

**PROJECT SPECIFICATION AND BILL OF QUANTITY**

**FOR:**

**Supply and deliver Substation Material for Western Cape Region**

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## 1. **INTRODUCTION**

The purpose of this project is to provide a service to supply and deliver of Substation Material to ensure adequate availability, reliability and redundancy of power supply and ease of maintenance activities.

## 2. **DESCRIPTION OF WORKS/SCOPE OF WORKS**

The contractor shall supply and deliver the following Electrical Material:

M00004628	CABLE,POWER,ELECTRICAL: VOLTAGE RATING: 3.8/6.6 KV, CONDUCTOR SIZE: 500 MM2, CORE QUANTITY: 1, FEATURES: LG 300M, COPPER CONDUCTOR XLPE INSULATED M, PACKAGE TYPE: DRUM WOODEN: TYPE A WITH INDIVIDUALLY COPPER TAPE SCREENED CORE , ARMOUR AND SHEATH
	CABLE,POWER,ELECTRICAL: TYPE: SURFEX, VOLTAGE RATING: 300/500 V, CONDUCTOR SIZE: 4 MM2, 4 CORE + BARE EARTH CONDUCTOR , FEATURES: AL SHEATH; PC SOLID PVC INSULATED: SURFEX; INSIDE
	CABLE,POWER,ELECTRICAL: TYPE: SURFEX, VOLTAGE RATING: 300/500 V, CONDUCTOR SIZE: 2,5 MM2, 4 CORE + BARE EARTH CONDUCTOR , FEATURES: AL SHEATH; PC SOLID PVC INSULATED: SURFEX; INSIDE
M00052529	CABLE,POWER,ELECTRICAL: SURFEX 6MM 4 CORE AND EARTH WHITE PC SOLID PVC PROTECTED INTERNAL ALUMINIUM SHEATH
M00063346	CABLE,POWER,ELECTRICAL: TYPE: SURFEX, VOLTAGE RATING: 300/500 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 2: AND EARTH PC SOLID PVC INSULATED ALUMINIUM SHEATH INSIDE
	CABLE,POWER,ELECTRICAL: TYPE: HOUSE WIRE VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 1: PVC INSULATED COLOUR: RED CONDUCTOR: ANNEALED COPPER CLASS 2 STRANDED
	CABLE,POWER,ELECTRICAL: TYPE: HOUSE WIRE VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 1: PVC INSULATED COLOUR: BLACK CONDUCTOR: ANNEALED COPPER CLASS 2 STRANDED
	CABLE,POWER,ELECTRICAL: TYPE: HOUSE WIRE VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 1: PVC INSULATED COLOUR: WHITE CONDUCTOR: ANNEALED COPPER CLASS 2 STRANDED
	CABLE,POWER,ELECTRICAL: TYPE: HOUSE WIRE VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 1: PVC INSULATED COLOUR: BLUE CONDUCTOR: ANNEALED COPPER CLASS 2 STRANDED
M00074572	CABLE,POWER,ELECTRICAL: VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 25 MM2, CORE QUANTITY: 4, FEATURES: STRANDED COPPER CONDUCTORS, PVC INSULATED: PVC INSULATED, PVC BEDDED. ECC/SWA, PVC SHEATHED.EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 1507

M00000717	WIRE,ELECTRICAL: TYPE: SINGLE CORE, CONDUCTOR SIZE: 35 MM2: FLEXIBLE WELDING CABLE IN ACCORDANCE TO SABS 1576/1993, EQUIPMENT USED ON EL AND P
	CABLE,POWER,ELECTRICAL: VOLTAGE RATING: 600/1000 V AERIAL BUNDLE CONDUCTOR, CONDUCTOR SIZE: 4 MM2, CORE QUANTITY: 4, FEATURES: STRANDED ALUMINIUM CONDUCTORS, PVC INSULATED
M00103671	BATTERY; TYPE LEAD CALCIUM: MAINTENANCE FREE ; COMPLETE WITH 300MM X 6MM FLEXIBLE JUMPERS WITH M6 X 6MM LUGS ON BOTH ENDS, POTENTIAL 12 VOLT 100A/H
M00106046	BATTERY; TYPE LEAD CALSIUM; 45 A/H; MAINTENANCE FREE WITH SG INDICATOR; C/W 300MM X 6MM FLEXIBLE JUMPERS WITH M6 X 6MM LUGS ON BOTH ENDS., POTENTIAL 12 VOLT
spec to be provided	BATTERY CHARGER FOR 11KV SUB
M00064551	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 2.5 MM2, FEATURES: CLEARANCE HOLE FOR STUD M6, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P
M00022190	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 4 MM2, FEATURES: CLEARANCE HOLE FOR STUD M6, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P, APPROVED ITEM NAME, SH 0001
M00064552	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 6 MM2, FEATURES: CLEARANCE HOLE FOR STUD M6, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P
M00022192	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 25 MM2, FEATURES: CLEARANCE HOLE FOR STUD M10, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P
M00011687	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 35 MM2, FEATURES: CLEARANCE HOLE FOR STUD M10, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P
M00074508	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 50 MM2, FEATURES: CLEARANCE HOLE FOR STUD M12, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: REFER TO DRAWING FOR DIMENSIONS AND IDENTIFICATION, TERMINAL, EQUIPMENT USED ON EL&P
M00032605	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 70 MM2, FEATURES: CLEARANCE HOLE FOR STUD M10, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 ST 0001: EQUIPMENT USED ON EL AND P

M00053432	TERMINAL, LUG: WIRE SIZE ACCOMMODATED: 95 MM2, FEATURES: CLEARANCE HOLE FOR STUD M12, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P
M00053441	FERRULE, ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 2.5 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONS BS 2871 SPLICE
M00074516	FERRULE, ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 4 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE
M00075039	FERRULE, ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 6 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE
M00001220	FERRULE, ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 25 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE
M00064543	FERRULE, ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 35 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE
M00022203	FERRULE, ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 50 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE
M00033067	FERRULE, ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 70 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE
M00032615	FERRULE, ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 95 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE
M00053442	FERRULE, ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 150 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE
	500mm <sup>2</sup> SHEAR OFF FERRULES

