



WALL MOUNTED PANEL (MARK 4A)  
TERMINAL LAYOUT FRONT VIEW

WALL MOUNTED PANEL (MARK 4A)  
DOOR LAYOUT FRONT VIEW

LABEL DETAILS						
LABEL	LABEL SIZE	COLOUR	TEXT LINE	TEXT HEIGHT	ENGRAVING	No OFF
1	C8	GRAVOPLY No 200 WHITE/BLACK	LINE 1	8	TRANSFORMER No.#	1
2	C7	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER DIFFERENTIAL RELAY	1
3	C7	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	LV OC & EF RELAY	1
5	C7	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER & ARC FLASH RELAY	1
6	SC10	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	1
7	SC10	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 3~ DELTA TEST LINKS	1
8	SC10	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 5~ TEST LINKS	1
9	SC1	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2	4.0 2.5	A B C N TRANSFORMER PROTECTION H.V. CT TEST LINKS	1
10	SC10	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	1
11	SC2	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TX No.1 ARC FLASH BATTERY LINK	1
12	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.1 ARC FLASH TRIP LINK	1
13	SC2	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TX No.2 ARC FLASH BATTERY LINK	1
14	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.2 ARC FLASH TRIP LINK	1
15	SC2	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TX No.3 ARC FLASH BATTERY LINK	1
16	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.3 ARC FLASH TRIP LINK	1
17	SC2	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	ARC FLASH BYPASS BATTERY LINK NORMALLY OPEN	1
18	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.1 CURRENT CHECK LINK	1
19	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.1 CURRENT CHECK TRIP LINK	1
20	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.2 CURRENT CHECK LINK	1
21	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.2 CURRENT CHECK TRIP LINK	1
22	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.3 CURRENT CHECK LINK	1
23	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	TX No.3 CURRENT CHECK TRIP LINK	1
24	SC2	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER HV OC BATTERY LINK	1
25	SC2	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER LOAD RELIEF BATTERY LINK	1
26	SC2	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER DIFFERENTIAL BATTERY LINK	1
27	SC2	GRAVOPLY No 200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER OC & EF BATTERY LINK	1
29	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	CUSTOMER OC No.1 TRIP LINK	1
30	SC2	TRAFFOLYTE YELLOW/BLACK/YELLOW	LINE 1 LINE 2	2.5 2.5	CUSTOMER OC No.2 TRIP LINK	1
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 MASTER BATT FUSES & LINKS	1
32	SC3	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	1
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	1

- NOTES**
- THIS DRAWING SHOWS THE NEW TRANSFORMER PROTECTION PANEL LAYOUT FOR SUBURBAN DISTRIBUTION SUBSTATIONS. IT INCORPORATES OPTICAL ARC FLASH DETECTION.
  - LABELS ARE TO BE MADE AS SHOWN ON DRAWING 178241-1. FOR 5mm LINK ASSEMBLY REFER DRAWING 50996-2, & 64825-2.
  - DRILLING ARRANGEMENT SUIT A MARK 4A WALL MOUNTED RELAY PANEL. PANEL DEPTH TO BE 300mm, SEE DRAWING 28632-1.
  - RELAY NAMING CONVENTION ALTERED TO INDICATE MULTIPLE PROTECTION FUNCTIONS COVER BY THE SAME RELAY.
  - ALL DIMENSIONS ARE IN MILLIMETRES.
  - FOR LABELS WITH #, SUBSTITUTE THE RELEVANT TRANSFORMER NUMBER.
  - STANDARD WARNING LABEL TO HIGHLIGHT THE 415V AC HAZARD TO BE MOUNTED AS SHOWN BOTH FRONT AND BACK OF THE PANEL DOOR.

TAGNAME	MFG	CATNO	DESC	REF_DWG
BL_LK_TL	EUGADUP	MOULDED TYPE MS	BATTERY/TEST LINK	507111
DIFF	-	K3M	DIFFERENTIAL FUSE RELAY	113243
EB	-	EARTH BAR	EARTH BAR	-
FS1 FS2	ALSTOM	RC30P Black	FUSE - 2 STUD BACK CONNECTED	-
LK-A, B, C	ALSTOM	SAFECLIP SC32H White	LINK - DIN MOUNTED, FRONT CONNECTED	-
LK-N	ALSTOM	SAFECLIP SC32H White	LINK - DIN MOUNTED, FRONT CONNECTED	-
LV OC&EF-A	SIEMENS	7SR4504-2HB20-1AA0	OVERCURRENT & EARTH FAULT RELAY	260111
TXP-B	SCHWEITZER	SEC-751A	TRANSFORMER PROTECTION RELAY	222814
VTT	MULTI CONNECT (RS COMPONENTS)	5184-G	INSULATED TEST PANEL SOCKETS 1 x RED 23 3020 27 (404-244) 1 x WHITE 23 3020 29 (404-250) 1 x BLACK 23 3020 23 (404-236) 1 x BLACK 23 3020 21 (404-200)	231226
X1, X2, X10	UTILIX	3820	RAIL MOUNTED TERMINAL	118547
X6, X7	UTILIX	3820	RAIL MOUNTED TERMINAL	118547
X8	UTILIX	H2238	RAIL MOUNTED TERMINAL - ORANGE	118547
X10, XT	UTILIX	3820	RAIL MOUNTED TERMINAL	118547
X5	WEDMULLER	SAK 2 S	RAIL MOUNTED TERMINAL CAT No. 27866	-
X5	WEDMULLER	SAKR	RAIL MOUNTED ISOLATING TERM CAT No.41228	-
LEGEND				

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 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 AND OPTICAL ARC FLASH DETECTION CABLING DIAGRAM	227355-1
RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLE SCHEDULE	227355-2
E TYPE LV BOARD MERLIN GERIN MASTER PAC TP AIR CIRCUIT BREAKERS EXTERNAL CONNECTIONS FOR AFD DIST. SUBSTATIONS	227357-1
WALL MOUNTED RELAY PANELS DETAILS	28632-1
E TYPE LV BOARD ACCEPTABLE COMBINATIONS	178227-1
REFERENCE DRAWINGS	

AMENDMENTS						
AMD	DATE	DESCRIPTION	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
3	08/08/2023	AMENDED TXP-B RELAY TYPE AS SHOWN.	L.M.	L.M.	M.B.	M.B.
4	12/06/2024	AMENDED TXP-B RELAY TYPE AS SHOWN. AC & DC LINKS NOW 5mm TYPE, LAYOUT & LABEL SIZES AMENDED FOR CHANGES.	L.M.	L.M.	M.B.	M.B.
5	19/09/2024	REPLACED SCHNEIDER P115 WITH SIEMENS 7SR4504 IN LEGEND & PANEL LAYOUT.	L.M.	L.M.	M.B.	M.B.

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**CAM**  
COMPUTER AIDED MANUFACTURE

SCALE: 1:2

DESIGNED: -  
DRAWN: L.MARTINUZZI  
CHECKED: W.BYRNE  
APPROVED: M.BENNETT  
DATE: 15/06/2012  
TRIM REF: -  
PROJECT NUMBER: SM-06717

RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER WALL MOUNTED PROTECTION PANEL WITH OPTICAL AFD STYLE 1 LAYOUT AND LABEL DETAILS DIAGRAM

DRAWING No: 227351 SHEET 1 AMD 5 SIZE A0

ISSUED FOR CONSTRUCTION

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