PRIOR TO MANUFACTURE REFER NOTE 5

LABEL DETAILS FOR TRANSFORMER PANELS

LABEL	LABEL SIZE	COLOUR	TEXT LINE	TEXT HEIGHT	ENGRAVING	No OFF
1	C8	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	8.0 8.0	FIRST TRANSFORMER ##$	1
2	C8	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	8.0 8.0	SECOND TRANSFORMER ##$	1
3	C8	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	8.0 8.0	THIRD TRANSFORMER ##$	1
5	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	DIFFERENTIAL RELAY DIFF	3
6	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	LV OVERCURRENT & EARTH FAULT 'A' RELAY LV OC&EF–A	3
7	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	MULTITRIP RELAY TR1A	3
8	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	MULTITRIP RELAY TR2A	3
9	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	PILOT INTERLOCK RELAY PIR	3
10	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	3
11	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	Tx & ARC FLASH RELAY TXP–B	3
12	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	MULTITRIP RELAY TR1B	3
13	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	MULTITRIP RELAY TR2B	3
14	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	TRANSFORMER THERMAL TRIP INDICATOR TI–1	3
14a	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	TRANSFORMER BUCHHOLZ TRIP INDICATOR TI–1	3
15	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER HV 'B' (TXP–B) TRIP LINK 2B	3
15a	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	TRANSFORMER BUCHHOLZ TRIP LINK 4Ba	3
16	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER LV 'B' (TXP–B) TRIP LINK 3B	3
17	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	TRANSFORMER THERMAL TRIP LINK 4B	3
18	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	CUSTOMER OC No.1 TRIP LINK 5B	3
19	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	CUSTOMER OC No.2 TRIP LINK 6B	3
20	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	CO-GENERATION OPEN Tx ACB TRIP LINK 21B	3
21	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	PILOT INTERLOCK OPEN Tx ACB TRIP LINK 22B	3
22	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	TX ACB CLOSE RELAY LINK 23B	3
23	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	11kV FEEDER IN SERVICE CHECK LINK 24B	3
24	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	Tx PROTECTION OPERATED LINK 25B	3
25	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	Tx PROTECTION OPERATED CHECK LINK 26B	3
26	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	Tx ACB STATUS LINK 27B	3
27	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	Tx ACB STATUS CHECK LINK 28B	3
28	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	Tx ACB READY TO CLOSE LINK 29B	3
29	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	FIRST TRANSFORMER ARC FLASH BATTERY LINK 7B	3
30	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	FIRST TRANSFORMER ARC FLASH TRIP LINK 8B	3
31	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	SECOND TRANSFORMER ARC FLASH BATTERY LINK 12B	3
32	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	SECOND TRANSFORMER ARC FLASH TRIP LINK 13B	3
33	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	THIRD TRANSFORMER ARC FLASH BATTERY LINK 16B	3
34	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	THIRD TRANSFORMER ARC FLASH TRIP LINK 17B	3
35	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	ARC FLASH BYPASS BATTERY LINK NORMALLY OPEN 20B	3
36	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	FIRST TRANSFORMER CURRENT CHECK LINK 9B	3
37	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	FIRST TRANSFORMER CURRENT CHECK TRIP LINK 11B	3
38	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	SECOND TRANSFORMER CURRENT CHECK LINK 14B	3
39	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	SECOND TRANSFORMER CURRENT CHECK TRIP LINK 15B	3
40	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	THIRD TRANSFORMER CURRENT CHECK LINK 18B	3
41	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	THIRD TRANSFORMER CURRENT CHECK TRIP LINK 19B	3
42	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER HV 'A' (TR1A) TRIP LINK 2A	3
43	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRANSFORMER LV 'A' (TR2A) TRIP LINK 3A	3
44	C4	TRAFFOLYTE RED/WHITE/RED	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	FSA 10A 1A 48V & 30V 'A' MASTER BATT FUSE & LINKS	3
45	C4	TRAFFOLYTE RED/WHITE/RED	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	FSB 10B 1B 48V 'B' MASTER BATT FUSE & LINKS	3
46	5C10/1	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 2~ CT TEST LINKS	3
47	5C10/1	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	3
48	5C1/1	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 N TRANSFORMER DIFFERENTIAL RELAY 5~ TEST LINKS	3
49	5C1/1	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3	4.0 2.5 2.5	A B C N TRANSFORMER PROTECTION H.V. CT TEST LINKS 6~	3
50	5C10/1	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3	4.0 2.5 2.5	Nr C1 C2 EARTH FAULT 7~ CT TEST LINKS	3

