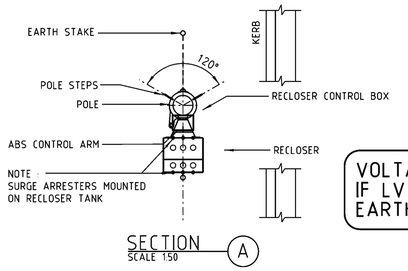
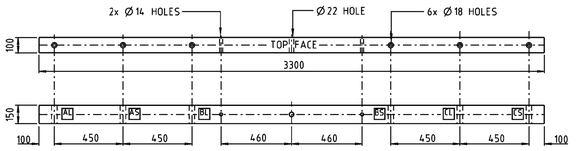
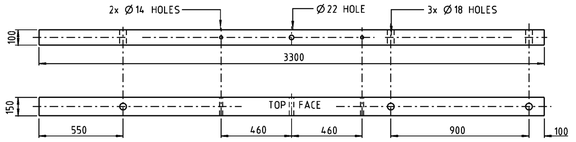


SECTION A
SCALE 1:50

VOLTAGE TRANSFORMER (VT) REQUIRED TO BE INSTALLED IN ALL LOCATIONS
IF LV MAINS INSTALLED DO NOT CONNECT TO VT CONTROL PANEL
EARTHING SYSTEM TO BE INSTALLED AS SHOWN



CROSSARM ITEM 8
SCALE 1:20
TIMBER CROSSARM 3300 x 150 x 100



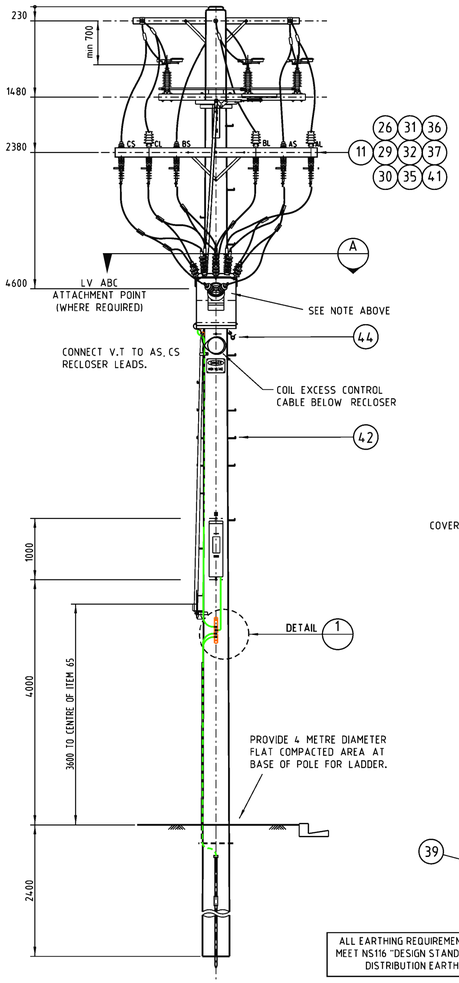
CROSSARM ITEM 11
SCALE 1:20
TIMBER CROSSARM 3300 x 150 x 100

NOTES:

