4.20.7	The tenderer shall submit copies of user manual and brochures.	

4.21 Mains Neon Tester Screw Driver

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS
4.21.1	It shall be made of high-grade steel	
4.21.2	It shall have a transparent handle with a high quality fully insulated blade and a distinct glow of neon lamp	
4.21.3	The minimum operating voltage shall be 220V and the maximum voltage shall be 250V	
4.21.4	The maximum length shall be 152mm	
4.21.5	The tenderer shall submit one sample on request.	
4.21.6	The unit shall have user manual and brochures	
4.21.7	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.	

4.22 Non-contact AC voltage Detector/ Finder

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS
4.22.1	It shall have a voltage detection range of 200V to 1000V AC/DC	
4.22.2	It shall emit audible and well as visual signal when AC voltage is detected	
4.22.3	The detector shall be powered using alkaline batteries	
4.22.4	The detector shall meet the IEC 61010-1 safety standards	
4.22.5	The unit shall meet the electromagnetic compatibility IEC 61326-1:2006 standards	
4.22.6	The unit shall operate within a bandwidth of 50HZ to 60HZ	
4.22.7	The unit shall have LCD display to show the detected voltage in volts	
4.22.8	The unit shall have auto power off to conserve energy	
4.22.9	The unit shall have user manuals and brochures	
4.22.10	The tenderer shall submit one sample on request.	
4.22.11	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.	

4.23 Cordless Drill/Driver Machine

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS	REFERENCE PAGE IN THE SUBMITTED DOCUMENTS
4.23.1	The drill shall be capable of drilling and fastening/unfastening screws. The drilling machine shall be capable of accommodating all the drill bit sizes specified in item 4.11 of the specifications.		
4.23.2	The unit shall have a rechargeable battery		
4.23.3	Each unit shall have an electronic speed control for speed adjustment		
4.23.4	The unit shall have a soft start trigger		
4.23.5	Each unit shall have depth sensitive clutch capable of disengaging when set depth is reached		
4.23.6	Each shall have durable gear housing		
4.23.7	Each unit shall have standard accessories for holding/driving screws into a variety of materials		
4.23.8	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.		
4.23.9	The tenderer shall submit copies of user manual and brochures.		
4.23.10	The tenderer shall submit one sample on request.		

4.24 Adjustable Spanner 8"

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/REMARKS	REFERENCE PAGE IN THE SUBMITTED DOCUMENTS
4.24.1	The spanner shall be made from bright polished nickel chrome		
4.24.2	The unit shall have slim line, tip and jaw for improved access		
4.24.3	The length and jaw size shall be clearly marked on the spanner		
4.24.4	The jaw opening shall be up to 30mm		
4.24.5	Each spanner shall have dimensions as: length of 200(8''), torque of 3100kg/cm and a weight of 260g		
4.24.6	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.		
4.24.7	The tenderer shall submit copies of user manual and brochures.		
4.24.8	The tenderer shall submit one sample on request.		

4.25 Aluminium Folding Step Ladder (4ft)

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/REMARKS	REFERENCE PAGE IN THE SUBMITTED DOCUMENTS
4.25.1	The unit shall be self-standing and folding light aluminium ladder		
4.25.2	The unit shall withstand a weight of up to 100KG with a tolerance of $\pm 10\%$		
4.25.3	The ladder must have a wide top run for placing working tools		
4.25.4	The ladder shall withstand rough field handling		
4.25.5	The tenderer shall submit one sample on request.		
4.25.6	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.		
4.25.7	The tenderer shall submit copies of user manual and brochures.		