ONLY WHERE REQUIRED SEE NOTE 4 *

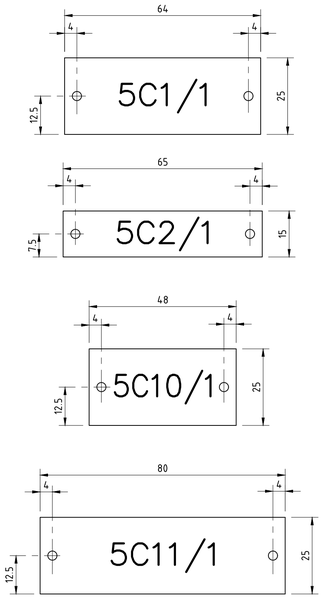
LABEL DETAILS FOR CUSTOMER OC No.1 PANEL

LABEL	LABEL SIZE	COLOUR	TEXT LINE	TEXT HEIGHT	ENGRAVING	No OFF
4	C8	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	7.0 7.0	CUSTOMER OVERCURRENT No.1	1
10	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
45	C4	TRAFFOLYTE RED/WHITE/RED	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	FSB 10B 1B 48V 'B' MASTER BATT FUSES & LINKS	1
51	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	CUSTOMER ACB SCADA CONTROL OPEN LINK 2B	1
52	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	CUSTOMER ACB SCADA CONTROL CLOSE LINK 3B	1
53	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRIP TO FIRST TRANSFORMER TRIP LINK ON 1st TX PANEL 5Ba	1
54	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRIP TO SECOND TRANSFORMER TRIP LINK ON 2nd TX PANEL 5Ba	1
55	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRIP TO THRID TRANSFORMER TRIP LINK ON 3rd TX PANEL 5Ba	1
56	5C11/1	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	Nr A B C N CUSTOMER OVERCURRENT AND EARTH FAULT 1~ CT TEST LINKS	1
57	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	CUSTOMER OVERCURRENT & EARTH FAULT RELAY C–OC1	1

LABEL DETAILS FOR CUSTOMER OC No.2 PANEL

* ONLY WHERE REQUIRED – SEE NOTE 4

LABEL	LABEL SIZE	COLOUR	TEXT LINE	TEXT HEIGHT	ENGRAVING	No OFF
10	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
45	C4	TRAFFOLYTE RED/WHITE/RED	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	FSB 10B 1B 48V 'B' MASTER BATT FUSES & LINKS	1
51	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	CUSTOMER ACB SCADA CONTROL OPEN LINK 2B	1
52	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 2.5	CUSTOMER ACB SCADA CONTROL CLOSE LINK 3B	1
56	5C11/1	GRAVOPLY No 259 PINE GREEN/WHITE	LINE 1 LINE 2 LINE 3 LINE 4	4.0 2.5 2.5 2.5	Nr A B C N CUSTOMER OVERCURRENT AND EARTH FAULT 1~ CT TEST LINKS	1
58	C8	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	7.0 7.0	CUSTOMER OVERCURRENT No.2	1
59	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRIP TO FIRST TRANSFORMER TRIP LINK ON 1st TX PANEL 6Ba	1
60	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRIP TO SECOND TRANSFORMER TRIP LINK ON 2nd TX PANEL 6Ba	1
61	5C2/1	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2	2.5 2.5	TRIP TO THRID TRANSFORMER TRIP LINK ON 3rd TX PANEL 6Ba	1
62	C7	GRAVOPLY No.200 WHITE/BLACK	LINE 1 LINE 2 LINE 3	2.5 2.5 4.0	CUSTOMER OVERCURRENT & EARTH FAULT RELAY C–OC2	1



