

TYPICAL EARTH BAR - CONNECTION DETAILS DETAIL (A)

TYPICAL EARTH BAR - DRILLING DETAILS DETAIL (B)

TYPICAL INDOOR MOUNTED
EARTH BAR SUPPORT DETAILS DETAIL (C)

TYPICAL WALL MOUNTED
EARTH BAR SUPPORT DETAILS DETAIL (D)
SCALE: NTS

MCKEOWN EARTH STUBBS DETAIL (MS1)
MOUNTED ON WALL SUPPORT

MCKEOWN STUBB
ADAPTED BRACKET DETAIL MS2

COPPER STRAP ON TX BUND
TO BURIED EARTH CONSTRUCTION

NOTES:

1. FOR EARTH BARS SUPPLIED WITH EQUIPMENT - DRILL EXISTING EARTH BAR TO SUIT EARTH BOND CONNECTIONS
2. FOR AUGRID SUPPLIED EARTH BARS - ALLOWANCE FOR A MINIMUM OF 2 SPARE CONNECTIONS IS REQUIRED
3. A MAXIMUM OF 910mm IZ (CONNECTIONS) IS ALLOWED BETWEEN SUPPORT BRACKETS TO ITEM NO. 17.
4. THE DESTINATION OF ALL EARTH BONDS ARE TO BE CLEARLY MARKED AS PER EARTH BAR DETAILS TABLE ON PERMANENT LABELS AT BOTH ENDS OF THE BOND REFER TO DETAIL LC
5. ALL EARTH BARS TO BE CLEARLY & PERMANENTLY LABELLED AS PER EARTH BAR DETAILS TABLE. SEE DETAIL NP
6. CABLES ARE REQUIRED TO BE SECURED TO CONCRETE USING STAINLESS STEEL SADDLES, ANCHOR AND SEALANT. SEE DETAIL PC
7. COPPER BAR AND COPPER STRAP TO BE SECURED TO CONCRETE WITH ANCHOR AND SEALANT. SEE DETAIL PB
8. WHERE DIMENSION IS LABELLED x" THE DIMENSION IS THE THICKNESS OF THE SELECTED EARTH BAR PLUS 10mm.
9. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING Z36806 SHEET 2
10. FOR CONDUCTOR, CRIMP & LUG SIZES REFER TO SITE SPECIFIC ELECTRICAL DESIGN DOCUMENT.
11. PRIOR TO MAKING CONNECTIONS CLEAN SURFACES AND APPLY CONDUCTIVE GREASE. BOLT ALL CONNECTIONS AND JOINTS WITH STAINLESS STEEL NUTS, BOLTS, FLAT WASHERS AND BELLEVILLE WASHERS TO PREVENT CORROSION.