4.26 Photographic Still (Digital) Camera

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/REMARKS	REFERENCE PAGE IN THE SUBMITTED DOCUMENTS
4.26.1	The camera must be capable of operating in tropical conditions with temperatures of up to 40 degrees Celsius and humidity of up to 90%		
4.26.2	The camera shall be supplied complete with all relevant software and accessories and shall provide the following minimum features: <ul style="list-style-type: none"> • Download images and videos to a computer • View images on a TV set • Printing • Still images and movie-at least one hour recording time 		
4.26.3	The camera shall have 10Mega pixels		
4.26.4	The unit shall have a 4GB memory card/stick		
4.26.5	The lens shall be capable of digital zoom with a focusing range from 46cm		
4.26.6	Each unit shall have an automatic exposure control		

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS	REFERENCE PAGE IN THE SUBMITTED DOCUMENTS
4.26.7	Each unit shall have at least 1.5 inch low-temperature polycrystalline silicon TFT colour LCD with at least 78,000 pixels with 100% picture coverage		
4.26.8	The camera shall have self-timer capability to shoot after 10 seconds		
4.26.9	The camera shall have both mechanical and electronic shutter		
4.26.10	The flash shall be auto, on, off with red eye reduction		
4.26.11	The camera's sensitivity shall be AUTO/ISO 50/100/200/400 equivalent		
4.26.12	The unit shall have USB 2.0 interface		
4.26.13	The camera shall be compatible with desktop and laptop computers with windows operating system. It shall be supplied complete with relevant software		
4.26.14	The camera shall have a rechargeable battery and an AC charger suitable for 240V,50HZ		
4.26.15	The display language shall be english		
4.26.16	The compression shall be super/fine/normal		
4.26.17	The unit's manufacturer shall conform to IEC 17025 standards		
4.26.18	Copies of certificates by the relevant international or national testing authority of the country of manufacture shall be submitted with the bid ,all in english language		
4.26.19	Each shall be supplied with: <ul style="list-style-type: none"> • A USB cable • Carrying case ▪ Wrist strap • Instruction manual/user guide in English • Brochures 		
4.26.20	The following information shall be marked legibly and permanently on the camera: <ul style="list-style-type: none"> • Manufacturer's name • Type reference number • Serial number • Camera effective pixels • Power supply 		
4.26.21	All menu keys and other operating keys shall be marked legibly and in a permanent manner		
4.26.22	The tenderer shall submit one sample on request.		
4.26.23	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.		

4.27 Earth Loop Impedance Tester

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS	REFERENCE PAGE IN THE SUBMITTED DOCUMENTS
4.27.1	Each unit shall be capable of operating in temperatures of -10 degrees Celsius to 60 degrees Celsius and a maximum humidity of 90%		
4.27.2	The tester shall be capable of two wire loop testing		
4.27.3	The unit shall be capable of measuring supplies of frequency range 30HZ to 90Hz		
4.27.4	Each unit shall be designed to meet IEC 61010-1 and IEC 61557 safety standards		
4.27.5	Each unit shall comply with IEC 61236 electromagnetic compatibility standards		
4.27.6	The units shall be able to measure supplies of a voltage range of 50V-440V		
4.27.7	The device shall have an LCD display for the measured values		
4.27.8	Each unit shall have colour coded test leads		
4.27.10	The unit shall have back light for the screen		
4.27.11	The unit shall have auto shut off capability		
4.27.12	Each unit shall have indicators to show correct wiring status		
4.27.13	The unit shall have automatic lock out in case the test resistor overheats		
4.27.14	The unit shall have capability to download test results to a personal computer		
4.27.15	Each unit shall have rechargeable battery capable of at least 1500 consecutive tests before recharge		
4.27.16	Each unit shall have a degree of accuracy of $\pm 2\%$		
4.27.17	Each unit shall have a carrying case		
4.27.18	Each unit shall have a degree of protection of IP54		
4.27.19	Each unit shall have its calibration certificates		
4.27.20	The tenderer shall submit one sample on request.		
4.27.21	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.		
4.27.22	The tenderer shall submit copies of user manual and brochures.		

