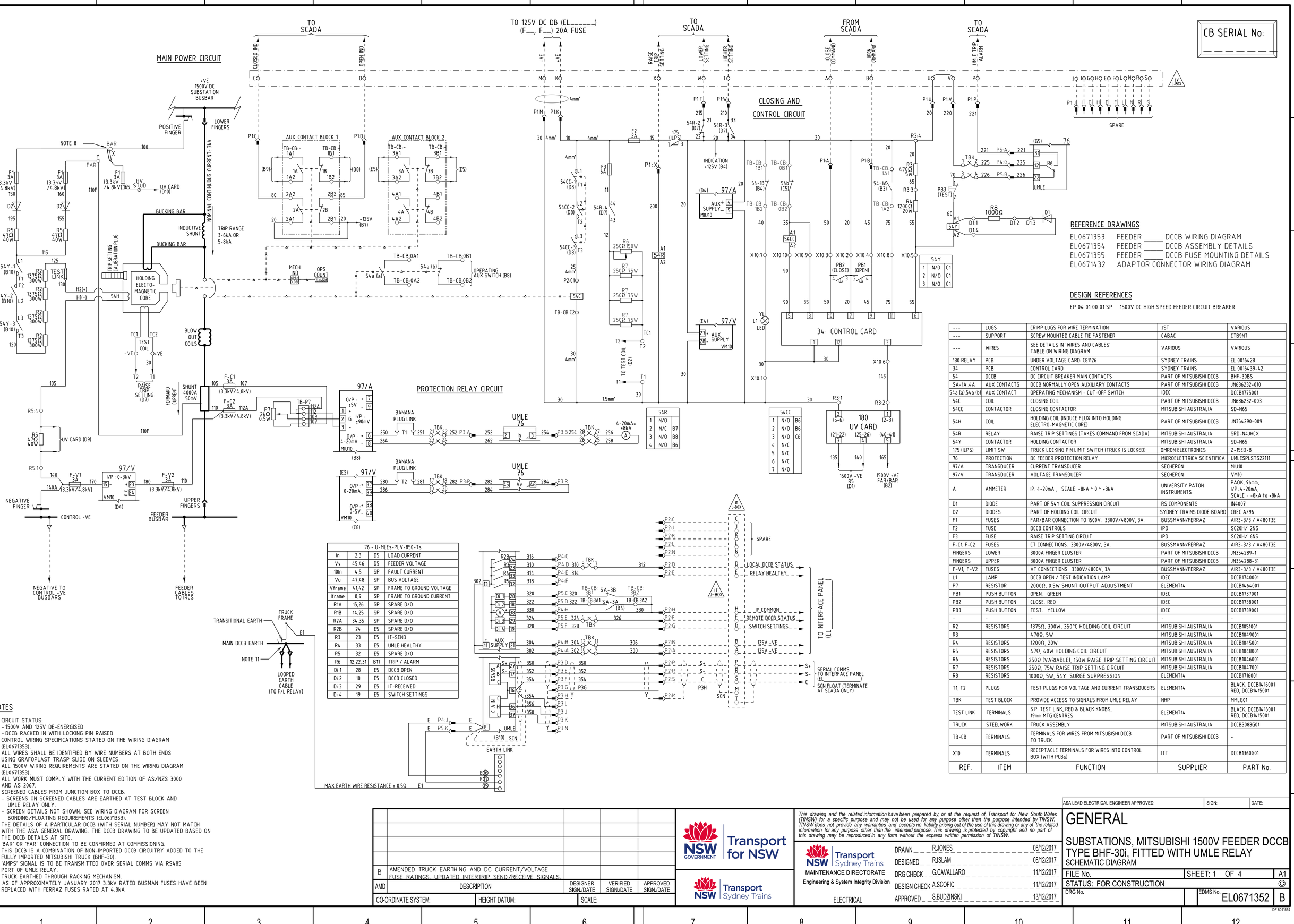

76 - U-MLEs-PLV-850-Ts			
In	2,3	D5	LOAD CURRENT
Vv	45,46	D5	FEEDER VOLTAGE
10In	4,5	SP	FAULT CURRENT
Vu	47,48	SP	BUS VOLTAGE
Vframe	41,42	SP	FRAME TO GROUND VOLTAGE
Iframe	8,9	SP	FRAME TO GROUND CURRENT
R1A	15,26	SP	SPARE D/O
R1B	14,25	SP	SPARE D/O
R2A	34,35	SP	SPARE D/O
R2B	24	E5	SPARE D/O
R3	23	E5	IT-SEND
R4	33	E5	UMLE HEALTHY
R5	32	E5	SPARE D/O
R6	12,22,31	B11	TRIP / ALARM
Di 1	28	E5	DCCB OPEN
Di 2	18	E5	DCCB CLOSED
Di 3	29	E5	IT-RECEIVED
Di 4	19	E5	SWITCH SETTINGS