CONSTRUCTION ISSUE

106	JOINT SEALANT	SIKA FLEX PRO - CONCRETE GREY				
109	CONDUCTOR	CONDUCTOR - 300mm ² STRANDED COPPER - BLACK PVC COVERED				
108	LUG COMPRESSION	DUAL HOLE / DOUBLE CRIMP LUG 300mm ² M16 TINNED COPPER HEX COMPRESSION				
102	LUG COMPRESSION	LUG - 185mm ² M16 TINNED COPPER HEX COMPRESSION	73312	UTILLUX H136720	20 Pk	
101	CONDUCTOR	CONDUCTOR - 185mm ² STRANDED COPPER - BLACK PVC COVERED				
96	ANCHOR	MUSHROOM HEAD SPIKE - POWERS 3/8" x 3" STAINLESS STEEL GRADE 316 FOR FIXING UP TO 32mm MATERIALS TO CONCRETE OR BRICK. PACK OF 100	180044	POWERS M16/MS	100 Pk	H
93	ANCHOR	MUSHROOM HEAD SPIKE - POWERS 5mm x 30mm STAINLESS STEEL GRADE 316 FOR FIXING UP TO 6mm MATERIALS TO CONCRETE OR BRICK. PACK OF 100	180045	POWERS M16/MS/SS	100 Pk	
92	ANCHOR	MUSHROOM HEAD SPIKE - POWERS 5mm x 50mm STAINLESS STEEL GRADE 316 FOR FIXING UP TO 19mm MATERIALS TO CONCRETE OR BRICK. PACK OF 100	180043	POWERS M16/18/MS/SS SPECIALLY W/POWERS SOL M16-18/MS	100 Pk	
83	ANCHOR FULL SADDLE	ANCHOR SADDLE - FULL SADDLE STAINLESS STEEL GRADE 316 (70mm ² CABLE)				
80	LUG COMPRESSION	LUG - 035mm ² M10 TINNED COPPER HEX COMPRESSION	73155	UTILLUX H1138	50 Pk	
76	COPPER BAR	TINNED HD COPPER - 50.8 x 3 18mm	179661	PRIMARY METALS & ALLOYS	4 Metres	
67	EARTH STRAP	STRAP - 40 x 4mm - ANNEALED COPPER				
64	UNISTRUT BRACKET	UNISTRUT - BRACKET - HOT DIPPED GALV "U" SHAPE		P1047		
62	FASTENERS WASHER	FASTENERS - WASHER - M16 BELLEVILLE STAINLESS STEEL GRADE 304	NOT AVAILABLE THROUGH SAP	JAMES GLEN 3544	100 Pk	I
61	FASTENERS WASHER	FASTENERS - WASHER - M16 FLAT STAINLESS STEEL GRADE 316	175624	JAMES GLEN 03756306	100 Pk	
60	FASTENERS BOLT & NUT	FASTENERS - BOLT & NUT - M16 HEX STAINLESS STEEL GRADE 316 - LENGTH TO SUIT	VARIOUS	VARIOUS	N/A	
59	CONDUCTOR	CONDUCTOR - 035mm ² STRANDED HD COPPER BLACK PVC COVERED	113629	OLEX BAAT185C001AAKB	500m ROLL	
48	FASTENERS WASHER	FASTENERS - WASHER - M10 BELLEVILLE STAINLESS STEEL GRADE 304	177296	JAMES GLEN 02751918	100 Pk	J
47	FASTENERS WASHER	FASTENERS - WASHER - M10 FLAT STAINLESS STEEL GRADE 316	49411	JAMES GLEN 03756102	100 Pk	
42	FASTENERS BOLT & NUT	FASTENERS - BOLT & NUT - M10 HEX STAINLESS STEEL GRADE 316 - LENGTH TO SUIT	VARIOUS	VARIOUS	N/A	
38	STANDOFF INSULATOR	LOW VOLTAGE INSULATOR H50 x Ø50mm M12 INTERNAL THREAD		NIM 50-12		
29	LUG COMPRESSION	DUAL HOLE / DOUBLE CRIMP LUG 70mm ² M12 TINNED COPPER HEX COMPRESSION	179667	CABAC CAL70LPB123UEA	Each	
26	EARTH STUBB	EARTH STUBB - MC KEOWN REF DRAWING A3-520068	1108415	TAPPAT ENGINEERING	Each	
23	LUG COMPRESSION	LUG - 120mm ² M12 TINNED COPPER HEX COMPRESSION	57836	UTILLUX H136225	25 Pk	
21	CONDUCTOR	CONDUCTOR - 120mm ² STRANDED COPPER - BLACK PVC COVERED	175281	OLEX - BOPB 23AA001C2NA	100m ROLL	K
20	LUG COMPRESSION	LUG - 095mm ² M12 TINNED COPPER HEX COMPRESSION	73304	UTILLUX H142925	Each	
17	COPPER BAR	FLAT BAR - 50 x 6.3mm - TINNED HD COPPER	41087	PRIMARY METALS & ALLOYS	4.0m	
16	COPPER BAR	FLAT BAR - 40 x 4mm - TINNED HD COPPER	41301	PRIMARY METALS & ALLOYS	4.0m	
5	FASTENERS WASHER	FASTENERS - WASHER - M12 BELLEVILLE STAINLESS STEEL GRADE 304	175903	JAMES GLEN 3543	100 Pk	
4	FASTENERS WASHER	FASTENERS - WASHER - M12 FLAT STAINLESS STEEL GRADE 316	49429	JAMES GLEN 4620	100 Pk	
3	FASTENERS BOLT & NUT	FASTENERS - BOLT & NUT - M12 HEX STAINLESS STEEL GRADE 316 LENGTH TO SUIT	VARIOUS	VARIOUS	N/A	L
2	LUG COMPRESSION	LUG - 070mm ² M12 TINNED COPPER HEX COMPRESSION	74831	UTILLUX H142925	25 Pk	
1	CONDUCTOR	CONDUCTOR - 070mm ² STRANDED COPPER - BLACK PVC COVERED	60111	PRYSMAN	501470	100m ROLL
ITEM NO.	ITEM	DESCRIPTION	SAP CODE	MANUFACTURER	STD ORDER	

NXPLUS SWITCHGEAR DRAINAGE BOND DETAIL (NXP)
INSIDE SWITCHGEAR

CABLE SCREEN TERMINATION REQUIRING REDUNDANCY DETAIL (CSF)

COPPER BAR DETAIL

COPPER BAR DETAIL

COPPER BAR DETAIL

COPPER STRAP TO COPPER BAR INLINE JOINT DETAIL (BJS)

COPPER BAR - INLINE JOINT DETAIL (JI)

COPPER BAR - ANGLE JOINT DETAIL (JA)

COPPER BAR - T- JOINT DETAIL (JT

COPPER BAR - EARTH BAR FACILITY DETAIL (EB)

FIXING COPPER BAR TO CONCRETE SLAB DETAIL (FB)

PVC COVERED CABLE
FIXING TO CONCRETE SLAB DETAIL (FC)

COPPER STRAP
FIXING TO CONCRETE SLAB DETAIL (FS)

[illegible][illegible]

SCALE	N.T.S.	EARTHING & INSULATION COORDINATION
DESIGNED	AARON BULBERT	STANDARD CONSTRUCTION
DRAWN	AARON BULBERT	ELECTRICAL EARTHING
CHECKED	WFM GERRISH	EARTH BAR MOUNTING & CONNECTION DETAILS
APPROVED	MICHAEL GRIFITHS	
DATE	26/11/14	
PROJECT NUMBER	E&I NS	
PROD/TRAK NUMBER	B1	DRAWING No 236806
		SHEET 1 AND 3