M00103432	PIPE, METALLIC; LENGTH 6 METERS, FURNISHED ITEMS GALVANISED; MEDIUM, PIPE SIZE 25MM NOMINAL BORE (ID). PIPE OD 33.7MM, END CONNECTION TYPE THREADED BSP
M00064122	FUSE: CURRENT: 5 A: MFR: MC.GRAW-EDISON P/N: FL11H5: H TYPE, HIGH SURGE, BUTTON HEAD, FOR 6,6/11/22 KV. MAXIMUM TO QUOTED PART NUMBER OR EQUAL FUSE LINK, ELECTRICAL EQUIPMENT USED ON EL&P, SPECIFICATION NUMBER BS 2692
M00022161	SWITCH, KNIFE: CURRENT RATING: 3000 A: MFR: AEG P/N: 131B03060: TRACK SECTIONING, WITHOUT OPERATING HANDLE, EQUIPMENT USED ON 5400000 5405901, SPECIFICATION NUMBER CEE.0228.96/LATEST
M00001873	RESISTOR, VOLTAGE SENSITIVE: TYPE: SILICON CARBIDE, DIMENSIONS: ID 20 X OD 45 X THK 4 MM: DWG: CEE-TU-100 SH 11: ELECTRICAL SURGE ARRESTOR. USERS DESCRIPTION OVERHEAD TRACK EQUIPMENT SPARK GAP. 054008446 LATEST SPECIFICATION NUMBER T6J-3/78 (SAR)
M00075648	ARRESTER, LIGHTNING: BREAKDOWN VOLTAGE: 4 KV, MATERIAL: METAL OXIDE, MOUNTING: PEDESTAL, FEATURES: WITH ADAPTER PLATE: DWG: CEE-TLE-6: RATED 10 KA; TO QUOTED PART NUMBER OR EQUAL; EQUIPMENT USED ON 5400000 5405600 5405601 SPECIFICATION CEE-0240.97
M00075611	ARRESTER, LIGHTNING: TYPE: CAPACITOR, BREAKDOWN VOLTAGE: 3 KV: 4 MICRO FARRAD. OVERHEAD TRACK EQUIPMENT; USED ON 5400000 5405600 5405601 SPECIFICATION NUMBER CEE.0115.86
M00032583	CONTACT,ELECTRICAL: CONTACT TYPE: MAIN FIXED: P/N: HSBT601020: CATALOGUE: HSBA300142R1: FOR BBC HIGH SPEED CIRCUIT BREAKER TYPE UR26-E-D-64-S. 48031224, EQUIPMENT USED ON 4800000 4810700 4810709 48Q1470, INSTRUCTION MANUAL, ITEM1
M00065112	CONTACT,ELECTRICAL: CONTACT TYPE: MAIN MOVING: P/N: HSBT601020: DWG: HSBA200031R1: FOR BBC HIGH SPEED CIRCUIT BREAKER TYPE UR26-E-D-64-S 48031236, EQUIPMENT USED ON 4800000 4810700 4510709 48Q1470, INSTRUCTION MANUAL, ITEM 1
M00044067	SEMICONDUCTOR DEVICE,DIODE: VOLTAGE RATING: 4000 V, CURRENT RATING: 2000 A, SEMICONDUCTOR MATERIAL: SILICON: MFR: SIEMENS P/N: C67047-A2053-A5; MFR: SIEMENS P/N: SSIR62220: OPERATING TEMP -40 DEG CELSIUS TO + 160 DEG CELSIUS EQUIPMENT USED ON 48Q1470
	SA 100-1 TRANSFORMER BREATHER
	SA 100-2 TRANSFORMER BREATHER

M00044041	CONTACT, ELECTRICAL: CONTACT TYPE: MAIN FIXED: DWG: CEE-TCQ-209: HIGH SPEED CIRCUIT BREAKERS, TYPES GE, RJR 532, RJR 713 AND ACEC 2 000E. , DATE:21/06/96 AMENDMENT 3 EQUIPMENT USED ON SUBS
M00075589	CONTACT, ELECTRICAL: CONTACT TYPE: MAIN MOVING: DWG: CEE-TCQ-271 REV: 14, DWG: CEE-TCQ-423 REV: 1: HIGH SPEED CIRCUIT BREAKERS, TYPE 2000. TYPE GE, RJR 532, RJR 713 AND ACEC 2 000E DATE:27/07/2004, DATE:28/05/2003 EQUIPMENT USED ON SUBS
	CONTACTOR: 60 Amp 3 Phase 400 Volt coil
M00001253	ARRESTER,LIGHTNING: BREAKDOWN VOLTAGE: 11 KV, MOUNTING: BRACKET: P/N: J9241-QS/QL JOSLYN: 5 KA, EQUIPMENT USED ON TRANSMISSION LINE, SPECIFICATION NUMBER CEE.0136.85.
M00105433	TIMER; TYPE TIMECOUNT PD02, MOUNT 11 PIN BASE, SPECIFICATION DELAY ON ENERGISE, POTENTIAL 110 VDC, RANGE 50 - 600 SECONDS
M00002209	RESISTOR, FIXED, WIRE WOUND; TYPE UNDERVOLTAGE/VOLTAGE DIVIDER, TOLERANCE +/-10 PCT, DIMENSIONS DIA 14 X LG 265 MM, WATTAGE RATING 200 W, RESISTANCE 3.6 K OHM, VOLTAGE RATING 3 KV; P/N: UNK AEG; HIGH ALLOYED CHROME NICKEL. ON A CERAMIC CORE VITRIFIED.
M00002274	RESISTOR, FIXED, WIRE WOUND; TOLERANCE +/-10 PCT, DIMENSIONS DIA 36 X LG 330 MM, WATTAGE RATING 500 W, FEATURES VITREOUS ENAMELLED, RESISTANCE 1.5 K OHM; P/N: UNK ROSENTHAL; NICKEL-CHROMIUM, ON A CERAMIC CORE, DRAWING SYMBOL R101,R201.R104, R204.REPLACEMENT AEG CAT R4. 930 OHM RESISTOR ORIGINALLY SUPPLIED. A.E.G.; POWER RATING: 500 W
M00041762	CIRCUIT BREAKER; FIXED CONTACT, FOR PART 1116 SECHERON SA (BB) UR40 3 KV DC TRACK
M00062758	CONTACT, ELECTRICAL; P/N: 1120 SECHERON; MOVING, (BB) UR40 3KV DC TRACKBREAKER
	CARRIER FUSE CUT OUT SIL750,P700/1260
M00022236	CLAMP, ELECTRICAL GROUNDING; TYPE ONE PIECE RING, MATERIAL BRZ NON ZN HIGH STRENGTH OR COPPER CORROSION RESISTANT HIGH STRENGTH OR BRS; COMPLETE WITH NON-FERROUS SECURING BOLT, SUITABLE TO CONNECT A 70 SQ MM CABLE TO A 16 MM DIA CONDUCTOR EARTH ROD.
M00001430	COUPLING; TYPE FOR M16 EARTH SPIKE, MATERIAL BRASS SOLID
M00001155	DISTRIBUTION BOX; TYPE 24 MODULE SINGLE TIER, FURNISHED ITEMS HEINEMANN TO SAMITE MINI-RAIL, SPECIAL FEATURES WITHOUT DOOR, FULLY PREFITTED, MOUNTING SURFACE, BOX LENGTH 385 MM, BOX MATERIAL STL PRESSED, BOX WIDTH 225 MM; SWITCH KING OR EQUAL. USERS DESCRIPTION, CIRCUIT BREAKER BOX EQUIPMENT USE ON

