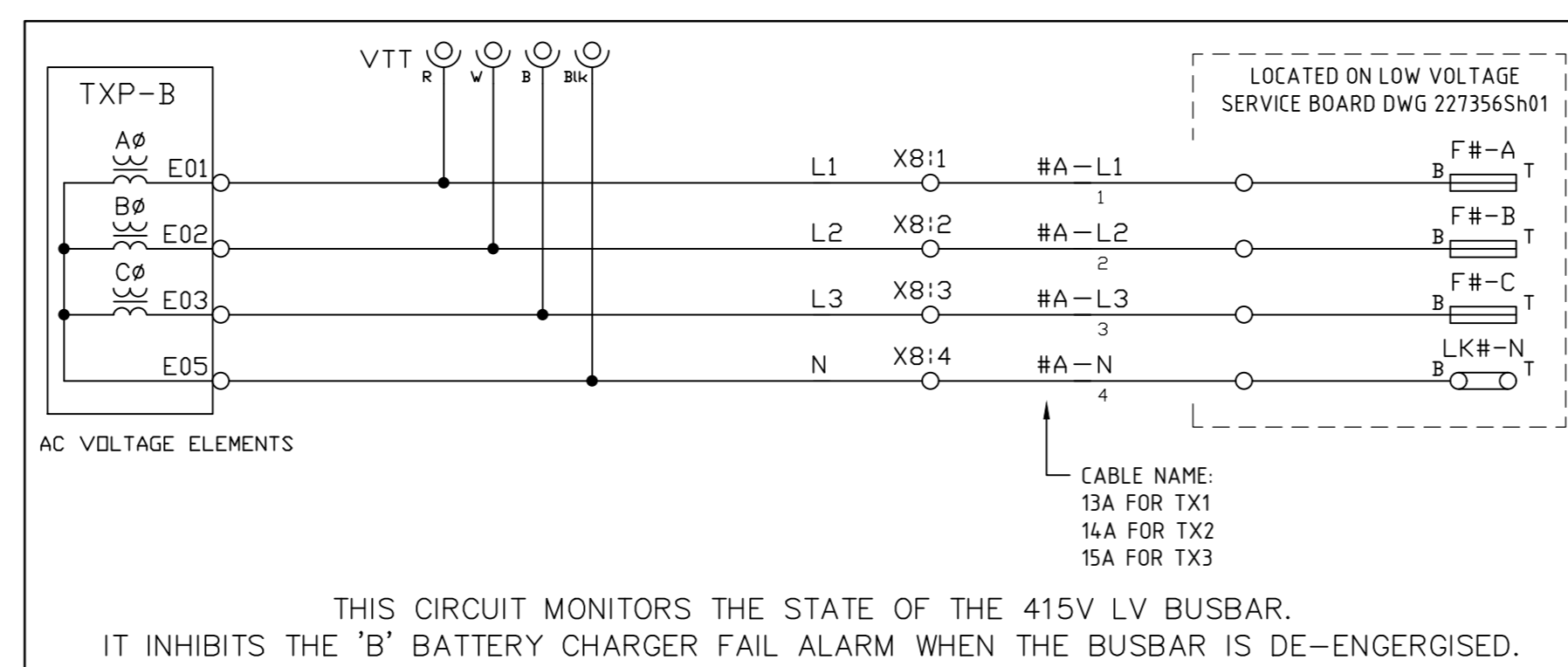


LINE DIAGRAMS  
SEE NOTE 1.

- NOTES:**
- 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.
  - 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.
  - THE AC SCHEMATIC SHOWS THE STANDARD AUSGRID DY11 TRANSFORMER CONNECTED IN A DY11 ARRANGEMENT. FOR A DY11 TRANSFORMER CONNECTED IN A DY11 ARRANGEMENT, USE INSETS 1 & 2.
  - THE 'B' END OF A LINK OR FUSE SHOWN THUS ( ) INDICATES BOTTOM CONNECTION.
  - WHEN A DRY TYPE TRANSFORMER IS USED, THE THERMAL RELAY (TN) 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.
  - FOR A CUSTOMER CABLE 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.
  - 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 JUMPING 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.



