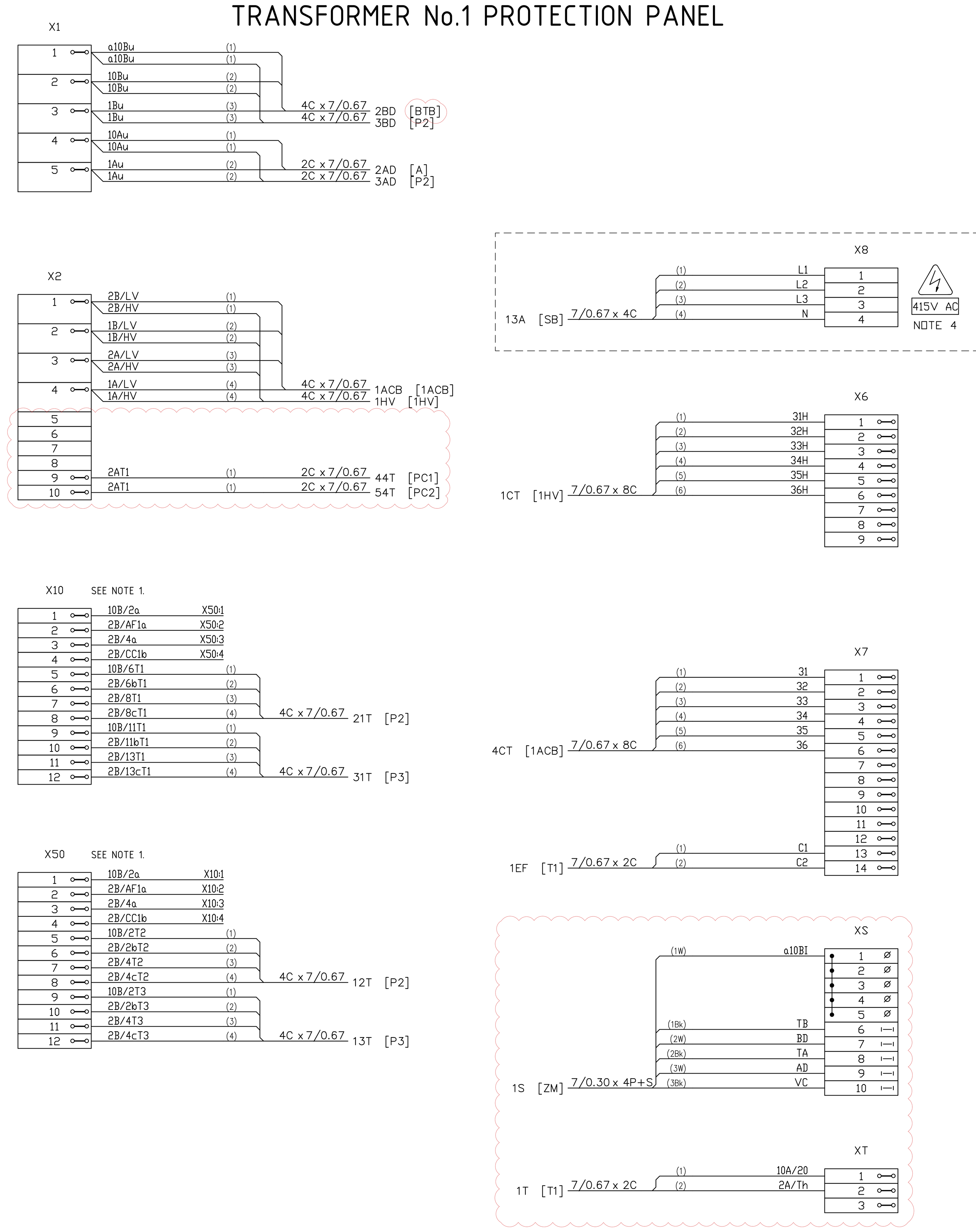
