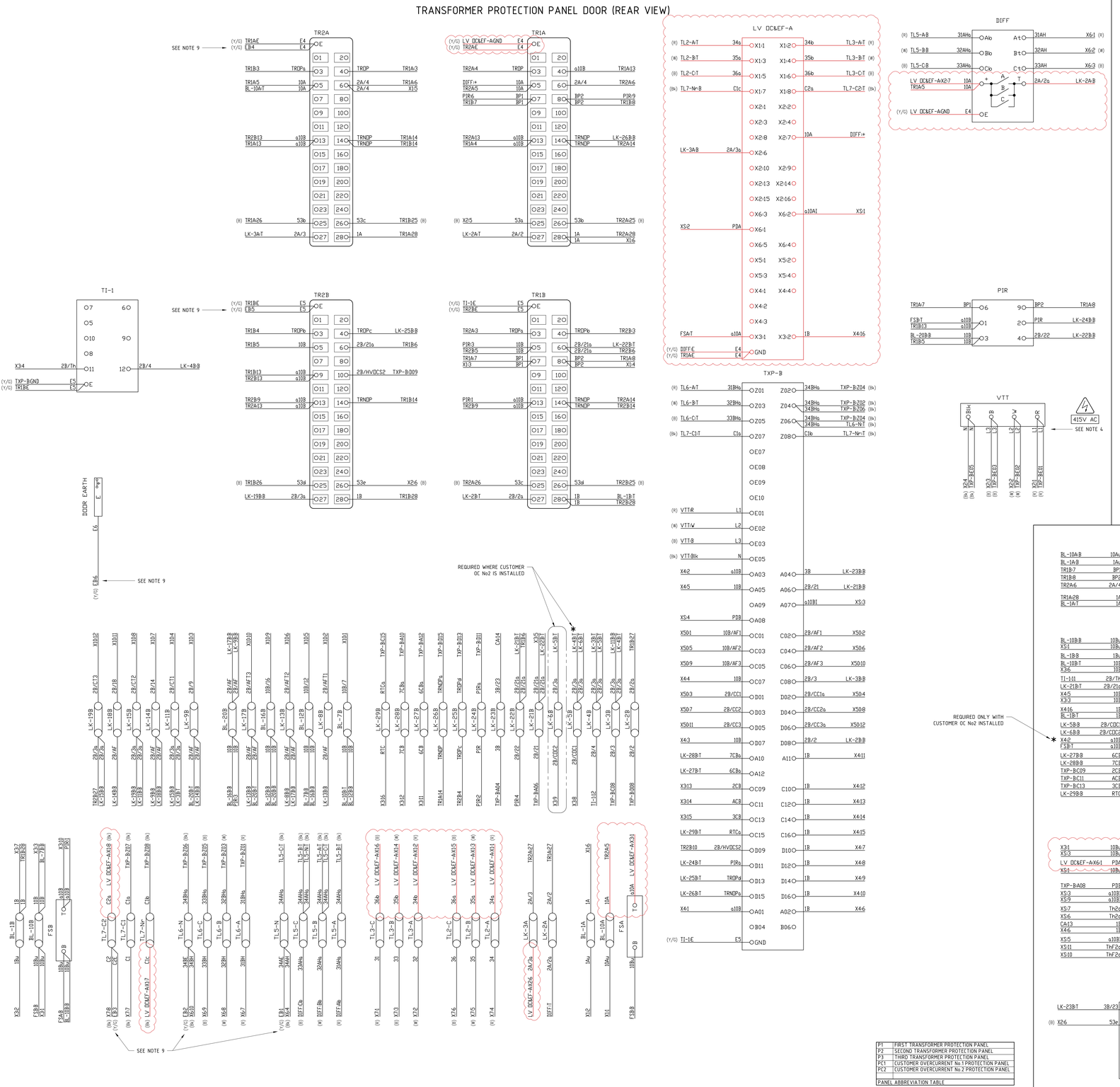
TRANSFORMER PROTECTION PANEL DOOR (REAR VIEW)



