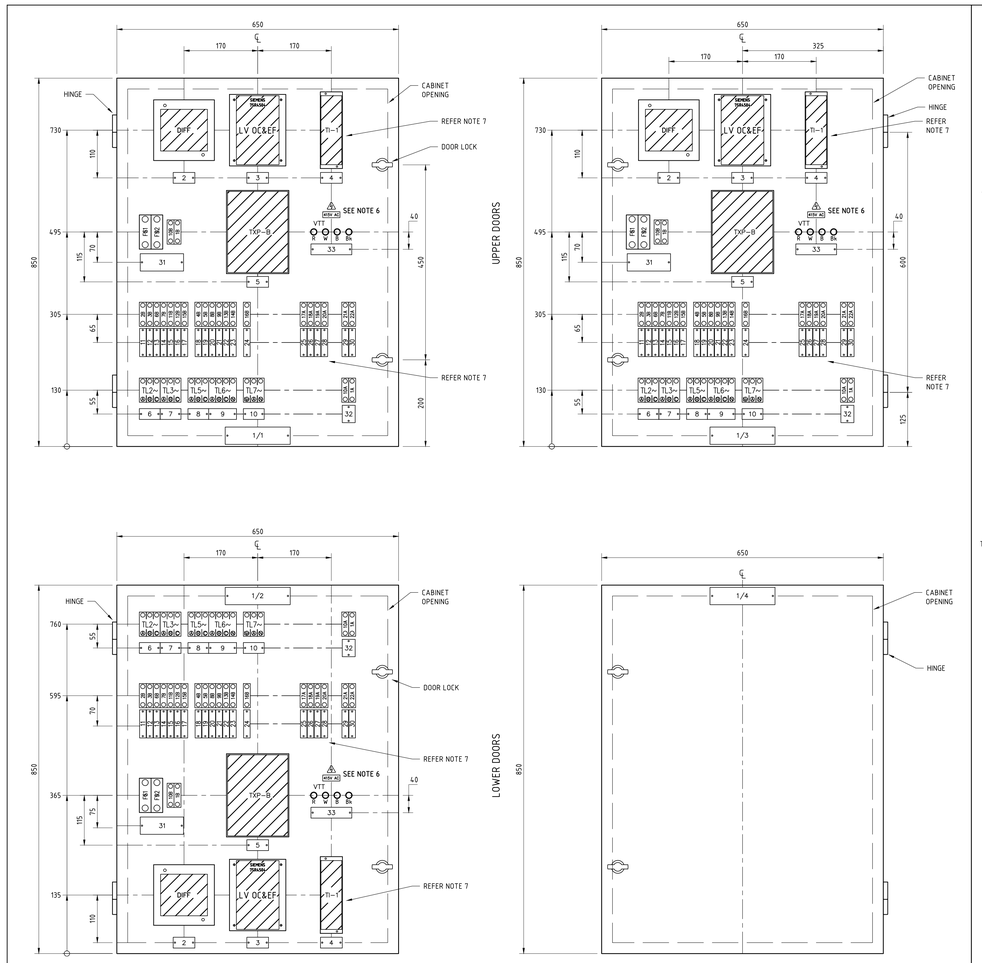
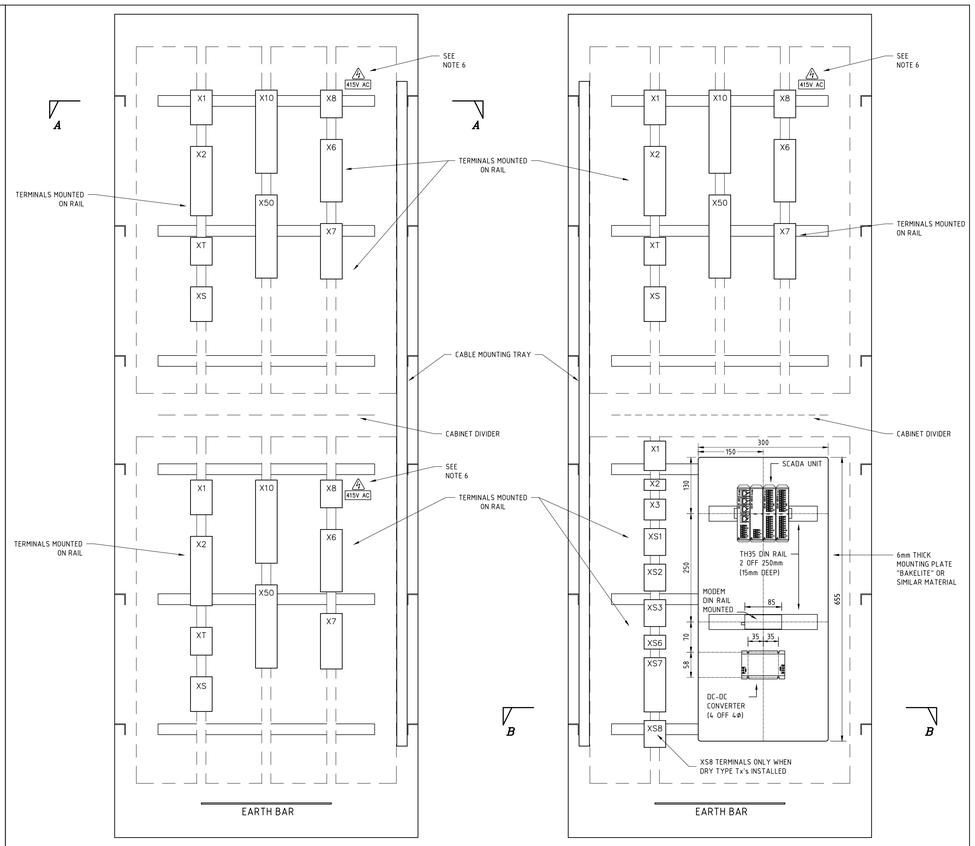
LABEL DETAILS

