



ITEM	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
78	CURRENT TRANSFORMER - OUTDOOR FRAME LEAKAGE CT			144576	3
77	PARALLEL GROOVE CLAMP COVER			176472	9
76	LUG BI-METAL COMPRESSION 7/4.75			147421	A/R
75	CABLE CCT 120 7/4.75 120mm ² AL			H2531	1
74	INSULATOR 22kV PIN			176901	3
73	LINK PLATE - TWISTED			158375	3
72	INSULATOR 22kV LONGROD			49411	30
71	EARTH STUBB MKCROWN	520088		H108475	1
70	EARTH BAR - 50.8mm TINNED HD COPPER (SEE DETAIL C)			179661	1
69	LINK - SAG, 70KN (PLP PART NO CTSLEW-070-1)			PURCHASE	3
68	COVER - STRAIN CLAMP			144523	3
67	CLAMP - CONDUCTOR STRAIN, FOR CCT120			145052	8
66	INSULATOR PIN, POST, LONG STUD			144550	3
65	INSULATOR - STRAIN ROD			75697	1
64	INSULATOR 22kV PIN PATTERN C			50963	A/R
63	CLOUT - GALVANISED Ø2.3 x 4.0			49411	30
62	WASHER - M10 x 21mm x 12mm STAINLESS STEEL			50120	15
61	WASHER - M10 SPRING STAINLESS STEEL			H39401	15
60	NUT - M10 HEX STAINLESS STEEL			45096	15
59	BOLT - M10 x 40, HEX STAINLESS STEEL			H39639	14
58	WASHER - M12 CONICAL GALVANISED			H12047	26
57	WASHER - M12 SPRING GALVANISED			177982	20
56	WASHER - M12 FLAT GALVANISED			H39667	19
55	WASHER - M16 CONICAL GALVANISED			177984	30
54	WASHER - M16 FLAT GALVANISED			H39655	9
53	WASHER - M20 CONICAL GALVANISED			175569	2
52	WASHER - M20 SPRING GALVANISED			H39265	8
51	WASHER - M20 50mm SQUARE GALVANISED			H39231	12
50	WASHER - M20 75mm SQUARE GALVANISED			H39663	4
49	WASHER - M24 CONICAL GALVANISED			ORDER	4
48	WASHER - M24 SPRING GALVANISED			177981	8
47	WASHER - M24 FLAT GALVANISED			H39273	4
46	WASHER - M24 50mm SQUARE GALVANISED			H40484	3
45	WASHER - M24 75mm SQUARE GALVANISED			H36932	4
44	COACH SCREW - M12 x 100 GALVANISED			175601	A/R
43	U BOLT - M16 SIZE 3 GALVANISED			46391	24
42	STAPLES - GALVANISED 3.15mm x 25mm			46821	16
41	BOLT & NUT - M12 x 50, HEX GALVANISED			H37637	4
40	BOLT & NUT - M12 x 140, HEX GALVANISED			83725	3
39	BOLT & NUT - M12 x 260, HEX GALVANISED			175674	8
38	BOLT & NUT - M16 x 200, HEX GALVANISED			44673	2
37	BOLT & NUT - M16 x 40, HEX GALVANISED			47126	4
36	BOLT & NUT - M20 x 50, HEX GALVANISED			515465	8
35	BOLT & NUT - M20 x 260, HEX GALVANISED			ORDER	6
34	BOLT & NUT - M20 TO SUIT POLE, HEX GALVANISED			H11538	2
33	BOLT & NUT - M24 x 65, HEX GALVANISED			H31659	A/R
32	BOLT & NUT - M24 x 500, HEX GALVANISED			181618	2
31	CONNECTOR - P, CRIMP, BURNDY EARTH			157552	1
30	POLE MOUNTED REGULATOR MANUFACTURED STEELWORK			H31631	mm3
29	PROTECTOR COVER EARTH GRID 2700mm BLACK			144568	3
28	ROD - GROUND EARTH 1800 x 15mm COPPER/CLAD			176491	A/R
27	COMMUNICATIONS COAXIAL CABLE TO BE INSTALLED BY (COMMS SECTION)			144568	3
26	CLAMP - 3 BOLT PARALLEL GROOVE - ALUMINIUM			74831	26
25	PARALLEL GROOVE CLAMP 3 BOLT BI-METAL 35mm ² - 185mm ² AL/CU			60111	A/R
24	CROSSARM 2700 x 150 x 100	183394		144600	3
23	LUG - 70mm ² COMPRESSION M12 HOLE			H37881	3
22	CABLE - Cu EARTH 70mm ² 19/2.14 PVC INSULATED			PURCHASE	2
21	WIRE - TIE, PREFORMED, INSULATED FOR CCT120			16795	A/R
20	EYEBOLT - M20 x 200mm GALVANISED			16795	A/R
19	LINK SYSTEM NUMBERS			517698	4
18	BOLT & NUT M24 x 90 HEX GALVANISED			H17720	9
17	COVER - CONNECTOR INSULATING SHROUD			H47012	2
16	STEP - POLE 16mm DRIVE IN			146274	2
15	SIGN - "DANGER HIGH VOLTAGE"	503117		183394	5
14	BRACKET - MOUNTING - 100mm GAIN BLOCK			183394	5
13	CROSSARM 2700 x 150 x 100			71795	2
12	CROSSARM 1200 x 100 x 75			11948	3
11	LIGHTNING ARRESTER UNIT - 11kV			58750	3
10	ISOLATING LINK - SINGLE PHASE 12kV, 630A			153884	A/R
9	COVER - PROTECTOR UNDERGROUND CABLE 150mm			146290	1
8	BRACKET - MOUNTING - 150mm GAIN BLOCK			H23020	1
7	CROSSARM - 3300 x 150 x 100 HARDWOOD	183394		H23020	1
6	11kV THROUGH TERMINATION 2-11	513915		SEE DWG	1
5	BRACE - CROSSARM 690 x 40 x 5mm FLAT BAR	514385		H17738	10
4					
3	REGULATOR CONTROL CUBICLE				3
2	REGULATOR UNIT - SINGLE PHASE 100A DR 200A				1
1	POLE - 15.5m TYP. TANK CONCRETE 2.8m IN GROUND			152868	1
ITEM	DESCRIPTION	DRG. No	REV	STOCK CODE	QTY