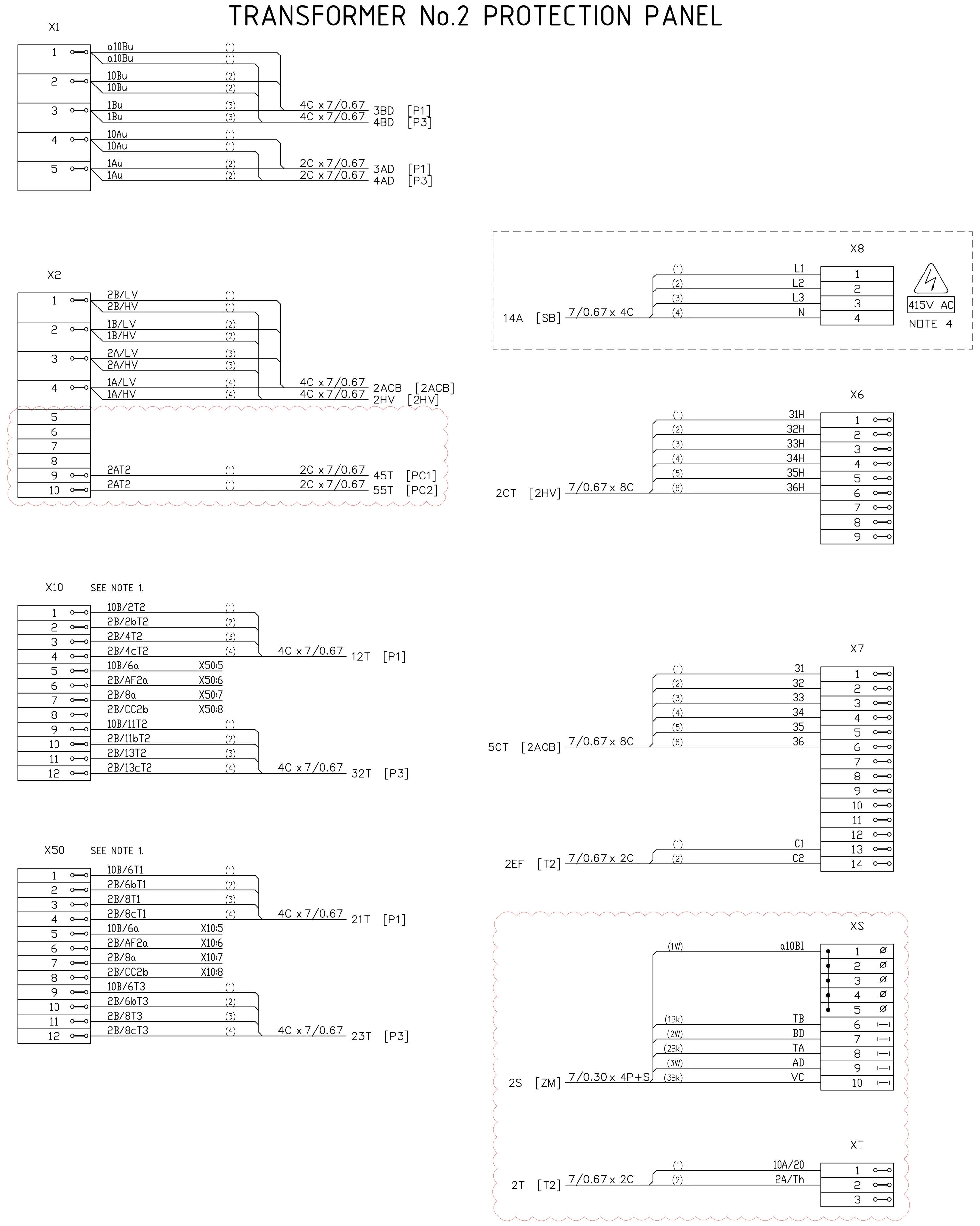
TRANSFORMER No.1 PROTECTION PANEL