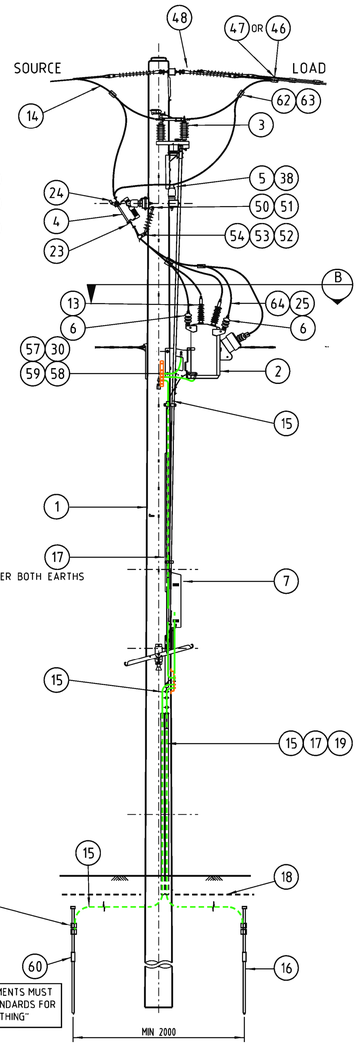
1. REFER TO NS116 FOR ELECTRODE DEPTH AND SPACING DESIGN TO SUIT SPECIFIC LOCATION - VT SUPPLY IS OFTEN PREFERABLE IN DIFFICULT EARTHING AREAS.
2. MINIMUM CLEARANCE 11kV-E TO BE GREATER THAN 200mm. HV PHASE TO PHASE CLEARANCE TO BE GREATER THAN 280mm.
3. SUSPENSION CLAMP (54) MUST BE A FIRM CLAMP ON HV DROPPER CABLES. CONDUIT INSERTS MAY BE USED TO ACHIEVE A FIRM CLAMP.
4. CROSSARMS ALSO DETAILED ON DWG A3-151564. STOCKCODE 177033 COVERS THE SET OF INDICATED CROSSARMS FOR THIS POLE.
5. HV SURGE ARRESTERS TO BE ELECTRICALLY BONDED TO RECLOSER TANK EARTH USING 70mm² PVC INSULATED CABLE (ITEM 15).
6. WHERE BARE LV MAINS ARE ATTACHED TO RECLOSER POLE, THEY SHALL BE CONVERTED TO LV ABC AT LEAST ONE SPAN EITHER SIDE OF RECLOSER.
7. ALL RECLOSERS INSTALLED SHALL HAVE A BYPASS ABS INSTALLED.
8. S/CODE 167734 IS FOR A N15 630A RECLOSER SUPPLIED WITH 400A 3m LEADS AND EXTERNAL VT AND MEGADATA COMMS.
   S/CODE 175791 IS FOR A N15 630A RECLOSER SUPPLIED WITH 400A 3m LEADS AND EXTERNAL VT AND DNP3 COMMS.
   OTHER CABLE LENGTHS AVAILABLE ARE 4m, 5m & 6m ON REQUEST.

CB RATED CURRENT	CABLE CURRENT RATING	CABLE SIZE(Ø)	CABLE MATERIAL	WATER BLOCKED
630A	250A	80mm²	ALUMINIUM	✓
• **630A**	**400A**	**185mm²**	**ALUMINIUM**	**✓**
630A	630A	240mm²	ALUMINIUM	✓
800A	800A	400mm²	COPPER	X

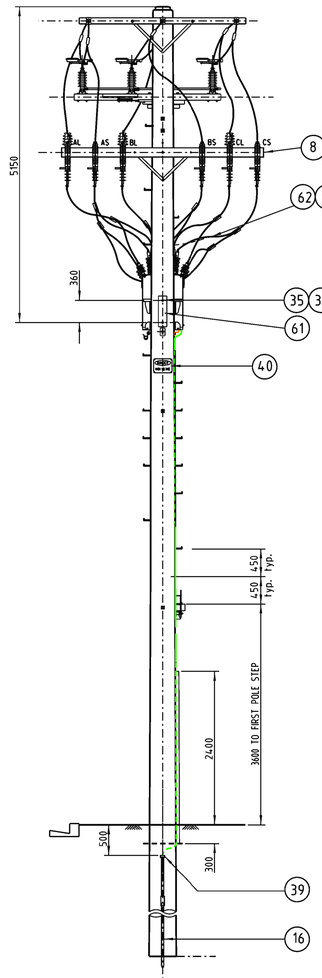
• STANDARD SUPPLIED. OTHER UNITS AVAILABLE ON SPECIAL ORDER.