---	LUGS	CRIMP LUGS FOR WIRE TERMINATION	JST	VARIOUS
---	SUPPORT	SCREW MOUNTED CABLE TIE FASTENER	CABAC	CTB9NT
---	WIRES	SEE DETAILS IN 'WIRES AND CABLES' TABLE ON WIRING DIAGRAM	VARIOUS	VARIOUS
180 RELAY	PCB	UNDER VOLTAGE CARD. C81126	SYDNEY TRAINS	EL 0016428
34	PCB	CONTROL CARD	SYDNEY TRAINS	EL 0016439-42
54	DCCB	DC CIRCUIT BREAKER MAIN CONTACTS	PART OF MITSUBISHI DCCB	BHF-30BS
5A-1A 4A	AUX CONTACTS	DCCB NORMALLY OPEN AUXILIARY CONTACTS	PART OF MITSUBISHI DCCB	JN686232-010
54a (a),54a (b)	AUX CONTACT	OPERATING MECHANISM - CUT-OFF SWITCH	IDEC	DCCB1775001
54C	COIL	CLOSING COIL	PART OF MITSUBISHI DCCB	JN686232-003
54CC	CONTACTOR	CLOSING CONTACTOR	MITSUBISHI AUSTRALIA	SD-N65
54H	COIL	HOLDING COIL (INDUCE FLUX INTO HOLDING ELECTRO-MAGNETIC CORE)	PART OF MITSUBISHI DCCB	JN354290-009
54R	RELAY	RAISE TRIP SETTINGS (TAKES COMMAND FROM SCADA)	MITSUBISHI AUSTRALIA	SRD-N4JHCX
54Y	CONTACTOR	HOLDING CONTACTOR	MITSUBISHI AUSTRALIA	SD-N65
175 (ILPS)	LIMIT SW	TRUCK LOCKING PIN LIMIT SWITCH (TRUCK IS LOCKED)	OMRON ELECTRONICS	Z-15ED-B
76	PROTECTION	DC FEEDER PROTECTION RELAY	MICROELETTRICA SCIENTIFICA	UMLESPLSTS22111
97/A	TRANSDUCER	CURRENT TRANSDUCER	SECHERON	MIU10
97/V	TRANSDUCER	VOLTAGE TRANSDUCER	SECHERON	VM10
A	AMMETER	IP: 4-20mA , SCALE: -8kA ~ 0 ~ +8kA	UNIVERSITY PATON INSTRUMENTS	PAQK, 96mm, I/P:4-20mA, SCALE : -8kA to +8kA
D1	DIODE	PART OF 54Y COIL SUPPRESSION CIRCUIT	RS COMPONENTS	IN4007
D2	DIODES	PART OF HOLDING COIL CIRCUIT	SYDNEY TRAINS DIODE BOARD	CREC A/96
F1	FUSES	FAR/BAR CONNECTION TO 1500V. 3300V/4800V, 3A.	BUSSMANN/FERRAZ	AIR3-3/3 / A480T3E
F2	FUSE	DCCB CONTROLS	IPD	SC20H/ 2NS
F3	FUSE	RAISE TRIP SETTING CIRCUIT	IPD	SC20H/ 6NS
F-C1, F-C2	FUSES	CT CONNECTIONS. 3300V/4800V, 3A.	BUSSMANN/FERRAZ	AIR3-3/3 / A480T3E
FINGERS	LOWER	3000A FINGER CLUSTER	PART OF MITSUBISHI DCCB	JN354289-1
FINGERS	UPPER	3000A FINGER CLUSTER	PART OF MITSUBISHI DCCB	JN354288-31
F-V1, F-V2	FUSES	VT CONNECTIONS. 3300V/4800V, 3A.	BUSSMANN/FERRAZ	AIR3-3/3 / A480T3E
L1	LAMP	DCCB OPEN / TEST INDICATION LAMP	IDEC	DCCB1740001
P7	RESISTOR	2000Ω, 0.5W SHUNT OUTPUT ADJUSTMENT	ELEMENT14	DCCB1464001
PB1	PUSH BUTTON	OPEN. GREEN	IDEC	DCCB1737001
PB2	PUSH BUTTON	CLOSE. RED	IDEC	DCCB1738001
PB3	PUSH BUTTON	TEST. YELLOW	IDEC	DCCB1739001
-	-	-	-	-
R2	RESISTORS	1375Ω, 300W, 350°C HOLDING COIL CIRCUIT	MITSUBISHI AUSTRALIA	DCCB1051001
R3		470Ω, 5W	MITSUBISHI AUSTRALIA	DCCB1049001
R4	RESISTORS	1200Ω, 20W	MITSUBISHI AUSTRALIA	DCCB1045001
R5	RESISTORS	47Ω, 40W HOLDING COIL CIRCUIT	MITSUBISHI AUSTRALIA	DCCB1048001
R6	RESISTORS	250Ω (VARIABLE), 150W RAISE TRIP SETTING CIRCUIT	MITSUBISHI AUSTRALIA	DCCB1046001
R7	RESISTORS	250Ω, 75W RAISE TRIP SETTING CIRCUIT	MITSUBISHI AUSTRALIA	DCCB1047001
R8	RESISTORS	1000Ω, 5W, 54Y SURGE SUPPRESSION	ELEMENT14	DCCB1716001
T1, T2	PLUGS	TEST PLUGS FOR VOLTAGE AND CURRENT TRANSDUCERS	ELEMENT14	BLACK, DCCB1416001 RED, DCCB1415001
TBK	TEST BLOCK	PROVIDE ACCESS TO SIGNALS FROM UMLE RELAY	NHP	MMLG01
TEST LINK	TERMINALS	S.P. TEST LINK, RED & BLACK KNOBS, 19mm MTG CENTRES	ELEMENT14	BLACK, DCCB1416001 RED, DCCB1415001
TRUCK	STEELWORK	TRUCK ASSEMBLY	MITSUBISHI AUSTRALIA	DCCB3088G01
TB-CB	TERMINALS	TERMINALS FOR WIRES FROM MITSUBISHI DCCB TO TRUCK	PART OF MITSUBISHI DCCB	-
X10	TERMINALS	RECEPTACLE TERMINALS FOR WIRES INTO CONTROL BOX (WITH PCBs)	ITT	DCCB1360G01
REF.	ITEM	FUNCTION	SUPPLIER	PART No.

