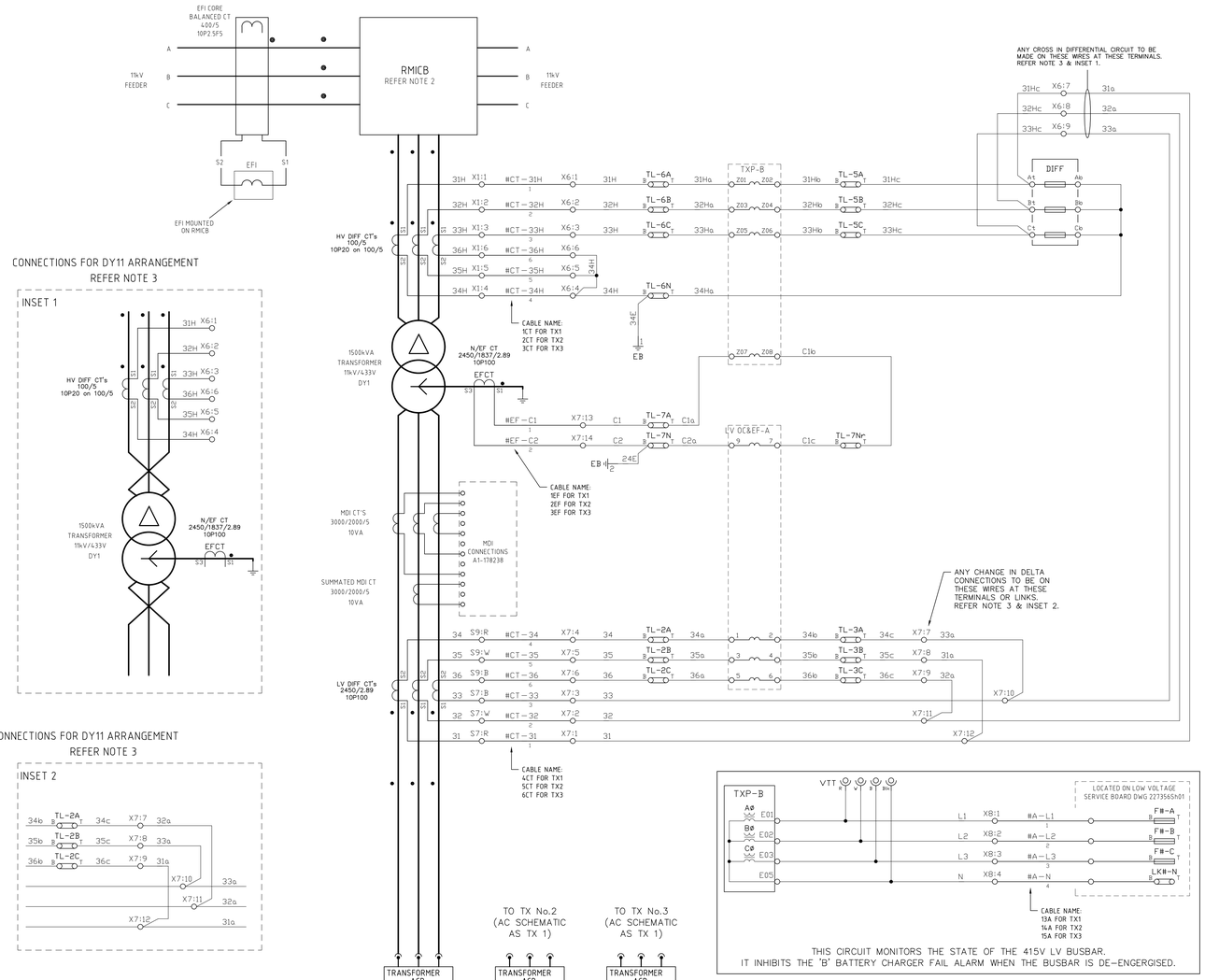

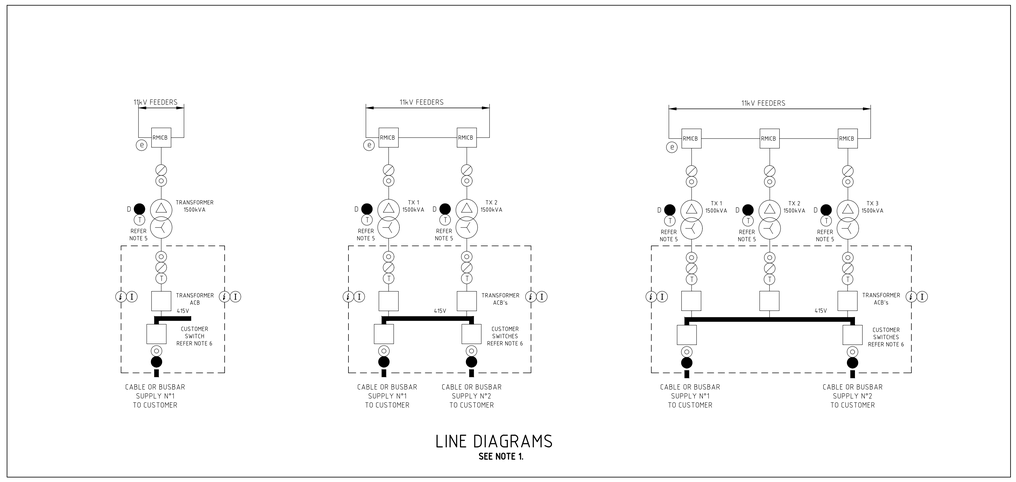

LINE DIAGRAMS
SEE NOTE 1.

