



THIS DRAWING IS TO BE READ IN CONJUNCTION WITH SHEET 1 & SHEET 3  
 ALL THE DETAILS & MATERIAL LIST ON THIS SHEET ARE FOR TYPE 1 ONLY

ITEM	DESCRIPTION	DRG No.	STOCK CODE	TYPE1	TYPE2	TYPE3
71	PLP - PALM TO Ø35mm STALK CONNECTION, PALM TO SUIT OH CONNECTION TYPE			3	3	3
70	CABAC - TINNED COPPER STALK Ø35mm TO SUIT CABLE SIZE			3	3	3
69	CONDUIT - CORRUGATED, WHITE COMMUNICATIONS, PVC Ø32mm	223073		A/R	A/R	A/R
68	CONDUIT - RIGID, WHITE COMMUNICATIONS, PVC Ø50mm	223073		A/R	A/R	A/R
67	CABLE CLAMP - UTILUX - CBH30-100			A/R	A/R	A/R
66	BOLT - M12, 316 STAINLESS STEEL, LENGTH TO SUIT CABLE CLAMP			A/R	A/R	A/R
65						
64	WASHER - FLAT, STAINLESS STEEL, ITEM 3 ON DRG : 223073	223073		12	12	12
63	BRACKET - CABLE CLAMP, ITEM 4 ON DRG : 223073	223073		A/R	A/R	A/R
62	UPPER CABLE COVER - ITEM 5 ON DRG: 223073	223073		1	1	1
61	LOWER CABLE COVER - ITEM 1 ON DRG : 223073	223073		1	1	1
60	LUG - COMPRESSION TO SUIT 70mm <sup>2</sup> COPPER CABLE			A/R	A/R	A/R
59	BRACKET - CABLE CLAMP, FOR USE WITH COVER, ITEM 5 ON DRG : 223074/5/6	223074/5/6		18	18	18
58	INSULATOR COVER - UTILUX T-365C			1	1	1
57	CONNECTOR - UTILUX T-365 Cu 'C'			2	2	2
56	CLAMP - PARALLEL, GROOVE, 3 BOLT	514099		-	-	3
55	INSULATOR - 66kV, HORIZONTAL LINE POST, MOUNTING & BONDING ARRANGEMENT 2	514161		-	1	1
54	INSULATOR - 66kV, LONGROD STRING ARRANGEMENT 3	166231		1	1	2
53	INSULATOR - 66kV, LONGROD STRING ARRANGEMENT 2	166231		2	2	4
52	CROSSARM - MOUNTING ARRANGEMENT 1a (3000x200x100mm)	514176		1	1	1
51	BOLT & NUT - M12 x 65mm, HEX, GALVANISED	515466	46417	12	12	12
50	WASHER - SPRING, M16, GALVANISED	518082	H12055	6	6	6
49	WASHER - FLAT, M16, GALVANISED	518081	17527	12	12	12
48	BOLT & NUT - M16 x 65mm, HEX, GALVANISED	515466	175675	6	6	6
47	CONDUCTOR - 70mm <sup>2</sup> COPPER PVC COVERED	H14617	A/R	A/R	A/R	A/R
46	FIBERLIGN DEADEND	162494		1	1	2
45	OFFSET EARTHING CLIP - Ø22mm HOLE	507734	H11708	2	2	3
44	LUG - COPPER, COMPRESSION, Ø12mm HOLE (TO SUIT 240mm <sup>2</sup> Cu)	179574		4	4	4
43	CONDUCTOR - EARTHING - COVERED 240mm <sup>2</sup> Cu			A/R	A/R	A/R
42	WASHER - SQUARE, 50x50x6mm, GALVANISED, Ø22mm HOLE	518081	H39265	24	24	24
41	SET SCREW - M12 x 50mm, STAINLESS STEEL	515467	45195	A/R	A/R	A/R
40	BRACKET - CABLE CLAMP, ITEM 4 ON DRG : 223074/5/6	223074/5/6		A/R	A/R	A/R
39	CLAMP - CABLE (ID-TECHNIK K 28/36 UP TO KR 100/130 AS REQUIRED), WITH ELASTIC INLAY			A/R	A/R	A/R
38	SET SCREW - M12 x 75mm, STAINLESS STEEL			A/R	A/R	A/R
37	BOLT & NUT - M20 GALVANISED, HEX Hd (TO SUIT POLE)	515466		9	9	9