NOTES

1. CIRCUIT STATUS:
   - 1500V AND 125V DE-ENERGISED
   - DCCB RACKED IN WITH LOCKING PIN RAISED
2. CONTROL WIRING SPECIFICATIONS STATED ON THE WIRING DIAGRAM (EL0671353).
3. ALL WIRES SHALL BE IDENTIFIED BY WIRE NUMBERS AT BOTH ENDS USING GRAFOPLAST TRASP SLIDE ON SLEEVES.
4. ALL 1500V WIRING REQUIREMENTS ARE STATED ON THE WIRING DIAGRAM (EL0671353).
5. ALL WORK MUST COMPLY WITH THE CURRENT EDITION OF AS/NZS 3000 AND AS 2067.
6. SCREENED CABLES FROM JUNCTION BOX TO DCCB:
   - SCREENS ON SCREENED CABLES ARE EARTHED AT TEST BLOCK AND UMLE RELAY ONLY.
   - SCREEN DETAILS NOT SHOWN. SEE WIRING DIAGRAM FOR SCREEN BONDING/FLOATING REQUIREMENTS (EL0671353).
7. THE DETAILS OF A PARTICULAR DCCB (WITH SERIAL NUMBER) MAY NOT MATCH WITH THE ASA GENERAL DRAWING. THE DCCB DRAWING TO BE UPDATED BASED ON THE DCCB DETAILS AT SITE.
8. 'BAR' OR 'FAR' CONNECTION TO BE CONFIRMED AT COMMISSIONING.
9. THIS DCCB IS A COMBINATION OF NON-IMPORTED DCCB CIRCUITRY ADDED TO THE FULLY IMPORTED MITSUBISHI TRUCK (BHF-30).
10. 'AMPS' SIGNAL IS TO BE TRANSMITTED OVER SERIAL COMMS VIA RS485 PORT OF UMLE RELAY.
11. TRUCK EARTHED THROUGH RACKING MECHANISM.
12. AS OF APPROXIMATELY JANUARY 2017 3.3kV RATED BUSMAN FUSES HAVE BEEN REPLACED WITH FERRAZ FUSES RATED AT 4.8kA

AMD	DESCRIPTION	DESIGNER SIGN./DATE	VERIFIED SIGN./DATE	APPROVED SIGN./DATE
B	AMENDED TRUCK EARTHING AND DC CURRENT/VOLTAGE FUSE RATINGS. UPDATED INTERTRIP SEND/RECEIVE SIGNALS.			

CO-ORDINATE SYSTEM: | HEIGHT DATUM: | SCALE:

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Transport for NSW | Transport Sydney Trains

MAINTENANCE DIRECTORATE
Engineering & System Integrity Division
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DRG CHECK	G.CAVALLARO	11/12/2017
DESIGN CHECK	A.SCOFIC	11/12/2017
APPROVED	S.BUDZINSKI	13/12/2017

ASA LEAD ELECTRICAL ENGINEER APPROVED: | SIGN: | DATE:

GENERAL

SUBSTATIONS, MITSUBISHI 1500V FEEDER DCCB TYPE BHF-30i, FITTED WITH UMLE RELAY

SCHEMATIC DIAGRAM

FILE No. | SHEET: 1 OF 4 | A1

STATUS: FOR CONSTRUCTION | ©

DRG No. EL0671352 | EDMS No. | B

DF 801*554

ASA STANDARD DRAWING SHEET Ver 2.0

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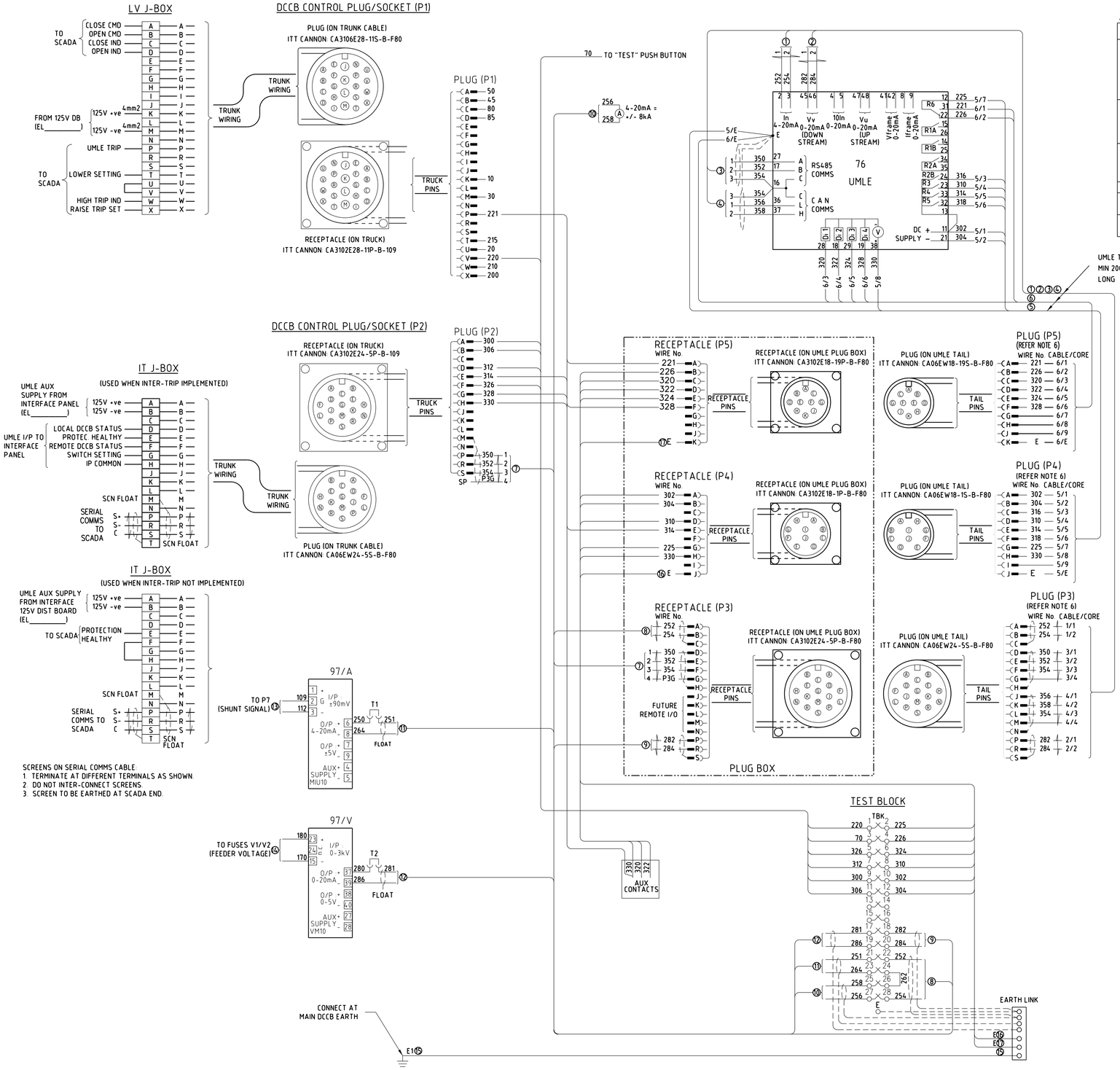
Plotted by: sa_ypp