SPECIAL LABEL DETAILS

DIMENSIONS ARE IN MILLIMETRES – ALL HOLES Ø3mm
SEE NOTE 3
SCALE 1:1

NOTES:

1. THIS DRAWING SHOWS LABELS REQUIRED FOR FREE STANDING TRANSFORMER & CUSTOMER OVERCURRENT PROTECTION PANELS LAYOUTS FOR CITY DISTRIBUTION SUBSTATIONS WITH OAFD.
2. CUSTOMER OVERCURRENT PROTECTION PANEL IS A DUAL TYPE AS SHOWN ON DWG 227381 Sh1, WITH CUSTOMER No2 OC PROTECTION ONLY INSTALLED WHERE REQUIRED. SEE THE SUBSTATION DESIGN INFORMATION PACKAGE.
3. SPECIAL LABELS (5C1/1, 5C2/1, 5C10/1 & 5C11/1) ARE SIZED TO FIT 5mm EUGAQUIP MOULDED TYPE MS LINKS, SEE DRAWING 507111. FOR ALL OTHER LABEL CONSTRUCTION, DRILLING AND ENGRAVING DETAILS REFER TO DRAWINGS 50996 & 64825.
4. – LABELS 14 & 17 ARE ONLY REQUIRED WHERE DRY TYPE TRANSFORMERS ARE INSTALLED.
   – LABELS 14a & 15a ARE ONLY REQUIRED FOR OLDER OIL TYPE TRANSFORMERS WITH BUCHHOLZ RELAYS.
   – CUSTOMER No2 LABELS ARE ONLY REQUIRED WHERE THERE IS CUSTOMER OVERCURRENT No2 PROTECTION INSTALLED.
5. TRANSFORMERS ARE REFERENCED AS 1st TRANSFORMER, 2nd TRANSFORMER & 3rd TRANSFORMER. ON THESE LABELS THE "##$" SYMBOLS ARE TO BE REPLACED WITH THE CORRECT 11kV TRIPLEX FEEDER DESIGNATION.
   WHERE:
   ## = NUMBER
   $ = LETTER.
   REFER PROJECT DESIGN PACKAGE FOR CORRECT FEEDER NAME.

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 AND OPTICAL ARC FLASH DETECTION 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 OPTICAL ARC FLASH DETECTION DLAC PANEL SCHEMATIC, GENERAL DC SUPPLIES INTER-PANEL WIRING, 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

CAD DRAWING
DO NOT MANUALLY AMEND

AMENDMENTS

1. BORDER & TITLE BLOCK UPDATED. REF REVISION CLOUDS IN RED WHEN PLOTTED IN BLACK. SIZE NAMING. L.MARTINUZZI 17-09-2018 CHECKED: M.BENNETT APPROVED: M.BENNETT
2. REF IN RED WITH REVISION CLOUDS WHEN COLOUR PRINTED. ADDED TEXT & NOTE REFERENCE TO LABELS 1, 2 & 3. ADDED NOTE 5. AMENDED CUSTOMER OC PANEL LABELS 51 WAS CLOSE NOW OPEN & 52 WAS OPEN NOW CLOSE. L.MARTINUZZI 18-06-2020 CHECKED: M.BENNETT APPROVED: M.BENNETT

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SCALE	AS SHOWN
DESIGNED	–
DRAWN	E.KAIROUZ
CHECKED	L.MARTINUZZI
APPROVED	M.BENNETT
DATE	24/02/2015
TRIM REF	–
ISSUED FOR	CONSTRUCTION
PROJECT NUMBER	OPEX-6923-1

CITY DISTRIBUTION SUBSTATIONS (E TYPE LV) WITH OPTICAL ARC FLASH DETECTION TRANSFORMERS AND CUSTOMER OVERCURRENT FREE STANDING PANELS LABEL DETAILS

DRAWING No 227382 | SHEET 1 | AMD 2 | SIZE A1

C&P – Distribution Substations

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