NOTES:

1. THIS DRAWING SHOWS THE AC PROTECTION SCHEMATIC WHICH ARE TO BE USED IN CONJUNCTION WITH RMICB CHAMBER TYPE SUBSTATIONS AND SHOULD BE READ IN CONJUNCTION WITH NETWORKS STANDARDS AND THE SUBSTATION DESIGN INFORMATION PACKAGE. SEE DRAWING 178227 FOR ACCEPTABLE COMBINATIONS OF "E TYPE LV BOARD" ARRANGEMENTS.

2. FOR AN UPPER LEVEL SUBSTATION THE RMICB IS LOCATED IN A CONTROL POINT WHICH IS REMOTE FROM THE SUBSTATION. FOR AN UPPER LEVEL SUBSTATION REFER TO THE CABLING DIAGRAM (227355Sh01) FOR FURTHER INFORMATION ON CONNECTING THE RMICB TRIP COIL.

3. THE AC SCHEMATIC SHOWS THE STANDARD AUSGRID DY1 TRANSFORMER CONNECTED IN A DY1 ARRANGEMENT. FOR A DY1 TRANSFORMER CONNECTED IN A DY11 ARRANGEMENT, USE INSETS 1 & 2.

4. THE 'B' END OF A LINK OR FUSE SHOWN THUS (B⊂⊃T) INDICATES BOTTOM CONNECTION.

5. WHEN A DRY TYPE TRANSFORMER IS USED, THE THERMAL RELAY (Th) AND A TRIP INDICATOR ARE TO BE CONNECTED. THE THERMAL RELAY IS LOCATED & SUPPLIED ON THE TRANSFORMER BY THE TRANSFORMER MANUFACTURER. THE TRIP INDICATOR IS LOCATED ON THE TRANSFORMER PROTECTION PANEL & IS SUPPLIED BY AUSGRID.

6. FOR A CUSTOMER CABLE SUPPLY, THE CUSTOMER SWITCH CAN BE AN AIR CIRCUIT BREAKER OR A DISCONNECTOR. FOR A CUSTOMER BUSBAR SUPPLY, THE CUSTOMER SWITCH CAN BE AN AIR CIRCUIT BREAKER, A DISCONNECTOR OR A LINK. IN ALL OF THESE INSTALLATIONS, AN OVERCURRENT CT IS INSTALLED AS SHOWN ON THE AC SCHEMATIC. IN ALL CASES A CUSTOMER PROTECTION TRIP INITIATION WILL TRIP ALL THE TRANSFORMER HV RMICB's & LV AIR CIRCUIT BREAKERS.

7. THIS AC SCHEMATIC SHOWS TRANSFORMER No.1, CUSTOMER SUPPLY 1, CUSTOMER SUPPLY 2 AND THEIR ASSOCIATED PROTECTION PANELS. TRANSFORMERS No.2 AND 3 ARE IDENTICALLY WIRED AS TRANSFORMER No.1. DIFFERENCES EXIST WITH CABLE NAMING AND WIRE JUMPERING. THIS WILL BE INSTALLED ON SITE RELEVANT TO THE ACTUAL SUBSTATION CONFIGURATION. THAT IS, HOW MANY TRANSFORMERS ARE INSTALLED, LOW VOLTAGE BUSBAR CONFIGURATION AND CUSTOMER SUPPLY CONNECTIONS.

TAGNAME		MFG	CATNO	DESC	REF_DWG
-		-	-	-	-
C-OC		SCHNEIDER ELECT.	MICOM P115	OVERCURRENT & EARTH FAULT RELAY	225082
Th		-	-	THERMAL RELAY (SEE NOTE 5.)	-
DIFF		-	K3M	DIFFERENTIAL FUSE RELAY	113243
EB		-	EARTH BAR	EARTH BAR	-
-		-	-	-	-
LV OC&EF-A		SCHNEIDER ELECT.	MICOM P115	OVERCURRENT & EARTH FAULT RELAY	225082
TXP-B		SCHWEITZER	SEL-751A	TRANSFORMER PROTECTION RELAY	222614
TL	⊂⊃	EUGAQUIP	MOULDED TYPE M6	BATTERY/TEST LINK	388611
VTT		MULTI CONNECT (IRS 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 (404-236) 1 x BLACK 23 3020 21 (404-200)	231226
X6, X7	○	UTILUX	3820	RAIL MOUNTED TERMINAL	118547
X8	○	UTILUX	H2238	RAIL MOUNTED TERMINAL - ORANGE	-
LEGEND					