LUGS

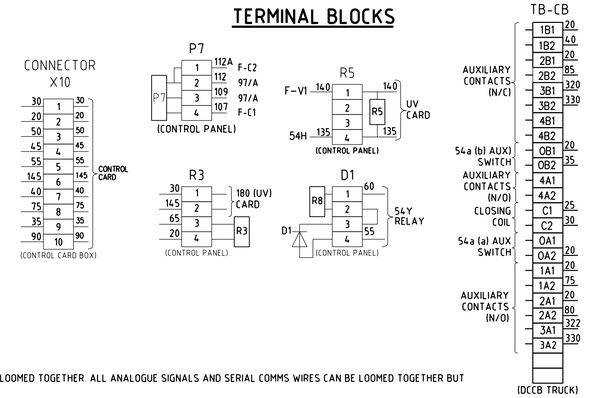
DEVICE	WIRE	LUG	PART NUMBER
76-UMLE	CURRENT SIGNAL (1.5mm²)	PRE-INSULATED, DOUBLE GRIP, RING TERMINAL, RED, 3&4mm STUD	FVDWS1.25-3 FVDWS1.25-M4
	VOLTAGE SIGNAL (1.5mm²) SERIAL COMMS (1.5mm²) EARTH SCREEN (1.5mm²) OTHER WIRES (1.5mm²)	PRE-INSULATED, DOUBLE GRIP, RING TERMINAL, RED, 3.5mm (M3) STUD AND 4mm (M4) STUD	FVDWS1.25-3 FVDWS1.25-3 FVDWS1.25-M4 FVDWS1.25-3
97/A, 97/V TRANSDUCERS	ANALOGUE OUTPUT SIGNAL (1.5mm²)	PRE-INSULATED, DOUBLE GRIP, FLAT BLADE, RED, 2mm WIDE	FVDWS1.25-AF.3B
	INPUT CONNECTIONS TO 1500V (4mm²)	PRE-INSULATED, DOUBLE GRIP, PIN, YELLOW, 3mm WIDE	FVDWSPC-5.5
MMLG TEST BLOCK	CURRENT/VOLTAGE SIGNAL (1.5mm²) SERIAL COMMS (1.5mm²) EARTH (1.5mm²) OTHER WIRES (1.5mm²)	PRE-INSULATED, DOUBLE GRIP, RING TERMINAL, RED, 4mm STUD	FVDWS1.25-M4
CANNON PLUS	ALL	USE CANON CRIMPING TOOL	
SHUNT /1500V CONNECTIONS	HV CONNECTIONS AT SHUNT (4mm²)	PRE-INSULATED, DOUBLE GRIP, RING TERMINAL, YELLOW, 4mm STUD	FVDWS-5.5-5
EARTH	TERMINATION AT TRANSITIONAL EARTH (4mm²)	PRE-INSULATED, DOUBLE GRIP, RING TERMINAL, YELLOW, 6mm STUD	FVDWS-5.5-6

CB SERIAL No: _ _ _ _ _ _ _

WIRES AND CABLES

CABLE	LOCATION	USE	SPECIFICATION	DESCRIPTION	SUPPLIER
No. 1	UMLE TO P3	CT SIGNAL	1 PR, TWISTED, SCRN, 1.5 kV	TYPE 1 MACHINE CABLE (1.4475) 2x1.5mm², BK	BAMBACH
No. 2	UMLE TO P3	VT SIGNAL	1 PR, TWISTED, SCRN, 1.5 kV	TYPE 1 MACHINE CABLE (1.4475) 2x1.5mm², BK	BAMBACH
No. 3	UMLE TO P3	SERIAL COMMS	4 C, SCRN, 1.5kV	TYPE 1 MACHINE CABLE (1.4463) 4x1.5mm², BK	BAMBACH
No. 4	UMLE TO P3	COMMS TO REMOTE I/O BLOCK (FUTURE)	4 C, SCRN, 1.5 kV	TYPE 1 MACHINE CABLE (1.4463) 4x1.5mm², BK	BAMBACH
No. 5	UMLE TO P4	RELAY I/O	11+E, PVC, 450/750V	MULTICORE CIRCULAR, V-90, 450/750V	BAMBACH
No. 6	UMLE TO P5	RELAY I/O	11+E, PVC, 450/750V	MULTICORE CIRCULAR, V-90, 450/750V	BAMBACH
No. 7	P3 TO P2	SERIAL COMMS	4 C, SCRN, 1.5 kV	TYPE 1 MACHINE CABLE (1.4463) 4x1.5mm², BK	BAMBACH
No. 8	P3 TO TBK	CT SIGNAL	1 PR, TWISTED, SCRN, 1.5 kV	TYPE 1 MACHINE CABLE (1.4475) 2x1.5mm², BK	BAMBACH
No. 9	P3 TO TBK	VT SIGNAL	1 PR, TWISTED, SCRN, 1.5 kV	TYPE 1 MACHINE CABLE (1.4475) 2x1.5mm², BK	BAMBACH
No. 10	TBK TO AMMETER	CURRENT	1 PR, TWISTED, SCRN, 1.5 kV	TYPE 1 MACHINE CABLE (1.4475) 2x1.5mm², BK	BAMBACH
No. 11	TBK TO CT	CT SIGNAL	1 PR, TWISTED, SCRN, 1.5 kV	TYPE 1 MACHINE CABLE (1.4475) 2x1.5mm², BK	BAMBACH
No. 12	TBK TO VT	VT SIGNAL	1 PR, TWISTED, SCRN, 1.5 kV	TYPE 1 MACHINE CABLE (1.4475) 2x1.5mm², BK	BAMBACH
WIRE 15	TRANSITIONAL EARTH	EARTH	1C, GREEN/YELLOW	1x4mm².CU, SafeX110 TC SI, 0.6/1kV, GREEN/YELLOW	BAMBACH
WIRE 16 & 17	EARTH BAR	EARTH	1C, GREEN/YELLOW	1x15mm².CU, SafeX110 TC SI, 0.6/1kV, GREEN/YELLOW	BAMBACH
WIRE 10		125V DC +VE	1C, BROWN	1x4mm².CU, SafeX110 TC SI, 0.6/1kV, BROWN	BAMBACH
WIRE 11,15,20		125V DC +VE	1C, BROWN	1x15mm².CU, SafeX110 TC SI, 0.6/1kV, BROWN	BAMBACH
WIRE 30		125V DC -VE	1C, LIGHT BLUE	1x4mm².CU, SafeX110 TC SI, 0.6/1kV, LIGHT BLUE	BAMBACH
WIRE 30	97/V,97A,180 & 34	125V DC -VE	1C, LIGHT BLUE	1x15mm².CU, SafeX110 TC SI, 0.6/1kV, LIGHT BLUE	BAMBACH
WIRE 109,112,170 & 180		1500V DC	1C, BLACK	4GKW-AX 1x4mm²	RADOX (HUBER+SUHNER)
WIRE 20, 300, 302		125V +VE	1C, BROWN	1x15mm².CU, SafeX110 TC SI, 0.6/1kV, BROWN	BAMBACH
WIRE 30, 304, 306		125V +VE	1C, LIGHT BLUE	1x15mm².CU, SafeX110 TC SI, 0.6/1kV, LIGHT BLUE	BAMBACH
OTHER		VARIOUS	1C, GREY, PANEL MID-WIRE	1x15mm².CU, SafeX110 TC SI, 0.6/1kV, GREY	BAMBACH