**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**

TAGNAME	MFG	CATNO	DESC	REF DWG
C-OC	SIEMENS	7SR450L-2HB20-1AA0	OVERCURRENT & EARTH FAULT RELAY	-
Th	-	-	THERMAL RELAY (SEE NOTE'S)	-
DFF	-	K3M	DIFFERENTIAL FUSE RELAY	113243
EB	-	K3M	EARTH BAR	-
LV DC&EF-A	SIEMENS	7SR450L-2HB20-1AA0	OVERCURRENT & EARTH FAULT RELAY	-
TXP-B	SCHWEITZER	SEC-791A	TRANSFORMER PROTECTION RELAY	227351
TL	ENIGROUP	MOLDED TYPE M5	8A TESTER TEST LINK	507111
VTT	MULTI CONNECT (RS COMPONENTS)	SLB4-G	INSULATED TEST PANEL SOCKETS 1x RED 23 3020 22 (4.0x-24x) 1x WHITE 23 3020 21 (4.0x-25x) 1x BLUE 23 3020 23 (4.0x-21x) 1x BLACK 23 3020 21 (4.0x-20x)	219276
X6, X7	UTILUX	9820	RAIL MOUNTED TERMINAL	198547
X8	UTILUX	H2238	RAIL MOUNTED TERMINAL - ORANGE	-

**LEGEND**

**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**

TITLE	DWG No.
RMICB SUBSTATIONS WITH E TYPE LV BOARD AC SCHEMATIC WITH OPTICAL ARC FLASH DETECTION	227350-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER DC SCHEMATIC WITH OPTICAL ARC FLASH DETECTION	227350-2
RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT DC SCHEMATIC	227350-3
RMICB SUBSTATIONS WITH E TYPE LV BOARD DC SUPPLY CABLE LOOPING AND SCADA SCHEMATIC	227350-4
RMICB SUBSTATIONS WITH E TYPE LV BOARD WITH OPTICAL ARC FLASH DETECTION FIBRE LOOPING AND GENERAL MOUNTING DETAILS	227350-5
RMICB SUBSTATIONS WITH E TYPE LV BOARD TX WALL MOUNTED PROTIN PANEL WITH OPTICAL AFD STYLE 1 LAYOUT AND LABEL DETAILS DIAGRAM	227351-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 1 WIRING DIAGRAM	227351-2
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 1 CABLE CONNECTION DIAGRAM	227351-3
RMICB SUBSTATIONS WITH E TYPE LV BOARD TX WALL MOUNTED PROTIN PANEL WITH OPTICAL AFD STYLE 2 LAYOUT AND LABEL DETAILS DIAGRAM	227352-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 2 WIRING DIAGRAM	227352-2
RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 2 CABLE CONNECTION DIAGRAM	227352-3
RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT WALL MOUNTED PROTIN PANEL LAYOUT AND LABEL DETAILS DIAGRAM	227353-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT WIRING DIAGRAM	227353-2
RMICB SUBSTATIONS WITH E TYPE LV BOARD OPTICAL ARC FLASH DETECTION INDICATION PANEL SCHEMATIC DRILLING AND WIRING DIAGRAM	227354-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLING DIAGRAM	227355-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD OPTICAL ARC FLASH DETECTION CABLE SCHEDULE	227355-2
RMICB SUBSTATIONS WITH E TYPE LV BOARD SUBURBAN TYPE SUBSTATION WITH 1500VA TRANSFORMERS SERVICE BOARD GEN. ARRANGEMENT AND WIRING	227356-1
E TYPE LV BOARD MERLIN GERIN MASTERPAC TP AIR CIRCUIT BREAKERS EXTERNAL CONNECTIONS FOR AFD DIST. SUBSTATIONS	227357-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION SCADA PANEL WIRING AND CABLING DETAILS	227358-1
E TYPE LV BOARD ACCEPTABLE COMBINATIONS	178227-1
EPOXY RESIN ENCASED PROTECTION CURRENT TRANSFORMER OUTLINE AND DETAILS	125190-1

**REFERENCE DRAWINGS**

**AMENDMENTS**

AMD	DATE	DESCRIPTION	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
3	08/08/2023	AMENDED TXP-B RELAY TYPE & VT INPUT CONNECTIONS AS SHOWN.	L.M.	L.M.	M.B.	M.B.
4	12/06/2024	AC & DC LINKS NOW 5mm TYPE.	L.M.	L.M.	M.B.	M.B.
5	19/09/2024	REPLACED SCHNEIDER P115 WITH SIEMENS 7SR450L IN LEGEND & SCHEMATIC CONNECTIONS.	L.M.	L.M.	M.B.	M.B.

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DESIGNED: -  
DRAWN: L.MARTINUZZI  
CHECKED: B.HAINES  
APPROVED: A.TURNER  
DATE: 31/05/2012  
TRIM REF: -  
PROJECT NUMBER: SM-06717

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

ISSUED FOR CONSTRUCTION

DRAWING No. 227350 SHEET 1 AMD 5 SIZE A0

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