M00033090	DISTRIBUTION BOX; TYPE CIRCUIT BREAKER, MOUNTING SURFACE, COVER ATTACHMENT METHOD HINGE, BOX LENGTH 710 MM, BOX WIDTH 605 MM, BOX TYPE CABINET BOARD; P/N: SK5 SWITCH KING; SK5 3X24 MOD, SAM, (THREE TIER), FULLY PREFITTED WITH HEINEMANN MINI-RAIL, SWITCH KING SK5 WITH SKB1 PANEL OR EQUAL, USERS DESCRIPTION (APPROX. 150 MM.); EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABA 1180:PART 2
M00011626	CONDUIT, NONMETALLIC, RIGID; MATERIAL PVC, CONDUIT SIZE ACCOMMODATED 25 MM, CONDUIT LENGTH 4 M; P/N: ESP/3M EGATUBE (S. A.PTY) LTD; TO QUOTED PART NUMBER OR EQUAL EQUIPMENT USED ON EL AND P SPECIFICATION NUMBER SABS 950 PER METER
	CONDUIT, NONMETALLIC, RIGID; MATERIAL PVC, CONDUIT SIZE ACCOMMODATED 20 MM, CONDUIT LENGTH 4 M; P/N: ESP/3M EGATUBE (S. A.PTY) LTD; TO QUOTED PART NUMBER OR EQUAL EQUIPMENT USED ON EL AND P SPECIFICATION NUMBER SABS 950 PER METER
	NUMBER 1 TUFFLON COMPRESSION GLANDS
	NUMBER 2 TUFFLON COMPRESSION GLANDS
	25MM P.V.C COUPLINGS
	25MM P.V.C MALE ADAPTORS
	25MM P.V.C SADDLES
	20MM P.V.C COUPLINGS
	20MM P.V.C MALE ADAPTORS
	20MM P.V.C SADDLES
	LED MIDI FLOODLIGHT (131 WATT)
	LED MIDI FLOODLIGHT (265 WATT)
	LED VAPOUR PROOF LUMINAIRE (49 WATT)
M00001155	DISTRIBUTION BOX; TYPE 24 MODULE SINGLE TIER, FURNISHED ITEMS HEINEMANN TO SAMITE MINI-RAIL, SPECIAL FEATURES WITHOUT DOOR, FULLY PREFITTED, MOUNTING SURFACE, BOX LENGTH 385 MM, BOX MATERIAL STL PRESSED, BOX WIDTH 225 MM; SWITCH KING OR EQUAL. USERS DESCRIPTION, CIRCUIT BREAKER BOX EQUIPMENT USE ON
M00001284	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 2.5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 20 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156-1977, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SA1-G3 BREAKER, 13 MM WIDE. 13MM

M00011800	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 15 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3. 26 MM WIDE
M00012224	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 3, VOLTAGE RATING 380 VAC, RATED BREAKING CAPACITY 30 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF3-G3. USERS DESCRIPTION 77 MM WIDE
M00013967	BUS BAR; TYPE NEUTRAL CONDUCTOR; FOR CLIP-IN ASSEMBLY; WITH SINGLE SCREW STIRRUP TERMINALS, SAMITE(SAN) ASSEMBLY OR EQUAL
M00022287	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 3, VOLTAGE RATING 380 VAC, RATED BREAKING CAPACITY 40 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156 , EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF3-G3. USERS DESCRIPTION 77 MM WIDE
M00022718	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1+N, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 30 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156 COMMON TRIP, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF2-GO/G3, 52 MM WIDE
M00043151	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1+N, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 60 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, COMMON TRIP, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF2-GO/G3, 52 MM WIDE.
M00043556	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 10 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3 BREAKER. USERS DESCRIPTION 26 MM WIDE
M00053522	CIRCUIT BREAKER; TYPE MOLDED CASE, SPECIFICATION SABS156, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 3, VOLTAGE RATING 380 VAC, RATED BREAKING CAPACITY 60 A; SAMITE BRAND, EQUIPMENT USED ON EL&P
M00064164	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 5 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 15, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3 BREAKER. USERS DESCRIPTION 26 MM WIDE.
M00064165	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 30 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3 BREAKER. USERS DESCRIPTION 26 MM WIDE