- NOTES:**
- CONNECTIONS BETWEEN 11kV LINK UNITS & THE VOLTAGE REGULATORS ARE MADE USING 7/4.75 120mm² CCT CABLE.
 - LOAD LINK NUMBER TO BE INSTALLED ON POLE 2000mm ABOVE GROUND LINE AS SHOWN IN DETAIL A. POLE NUMBER TO BE INSTALLED BETWEEN 2400mm AND 3000mm ABOVE GROUND LINE. (SEE NS14.8).
 - FIRST POLE STEP TO BE FITTED NO LESS THAN 3600mm FROM GROUND LEVEL AND REMAINING STEPS TO BE STAGGERED ABOVE AT 450mm CENTRES ON ALTERNATE SIDES OF POLE. HOLES TO BE 50-100mm OFF CENTRE, DEPENDING ON THE SIZE OF THE POLE.
 - PHASE LINK MARKERS TO BE INSTALLED ADJACENT TO EACH LINK AS SHOWN.
 - ALL STEELWORK TO BE SECURELY BONDED TO EARTH USING 70mm² BLACK PVC INSULATED CABLE.
 - FOR CROSSARM DRILLING DETAIL SEE DRAWING 183394.

ALL EARTHING REQUIREMENTS MUST MEET NS116 "DESIGN STANDARDS FOR DISTRIBUTION EARTHING"

NO	DATE	BY	FOR	REVISION
1	11/04/2008	PETER STOREY	PHASING CORRECTED POLE HEIGHT CHANGED FROM 14.5m TO 15.5m	
2	05/09/2008	PETER STOREY	ITEM 27 ADDED	
3	07/11/2008	STEPHEN LILLIS	ITEM 4 DELETED STOCK CODES UPDATED	
4	20/05/2011	DANIEL DAFI	SUPERSEDED BY 224227	
5		ROSS HUGHES	SUPERSEDED BY 185173	

NO	DESCRIPTION	DATE	BY
1	REGULATOR CROSSARM DRILLING DETAIL	183394	
2	NU-LEC RECLOSER CONTROLLING POLE REGULATOR - CONSTRUCTION DETAIL	185171	
3	POLE MOUNTED REGULATOR - GENERAL ARRANGEMENT	182685	

EnergyAustralia

DESIGN
145 NEWCASTLE RD WALLSEND, NSW 2287
TEL 4951 9388 FAX 4951 9389

Energserve A Business of EnergyAustralia

SCALE	125
DESIGNED	WILLIAM GRAHAM
DRAWN	NATALIE SINGLETON
CHECKED	PETER STOREY
APPROVED	ROSS HUGHES
DATE	07/01/08
PRJTRK No.	
PROJECT NUMBER	STD

DRAWING No	SHEET	AMD	SIZE
185173	01	4	B1

**STANDARD CONSTRUCTION
3 UNIT 11kV POLE MOUNTED REGULATOR
WITH POLE MOUNTED CONTROL
CONSTRUCTION DETAIL**