4.28 Current Transformer Analyzer

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS	REFERENCE PAGE IN THE SUBMITTED DOCUMENTS
4.28.1	Each unit shall have noise immunity to disturbances from energized power lines close to the measurement		
4.28.2	Each unit shall be capable of automatic assessment according to IEC 60044-1		

CLAUSE	KPLC REQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS	REFERENCE PAGE IN THE SUBMITTED DOCUMENTS
4.28.3	The unit shall be capable of measuring CT winding resistance both for primary and secondary windings		
4.28.4	Each unit shall be capable of checking for CT phase and polarity		
4.28.5	The unit shall be capable of measuring the CT excitation characteristics		
4.28.6	The unit shall be capable of measuring the CT transient behaviour as per IEC 60044-6		
4.28.7	Each unit shall be capable of measuring the secondary burden		
4.28.8	The unit shall be capable of using power supply with the following parameters: <ul style="list-style-type: none"> • Input voltage of 100-260V ac supply • Frequency range 45HZ-60HZ • Maximum input power of 600VA 		
4.28.9	The unit shall measure the CT ratio with consideration of the connected burden		
4.28.10	The unit shall be able to test CTs with knee point voltages of up to 20kV		
4.28.11	Each unit shall weigh a maximum of 10KG		
4.28.12	The unit shall allow for automatic demagnetization of the CT after test		
4.28.13	The instrument shall have an accuracy of 0.02%		
4.28.14	Each unit shall have the following accessories <ul style="list-style-type: none"> • User Manuals • Brochures • Grounding cable • Carry Bag • CT analyser PC software for machines on windows platform • Coaxial(measurement/test) cables • Primary/Secondary Resistance kit • Calibration CT • USB-RS232 converter and cable • Battery Clamps 		
4.28.15	Each shall be capable of nameplate guessing for CTs with unknown data. This shall include but not limited CT type, class, ratio, knee point, power factor, nominal and operating burden and winding resistance-both primary and secondary.		
4.28.16	To enhance safety,all tests shall be done by a maximum voltage of 150V		
4.28.17	Each unit shall be accompanied by copies of its calibration certificates		
4.28.18	The CT analyzers shall be manufactured in ISO 9001:2008 certified facility		
4.28.19	Each CT analyzer shall be marked legibly and indelibly with the following information: <ol style="list-style-type: none"> a) Name or trade mark of the manufacturer; b) Country of origin; c) Type/model; d) The inscription "Property of K.P. & L. Co Ltd" e) Year of manufacture. All markings to be written in English and with at least 5 mm figure height.		

CLAUSE	KPLC EQUIREMENT	MANUFACTURER'S COMPLIANCE/ REMARKS	REFERENCE PAGE IN THE SUBMITTED DOCUMENTS
4.28.20	If KPLC engineers decide to inspect the manufacturing facilities intending to supply the CT analyzers for the first time to the company, this shall be at no extra cost, except the cost of the engineers' (two) transportation to the nearest major airport. Such inspection shall not in any way prejudice the purchaser's rights and privileges.		
4.28.21	The manufacturer shall meet the full costs of two engineers, for CT analyzers inspection and acceptance testing and training at the manufacturer's facility, except the cost of engineers' transportation from Kenya to the nearest major airport. The factory inspection and factory acceptance tests & training shall run for duration of three (3) working days each. Local training shall also be provided for 5persons		
4.28.22	Each unit shall have 12 months warranty. All defects due to faulty workmanship shall be replaced at supplier's cost.		

ADDITIONAL NOTES TO TENDERERS

1. The utility shall ask the tenderers to submit equipment/tool sample(s) on a case by case basis as need arises.
2. The tenderer shall provide the said sample within a maximum of three working days from the date of request, failure to adhere to this shall lead to automatic disqualification from further evaluation.
3. The submitted sample shall be evaluated against the information provided in the submitted tender document. This includes but not limited to the information in the user manuals, brochures and any other relevant information.
4. Samples will be returned to tenderers after the evaluation process