1ACB	TRANSFORMER No.1 415V CIRCUIT BREAKER
1EF	TRANSFORMER No.1 EARTH FAULT CT
1HV	TRANSFORMER No.1 11kV RM CIRCUIT BREAKER
A	30V DC 'A' BATTERY
BTB	'B' BATTERY TERMINATION BOX
P2	TRANSFORMER No.2 PROTECTION PANEL
P3	TRANSFORMER No.3 PROTECTION PANEL
PC1	CUSTOMER OVERCURRENT No.1 PROTECTION PANEL
PC2	CUSTOMER OVERCURRENT No.2 PROTECTION PANEL
SB	SERVICE BOARD
T1	TRANSFORMER No.1
ZM	SCADA CABINET (ALARM & SIGNALING UNIT)
PANEL ABBREVIATION TABLE	

PANEL TERMINAL RAIL LAYOUT CABLING & WIRE JUMPERS

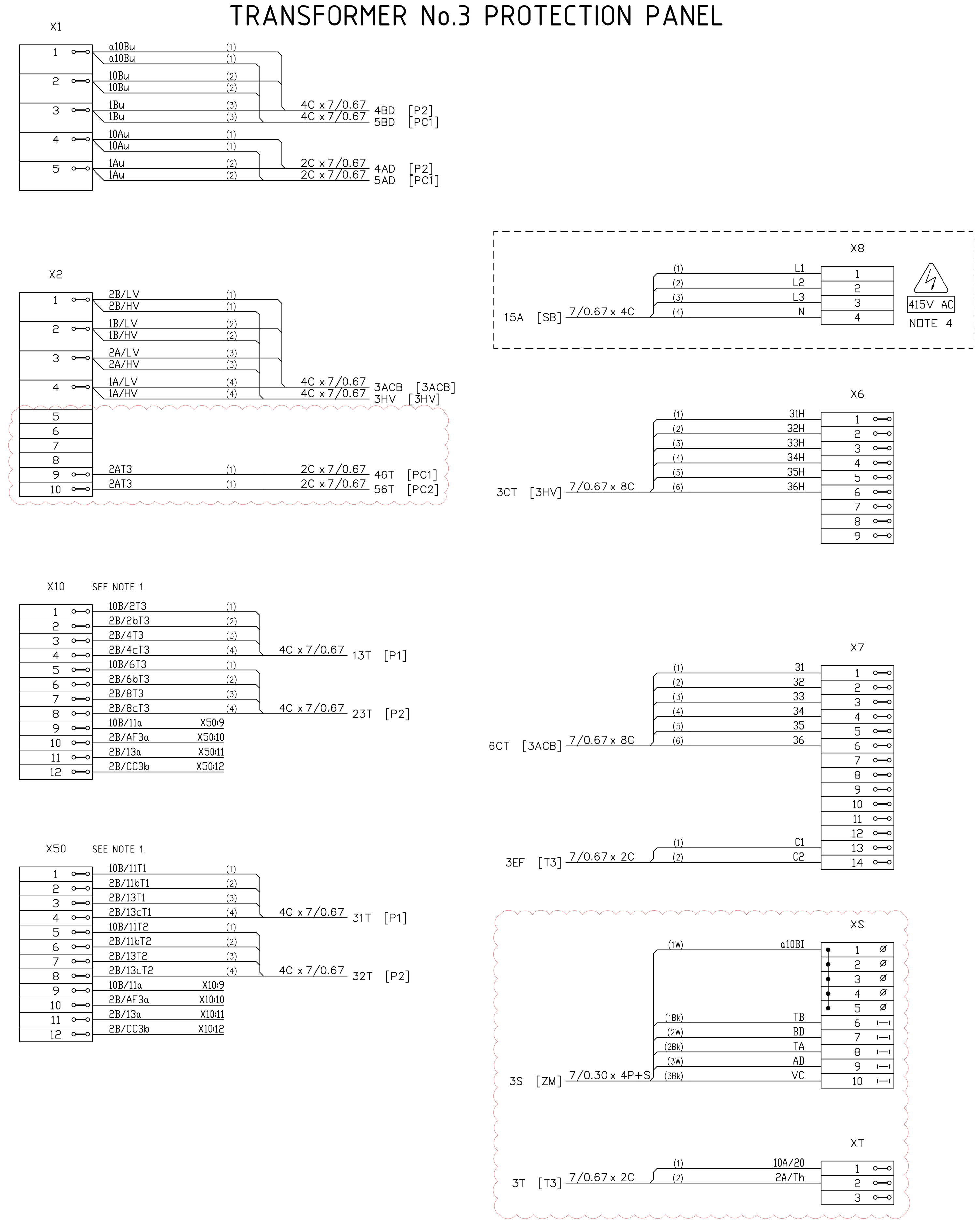
TRANSFORMER No.2 PROTECTION PANEL



2ACB	TRANSFORMER No.2 415V CIRCUIT BREAKER
2EF	TRANSFORMER No.2 EARTH FAULT CT
2HV	TRANSFORMER No.2 11kV RM CIRCUIT BREAKER
P1	TRANSFORMER No.1 PROTECTION PANEL
P3	TRANSFORMER No.3 PROTECTION PANEL
PC1	CUSTOMER OVERCURRENT No.1 PROTECTION PANEL
PC2	CUSTOMER OVERCURRENT No.2 PROTECTION PANEL
SB	SERVICE BOARD
T2	TRANSFORMER No.2
ZM	SCADA CABINET (ALARM & SIGNALING UNIT)
PANEL ABBREVIATION TABLE	

PANEL TERMINAL RAIL LAYOUT CABLING & WIRE JUMPERS

TRANSFORMER No.3 PROTECTION PANEL



3ACB	TRANSFORMER No.3 415V CIRCUIT BREAKER
3EF	TRANSFORMER No.3 EARTH FAULT CT
3HV	TRANSFORMER No.3 11kV RM CIRCUIT BREAKER
P1	TRANSFORMER No.1 PROTECTION PANEL
P2	TRANSFORMER No.2 PROTECTION PANEL
PC1	CUSTOMER OVERCURRENT No.1 PROTECTION PANEL
PC2	CUSTOMER OVERCURRENT No.2 PROTECTION PANEL
SB	SERVICE BOARD
T3	TRANSFORMER No.3
ZM	SCADA CABINET (ALARM & SIGNALING UNIT)
PANEL ABBREVIATION TABLE	

