			1	T	I	I	
1 2	3 4	5	6	7	8	9 10	
		X10:1 10B/2a X50	1 TO TRIP CONTACT X50:2	2B/AF1a X10:2	X10:3 2B/4a	X50:3 TO TRIP CONTACT X50:4	2B/CC1b X10:2
A			ON TX 1 PANEL	Ο Ο Γ (CL TA X10)6	X1017	$\bigcirc ON TX 1 PANEL \bigcirc \bigcirc \\ X5013 = 2000 X5014$	
2. THIS DRAWING SHOWS THE PROTECTION SCHEMATICS WHICH ARE TO BE USED IN CONJUNCTION WITH RMICB CHAMBER TYPE SUBSTATIONS & SHOULD BE READ IN CONJUNCTION WITH NETWORK STANDARDS & THE SUBSTATION			$\begin{array}{c} 10 \text{ TRIP LONTALT A COLL 211} \\ 0 \text{ ON TX 2 PANEL} \end{array}$	2 2 0	0 3	ON TX 2 PANEL	<u>4</u>
DESIGN INFORMATION PACKAGE.		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	TO TRIP CONTACT X50:2 31T	<u>-2B/11bT1</u> X10:10 2 O	X10:11 31T-2B/13T1 O 3	X50:3 TO TRIP CONTACT X50:4 ON TX 3 PANEL	<u>31T-2B/13cT1</u> X10:1 4 O
TRANSFORMER 1 PROTECTION PANEL			TX 1 PROTE	ECTION PANEL CABLE (CONNECTIONS & WIRE JUI	MPERS	
TRANSFORMER CONNECTION BOX (DRY TYPE)		▼ X10/1 101 101 (010 X50	15 to the contract X5016			X5017 to the court of X5018	
B TRANSFORMER 11kV RMICB TRANSFORMER 415V AIR CIRCUIT BREAKER		$O = \frac{121 - 10B/212}{1}$	ON TX 1 PANEL		121 - 2B/412	ON TX 1 PANEL	
TRANSFORMER 2 PROTECTION PANEL	SEE DC SUPPLY AND	X10:5 10Β/6α X50	5 TO TRIP CONTACT X50:6 ON TX 2 PANEL	2B/AF2a X10;6	X10:7 2B/8a	X50:7 TO TRIP CONTACT X50:8 ON TX 2 PANEL	2B/CC2b X10;6
TRANSFORMER 3 PROTECTION PANEL	CABLE LOOPING	X10;9 32T-10B/11T2 X50	5 TO TRIP CONTACT X50:6 32T	-2B/11bT2 X10:10	X10:11 32T-2B/13T2		<u>32T-2B/13cT2</u> X10:1
4. SHOWN IS A STANDARD TRANSFORMER PROTECTION PANEL WITH OPTICAL ARC FLASH DETECTION. EACH TRANSFORMER PROTECTION INTEGRATES WITH THE OTHER. EACH PROTECTION PANEL IS TO BE CONFIGURED ON SITE, BY WIRE	DWG 227350Sh04	1	TX 2 PROTE	2 ECTION PANEL CABLE (3 CONNECTIONS & WIRE JU	MPERS	4
C JUMPERING/CABLING BETWEEN TERMINAL RAILS X10 & X50 TO PROTECT ITS' RELEVANT TRANSFORMER AND THE 415V BUSBAR. ONLY WIRE JUMPERING AND CABLING. FOR THE NUMBER OF TRANSFORMERS ACTUALLY IN THE							
DISTRIBUTION SUBSTATION, IS REQUIRED.	X1:14 X1:12 0 X1:12 0 X1:12 0 X1:12 V	X10:1 13T-10B/2T3 X50	+9 TO TRIP CONTACT X50+10 13T ON TX 1 PANEL	<u>2 2B/2bT3 X10:2</u>	X10:3 13T-2B/4T3	X50:11 TO TRIP CONTACT X50:12 ON TX 1 PANEL	<u>13T-2B/4cT3</u> X10:4