LABEL	LABEL SIZE	COLOUR	TEXT LINE	TEXT HEIGHT	ENGRAVING	No OFF
1/1	C8	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	8 8	TRANSFORMER No.1 PROTECTION PANEL	1
1/2	C8	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	8 8	TRANSFORMER No.2 PROTECTION PANEL	1
1/3	C8	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	8 8	TRANSFORMER No.3 PROTECTION PANEL	1
1/4	C8	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	8 8	SCADA PANEL	1
2	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER DIFFERENTIAL RELAY	3
3	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	LV OC & EF RELAY	3
5	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER & ARC FLASH RELAY	3
6	5C10	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	A B C OVERCURRENT & EARTH FAULT RELAY CT TEST LINKS 2~	3
7	5C10	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	A B C OVERCURRENT & EARTH FAULT RELAY DELTA TEST LINKS 3~	3
8	5C10	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	A B C TRANSFORMER & ARC FLASH RELAY TEST LINKS 5~	3
9	5C1	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3	4.0 2.5 2.5	A B C N TRANSFORMER PROTECTION H.V. CT TEST LINKS 6~	3
10	5C10	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3	4.0 2.5 2.5	Nr A N EARTH FAULT CT TEST LINKS 7~	3
11	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TX No.1 ARC FLASH BATTERY LINK 2B	3
12	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.1 ARC FLASH TRIP LINK 3B	3
13	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TX No.2 ARC FLASH BATTERY LINK 6B	3
14	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.2 ARC FLASH TRIP LINK 7B	3
15	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TX No.3 ARC FLASH BATTERY LINK 11B	3
16	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.3 ARC FLASH TRIP LINK 12B	3
17	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	ARC FLASH BYPASS BATTERY LINK NORMALLY OPEN 15B	3
18	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.1 CURRENT CHECK LINK 4B	3
19	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.1 CURRENT CHECK TRIP LINK 5B	3
20	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.2 CURRENT CHECK LINK 8B	3
21	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.2 CURRENT CHECK TRIP LINK 9B	3
22	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.3 CURRENT CHECK LINK 13B	3
23	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.3 CURRENT CHECK TRIP LINK 14B	3
24	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER HV OC BATTERY LINK 16B	3
25	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER LOAD RELIEF BATTERY LINK 17A	3
26	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER DIFFERENTIAL BATTERY LINK 18A	3
27	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER OC & EF BATTERY LINK 19A	3
28	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1	2.5	NOT IN SERVICE	3
29	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	CUSTOMER 0C No.1 TRIP LINK 21A	3
30	5C2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	CUSTOMER 0C No.2 TRIP LINK 22A	3
31	C12	TRAFFOLYTE RED/WHITE/RED	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	FS1 FS2 10B 1B 48V & 30V 'B' MASTER BATT FUSES & LINKS	3
32	C3	TRAFFOLYTE RED/WHITE/RED	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	10A 1A 30V 'A' MASTER BATT LINKS	3
33	C23	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3	4.0 2.5 2.5	A B C N 415V AC VOLTAGE TEST TERMINALS	3