TERMINAL BLOCKS



TECHNICAL NOTES

1. WIRE LOOMS:
   A. ALL LOW VOLTAGE CABLES AND WIRES CAN BE LOOMED TOGETHER. ALL ANALOGUE SIGNALS AND SERIAL COMMS WIRES CAN BE LOOMED TOGETHER BUT SEPARATED FROM LOW VOLTAGE LOOM.
   B. CABLES CONNECTING 97/A AND 97/V TO 1500V CIRCUIT CAN BE RUN TOGETHER - BUT MUST BE SEPARATED FROM OTHER LV CABLES.
   --- CAN BE RUN WITH OTHER EXISTING HV CABLES CONNECTED TO 1500V.
   C. WIRES IN A LOOM SHALL BE WRAPPED IN SPIRAL WRAP OR SPLIT FLEX CONDUIT
   D. SECURE WIRE LOOMS IN PLACE
   E. FOR CABLES CONNECTED TO 1500V, USE ADDITIONAL RUBBER PROTECTIVE SLEEVE TO PREVENT CABLE TIE RUBBING AGAINST INSULATION.
2. WIRE NUMBERS:
   A. WIRE NUMBERS TO BE INSTALLED AT EACH END OF EACH WIRE
   B. USE PRINTED LABELS - BLACK LETTERS ON WHITE BACKGROUND
   C. TEXT DIRECTION: LEFT-->RIGHT OR BOTTOM-->TOP
3. UMLE RELAY TAIL.
   WIRES CONNECTED TO THE UMLE RELAY WILL BE RUN THROUGH A PLUG/SOCKET AND TAIL ARRANGEMENT. THIS WILL ALLOW FOR QUICK RELAY REPLACEMENT ON SITE.
   A. THE LENGTH OF THE TAIL SHALL BE AT LEAST 2000mm (AFTER TERMINATION OF WIRES AT BOTH ENDS).
   B. THE TAIL IS MADE UP FROM CABLES AS DETAILED IN THE WIRES AND CABLES TABLE.
   C. THE 2 x 11C+E CABLES RUN TO INDIVIDUAL PLUGS.
   D. THE 2 x ANALOGUE SIGNAL CABLES AND THE 2 x SERIAL COMMS CABLES ARE RUN TO ONE PLUG. THESE CABLE ARE SECURED TOGETHER WITH CABLE STRAPS SO THEY KEEP THEIR SHAPE BUT ARE STILL FLEXIBLE.
4. WIRING LOOM FOR LV AND HV WIRES:
   A. WIRING RAIL ACROSS THE TOP OF THE DCCB REAR PANEL ARE FOR LV WIRES ONLY.
   B. HV WIRES ARE TO BE RUN IN THE CAVITY BEHIND AS SHOWN ON THE REAR VIEW HIGH VOLTAGE SEGREGATION.
   C. ALL LV WIRES INCLUDING 125V SUPPLY AND SCADA, ARE TO BE RUN DOWN THE WIRING SUPPORT TO THE LEFT OF THE UMLE RELAY AND DOWN ALONG THE WIRING RAIL.
5. FLOATING SCREENS AT TRANSDUCERS:
   A. DO NOT TERMINATE THE SCREEN (IN ANALOGUE SIGNAL CABLES)
   B. COVER END OF CABLE WITH HEAT SHRINK TO ENSURE SCREEN WIRE IS COVERED.
6. ALL SPARE WIRES HAVE BEEN CUT OFF AT UMLE RELAY END. SPARE WIRES ARE CONNECTED AT PLUGS P3, P4 AND P5 TO RETAIN CABLE LOOM CLAMPING INTEGRITY AT THE PLUG CONNECTOR.