(Th) & A TRIP INDICATOR ARE TO BE CONNECTED. THE THERMAL RELAT LOCATED & SUPPLIED ON THE TRANSFORMER BY THE TRANSFORMER	10Bu 1Bu	X10:5 23T-10B/6T3 X50	9 TO TRIP CONTACT X50:10 23T	-2B/6bT3 X10:6	X10:7 23T-2B/8T3	X50:11 TO TRIP CONTACT X50:12	23T-2B/8cT3 X10:E
MANUFACTURER. THE TRIP INDICATOR IS LOCATED ON THE TRANSFORMER PROTECTION PANEL & IS SUPPLIED BY AUSGRID.			ON TX 2 PANEL	2 2 10'10	3 ¥10'11	ON TX 2 PANEL	4 ¥
6. FOR A CUSTOMER CABLE SUPPLY, THE CUSTOMER SWITCH CAN BE AN AIR CIRCUIT BREAKER OR A DISCONNECTOR. FOR A CUSTOMER BUSBAR SUPPLY, THE CUSTOMER SWITCH CAN BE AN AIR CIRCUIT BREAKER A DISCONNECTOR			ON TX 3 PANEL	<u>2B/AF3a</u> O	O <u>2B/13a</u>	ON TX 3 PANEL	O
D OR A LINK. IN ALL OF THESE INSTALLATIONS, AN OVERCURRENT CT IS INSTALLED AS SHOWN ON THE AC SCHEMATIC. IN ALL CASES A CUSTOMER			TX 3 PROTE	ECTION PANEL CABLE (CONNECTIONS & WIRE JU	MPERS	
LV AIR CIRCUIT BREAKERS.	10A 10B						
7. FOR UPPER LEVEL SUBSTATION THE RMICB IS LOCATED IN A CONTROL POINT WHICH IS REMOTE FROM THE SUBSTATION. FOR UPPER LEVEL SUBSTATION REFER TO THE CABLING DIAGRAM (DWG 227355Sh01) FOR FURTHER	BL-2B BODT 10B/2	X10:1 X50:1 10B/AF1 C01	$\frac{1000}{1000} = \frac{1000}{1000} = \frac{1000}{1000$	C 2B/AFT1 LK-3B	<u>B</u> CCOT 2B/4 X10:3	X50:3 2B/CC1 DO1 DO2 2	$\frac{2B}{CC1a}$ X50:4 X10:
INFORMATION CONNECTING THE RMICE TRIP COIL.	BL-6B BODT 10B/6	X10:5 SEE X50:5 10B/AF2 CO3	B <u>C04 2B/AF2 X50:6 SEE X10</u>	C 2B/AFT2 LK-7B	LK-8B B 2B/8 X10;7 SEE	X50;7 2B/CC2 D03 D04 2	2 <u>B/CC2a</u> X50:8 SEE X10:
E	BL-11B 10D (11	X10:9 X50:9 100 (AFO are TXP-	$\frac{2}{2}$ NUTE 4. $\frac{2}{2}$ NUTE 4. $\frac{2}$	LK-12B	LK-13B OD (10 X10/11	4. OUT DO2 X50/11 OD (COO TXP-B	VILL 4. VILL 4
			$\frac{106}{287 \text{ AF3}} 0 $	O ZB/AFI3 T O B	<u>B</u> <u>C</u> <u>C</u> <u>T</u> <u>7</u> <u>B</u> 7 <u>13</u> /13/11		
	BL-15B BOTOT 2B/AF	- THIS LINK IS NURHALLT UPEN					
	BL-16B BL-16B T 10B/16		B (HV OC&EF)				
			01				
				1B			
	Β		12 	1B			
		LV DC&EF-	-] A 20 (LR) SEE NOTE 8.				