M00074788	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 25 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156 EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3 BREAKER. USERS DESCRIPTION 26 MM WIDE
M00083970	WIRE, ELECTRICAL; GREY, 2.5MM2 MULTISTRAN FLEXIBLE HOUSE WIRE, IN 100M ROLL PER METER
M00106038	SPRING; TYPE CONDUIT BENDING, MATERIAL FOR 20MM PVC CONDUIT
M00011003	CONDUIT, NONMETALLIC, RIGID; 32MM PVC SABS
M00031036	COVER, ACCESS; TYPE BLANK OFF, SPECIAL FEATURES CLIP IN, RECTANGULAR, COVER MATERIAL PVC; P/N: UNK HEINEMANN; FOR DISTRIBUTION BOARD 5 KA
M00012191	CLIP, CABLE; CABLE SIZE 10 MM; POLY SADDLES (ROUND)
M00052528	BOX, ELECTRICAL; TYPE EXTENSION, MATERIAL PVC, LENGTH 4 IN, WIDTH 4 IN; WITH KNOCK OUTS; 2 X 4 IN
M00053599	WIRE, ELECTRICAL; COLOR GREEN, CONDUCTOR SIZE 2.5 MM2, VOLTAGE RATING 600/1000 V, CONDUCTOR MATERIAL CU ANNEALED; SINGLE CORE.PVC INSULATED UNSHEATHED. EQUIPMENT USED ON EL AND P SPECIFICATION NUMBER SABS 1507 SABS 1411 TABLE 2-CLASS 2.
M00054031	ELBOW, ELECTRICAL CONDUIT; COLOR WHITE, CONNECTION 20 MM, MATERIAL PVC; P/N: EIE/2M EGATUBE (S. A.PTY) LTD; COMPLETE WITH COVER & SCREWS TO QUOTED PART NUMBER OR EQUAL EQUIPMENT USED ON EL&P, SPECIFICATION NUMBER SABS 950
	TAPE, INSULATION, ELECTRICAL; COLOR BLUE, LENGTH 20 M, THICKNESS 0.18 MM, WIDTH 19 MM, TAPE MATERIAL PVC ADHESIVE;
M00043532	TAPE, INSULATION, ELECTRICAL; TYPE ADHESIVE, COLOR WHITE, LENGTH 20 M, THICKNESS 0.18 MM, WIDTH 19 MM, TAPE MATERIAL PVC; EQUIPMENT USED ON AW SPECIFICATION NUMBER SABS 122-1975; ROLL
M00045176	TAPE, INSULATION, ELECTRICAL; TYPE ADHESIVE, COLOR GREEN, LENGTH ROLL 20 M, THICKNESS 0.18 MM, WIDTH 19 MM, TAPE MATERIAL PVC;
M00066162	TAPE, INSULATION, ELECTRICAL; TYPE NON ADHESIVE, COLOR RED, LENGTH 20 M, THICKNESS 0.18 MM, WIDTH 19 MM, TAPE MATERIAL PVC;
M00063211	SWITCH, TOGGLE; TYPE 4 LEVER, FURNISHED ITEMS PVC COVER AND SCREWS; P/N: UNK CRABTREE;
M00072923	GROMMET BLANK, NONMETALLIC; TYPE BLANK OFF, DIMENSIONS DIA 20 MM, FEATURES CLIP IN, ROUND, GROMMET MATERIAL PVC; P/N: UNK HEINEMANN; FOR DISTRIBUTION BOARD

M00073636	COVER, ACCESS; TYPE BLANK OFF, DIMENSIONS 2 X 4 IN, COVER MATERIAL PVC; WITH METAL SCREWS
M00074443	CONDUIT BOX; TYPE CIRCULAR 4 WAY INTERSECTION, FEATURES 20MM OUTLETS, MATERIAL PVC; P/N: 2M/ECR/6 EGATUBE (S. A.PTY) LTD; TO QUOTED PART NUMBER OR EQUAL, USED ON EL&P, SPECIFICATION NUMBER SABS 950
M00074444	CONDUIT BOX; TYPE CIRCULAR 1 WAY TERMINAL, FEATURES 20MM OUTLETS, MATERIAL PVC; P/N: 2M/ECR/2 EGATUBE (S. A.PTY) LTD; TO QUOTED PART NUMBER OR EQUAL, USED ON EL&P, SPECIFICATION NUMBER SABS 950
M00078434	BOX CONNECTOR, ELECTRICAL; TYPE EXTENSION, DIMENSIONS SQ 4 IN, BOX MATERIAL PVC;
M00087791	GOGGLES, INDUSTRIAL; P/N: 9301/106 UVEX; P/N: UNK NORTH SAFETY PRODUCTS - NEW GERMANY; PVC; TYPE: SAFETY, LENS COLOR: CLEAR, FEATURES: ULTRA VISION: MODEL 9301
M00083942	RELAY OVRLD.STRIKE FP04-B, TO BE USED.
M00032909	HERBICIDE BRMCL;TYP WEEDKILLER CNT 25 KG
M00041773	CHUTE ARC;UR-26-E-D-64-SSECHERON.
M00065105	KIT CBL JNT;CAB 500 MM2,POT 3.3KVDC.
M00026543	KIT CBL JNT;POT 12 KV,PJC12 - 1010,TYPE:
M00016008	KIT CBL JNT;CAB 35-70 MM,POT 12 KV.
M00012367	KIT CBL JNT;CAB 50-95 MM2,POT 12 KV
	BRASSO METAL POLISH: SIZE 1X200ML; WEIGHT 0.202KG; DIMENSIONS 155MM(L) x 53MM(W) x 53MM(H)
	ELECTRICAL SUBSTATION LOGBOOK; PAGES 300; SIZE A4; COVER-BLACK HARDBOUND WITH REINFORCED IMITATION LEATHER AND PLACEHOLDER RIBBON; THE BOOK MUST BE ABLE TO OPEN AND HAVE ACID-FREE PAPER; FIRST PAGE MUST HAVE FIELD FOR: NAME, GRADE, DATE, TIME OF ARRIVAL, PURPOSE OF VISITS AND REMARKS, TIME OF DEPARTUE AND SIGNATURE; SECOND PAGE MUST HAVE FIELDS FOR: DATE, TIME COMMENCED, DETAILS OF WORK UNDERTAKEN AND TEST MADE, TIME WORK COMPLETED AND SIGNANTURE.
	<b>Total</b>

**3. DURATION**

The project contract will be for 3 **month** from the date of award. i.e., Tenderer having acknowledged the receipt of award letter.

**4. GUARANTEE**

4.1. Prasa Metrorail shall be formally invited to conduct tests and visually inspect the material before delivery for any defects or damages.

4.2. The material shall be subjected to a guarantee period of one year. The guarantee period shall commence the day it is formally handed over to and accepted by Metrorail.

4.3. Any defects that may become apparent during the guarantee period shall be rectified to the satisfaction of the client at no cost to PRASA.

4.4. Should the contractor fail to comply with the above, Prasa is entitled to take effective replacement of the defective material. The contractor must reimburse Prasa Metrorail the total cost for replacement of materials.

**5. PENALTY**

Should the Contractor fail to complete delivery on/before the stipulated completion dates, a penalty fee of R5000 per week will be charged.

**6. DELIVERY**

All the material supplied must be delivered to Metrorail Infrastructure Western Cape Region.