REFERENCE DRAWINGS

EL0671352	FEEDER ___ SCHEMATIC DIAGRAM
EL0671354	FEEDER ___ ASSEMBLY DETAILS
EL0671355	FEEDER ___ FUSE MOUNTING DETAILS
EL0671432	ADAPTOR CONNECTOR WIRING DIAGRAM

AMD	DESCRIPTION	DESIGNER SIGN./DATE	VERIFIED SIGN./DATE	APPROVED SIGN./DATE
B	DCCB EARTH LABEL CHANGED. AMENDED INTERTRIP SEND/RECEIVE SIGNAL			

CO-ORDINATE SYSTEM: | HEIGHT DATUM: | SCALE:

NSW GOVERNMENT Transport for NSW

NSW Transport Sydney Trains

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DESIGN CHECK	A.SKOFIC	11/12/2017
APPROVED	S.BUDZINSKI	13/12/2017

ASA LEAD ELECTRICAL ENGINEER APPROVED: | SIGN: | DATE:

GENERAL

SUBSTATIONS, MITSUBISHI 1500V FEEDER DCCB TYPE BHF-30i, FITTED WITH UMLE RELAY

WIRING DIAGRAM

FILE No. | SHEET: 2 OF 4 | A1

STATUS: FOR CONSTRUCTION | ©

DRG No. | EDMS No. EL0671353 | B

DF 801554

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Plotted by: sa_wpp
ASA STANDARD DRAWING SHEET Ver 2.0

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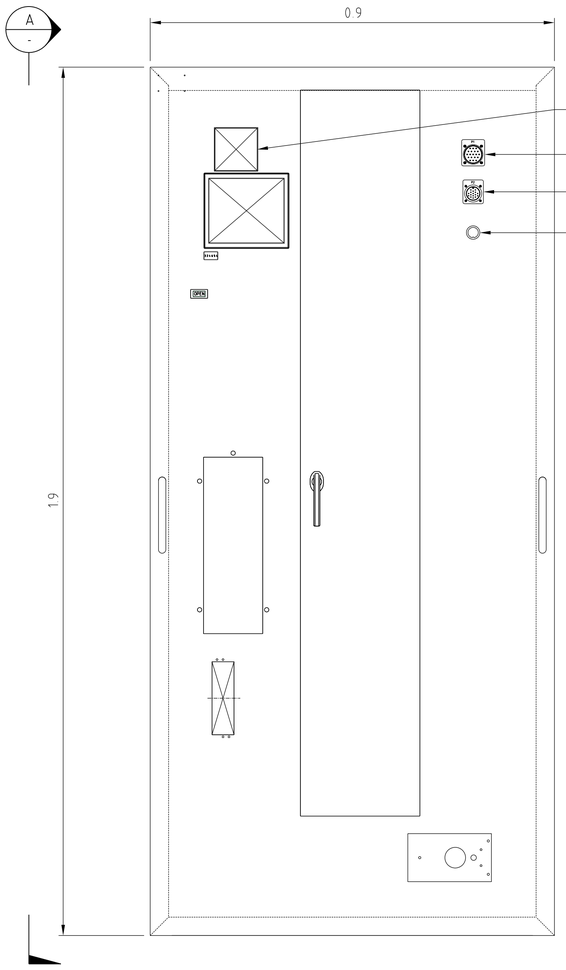
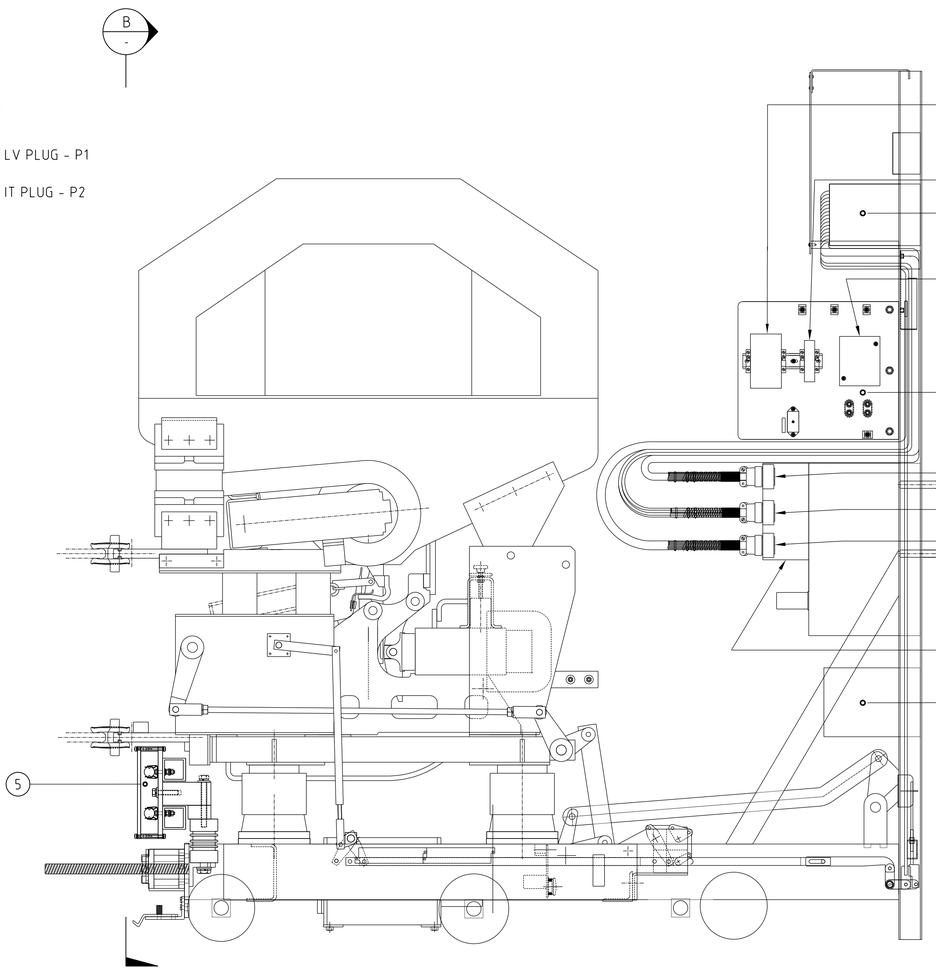
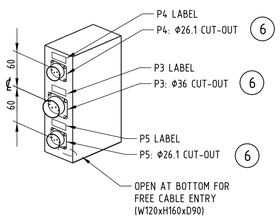