PANEL TERMINAL RAIL LAYOUT CABLING & WIRE JUMPERS

NOTES:

1. ALL CABLING AND WIRE JUMPERING SHOWN IS FOR A 3 TRANSFORMER SUBSTATION WITH 2 CUSTOMER OVERCURRENT PROTECTION PANELS. ONLY REQUIRED CABLING AND WIRE JUMPERING IS TO BE INSTALLED. SEE THE SUBSTATION DESIGN INFORMATION PACKAGE AND RELEVANT NETWORK STANDARDS.
2. CABLE NAMING COULD ALTER FOR THE POSSIBLE SUBSTATION CONFIGURATIONS. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE CABLING AND CABLE SCHEDULE DRAWINGS 227355Sh01 – 02.
3. ALL PANEL WIRING IS TO BE AS LISTED HERE:
   - DC WIRING IS TO BE 7/0.50, 0.6kV GRADE PVC INSULATED COLOURED GREY.
   - EARTH WIRING IS TO BE 7/0.67, 0.6kV GRADE PVC INSULATED COLOURED GREEN/YELLOW (Y/G).
   - A PHASE CT AND AC WIRING IS TO BE 7/0.67, 0.6kV GRADE PVC INSULATED COLOURED RED (R).
   - B PHASE CT AND AC WIRING IS TO BE 7/0.67, 0.6kV GRADE PVC INSULATED COLOURED WHITE (W).
   - C PHASE CT AND AC WIRING IS TO BE 7/0.67, 0.6kV GRADE PVC INSULATED COLOURED BLUE (B).
   - EARTH CT AND NEUTRAL AC WIRING IS TO BE 7/0.67, 0.6kV GRADE PVC INSULATED COLOURED BLACK (Bk).
4. TERMINALS, FUSES AND RELAY CONNECTIONS ARE TO BE FITTED WITH CAUTION LABELS TO WARN OF THE 415V/240 AC HAZARD. ANY EXPOSED TERMINALS ARE TO BE APPROPRIATELY COVERED.
5. ALL WIRING TO HAVE IDENTIFICATION FERRULES FITTED AT BOTH ENDS OF WIRE ADJACENT TO TERMINALS WHERE POSSIBLE. WIRE IDENTIFICATION CODES TO BE IN ACCORDANCE WITH THIS DRAWING.
6. ALARM AND SIGNAL CABLE SCREENS TO BE ISOLATED AND NOT TO BE TERMINATED IN THIS CABINET. SCREENS ONLY TO BE EARTHED AT SCADA CABINET.

TAGNAME		MFG	CATNO	DESC	REF_DWG
X1, X2, X10	o—o	UTILUX	3820	RAIL MOUNTED TERMINAL	118547
X6, X7	o—o	UTILUX	3820	RAIL MOUNTED TERMINAL	118547
X8		UTILUX	H2238	RAIL MOUNTED TERMINAL – ORANGE	–
X50, XT	o—o	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	–
LEGEND					

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 REVISION CLOUDS IN RED WHEN COLOUR PRINTED: AMENDED NOTE 3. ADDED TERMINALS X2:5 TO 8. AMENDED TERMINAL NAMES WAS X5:1 & 2, NOW X2:9 & 10. ADDED EXTRA TERMINALS XS:7 TO 10 & AMENDED WIRING TO REMOVE MULTIPLE CONNECTIONS TO SINGLE TERMINALS FOR DC WIRING. MOVED XT & DELETED X5 TERMINAL RAIL. AMENDED CABLE DESTINATION & DESCRIPTION WAS 'B' NOW 'BTB'.
L.MARTINUZZI 20-10-2017
CHECKED: L.MARTINUZZI
APPROVED: M.BENNETT

2. NEW UPDATED BORDER ADDED.
S.MUNRO 23/09/2024
CHECKED: M.BENNETT
APPROVED: M.BENNETT

Ausgrid
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P: 9272 3805

SCALE	AS SHOWN
DESIGNED	–
DRAWN	L.MARTINUZZI
CHECKED	W.BYRNE
APPROVED	M.BENNETT
DATE	15/06/2012
TRIM REF	–
PROJECT NUMBER	SM 6717-1-2

ISSUED FOR CONSTRUCTION

RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER WALL MOUNTED PROTECTION PANEL WITH OPTICAL AFD STYLE 2 CABLING CONNECTION DIAGRAM

DRAWING No 227352 | SHEET 3 | AMD 2 | SIZE A0

C_P 20180416