	$BL = 1/A$ $B \longrightarrow T$ 10A/17	19	21	2A	X2:7 O	•	
G	BL-18A B T 10A/18	DIFF +	- T	2A			
			Δ 17			•	
	BL-19A BOTO T 10A/19		<u>18</u>	2A	X2:8 O	•	
CABLE NAME:		••••••••••••••••••••••••••••••••••••••	• •				
45T FOR TX2 46T FOR TX3	$ \qquad B \qquad T \qquad 10A/20$	$\begin{array}{c} XT:1 \\ 0 \\ 1 \\ \end{array}$	-0 $+T=2A/Th$ XT	⁺² 2A/Th 11 (a) 12 2A/	/Tha XT:3 O		
H 227350Sh03		CABLE NAME: 1T FOR TX	X1 SEE NOTE 5	R=0.2			
TRIP FROM CUSTOMER OC TRIP FROM #T-2AT# X2:9						∔ ♦	
TRIP FROM USING HT-2AT# X2:10							
PROTECTION PANEL No.2						_	
						LINK No. LINK FUNCTION	
54T FOR TX1 55T FOR TX2 56T FOR TX3]	BL-2B TRANSFORMER 1 ARC FLASH DC BA BL-6B TRANSFORMER 2 ARC FLASH DC B	ATTERY LINK BATTERY LINK
CABLE FERRULE NAME: REPLACE T# WITH T1 FOR TX1						BL-11BTRANSFORMER 3 ARC FLASH DC BBL-15BARC FLASH BYPASS DC BATTERY	ATTERY LINK ' LINK – NORMALLY OPEN
T2 FOR TX2 T3 FOR TX3		د #	1W Tx ALARM & SIGNAL SUPPLY			BL-16B TX HV OVERCURRENT DC BATTER	
		-B XS:6 #S	TX RELAY 'B'			BL-17A TX LOAD RELIEF DC BATTERY LIN BL-18A TX DIFFERENTIAL DC BATTERY LIN BL-19A TX OVERCURRENT & FARTH FAUL	NK T DC BATTERY LINK
	a10BI XS:2 a10BI A07	-BA09 1_A08 BD XS:7 #S	-BD RELAY 'B'			BL-20A TX THERMAL DC BATTERY LINK -	(SEE NOTE 5)
		ω3 «EF-Α Δ. Δ. Δ. ΧΣΙΑ μο	2W DEFECT	ALARM AND SIGNALS		LK-3BTRANSFORMER 1 ARC FLASH TRIPLK-4BTRANSFORMER 1 CURRENT CHECK	LINK LINK
		<u>23 IA</u> 	2BK TRIP	JUADA MANEL		LK-5B TRANSFORMER 1 CURRENT CHECK LK-7B TRANSFORMER 2 ARC FLASH TRIP LK-8B TRANSFORMER 2 CURRENT SUFERING	TRIP LINK ' LINK
	XS:4 a10BI 24	<u>_25 AD XS:9 #S</u>	AD RELAY 'A'			LK-9B TRANSFORMER 2 CURRENT CHECK LK-9B TRANSFORMER 2 CURRENT CHECK LK-12B TRANSFORMER 3 ARC FLASH TRIP	
κ	XS:5 a10BI D07	-B 	<u> </u>			LK-12BTRANSFORMER 3 CURRENT CHECKLK-13BTRANSFORMER 3 CURRENT CHECKLK-14BTRANSFORMER 3 CURRENT CHECK	
		104	3Bk VOLTS CHECK			LK-21A CUSTOMER OC No.1 TRIP LINK	
		L	CABLE NAME 1S FOR TX1 2S FOR TX2			LK-22A CUSTOMER OC No.2 TRIP LINK	
		RANSFORMER PROTECTION PAN	EL SIGNALS 35 FOR TX3			+S1 48V 'a10B' PROTECTION RELAY FU FS2 48V 'a10B' PROTECTION RELAY FU	JSE
						BL-10A30V 'A' +VE BATTERY LINKBL-1A30V 'A' -VE BATTERY LINK	
						BL-10B 30V (TAP) 'B' +VE BATTERY LINK	
						BL-1B 'B' -VE BATTERY LINK DC TEST LINK FUNCTION TABLE	
S S NAMEN NAMES NAMES NAMES A DED DED A TED. A A S A S A S A S A S A S A A NUZZI INUZZI INUZZI INUZZI INUZZI INUZZI INUZZI INUZZI INUZZI INUZZI INUZZI VINET A A S A NAMEN A NAMES A A A A A A A A A A A A A A A A A A A							
/ING /ING /ING /ING /ING /ING / AMEND D TERMI D TERMI A AMEND 2 K UPDA 18-10 18-10 18-10 18-10 0 UDS: M.BEA M.BEA M.BEA							
DRAV IANUALL D M I D M I I CLOUD D: ADDE 6. ADDE 6. ADDE 3 RELAY 3 RELAY							
CAD DO NOT P EVISION B. AMEN B. AMEN B. AMEN B. AMEN D NOT CLS XS: CLS							
A A A A A A A A A A A A A A A A A A A							
	3 4	5	6	7	8	9 10	