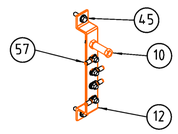
FRONT VIEW
SCALE 1:50



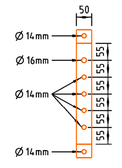
SIDE VIEW
SCALE 1:50

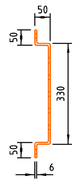


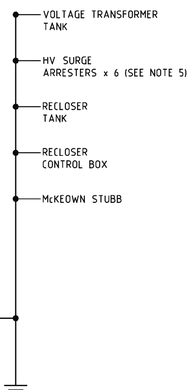
REAR VIEW
SCALE 1:50



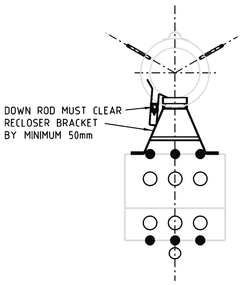
DETAIL 1
N.T.S.







EARTHING SCHEMATIC



SECTION B
SCALE 1:20

ITEM	DESCRIPTION	DWG No	S/CODE	QTY
64	COVERED CONDUCTOR CCT120		147421	AS REQ
63	PARALLEL GROOVE CLAMP COVER		144576	14
62	PARALLEL GROOVE CLAMP 3 BOLT MI-METAL 35mm² - 185mm² AL/CU		176491	14
61	COVER - FIBREGLASS INSULATION	A4-566374	176961	1
60	COUPLER - EARTH, TO SUIT ø15 EARTH ROD		H31649	AS REQ
59	WASHER - SPRING, M12, GALVANISED		H12047	3
58	BOLT & NUT - M12 x 40mm, HEX, GALVANISED		46375	3
57	CRIMP LUG - M12 FOR 70mm² COPPER		74831	8
56				
55				
54	CLAMP - SUSPENSION		63057	7
53	WASHER - FLAT, M16, GALVANISED		177984	18
52	BOLT & NUT - M16 x 50mm, HEX, GALVANISED		46524	6
51	INSULATOR - 22kV LONGROD		150375	6
50	LINK PLATE - TWISTED		176901	6
49				
48	11kV OVERHEAD ARRANGEMENT 2-11 (MINUS BRIDGING)	A3-513915		1
47	CLAMP - CONDUCTOR STRAIN, PARALLEL GROOVE, 2 BOLT		62414	AS REQ
46	CLAMP - CONDUCTOR STRAIN, PARALLEL GROOVE, 3 BOLT		62406	AS REQ
45	COACH SCREW - M12 x 100mm, GALVANISED		H40484	4
44	BRACKET HOOK		66621	1
43				
42	STEPS - POLE AT 450 CENTRES OR AS REQUIRED	A3-517698	H17720	AS REQ
41	WASHER - FLAT, M20, GALVANISED		177986	8
40	SIGN - DANGER HIGH VOLTAGE		H47012	2
39	CONNECTOR CRIMP TYPE YGHC TO SUIT 70mm²		177942	AS REQ
38	PIN - PATTERN C	A3-514401	H21531	9
37	WASHER - SPRING, SPECIAL CONICAL, M20		H39655	8
36	WASHER - SQUARE, M20 x 65 x 65 x 5mm, GALVANISED		65516	8
35	BOLT & NUT - M20, HEX, GALVANISED, TO SUIT POLE			8
34				
33	WASHER - CONICAL M16 GALVANISED		H39647	6
32	COACH SCREW - M12 x 90mm, GALVANISED		50443	4
31	WASHER - CONICAL, M12, GALVANISED		H39369	23
30	WASHER - FLAT, M12, GALVANISED		177892	26
29	BOLT & NUT - M16 x 150mm, HEX, GALVANISED		175672	10
28	BOLT & NUT - M16 x 180mm, HEX, GALVANISED		47068	6
27				
26	BRACE - CROSSARM, GALVANISED, 690 x 40 x 5mm	A3-514385	H17738	4
25	CRIMP LUG - BI-METAL M12, TO SUIT 120mm² CCT		176442	8
24	CRIMP LUG - BI-METAL, M10, TO SUIT CONDUCTOR	A3-513569		6
23	CRIMP LUG - BI-METAL, M12, TO SUIT 185mm²		57927	6
22				
21				
20				
19	CLOUTS - GALVANISED, Ø28 x 30mm		50971	AS REQ
18	COVER STRIP - CABLE - 150mm WIDTH		151100	AS REQ
17	PROTECTIVE EARTH GUARD - EARTH x 2700mm		157552	AS REQ
16	ELECTRODE - DRIVEN EARTH, ø15 x 1800mm		H31631	AS REQ
15	CONDUCTOR - EARTH, 19/2.14, PVC INSULATED HD 70mm²		60111	AS REQ
14	CONDUCTOR TO SUIT MAINS			AS REQ
13	SHIELD INSULATOR BUSHING		H21858	6
12	EARTH BAR - 50.8mm TINNED HD COPPER		179661	1
11	CROSSARM FOR PIN INSULATORS		H23020	1
10	EARTH STUBB McKEOWN	520088	H108415	1
9				
8	CROSSARM FOR LINKS		H23020	1
7	CONTROL CUBICLE - SUPPLIED WITH RECLOSER			1
6	ARRESTER - 11kV		111948	6
5	INSULATOR - PIN, 22kV TO SUIT PATTERN C PIN		75697	3
4	LINK - 11kV, 630AMP		58750	6
3	DISCONNECTOR - 12/24kV, 630A MID POLE MOUNTED	A2-175902	H95406/66647	1
2	RECLOSER - 11kV NULEC TYPE N15 630A (SEE NOTE 8)			1
1	POLE - WOOD, 15.5m x 12kN		152868	1