36	POLE BAND - 3 BOLT (TO SUIT POLE)	507741		2	2	4
35	DEADEND - PREFORMED (TO SUIT PHASE CONDUCTOR)	514098		3	3	3
34	LUG - COMPRESSION TO SUIT MERCURY CONDUCTOR 7/4.5 AAC	514053	H10257	A/R	A/R	A/R
33	CONDUCTOR - MERCURY 7/4.5 AAC		H13433	A/R	A/R	A/R
32	SPLICE - GOVOTE, CASE STAINLESS STEEL 6.5"x22" WITH CABLE GLANDS	PLP DRG : 120-037-731		1	1	1
31	OPGW - CUSHION CLAMP	PLP DRG : 037-274-RD		A/R	A/R	A/R
30	BRACE - CROSSARM, ANGLE, 740mm, GALVANISED	46	99119	2	2	2
29	UPPER CABLE COVER - ITEM 5 ON DRG: 223074/5/6	223074/5/6		3	3	3
28	FLAT BAR - 50.8 x 3.18mm, TINNED HD COPPER, SEE DETAIL 9	192881		1	1	1
27	BRACKET - OPGW COIL			A/R	A/R	A/R
26	DROPPER CABLE - EQUIVALENT TO AERIAL CONDUCTOR			3	3	3
25	WASHER - FLAT, STAINLESS STEEL, ITEM 3 ON DRG : 223074/5/6	223074/5/6		36	36	36
24	PALM - TO SUIT CABAC LUGS & TYCO TORQUE CONTROLLED LUGS	202654		3	3	3
23	SCREW SET - M12x30mm, HEX, GALVANISED	515466	46367	A/R	A/R	A/R
22	NUT - M12, HEX, GALVANISED	515466	9118	A/R	A/R	A/R
21	WASHER - M12, SPRING, GALVANISED	518082	H12047	A/R	A/R	A/R
20	WASHER - M12, FLAT, GALVANISED	518081	177982	A/R	A/R	A/R
19	BRACKET - SURGE ARRESTER - ITEM 2 ON DRG : 202647	202647		3	3	3
18	NUT - M20, HEX, GALVANISED	515466	175381	24	24	24
17	WASHER - M20, SPRING, GALVANISED	518082	175569	A/R	A/R	A/R
16	WASHER - M20, FLAT, GALVANISED	518081	175625	A/R	A/R	A/R
15	ROD - M20, THREADED, GALVANISED, LENGTH TO SUIT			6	6	6
14	NUT - M12, HEX, 316 STAINLESS STEEL	515467	8987	A/R	A/R	A/R
13	WASHER - M12, SPRING, 316 STAINLESS STEEL		143859	A/R	A/R	A/R
12	WASHER - M12, FLAT, 316 STAINLESS STEEL	518081	49429	A/R	A/R	A/R
11	SCREW SET - M12x30mm, HEX, 316 STAINLESS STEEL	515467	175911	A/R	A/R	A/R
10	LUG - BIMETALLIC, TO SUIT CONDUCTOR			6	6	6
9	INSULATOR - POLYMERIC, KLINE TYPE KL695VP1 (WITH VERTICAL TRUNNION)			3	3	3
8	VOLTAGE LIMITER - CABLE SHEATH, AK POWER TYPE T2S PB (REFER TO DESIGN FOR VOLTAGE RATING)			3	3	3
7	TERMINATION - OUTDOOR, 72kV, FOR XLPE 1200mm <sup>2</sup> Cu, WITH TOP BOLT TYPE KT-BF 40 1200 SKR			3	3	3
6	LUG - CABAC TYPE CAL, STRAIGHT, TO SUIT CABLE			3	3	3
5	LUG - TYCO TORQUE CONTROLLED TYPE EPPA-65X-X/Y			3	3	3
4	SURGE ARRESTOR-66kV, STATION CLASS, COOPER TYPE U206805338C5AAA FOR RESTRICTED EARTH			3	3	3
3	SURGE ARRESTOR-66kV, STATION CLASS, COOPER TYPE U205404236C5AAA FOR SOLID EARTH			3	3	3
2	BRACKET - SEALING END	202647		3	3	3
1	LOWER CABLE COVER - ITEM 1 ON DRG : 223074/5/6	223074/5/6		3	3	3
1	POLE - AS SPECIFIED IN DESIGN DOCUMENTATION			1	1	1