	TITLE					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD AC SCHEMATIC WITH OPTICAL ARC FLASH DETECTION					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER DC SCHEMATIC WITH OPTICAL ARC FLASH DETECTION					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT DC SCHEMATIC					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD DC SUPPLY CABLE LOOPING AND SCADA SCHEMATIC					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD WITH OPTICAL ARC FLASH DETECTION FIBRE LOOPING AND GENERAL MOUNTING DETAILS					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD TX WALL MOUNTED PROTN PANEL WITH OPTICAL AFD STYLE 1 LAYOUT AND LABEL DETAILS DIAGRAM					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 1 WIRING DIAGRAM					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD TRANSFORMER PROTECTION PANEL STYLE 1 CABLE CONNECTION DIAGRAM					
	RMICB SUBSTATIONS WITH E TYPE LV BO	RMICB SUBSTATIONS WITH E TYPE LV BOARD TX WALL MOUNTED PROTN PANEL WITH OPTICAL AFD STYLE 2 LAYOUT AND LABEL DETAILS DIAGRAM				
	RMICB SUBSTATIONS WITH E TYPE LV BO	ARD TRANSFOR	RMER PROTECTION PANEL STYLE	2 WIRING DIAGRAM	2273	
	RMICB SUBSTATIONS WITH E TYPE LV BO	ARD TRANSFOR	RMER PROTECTION PANEL STYLE	2 CABLE CONNECTION DIAGRAM	2273	
	RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT WALL MOUNTED PROTN PANEL LAYOUT AND LABEL DETAILS DIAGRAM					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD CUSTOMER OVERCURRENT WIRING DIAGRAM					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD OPTICAL ARC FLASH DETECTION INDICATION PANEL SCHEMATIC DRILLING AND WIRING DIAGRAM					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLING DIAGRAM					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLE SCHEDULE					
	RMICB SUBSTATIONS WITH E TYPE LV BOARD SUBURBAN TYPE SUBSTATION WITH 1500kVA TRANSFORMERS SERVICE BOARD GEN. ARRANGEMENT AND WIRING					
	E TYPE LV BOARD MERLIN GERIN MASTERPAC TP AIR CIRCUIT BREAKERS EXTERNAL CONNECTIONS FOR AFD DIST. SUBSTATIONS					
	RMICB SUBSTATIONS WITH E TYPE LV BC	RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION SCADA PANEL WIRING AND CABLING DETAILS				
	E TYPE LV BOARD ACCEPTABLE COMBINATIONS					
	EPOXY RESIN ENCASED PROTECTION CURRENT TRANSFORMER OUTLINE AND DETAILS				1251	
	REFERENCE DRAWINGS				i	
٦		SCALE	NTS			

Ausgri 24 Campbell Street SYDNEY NSW 2000 P: 9272 3805

	12	13			14	15			C&P - DISTRIBUTION			
	UED FOR INSTRUCTION	PROJECT NUMBER	SM-06717		DRAWING No	227350	SHEET	2	AMD	2	SI	
P: 9272 3805		TRIM REF	-		DETECTION							
		DATE	31/05/	31/05/2012								
24 Campbell Street SYDNEY NSW 2000	APPROVED	A.TUR	NER	WITH OPTICAL ARC FLASH								
	CHECKED	B.HAI	NES	WITH E TYPE LV BOARD TRANSFORMER DC SCHEMATIC								
	DRAWN	L.MARTI	INUZZI									
		DESIGNED	-		RMICB SUBSTATIONS					IONS		
		SCALE	NT	S								

