



**TABLE 1**  
TERMINAL NUMBER FOR PALMS AS PER AS 62271.301

	ALUMINIUM	PLP PART No. (OR EQUIVALENT)
TRITON	5	CTA-263-35111
PLUTO	3	CTAW-188-FD712-3000
URANUS	5	CTA-293-35111

PALM ANGLE TO BE 30°

**TABLE 2**

3 MAIN CONDUCTOR	56 TAPPING	52 P.G. CLAMP
TRITON	PLUTO	APG-315-315-2
PLUTO	MERCURY	APG-263104-T
URANUS	PLUTO	APG-315-315-2

- NOTES:**
- NO SHEATH VOLTAGE LIMITERS FOR CROSS BONDED CASE. BOND SHEATH DIRECTLY TO EARTH BAR.
  - QUANTITIES ARE SHOWN FOR 18.5m/80kN POLE.
  - ALL COMPRESSION LUGS TO BE TERMINATED USING CORRECT HEXAGONAL DIES.
  - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. DO NOT SCALE. DIMENSIONS TAKE PRECEDENCE.
  - ONLY ONE ELECTRICAL CONNECTION PER BOLT PERMITTED.
  - TOP CABLE COVER MOUNTING BRACKET FERRULES FOR EACH CABLE COVER TO BE EARTH FERRULES IN POLE.
  - SEE DRAWING 227847 FOR ELECTRICAL PALM BOLTING ARRANGEMENT & DETAIL.
  - CONNECTION BETWEEN MAIN EARTH GRID AND CONCRETE REINFORCING OR FENCE POST TO BE INSTALLED WITH INSULATION INTACT TO INHIBIT CORROSION.
  - WHERE WELDING IS TO BE CARRIED OUT ON SITE ALL WELDS TO BE CLEARED OF SLAG, WIRE BRUSHED AND PAINTED WITH COLD GALVANISING PAINT.
  - K SERIES CLEATS TO BE TIGHTENED TO 5nm. KR SERIES CLEATS TO BE TIGHTENED TO 8nm.