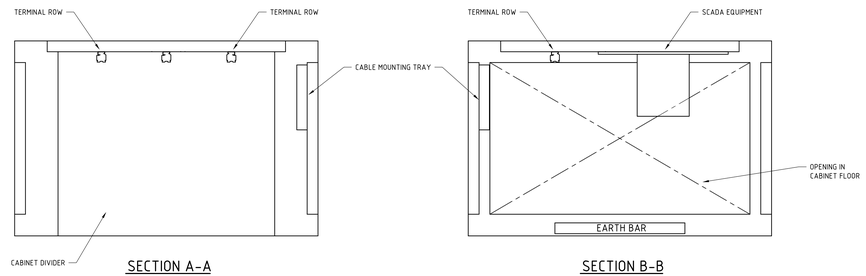
Tx No.1 (UPPER) | Tx No.2 (LOWER)
(CABINET 1)
SCALE 1:5

Tx No.3 (UPPER) | SCADA (LOWER)
(CABINET 2)
SCALE 1:5



TERMINAL LOCATION
CABINET 1
INSIDE VIEWED FROM FRONT (BEHIND DOORS)
SCALE 1:5

TERMINAL LOCATION
CABINET 2
INSIDE VIEWED FROM FRONT (BEHIND DOORS)
SCALE 1:5



SECTION A-A

SECTION B-B

NOTES:

1. THIS DRAWING SHOWS FREE STANDING TRANSFORMER PROTECTION PANELS & SCADA PANEL LAYOUTS TO BE USED AT RMICB CHAMBER TYPE SUBSTATIONS WITH EXPOSED BUSBAR LV BOARDS & Tx OAFD PROTECTION PANELS ARE REQUIRED. TO BE READ IN CONJUNCTION WITH NETWORK STANDARDS & THE SUBSTATION DESIGN INFORMATION PACKAGE.
2. LABELS ARE TO BE MADE AS SHOWN ON DRAWING 178241.
   FOR 5mm LINK ASSEMBLY REFER DRAWING 507111-1. FOR 5mm LABELS REFER TO DRAWINGS 50996-2, & 64825-2.
3. FOR PANEL SPECIFICATIONS REFER TO DRAWING 205952 Sheet 2.
4. ALL DIMENSIONS ARE IN MILLIMETRES.
5. LINKS SHOULD BE MOUNTED SO THAT THE MOVABLE LINK FALLS OPEN WHEN RELEASED.
6. TERMINALS AND RELAY CONNECTIONS ARE TO BE FITTED WITH CAUTION LABELS TO WARN OF THE 415V AC HAZARD. ANY EXPOSED TERMINALS ARE TO BE APPROPRIATELY COVERED. SELF ADHESIVE CAUTION LABELS ARE TO BE FIXED TO THE REAR OF THE PANEL DOOR. THESE LABELS ARE TO READ:

   415V AC

7. THE TRIP INDICATOR IS LOCATED ON THE Tx PROTECTION PANEL & IS SUPPLIED BY AUSGRID. IT IS ONLY TO BE CUTOUT & INSTALLED ON THE Tx PROTECTION PANELS WHEN:
   - 7.1. A DRY TYPE Tx HAS A THERMAL RELAY INSTALLED. BATTERY LINK BL-20A, THE THERMAL RELAY (Th) & A TRIP INDICATOR ARE TO BE CONNECTED. THE THERMAL RELAY IS LOCATED ON THE Tx & SUPPLIED BY THE Tx MANUFACTURER. REFER LABELS TABLE 1.
   - 7.2. AN OIL TYPE Tx HAS BUCHHOLZ RELAY PROTECTION INSTALLED. BATTERY LINK BL-20A, THE BUCHHOLZ RELAY (BZ) & A TRIP INDICATOR ARE TO BE CONNECTED. REFER LABELS TABLE 2.
8. MODEM TO BE MOUNTED AS SHOWN ON DIN RAIL (TH35).

LABELS TABLE 1 FOR DRY TYPE Tx's WITH THERMAL PROTECTION

LABEL	LABEL SIZE	COLOUR	TEXT LINE	TEXT HEIGHT	ENGRAVING	No OFF
4	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER THERMAL TRIP INDICATOR	3
28	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER THERMAL BATTERY LINK 20A	3

LABELS TABLE 2 FOR OIL TYPE Tx's WITH BUCHHOLZ PROTECTION

LABEL	LABEL SIZE	COLOUR	TEXT LINE	TEXT HEIGHT	ENGRAVING	No OFF
4	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER BUCHHOLZ TRIP INDICATOR	3
28	5C2	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER BUCHHOLZ BATTERY LINK 20A	3