<u>MATERIAL NUMBER</u>	<u>DESCRIPTION</u>	<u>Quantity</u>	<u>Rate</u>	<u>Total</u>
M00004628	CABLE,POWER,ELECTRICAL: VOLTAGE RATING: 3.8/6.6 KV, CONDUCTOR SIZE: 500 MM2, CORE QUANTITY: 1, FEATURES: LG 300M, COPPER CONDUCTOR XLPE INSULATED M, PACKAGE TYPE: DRUM WOODEN: TYPE A WITH INDIVIDUALLY COPPER TAPE SCREENED CORE , ARMOUR AND SHEATH	400		
	CABLE,POWER,ELECTRICAL: TYPE: SURFEX, VOLTAGE RATING: 300/500 V, CONDUCTOR SIZE: 4 MM2, 4 CORE + BARE EARTH CONDUCTOR , FEATURES: AL SHEATH; PC SOLID PVC INSULATED: SURFEX; INSIDE	50		
	CABLE,POWER,ELECTRICAL: TYPE: SURFEX, VOLTAGE RATING: 300/500 V, CONDUCTOR SIZE: 2,5 MM2, 4 CORE + BARE EARTH CONDUCTOR , FEATURES: AL SHEATH; PC SOLID PVC INSULATED: SURFEX; INSIDE	50		
M00052529	CABLE,POWER,ELECTRICAL: SURFEX 6MM 4 CORE AND EARTH WHITE PC SOLID PVC PROTECTED INTERNAL ALUMINIUM SHEATH	50		
M00063346	CABLE,POWER,ELECTRICAL: TYPE: SURFEX, VOLTAGE RATING: 300/500 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 2: AND EARTH PC SOLID PVC INSULATED ALUMINIUM SHEATH INSIDE	250		
	CABLE,POWER,ELECTRICAL: TYPE: HOUSE WIRE VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 1: PVC INSULATED COLOUR: RED CONDUCTOR: ANNEALED COPPER CLASS 2 STRANDED	250		
	CABLE,POWER,ELECTRICAL: TYPE: HOUSE WIRE VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 1: PVC INSULATED COLOUR: BLACK CONDUCTOR: ANNEALED COPPER CLASS 2 STRANDED	250		
	CABLE,POWER,ELECTRICAL: TYPE: HOUSE WIRE VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 1: PVC INSULATED COLOUR: WHITE CONDUCTOR: ANNEALED COPPER CLASS 2 STRANDED	250		
	CABLE,POWER,ELECTRICAL: TYPE: HOUSE WIRE VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 2.5 MM2, CORE QUANTITY: 1: PVC INSULATED COLOUR: BLUE CONDUCTOR: ANNEALED COPPER CLASS 2 STRANDED	250		

M00074572	CABLE,POWER,ELECTRICAL: VOLTAGE RATING: 600/1000 V, CONDUCTOR SIZE: 25 MM2, CORE QUANTITY: 4, FEATURES: STRANDED COPPER CONDUCTORS, PVC INSULATED: PVC INSULATED, PVC BEDDED. ECC/SWA, PVC SHEATHED.EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 1507	500		
M00000717	WIRE,ELECTRICAL: TYPE: SINGLE CORE, CONDUCTOR SIZE: 35 MM2: FLEXIBLE WELDING CABLE IN ACCORDANCE TO SABS 1576/1993, EQUIPMENT USED ON EL AND P	50		
	CABLE,POWER,ELECTRICAL: VOLTAGE RATING: 600/1000 V AERIAL BUNDLE CONDUCTOR, CONDUCTOR SIZE: 4 MM2, CORE QUANTITY: 4, FEATURES: STRANDED ALUMINIUM CONDUCTORS, PVC INSULATED	500		
M00103671	BATTERY; TYPE LEAD CALCIUM: MAINTENANCE FREE ; COMPLETE WITH 300MM X 6MM FLEXIBLE JUMPERS WITH M6 X 6MM LUGS ON BOTH ENDS, POTENTIAL 12 VOLT 100A/H	30		
M00106046	BATTERY; TYPE LEAD CALSIUM; 45 A/H; MAINTENANCE FREE WITH SG INDICATOR; C/W 300MM X 6MM FLEXIBLE JUMPERS WITH M6 X 6MM LUGS ON BOTH ENDS., POTENTIAL 12 VOLT	20		
spec to be provided	BATTERY CHARGER FOR 11KV SUB	2		
M00064551	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 2.5 MM2, FEATURES: CLEARANCE HOLE FOR STUD M6, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P	25		

M00022190	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 4 MM2, FEATURES: CLEARANCE HOLE FOR STUD M6, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P, APPROVED ITEM NAME, SH 0001	20		
M00064552	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 6 MM2, FEATURES: CLEARANCE HOLE FOR STUD M6, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P	20		
M00022192	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 25 MM2, FEATURES: CLEARANCE HOLE FOR STUD M10, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P	20		
M00011687	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 35 MM2, FEATURES: CLEARANCE HOLE FOR STUD M10, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P	20		
M00074508	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 50 MM2, FEATURES: CLEARANCE HOLE FOR STUD M12, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: REFER TO DRAWING FOR DIMENSIONS AND IDENTIFICATION, TERMINAL, EQUIPMENT USED ON EL&P	20		
M00032605	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 70 MM2, FEATURES: CLEARANCE HOLE FOR STUD M10, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 ST 0001: EQUIPMENT USED ON EL AND P	20		
M00053432	TERMINAL,LUG: WIRE SIZE ACCOMMODATED: 95 MM2, FEATURES: CLEARANCE HOLE FOR STUD M12, ATTACHMENT METHOD: CRIMP: DWG: CEE-PA -0014 SH 0001: EQUIPMENT USED ON EL AND P	20		

M00053441	FERRULE,ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 2.5 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONS BS 2871 SPLICE	20		
M00074516	FERRULE,ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 4 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE	20		
M00075039	FERRULE,ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 6 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE	20		
M00001220	FERRULE,ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 25 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE	20		
M00064543	FERRULE,ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 35 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE	20		
M00022203	FERRULE,ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 50 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE	20		