- NOTES:**
- CONNECTION BETWEEN MAIN EARTH GRID AND CONCRETE REINFORCING OR FENCE POST TO BE INSTALLED WITH INSULATION INTACT TO INHIBIT CORROSION.
  - ALL PVC COVERED CONDUCTORS SHOULD BE PROTECTED DURING WELDING OPERATIONS.
  - ALL CONNECTIONS TO EARTH TAGS TO BE CLEARLY & PERMANENTLY LABELLED WITH CABLE DESTINATION. SEE STAINLESS STEEL TAG DETAIL.
  - WHERE A 66kV SURGE ARRESTER IS INSTALLED ON AN EARTH RESTRICTED SYSTEM USE ITEM 19 TO FIX SURGE ARRESTER TO POLE. FOR ALL OTHER SURGE ARRESTERS USE ITEM 4 BRACKET.
  - ALL COMPRESSION LUGS TO BE TERMINATED USING CORRECT HEXAGONAL DIES.
  - ALL DIMENSION ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. DO NOT SCALE. DIMENSIONS TAKE PRECEDENCE.
  - WHERE WELDING IS TO BE CARRIED OUT ON SITE ALL WELDS TO BE CLEARED OF SLAG, WIRE BRUSHED AND PAINTED WITH COLD GALVANISING PAINT.
  - ONLY ONE CONNECTION PER BOLT PERMITTED.
  - IF UGOH IS TO BE INSTALLED WITHIN A SUBSTATION FENCE OR CONNECTED TO AN ANCILLARY EARTHING SYSTEM, AN ADDITIONAL CONNECTION WILL BE REQUIRED FROM THE EARTH GRID OR ELECTRODE GROUP TO THE BASE OF THE POLE.
  - FOR A COMPLETELY CROSS BONDED SYSTEM, SHEATH VOLTAGE LIMITERS ARE NOT REQUIRED & THE CABLE SHEATH IS TO BE CONNECTED DIRECTLY TO THE EARTH BAR. THE EARTH CONTINUITY CONDUCTOR THAT RUNS PARALLEL TO THE UNDERGROUND CABLE IS NOT REQUIRED IN CROSS BONDED SYSTEMS. REFER TO EARTHING SCHEMATIC ON SHEET 1 FOR ADDITIONAL DETAILS.

**CONSTRUCTION ISSUE**

CAD DRAWING DO NOT MANUALLY AMEND A.M.E.N.D.M.E.N.T.S.	CHKD: ADAM BRADFORD
DWN: PATRICIA RIOS	APP'D: GLENN FORD
DATE: 19/02/2010	DWN: PATRICIA RIOS
EARTHING MODIFIED, NOTES & MATERIAL LIST DOWN LEAD ATTACHMENT SYSTEM AMENDED.	CHKD: ADAM BRADFORD
DATE: 23/09/2011	APP'D: GLENN FORD
CABLE COVERS, BRACKETS & CLAMPS CHANGED.	DWN: PATRICIA RIOS
DATE: 17/01/2012	CHKD: ADAM BRADFORD
MATERIAL LIST QUANTITY CHANGED FOR ALL TYPES, SHEET 3 ADDED.	APP'D: GLENN FORD

1	DATE: 19/02/2010	CHKD: ADAM BRADFORD
2	DATE: 23/09/2011	APP'D: GLENN FORD
3	DATE: 17/01/2012	CHKD: ADAM BRADFORD

DESIGNED	ADAM BRADFORD
DRAWN	PATRICIA RIOS
CHECKED	ADAM BRADFORD
AUTHORISED	GLENN FORD
DATE	17/03/09
SCALE	NTS
MAP REF.	LGA
PROJECT No.	STD
PROJTRAK No.	-

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<b>STANDARD CONSTRUCTION 66kV UGOH ON CONCRETE POLE SINGLE CABLE PER PHASE DETAILS &amp; MATERIAL LIST</b>	
SIZE	DRAWING No.
<b>A1</b>	<b>192881</b>
SHEETS	AMD
<b>02 of 3</b>	<b>3</b>