**DETAIL 13**  
SEALING END BRACKET BOLT INSTALLATION ARRANGEMENT

ITEM	DESCRIPTION	DWG. No.	STOCK CODE	QTY.
60	LUG - ALUMINIUM, COMPRESSION, Ø18mm, HOLE TO SUIT TAPPING CONDUCTOR			3
59	LUG - COMPRESSION, Ø14mm HOLE, TO SUIT CABLE SCREEN			3
58	CONDUCTOR - (SEE TABLE 2)			AS REQ'D
57	BOLT, M12x30mm, GALVANISED	515466	46367	AS REQ'D
56	WASHER - FLAT, M12, GALVANISED	518081	177962	AS REQ'D
55	WASHER - SPRING, M12, GALVANISED	518082	H12047	AS REQ'D
54	WASHER - SQUARE 50 x 50 x 6mm, Ø12mm HOLE			AS REQ'D
53	BOLT & NUT - M12 GALVANISED, HEX Hd (TO SUIT POLE)	515466		AS REQ'D
52	CLAMP - PARALLEL GROOVE - TO SUIT CONDUCTOR			3
51	TERMINAL LUG TYPE CS COPPER D-CS28CT (PLP)			3
50	LUG - COPPER, COMPRESSION, Ø14mm HOLE (TO SUIT 70mm Cu)			AS REQ'D
49	CONDUCTOR - EARTHING - BLACK - COVERED 70mm Cu.	60111		AS REQ'D
48	CABLE TIE - STAINLESS STEEL			AS REQ'D
47	LUG - COPPER COMPRESSION Ø14mm, DOUBLE BOLT, TO BE DRILLED ON SITE (TO SUIT 185mm² Cu)			1
46	SHEATH VOLTAGE LIMITER - AS SPECIFIED IN THE ROUTE DESIGN			1
45	INSULATOR COVER - UTILUX T-288C		H116616	3
44	CONNECTOR - UTILUX T-288 Cu 'C'			2
43	FIBERLIGN CABLE STORAGE BRACKET			1
42	COYOTE ENCLOSURE WITH MOUNTING BRACKETS			1
41	WASHER - FLAT, STAINLESS STEEL, ITEM 3	223075		36
40	BRACKET - CABLE CLAMP AND COVER, TO SUIT K50/75 CLAMP, ITEM 5	223074		18
39	BRACKET - CABLE CLAMP AND COVER, TO SUIT KR75/100 CLAMP, ITEM 5	223075		3
38	CLAMP - CABLE (id-Technik K50/75)	235189		34
37	CLAMP - CABLE (id-Technik KR75/100)	223074		10
36	BRACKET - SURGE ARRESTOR EXTENSION	223075		3
35	TERMINATION - OUTDOOR, 36kV, XLPE, SELF SUPPORTING, APED 380, TO SUIT CABLE			3
34	BRACKET - 33kV SEALING END MOUNTING	166246		3
33	ELASTIC INLAY - id-Technik			AS REQ'D
32	SURGE ARRESTOR 36kV 10kA FOR NON-EFFECTIVELY EARTHED SYSTEM	H32190		3
31	SURGE ARRESTOR 27kV 10kA FOR EFFECTIVELY EARTHED SYSTEM	H113407		3
30	BRACKET - CABLE SUPPORT - ASSEMBLY 1	166248		3
29	BRACKET - CABLE SUPPORT - ASSEMBLY 2	166248		3
28	BRACKET - SURGE ARRESTOR EXTENSION	202857		3
27	PALM - AS SPECIFIED IN TABLE 1.			3
26	DOWNLEAD CUSHION - FIBERLIGN (TO SUIT OPGW)			9
25	NEOPRENE INLAY - (CUT TO SUIT)			AS REQ'D
24	BRACKET - EARTHING CABLE CLAMP, ITEM 4	223073		7
23	CABLE HOLDER - UTILUX CBH30-100			AS REQ'D
22	LUG - COPPER, COMPRESSION, Ø14mm HOLE (TYPE 4 TERMINAL AS PER 62771.301 TO SUIT 185mm² Cu)			2
21	CONDUCTOR - EARTHING - BLACK - COVERED 185mm² Cu	61432		AS REQ'D
20	COVER - UPPER - EARTHING CABLE - ITEM 2	223073		1
19	COVER - LOWER - EARTHING CABLE - ITEM 1	223073		1
18	COVER - LOWER, CABLE PROTECTION TO SUIT K50/75 CLAMP, ITEM 1	223074		3
17	COVER - LOWER, CABLE PROTECTION TO SUIT KR75/100 CLAMP, ITEM 1	223075		3
16	COVER - UPPER, CABLE PROTECTION TO SUIT K50/75 CLAMP, ITEM 2	223074		3
15	COVER - UPPER, CABLE PROTECTION TO SUIT KR75/100 CLAMP, ITEM 2	223075		3
14	WASHER - M20, FLAT, GALVANISED	518081	177966	40
13	WASHER - SPRING, M20, GALVANISED	518082	175569	40
12	NUT - M20, GALVANISED	515466	175361	40
11	WASHER - SQUARE 50 x 50 x 6mm, Ø22mm HOLE	518081	H39265	40
10	ROD THREADED M20, GALV, LENGTH TO SUIT POLE			12
9	DEADEND - PREFORMED (TO SUIT OPGW CONDUCTOR)			1
8	POLE BAND - 3 BOLT (TO SUIT POLE)	507741		1
7	CONDUIT - CORRUGATED, WHITE COMMUNICATIONS, PVC Ø32mm			AS REQ'D
6	CONDUIT - RIGID, WHITE COMMUNICATIONS, PVC Ø50mm			AS REQ'D
5	NUT - M12, STAINLESS STEEL	515467	8987	168
4	WASHER - FLAT, M12, STAINLESS STEEL	518081	49429	299
3	WASHER - SPRING, M12, STAINLESS STEEL	518082	143859	231
2	SET SCREW - M12 x 30mm, STAINLESS STEEL	515467	H38528	99
1	SET SCREW - M12 x 50mm, STAINLESS STEEL	515467	45195	55
0	SET SCREW - M12 x 75mm, STAINLESS STEEL			9
-1	SET SCREW - M12 x 150mm, STAINLESS STEEL			68
-2	CONDUCTOR - TO SUIT			AS REQ'D
-3	EARTH BAR - TINNED COPPER, SEE DETAIL 18			1
-4	POLE - CONCRETE			1

THIS DRAWING IS TO READ INCONJUNCTION WITH DRAWING 166244 SHEET 1.

## CONSTRUCTION ISSUE

CAD DRAWING  
DO NOT MANUALLY AMEND  
A M E N D M E N T S  
DWG: GARY HUGHES  
CHKD: TERRY PERKINS  
DATE: 25/03/2013  
REDRAWN  
APPD by: GLENN FORD  
DWN: PATRICIA RIOS  
CHKD: TERRY PERKINS  
DATE: 09/02/2015  
MATERIAL LIST & NOTES  
ARRANGEMENT CHANGED  
DETAIL 18 ADDED  
APPD by: DOMINIC SHIELDS

BOLTING ARRANGEMENTS FOR HIGH VOLTAGE BOLTED CONNECTIONS	227847
33kV UGOH ON CONCRETE POLE 630mm² TO 1200mm² GENERAL ARRANGEMENT	166244_01
ASSOCIATED DRAWINGS	

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SCALE  
DESIGNED: ROBERT KNOWLES  
DRAWN: PAUL MCEWAN  
CHECKED: ROBERT KNOWLES  
APPROVED: G SKINNER  
DATE: 02/03/05  
PROJECT NUMBER: STD  
PROJ/TRAK NUMBER:

**STANDARD CONSTRUCTION**  
33kV UGOH ON CONCRETE POLE  
TO SUIT 630mm² TO 1200mm²  
GENERAL ARRANGEMENT  
DETAILS & MATERIAL LIST

ITEM DESCRIPTION DWG. No. STOCK CODE QTY.

SIZE: A1  
DRAWING No: 166244  
SHEET: 02  
AMD: 3