M00033067	FERRULE,ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 70 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE	20		
M00032615	FERRULE,ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 95 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE	20		
M00053442	FERRULE,ELECTRICAL CONDUCTOR: WIRE SIZE ACCOMMODATED: 150 MM2, ATTACHMENT METHOD: CRIMP: IN ACCORDANCE WITH STAMCOR ELECTRIC DIMENSION CHART SPECIFICATIONSBS 2871 EQUIPMENT USED ON EL&P SPLICE	20		
	500mm² SHEAR OFF FERRULES	10		
M00103432	PIPE, METALLIC; LENGTH 6 METERS, FURNISHED ITEMS GALVANISED; MEDIUM, PIPE SIZE 25MM NOMINAL BORE (ID). PIPE OD 33.7MM, END CONNECTION TYPE THREADED BSP	10		
M00064122	FUSE: CURRENT: 5 A: MFR: MC.GRAW-EDISON P/N: FL11H5: H TYPE, HIGH SURGE, BUTTON HEAD, FOR 6,6/11/22 KV. MAXIMUM TO QUOTED PART NUMBER OR EQUAL FUSE LINK,ELECTRICAL EQUIPMENT USED ON EL&P, SPECIFICATION NUMBER BS 2692	10		
M00022161	SWITCH,KNIFE: CURRENT RATING: 3000 A: MFR: AEG P/N: 131B03060: TRACK SECTIONING, WITHOUT OPERATING HANDLE, EQUIPMENT USED ON 5400000 5405901, SPECIFICATION NUMBER CEE.0228.96/LATEST	10		

M00001873	RESISTOR,VOLTAGE SENSITIVE: TYPE: SILICON CARBIDE, DIMENSIONS: ID 20 X OD 45 X THK 4 MM: DWG: CEE-TU-100 SH 11: ELECTRICAL SURGE ARRESTOR. USERS DESCRIPTION OVERHEAD TRACK EQUIPMENT SPARK GAP. 054008446 LATEST SPECIFICATION NUMBER T6J-3/78 (SAR)	10		
M00075648	ARRESTER,LIGHTNING: BREAKDOWN VOLTAGE: 4 KV, MATERIAL: METAL OXIDE, MOUNTING: PEDESTAL, FEATURES: WITH ADAPTER PLATE: DWG: CEE-TLE-6: RATED 10 KA; TO QUOTED PART NUMBER OR EQUAL; EQUIPMENT USED ON 5400000 5405600 5405601 SPECIFICATION CEE-0240.97	10		
M00075611	ARRESTER,LIGHTNING: TYPE: CAPACITOR, BREAKDOWN VOLTAGE: 3 KV: 4 MICRO FARRAD. OVERHEAD TRACK EQUIPMENT; USED ON 5400000 5405600 5405601 SPECIFICATION NUMBER CEE.0115.86	10		
M00032583	CONTACT,ELECTRICAL: CONTACT TYPE: MAIN FIXED: P/N: HSBT601020: CATALOGUE: HSBA300142R1: FOR BBC HIGH SPEED CIRCUIT BREAKER TYPE UR26-E-D-64-S. 48031224, EQUIPMENT USED ON 4800000 4810700 4810709 48Q1470, INSTRUCTION MANUAL, ITEM1	6		
M00065112	CONTACT,ELECTRICAL: CONTACT TYPE: MAIN MOVING: P/N: HSBT601020: DWG: HSBA200031R1: FOR BBC HIGH SPEED CIRCUIT BREAKER TYPE UR26-E-D-64-S 48031236, EQUIPMENT USED ON 4800000 4810700 4510709 48Q1470, INSTRUCTION MANUAL, ITEM 1	6		
M00044067	SEMICONDUCTOR DEVICE,DIODE: VOLTAGE RATING: 4000 V, CURRENT RATING: 2000 A, SEMICONDUCTOR MATERIAL: SILICON: MFR: SIEMENS P/N: C67047-A2053-A5; MFR: SIEMENS P/N: SSIR62220: OPERATING TEMP -40 DEG CELSIUS TO + 160 DEG CELSIUS EQUIPMENT USED ON 48Q1470	10		
	SA 100-1 TRANSFORMER BREATHER	2		

	SA 100-2 TRANSFORMER BREATHER	2		
M00044041	CONTACT,ELECTRICAL: CONTACT TYPE: MAIN FIXED: DWG: CEE-TCQ-209: HIGH SPEED CIRCUIT BREAKERS, TYPES GE, RJR 532, RJR 713 AND ACEC 2 000E. , DATE:21/06/96 AMENDMENT 3 EQUIPMENT USED ON SUBS	2		
M00075589	CONTACT,ELECTRICAL: CONTACT TYPE: MAIN MOVING: DWG: CEE-TCQ-271 REV: 14, DWG: CEE-TCQ-423 REV: 1: HIGH SPEED CIRCUIT BREAKERS, TYPE 2000. TYPE GE, RJR 532, RJR 713 AND ACEC 2 000E DATE:27/07/2004, DATE:28/05/2003 EQUIPMENT USED ON SUBS	2		
	CONTACTOR: 60 Amp 3 Phase 400 Volt coil	3		
M00001253	ARRESTER,LIGHTNING: BREAKDOWN VOLTAGE: 11 KV, MOUNTING: BRACKET: P/N: J9241-QS/QL JOSLYN: 5 KA, EQUIPMENT USED ON TRANSMISSION LINE, SPECIFICATION NUMBER CEE.0136.85.	6		
M00105433	TIMER; TYPE TIMECOUNT PD02, MOUNT 11 PIN BASE, SPECIFICATION DELAY ON ENERGISE, POTENTIAL 110 VDC, RANGE 50 - 600 SECONDS	5		
M00002209	RESISTOR, FIXED, WIRE WOUND; TYPE UNDERVOLTAGE/VOLTAGE DIVIDER, TOLERANCE +/-10 PCT, DIMENSIONS DIA 14 X LG 265 MM, WATTAGE RATING 200 W, RESISTANCE 3.6 K OHM, VOLTAGE RATING 3 KV; P/N: UNK AEG; HIGH ALLOYED CHROME NICKEL. ON A CERAMIC CORE VITRIFIED.	5		
M00002274	RESISTOR, FIXED, WIRE WOUND; TOLERANCE +/-10 PCT, DIMENSIONS DIA 36 X LG 330 MM, WATTAGE RATING 500 W, FEATURES VITREOUS ENAMELLED, RESISTANCE 1.5 K OHM; P/N: UNK ROSENTHAL; NICKEL- CHROMIUM, ON A CERAMIC CORE, DRAWING SYMBOL R101,R201.R104, R204.REPLACEMENT AEG CAT R4. 930 OHM RESISTOR ORIGINALLY SUPPLIED. A.E.G.; POWER RATING: 500 W	5		