REFERENCE DRAWINGS

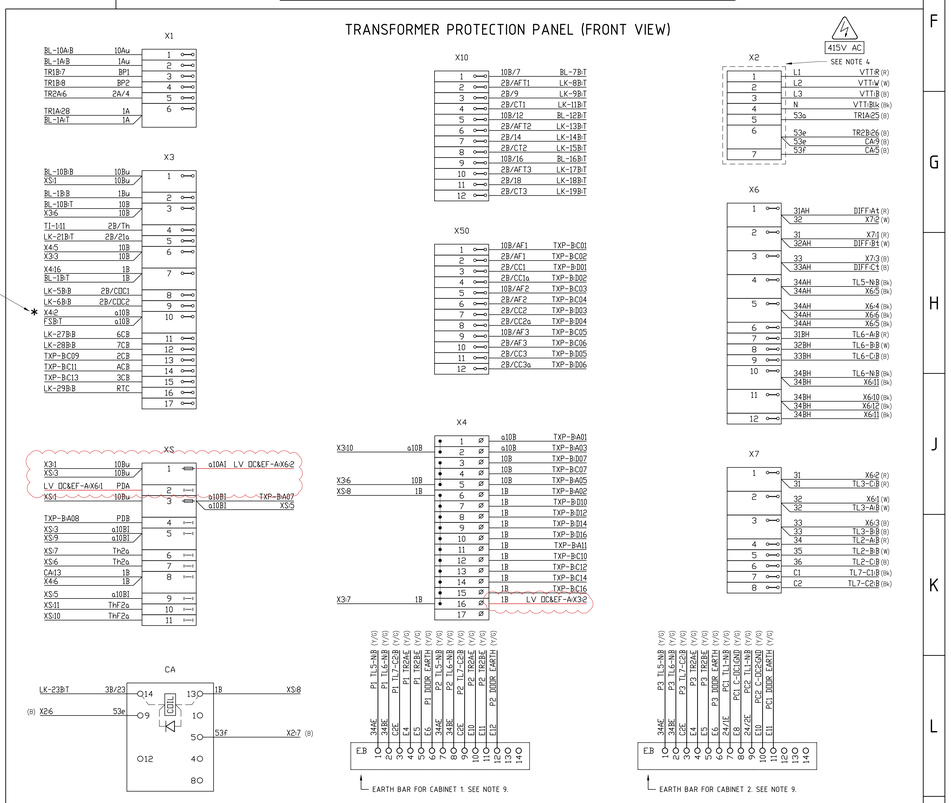
TITLE	DWG No.
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION AC SCHEMATIC	227380 Sh1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, & OPTICAL ARC FLASH DETECTION TRANSFORMER DC SCHEMATIC	227380 Sh2
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CUSTOMER OVERCURRENT DC SCHEMATIC	227380 Sh3
CITY DISTRIBUTION SUB WITH E TYPE LV BOARD AND OAFD, DLAC PANEL SCHEMATIC, GENERAL DC SUPPLIES INTER-PANEL WIRING, FIBRE COMMS & CABLING DIAGRAM	227380 Sh4
CITY DISTRIBUTION SUBSTATIONS WITH OPTICAL ARC FLASH DETECTION (E TYPE LV) TRANSFORMERS AND CUSTOMER OVERCURRENT FREE STANDING PANELS LAYOUT DETAILS	227381 Sh1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD & OAFD, TRANSFORMERS AND CUSTOMER OVERCURRENT PROTECTION FREE STANDING PANELS LABEL DETAILS	227382 Sh1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, DRY TYPE TX, & OAFD, TRANSFORMER PROTECTION PANEL WIRING DIAGRAM	227383 Sh1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, OIL TYPE TX, & OAFD, TRANSFORMER PROTECTION PANEL WIRING DIAGRAM	227383 Sh2
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, DRY TYPE TX, & OAFD, TRANSFORMER PROTECTION PANEL CABLE CONNECTION DIAGRAM	227384 Sh1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, OIL TYPE TX, & OAFD, TRANSFORMER PROTECTION PANEL CABLE CONNECTION DIAGRAM	227384 Sh2
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OAFD CUSTOMER OC No.1 (& No.2) PROTECTION PANEL WIRING AND CABLE CONNECTIONS	227385 Sh1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLING DIAGRAM	227386 Sh1
CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLE SCHEDULE	227386 Sh2

NOTES:

1. LINKS SHOULD BE MOUNTED SO THAT THE MOVEABLE LINK FALLS OPEN WHEN RELEASED.
2. NUMBERING ON BATTERY AND TEST LINKS REFERS TO LINK IDENTIFICATION AS SHOWN ON THE ASSOCIATED AC & DC PROTECTION SCHEMATICS, SEE DRAWING REFERENCE TABLE.
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, INSULATED TEST PANEL SOCKETS 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. TEST LINKS (TL) TO BE WIRED N–C–B–A LEFT TO RIGHT WHEN VIEWED FROM THE REAR OF THE PANEL.
7. THE WIRING SHOWN IS BASED ON THE RELAYS LISTED IN THE LEGEND.
8. PANEL DOOR LAYOUT IS REPRESENTATIVE, FOR ACTUAL DOOR LAYOUT SEE DWG 227381 Sh1.
9. SHOWN ARE THE WIRING CONNECTIONS TO THE EARTH BAR FOR Tx No.1 PROTECTION PANEL IN FIRST PROTECTION CABINET, THE EARTH BAR IS COMMON TO Tx No.1 & Tx No.2 PROTECTION PANELS. IN THE SECOND PROTECTION CABINET, THE EARTH BAR IS COMMON TO Tx No.3, CUSTOMER OC No.1 AND CUSTOMER No.2 PROTECTION PANELS.
10. FOR INTER–PANEL WIRING THE WIRE DESTINATIONS ARE PREFIXED WITH THE DESTINATION PANELS ABBREVIATION. FOR EXAMPLE "P1 TR2A:E" MEANS IT WILL TERMINATE IN THE FIRST Tx PROTECTION PANEL ON THE TR2A RELAY, TERMINAL E. SEE PANEL ABBREVIATION TABLE.
11. LINK 6B & RELATED WIRING REQUIRED ONLY WHERE CUSTOMER No2 OC PROTECTION IS INSTALLED.