LINK No.	LINK FUNCTION
TL-2 ~	OVERCURRENT & EARTH FAULT RELAY CT TEST LINKS
TL-3 ~	OVERCURRENT & EARTH FAULT RELAY DELTA TEST LINKS
TL-5 ~	TRANSFORMER & ARC FLASH RELAY TEST LINKS
TL-6 ~	TRANSFORMER PROTECTION HV CT TEST LINKS
TL-7 ~	EARTH FAULT CT TEST LINKS
AC TEST LINK FUNCTION TABLE FOR TRANSFORMER PROTECTION PANELS	

LINK No.	LINK FUNCTION
TL-1 ~	CUSTOMER OVERCURRENT & EARTH FAULT No.1 CT TEST LINKS
TL-1 ~	CUSTOMER OVERCURRENT & EARTH FAULT No.2 CT TEST LINKS
AC TEST LINK FUNCTION TABLE FOR CUSTOMER OVERCURRENT & EARTH FAULT PANELS	

TITLE	DWG No.
RMICB SUBSTATIONS WITH E TYPE LV BOARD AC SCHEMATIC WITH OPTICAL ARC FLASH DETECTION	227350Sh01
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER DC SCHEMATIC WITH OPTICAL ARC FLASH DETECTION	227350Sh02
RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT DC SCHEMATIC	227350Sh03
RMICB SUBSTATIONS WITH E TYPE LV BOARD DC SUPPLY CABLE LOOPING AND SCADA SCHEMATIC	227350Sh04
RMICB SUBSTATIONS WITH E TYPE LV BOARD WITH OPTICAL ARC FLASH DETECTION FIBRE LOOPING AND GENERAL MOUNTING DETAILS	227350Sh05
RMICB SUBSTATIONS WITH E TYPE LV BOARD TX WALL MOUNTED PROTN PANEL WITH OPTICAL AFD STYLE 1 LAYOUT AND LABEL DETAILS DIAGRAM	227351Sh01
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 1 WIRING DIAGRAM	227351Sh02
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 1 CABLE CONNECTION DIAGRAM	227351Sh03
RMICB SUBSTATIONS WITH E TYPE LV BOARD TX WALL MOUNTED PROTN PANEL WITH OPTICAL AFD STYLE 2 LAYOUT AND LABEL DETAILS DIAGRAM	227352Sh01
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 2 WIRING DIAGRAM	227352Sh02
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 2 CABLE CONNECTION DIAGRAM	227352Sh03
RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT WALL MOUNTED PROTN PANEL LAYOUT AND LABEL DETAILS DIAGRAM	227353Sh01
RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT WIRING DIAGRAM	227353Sh02
RMICB SUBSTATIONS WITH E TYPE LV BOARD OPTICAL ARC FLASH DETECTION INDICATION PANEL SCHEMATIC DRILLING AND WIRING DIAGRAM	227354Sh01
RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLING DIAGRAM	227355Sh01
RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLE SCHEDULE	227355Sh02
RMICB SUBSTATIONS WITH E TYPE LV BOARD SUBURBAN TYPE SUBSTATION WITH 1500kVA TRANSFORMERS SERVICE BOARD GEN. ARRANGEMENT AND WIRING	227356Sh01
E TYPE LV BOARD MERLIN GERIN MASTERPAC TP AIR CIRCUIT BREAKERS EXTERNAL CONNECTIONS FOR AFD DIST. SUBSTATIONS	227357Sh01
RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION SCADA PANEL WIRING AND CABLING DETAILS	227358Sh01
E TYPE LV BOARD ACCEPTABLE COMBINATIONS	178227
EPOXY RESIN ENCASED PROTECTION CURRENT TRANSFORMER OUTLINE AND DETAILS	125190
REFERENCE DRAWINGS	

CAD DRAWING
DO NOT MANUALLY AMEND

AMENDMENTS

1	REF G7 & H13 CHANGED 11kV TYPE FROM GALLARD TO SOCKET STYLE TERMINALS, AMENDED LEGEND FOR NEW SOCKETS STYLE TERMINALS.	L.MARTINUZZI 20/05/2013
2	REF REVISION CLOUD IN RED WHEN COLOUR PRINTED AMENDED NOTE 6.	B.HAINES 16-10-2017
		L.MARTINUZZI 17/10/2022
		L.MARTINUZZI APPROVED

Ausgrid

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SCALE	AS SHOWN
DESIGNED	
DRAWN	L.MARTINUZZI
CHECKED	B.HAINES
APPROVED	A.TURNER
DATE	31/05/2012
TRIM REF	-
PROJECT NUMBER	SM 6717-1-2

RMICB SUBSTATIONS WITH E TYPE LV BOARD AC SCHEMATIC WITH OPTICAL ARC FLASH DETECTION

DRAWING No 227350 | SHEET 1 | AMD 2 | SIZE A0

C&P - DISTRIBUTION SUBSTATIONS