M00041762	CIRCUIT BREAKER; FIXED CONTACT, FOR PART 1116 SECHERON SA (BB) UR40 3 KV DC TRACK	3		
M00062758	CONTACT, ELECTRICAL; P/N: 1120 SECHERON; MOVING, (BB) UR40 3KV DC TRACKBREAKER	2		
	CARRIER FUSE CUT OUT SIL750,P700/1260	7		
M00022236	CLAMP, ELECTRICAL GROUNDING; TYPE ONE PIECE RING, MATERIAL BRZ NON ZN HIGH STRENGTH OR COPPER CORROSION RESISTANT HIGH STRENGTH OR BR5; COMPLETE WITH NON-FERROUS SECURING BOLT, SUITABLE TO CONNECT A 70 SQ MM CABLE TO A 16 MM DIA CONDUCTOR EARTH ROD.	5		
M00001430	COUPLING; TYPE FOR M16 EARTH SPIKE, MATERIAL BRASS SOLID	10		
M00001155	DISTRIBUTION BOX; TYPE 24 MODULE SINGLE TIER, FURNISHED ITEMS HEINEMANN TO SAMITE MINI-RAIL, SPECIAL FEATURES WITHOUT DOOR, FULLY PREFITTED, MOUNTING SURFACE, BOX LENGTH 385 MM, BOX MATERIAL STL PRESSED, BOX WIDTH 225 MM; SWITCH KING OR EQUAL. USERS DESCRIPTION, CIRCUIT BREAKER BOX EQUIPMENT USE ON	5		
M00033090	DISTRIBUTION BOX; TYPE CIRCUIT BREAKER, MOUNTING SURFACE, COVER ATTACHMENT METHOD HINGE, BOX LENGTH 710 MM, BOX WIDTH 605 MM, BOX TYPE CABINET BOARD; P/N: SK5 SWITCH KING; SK5 3X24 MOD, SAM, (THREE TIER), FULLY PREFITTED WITH HEINEMANN MINI-RAIL, SWITCH KING SK5 WITH SKB1 PANEL OR EQUAL, USERS DESCRIPTION (APPROX. 150 MM.); EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABA 1180:PART 2	5		
M00011626	CONDUIT, NONMETALLIC, RIGID; MATERIAL PVC, CONDUIT SIZE ACCOMMODATED 25 MM, CONDUIT LENGTH 4 M; P/N: ESP/3M EGATUBE (S. A.PTY) LTD; TO QUOTED PART NUMBER OR EQUAL EQUIPMENT USED ON EL AND P SPECIFICATION NUMBER SABS 950 PER METER	5		
	CONDUIT, NONMETALLIC, RIGID; MATERIAL PVC, CONDUIT SIZE ACCOMMODATED 20 MM, CONDUIT LENGTH 4 M; P/N: ESP/3M EGATUBE (S. A.PTY) LTD; TO QUOTED PART NUMBER OR EQUAL EQUIPMENT USED ON EL AND P SPECIFICATION NUMBER SABS 950 PER METER	25		

	NUMBER 1 TUFFLON COMPRESSION GLANDS	20		
	NUMBER 2 TUFFLON COMPRESSION GLANDS	20		
	25MM P.V.C COUPLINGS	20		
	25MM P.V.C MALE ADAPTORS	20		
	25MM P.V.C SADDLES	20		
	20MM P.V.C COUPLINGS	25		
	20MM P.V.C MALE ADAPTORS	25		
	20MM P.V.C SADDLES	20		
	LED MIDI FLOODLIGHT (131 WATT)	5		
	LED MIDI FLOODLIGHT (265 WATT)	5		
	LED VAPOUR PROOF LUMINAIRE (49 WATT)	5		
M00001155	DISTRIBUTION BOX; TYPE 24 MODULE SINGLE TIER, FURNISHED ITEMS HEINEMANN TO SAMITE MINI-RAIL, SPECIAL FEATURES WITHOUT DOOR, FULLY PREFITTED, MOUNTING SURFACE, BOX LENGTH 385 MM, BOX MATERIAL STL PRESSED, BOX WIDTH 225 MM; SWITCH KING OR EQUAL. USERS DESCRIPTION, CIRCUIT BREAKER BOX EQUIPMENT USE ON	2		
M00001284	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 2.5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 20 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156-1977, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SA1-G3 BREAKER, 13 MM WIDE. 13MM	2		

M00011800	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 15 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3. 26 MM WIDE	2		
M00012224	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 3, VOLTAGE RATING 380 VAC, RATED BREAKING CAPACITY 30 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF3-G3. USERS DESCRIPTION 77 MM WIDE	2		
M00013967	BUS BAR; TYPE NEUTRAL CONDUCTOR; FOR CLIP-IN ASSEMBLY; WITH SINGLE SCREW STIRRUP TERMINALS, SAMITE(SAN) ASSEMBLY OR EQUAL	2		
M00022287	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 3, VOLTAGE RATING 380 VAC, RATED BREAKING CAPACITY 40 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156 , EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF3-G3. USERS DESCRIPTION 77 MM WIDE	1		
M00022718	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1+N, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 30 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156 COMMON TRIP, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF2-GO/G3, 52 MM WIDE	2		
M00043151	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1+N, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 60 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, COMMON TRIP, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF2-GO/G3, 52 MM WIDE.	2		
M00043556	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 10 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3 BREAKER. USERS DESCRIPTION 26 MM WIDE	2		

M00053522	CIRCUIT BREAKER; TYPE MOLDED CASE, SPECIFICATION SABS156, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 3, VOLTAGE RATING 380 VAC, RATED BREAKING CAPACITY 60 A; SAMITE BRAND, EQUIPMENT USED ON EL&P	1		
M00064164	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 5 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 15, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3 BREAKER. USERS DESCRIPTION 26 MM WIDE.	2		
M00064165	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 30 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156, EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3 BREAKER. USERS DESCRIPTION 26 MM WIDE	2		
M00074788	CIRCUIT BREAKER; TYPE MOLDED CASE, INTERRUPT CAPACITY 5 KA, FEATURES WITHOUT COVER, POLE 1, VOLTAGE RATING 220 VAC, RATED BREAKING CAPACITY 25 A; SAMITE BRAND, EQUIPMENT USED ON EL&P SPECIFICATION NUMBER SABS 156 EQUAL TO AND INTERCHANGEABLE WITH HEINEMANN SF1-G3 BREAKER. USERS DESCRIPTION 26 MM WIDE	2		
M00083970	WIRE, ELECTRICAL; GREY, 2.5MM2 MULTISTRAN FLEXIBLE HOUSE WIRE, IN 100M ROLL PER METER	25		
M00106038	SPRING; TYPE CONDUIT BENDING, MATERIAL FOR 20MM PVC CONDUIT	2		
M00011003	CONDUIT, NONMETALLIC, RIGID; 32MM PVC SABS	3		
M00031036	COVER, ACCESS; TYPE BLANK OFF, SPECIAL FEATURES CLIP IN, RECTANGULAR, COVER MATERIAL PVC; P/N: UNK HEINEMANN; FOR DISTRIBUTION BOARD 5 KA	3		
M00012191	CLIP, CABLE; CABLE SIZE 10 MM; POLY SADDLES (ROUND)	10		