CAD DRAWING
DO NOT MANUALLY AMEND

AMENDMENTS

0	INITIAL ISSUE DWN S P CHKED WILLIAM GRAHAM DATE 18/04/2006 DISCONNECTOR OPERATING HANDLE CHANGED TO MID-POLE OPERATION. EARTHING DETAILS UPDATED.	APP'D by WILLIAM GRAHAM	
12	DWN BARBARA BARSKI CHKED WILLIAM GRAHAM DATE 06/11/2007 RECLOSER TYPE CHANGED FROM N24 TO N15.	APP'D by WILLIAM GRAHAM	
13	DWN NATALIE SINGLETON CHKED PETER STOREY DATE 15/01/2008 DISCONNECTOR MOVED TO OPPOSITE SIDE OF RECLOSER RECLOSER POSITIONED PARALLEL TO KERB.	APP'D by WILLIAM GRAHAM	
14	DWN NATALIE SINGLETON CHKED PETER STOREY DATE 03/09/2008 CLARIFICATION OF NULEC RATINGS	APP'D by ROSS HUGHES	
15	DWN NATALIE SINGLETON CHKED STEPHEN LILLISS DATE 14/10/2008 ITEM 33 ADDED. ITEM 28-BOLT SIZE CHANGED TO M16	APP'D by PETER STOREY	
16		APP'D by STEPHEN LILLISS	

STANDARD CONSTRUCTION 33kV NU-LEC TYPE N38 RECLOSER — 154102

ASSOCIATED DRAWINGS

NETWORK STANDARD

EnergyAustralia

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

SCALE	AS SHOWN
DESIGNED	.
DRAWN	dbg
CHECKED	B GRAHAM
APPROVED	R HUGHES
DATE	22/05/01
PRJTRK No.	
PROJECT NUMBER	STD

STANDARD CONSTRUCTION
11kV NU-LEC TYPE N15
RECLOSER
GENERAL ARRANGEMENT

DRAWING No 151078 | SHEET 01 | AMD 16 | SIZE A1

©

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