TAGNAME	MFG	CATNO	DESC	REF DWG
DC-DC	SNAPTECH	GB30-48I2	DC/DC CONVERTER 48VDC TO 12VDC 30W	-
M	SIERRA WIRELESS	RV50X	LG MODEM	-
SCADA UNIT	SIEMENS	A8000	SICAM A8000 UNIT - SLOT 1 CP-8050 CPU MODULE, SLOT 2 PS-8620 POWER MODULE, SLOT 3 & 4 DI-8111 DIGITAL INPUT MODULES	-
X1	UTILUX	3820	RAIL MOUNTED TERMINAL	118547
X2, X3	WEIDMULLER	SAKR	RAIL MOUNTED ISOLATING TERM CAT No.41226	-
X3, XS1 - 8	WEIDMULLER	ASK1	RAIL MOUNTED FUSE CAT No. 37676	-
XS1 - 8	WEIDMULLER	SAKR	RAIL MOUNTED ISOLATING TERM CAT No.41226	-
EB	-	EB	CABINET EARTH BAR	-
SCADA PANEL LEGEND				
Tx PROTECTION PANELS LEGEND				
TAGNAME	MFG	CATNO	DESC	REF_DWG
BL, LK, TL	EUGAQUIP	MOULDED TYPE M5	BATTERY/TEST LINK	507111
DIFF	-	K3M	DIFFERENTIAL FUSE RELAY	113243
EB	-	EARTH BAR	EARTH BAR	-
FS1, FS2	ALSTOM	RS20P Black	FUSE - 2 STUD BACK CONNECTED	-
LV OC&EF-A	SIEMENS	7SR4504-2HB20-1AA0	OVERCURRENT & EARTH FAULT RELAY	260111
TXP-B	SCHWEITZER	SEL-751A	TRANSFORMER PROTECTION RELAY	222614
TI-1	RMS	3A32K37	TRIP INDICATOR TI-3 (0.2 ohm)	123399
VTT	MULTI CONNECT (RS COMPONENTS)	SLB4-G	INSULATED TEST PANEL SOCKETS 1 x RED 23.3020.22 (404-244) 1 x WHITE 23.3020.29 (404-250) 1 x BLUE 23.3020.23 (404-276) 1 x BLACK 23.3020.21 (404-200)	231226
X1, X2, X10	UTILUX	3820	RAIL MOUNTED TERMINAL	118547
X6, X7	UTILUX	3820	RAIL MOUNTED TERMINAL	118547
X8	PHOENIX	UT 10 OG 3046281	FEED-THROUGH TERMINAL BLOCK	-
X50, XT	UTILUX	3820	RAIL MOUNTED TERMINAL	118547
XS	WEIDMULLER	SAK 2.5	RAIL MOUNTED TERMINAL CAT No. 27966	-
XS	WEIDMULLER	SAKR	RAIL MOUNTED ISOLATING TERM CAT No.41226	-

AMENDMENTS						
AMD	DATE	DESCRIPTION	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
2	22/05/2024	AMENDED LINK TYPE, WAS M6. AMENDED LAYOUT & LABELS FOR M5 LINKS.	L.M.	L.M.	M.B.	M.B.
3	20/09/2024	REPLACED SCHNEIDER P115 WITH SIEMENS 7SR4504 IN LEGEND & PANEL LAYOUT.	L.M.	L.M.	M.B.	M.B.
4	10/09/2025	DRAWING BORDER UPDATED. UTILUX H2238 ORANGE RAIL MOUNTED TERMINALS REPLACED BY PHOENIX 'UT 10 OG 3046281' FEED-THROUGH TERMINAL BLOCK. LEGENDS TABLE UPDATED.	H.O.	H.O.	M.B.	M.B.

Ausgrid
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CAM COMPUTER AIDED MANUFACTURE

ISSUED FOR: CONSTRUCTION ISSUE

SCALE	1:5
DESIGNED	L.MARTINUZZI
DRAWN	L.MARTINUZZI
CHECKED	M.BENNETT
APPROVED	M.BENNETT
DATE	29/01/2018
TRIM REF	D17/884167
PROJECT NUMBER	SM-14688

DISTRIBUTION SUBSTATIONS WITH RMICBS WITH EXPOSED BUSBAR LV BOARDS WITH FREE STANDING TX OAFD PROTECTION PANELS LAYOUT & LABEL DETAILS

DRAWING No 245777 | SHEET 1 | AMD 4 | SIZE A0

C&P - DISTRIBUTION SUBSTATIONS

C&P 05804.46