M00052528	BOX, ELECTRICAL; TYPE EXTENSION, MATERIAL PVC, LENGTH 4 IN, WIDTH 4 IN; WITH KNOCK OUTS; 2 X 4 IN	3		
M00053599	WIRE, ELECTRICAL; COLOR GREEN, CONDUCTOR SIZE 2.5 MM2, VOLTAGE RATING 600/1000 V, CONDUCTOR MATERIAL CU ANNEALED; SINGLE CORE.PVC INSULATED UNSHEATHED. EQUIPMENT USED ON EL AND P SPECIFICATION NUMBER SABS 1507 SABS 1411 TABLE 2- CLASS 2.	1		
M00054031	ELBOW, ELECTRICAL CONDUIT; COLOR WHITE, CONNECTION 20 MM, MATERIAL PVC; P/N: EIE/2M EGATUBE (S. A.PTY) LTD; COMPLETE WITH COVER & SCREWS TO QUOTED PART NUMBER OR EQUAL EQUIPMENT USED ON EL&P, SPECIFICATION NUMBER SABS 950	5		
	TAPE, INSULATION, ELECTRICAL; COLOR BLUE, LENGTH 20 M, THICKNESS 0.18 MM, WIDTH 19 MM, TAPE MATERIAL PVC ADHESIVE;	5		
M00043532	TAPE, INSULATION, ELECTRICAL; TYPE ADHESIVE, COLOR WHITE, LENGTH 20 M, THICKNESS 0.18 MM, WIDTH 19 MM, TAPE MATERIAL PVC; EQUIPMENT USED ON AW SPECIFICATION NUMBER SABS 122-1975; ROLL	5		
M00045176	TAPE, INSULATION, ELECTRICAL; TYPE ADHESIVE, COLOR GREEN, LENGTH ROLL 20 M, THICKNESS 0.18 MM, WIDTH 19 MM, TAPE MATERIAL PVC;	5		
M00066162	TAPE, INSULATION, ELECTRICAL; TYPE NON ADHESIVE, COLOR RED, LENGTH 20 M, THICKNESS 0.18 MM, WIDTH 19 MM, TAPE MATERIAL PVC;	5		
M00063211	SWITCH, TOGGLE; TYPE 4 LEVER, FURNISHED ITEMS PVC COVER AND SCREWS; P/N: UNK CRABTREE;	6		
M00072923	GROMMET BLANK, NONMETALLIC; TYPE BLANK OFF, DIMENSIONS DIA 20 MM, FEATURES CLIP IN, ROUND, GROMMET MATERIAL PVC; P/N: UNK HEINEMANN; FOR DISTRIBUTION BOARD	5		

M00073636	COVER, ACCESS; TYPE BLANK OFF, DIMENSIONS 2 X 4 IN, COVER MATERIAL PVC; WITH METAL SCREWS	5		
M00074443	CONDUIT BOX; TYPE CIRCULAR 4 WAY INTERSECTION, FEATURES 20MM OUTLETS, MATERIAL PVC; P/N: 2M/ECR/6 EGATUBE (S. A.PTY) LTD; TO QUOTED PART NUMBER OR EQUAL, USED ON EL&P, SPECIFICATION NUMBER SABS 950	3		
M00074444	CONDUIT BOX; TYPE CIRCULAR 1 WAY TERMINAL, FEATURES 20MM OUTLETS, MATERIAL PVC; P/N: 2M/ECR/2 EGATUBE (S. A.PTY) LTD; TO QUOTED PART NUMBER OR EQUAL, USED ON EL&P, SPECIFICATION NUMBER SABS 950	5		
M00078434	BOX CONNECTOR, ELECTRICAL; TYPE EXTENSION, DIMENSIONS SQ 4 IN, BOX MATERIAL PVC;	5		
M00087791	GOGGLES, INDUSTRIAL; P/N: 9301/106 UVEX; P/N: UNK NORTH SAFETY PRODUCTS - NEW GERMANY; PVC; TYPE: SAFETY, LENS COLOR: CLEAR, FEATURES: ULTRA VISION: MODEL 9301	5		
M00083942	RELAY OVRLD.STRIKE FP04-B, TO BE USED.	3		
M00032909	HERBICIDE BRMCL;TYP WEEDKILLER CNT 25 KG	10		
M00041773	CHUTE ARC;UR-26-E-D-64-SSECHERON.	5		
M00065105	KIT CBL JNT;CAB 500 MM2,POT 3.3KVDC.	2		
M00026543	KIT CBL JNT;POT 12 KV,PJC12 - 1010,TYPE:	2		
M00016008	KIT CBL JNT;CAB 35-70 MM,POT 12 KV.	2		
M00012367	KIT CBL JNT;CAB 50-95 MM2,POT 12 KV	2		

	BRASSO METAL POLISH: SIZE 1X200ML; WEIGHT 0.202KG; DIMENSIONS 155MM(I) x 53MM(W) x 53MM(H)	2		
	ELECTRICAL SUBSTATION LOGBOOK; PAGES 300; SIZE A4; COVER-BLACK HARDBOUND WITH REINFORCED IMITATION LEATHER AND PLACEHOLDER RIBBON; THE BOOK MUST BE ABLE TO OPEN AND HAVE ACID-FREE PAPER; FIRST PAGE MUST HAVE FIELD FOR: NAME, GRADE, DATE, TIME OF ARRIVAL, PURPOSE OF VISITS AND REMARKS, TIME OF DEPARTUE AND SIGNATURE; SECOND PAGE MUST HAVE FIELDS FOR: DATE, TIME COMMENCED, DETAILS OF WORK UNDERTAKEN AND TEST MADE, TIME WORK COMPLETED AND SIGNANTURE.	2		
	<b>Total</b>			