TAGNAME	MFG	CATNO	DESC	REF_DWG
BL, LK, TL	EUGAQUIP	MOULDED TYPE M5	BATTERY/TEST LINK	507111
CA	IDEC	RH2B-ULD 48V DC	AUXILIARY RELAY WITH BASE SH2B-05C	169175
C-OC1, C-OC2	SCHNEIDER ELECT.	MICOM P142	OVERCURRENT & EARTH FAULT RELAY	224809
DIFF	-	K3M	3 ELEMENT FUSE RELAY	113243
EB	-	EARTH BAR	PANEL EARTH BAR	-
FSA, FSB	ALSTOM	RS20P.Black	FUSE – 2 STUD BACK CONNECTED	-
LV OC&EF-A	SIEMENS	7SR4504-2HB20-1AA0	OVERCURRENT & EARTH FAULT RELAY	269111
PIR	RMS	PIR	PILOT INTERLOCK RELAY	53829
TR1A, TR2A	RMS	TR12-BD-22	LATCHING MULTITRIP RELAY 32V DC	223206 Sh1 & 2
TR1B, TR2B	RMS	TR12-CD-22	LATCHING MULTITRIP RELAY 48V DC	223206 Sh1 & 2
TXP-B	SCHWEITZER	SEL-751A	TRANSFORMER PROTECTION RELAY	-
TI-1	RMS	3A32K37	TRIP INDICATOR TI-3 (0.2 ohm)	123399
VTT	MULTI CONTACT (RS COMPONENTS)	SLB4-G	INSULATED TEST PANEL SOCKETS 1 x RED 23.3020.22 (404–264) 1 x WHITE 23.3020.29 (404–250) 1 x BLUE 23.3020.23 (404–296) 1 x BLACK 23.3020.21 (404–290)	231226
X1, X3, X6, X7, X10, X50	UTILUX	3820	RAIL MOUNTED TERMINAL	118547
X2	UTILUX	H2238	RAIL MOUNTED TERMINAL – ORANGE	-
X4	WEIDMULLER	SAK 2.5	RAIL MOUNTED TERMINAL CAT No. 27966	-
X5	WEIDMULLER	ASK1	RAIL MOUNTED FUSE CAT No. 37676	-
X5	WEIDMULLER	SAKR	RAIL MOUNTED ISOLATING TERM CAT No.41226	-
LEGEND				

TRANSFORMER PROTECTION PANEL (FRONT VIEW)



P1	FIRST TRANSFORMER PROTECTION PANEL
P2	SECOND TRANSFORMER PROTECTION PANEL
P3	THIRD TRANSFORMER PROTECTION PANEL
PC1	CUSTOMER OVERCURRENT No.1 PROTECTION PANEL
PC2	CUSTOMER OVERCURRENT No.2 PROTECTION PANEL

PANEL ABBREVIATION TABLE

AMENDMENTS

AMD	DATE	DESCRIPTION	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
2	06/12/2023	AMENDED TXP-B RELAY TYPE & VT INPUT CONNECTIONS AS SHOWN.	L.M.	L.M.	M.B.	M.B.
3	06/12/2023	SE-751A WAS SEL-751	L.M.	L.M.	M.B.	M.B.
4	19/09/2024	REPLACED SCHNEIDER P115 WITH SIEMENS 7SR4504 IN LEGEND & WIRING CONNECTIONS.	L.M.	L.M.	M.B.	M.B.

FOR ARRANGEMENT WITH OIL TYPE TRANSFORMERS SEE 227383 Sh2

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ISSUED FOR CONSTRUCTION

SCALE	NTS
DESIGNED	-
DRAWN	E.KAIROUZ
CHECKED	L.MARTINUZZI
APPROVED	M.BENNETT
DATE	04/02/2015
TRIM REF	-
PROJECT NUMBER	-

CITY DISTRIBUTION SUBSTATIONS WITH E TYPE LV BOARD, DRY TYPE TX & OPTICAL ARC FLASH DETECTION TRANSFORMER PROTECTION PANEL WIRING DIAGRAM

DRAWING No 227383 | SHEET 1 | AMD 4 | SIZE A0

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