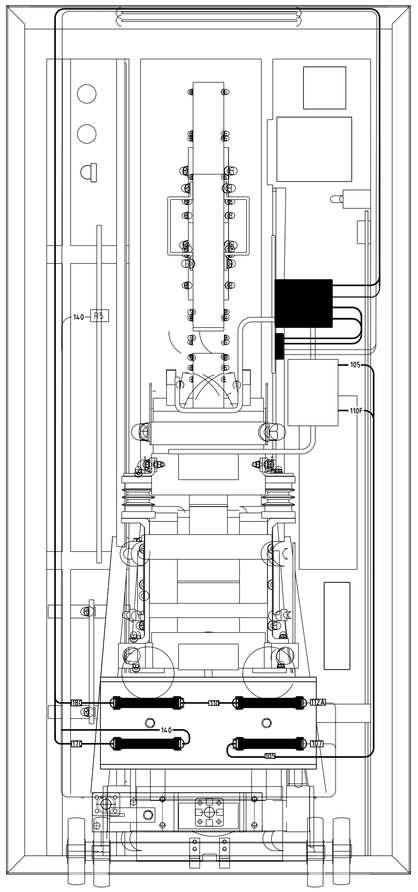
FRONT VIEW
NOT TO SCALE



SIDE VIEW A
NOT TO SCALE

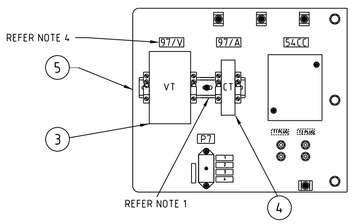


DETAIL 2
NOT TO SCALE



REAR VIEW B
NOT TO SCALE

TRANSDUCER MOUNTING BOARD



DETAIL 1
NOT TO SCALE

ITEM	DESCRIPTION	FUNCTION	SUPPLIER	PART NUMBER	QTY
11	AMMETER	MONITOR DCCB CURRENT	PATON INSTRUMENTS	PAQK, 96mm, 4-20mA	1
10	TEST PUSHBUTTON (YELLOW)	TEST OPERATION OF DCCB	SCHNEIDER	ZB4-BA5 & ZB4-BZ102	1
9	CONTACTOR - 54CC	CONTACTOR TO OPERATE DCCB CLOSING COIL	MITSUBISHI	SD-N65	1
8	TBK (TEST BLOCK)	PROVIDE ACCESS TO SIGNALS FROM UMLE RELAY	NHP	MMLG01	1
7	P1, P2, P3, P4, P5	MULTIPIN CONNECTORS	ITT CANNON	REFER TO EL0671353	-
6	TRANSDUCER BOARD	MOUNTING TRANSDUCERS (350x300x10)	MEA	-	1
5	FUSE PANEL	FUSE MOUNTING BOARD (470x200x10)	MEA	-	1
4	97/A	CURRENT TRANSDUCER	SECHERON	MIU10	1
3	97/V	VOLTAGE TRANSDUCER	SECHERON	VM10 (2kV)	1
2	76	DC FEEDER PROTECTION RELAY	MICROELETTRICA SCIENTIFICA	UMLESPLSTS22111	1
1	ULME PLUG BOX	SUS 304	MEA	-	1

NOTES

1. VT TO BE MOUNTED TO TS 35 DIN RAIL AND MADE SECURE. ENSURE 50mm HORIZONTAL CLEARANCE TO CT.
2. FUSE PANEL IS ASSEMBLED AND SECURED TO DCCB TRUCK VIA STAND-OFF INSULATORS.
3. TIE DOWN BARS ARE TO BE BOLTED AT BOTH ENDS.
4. LABLES TO BE BLACK TEXT ON WHITE TRAFFOLYTE. TEXT TO BE 5mm IN HEIGHT.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
6. ALL WORK MUST COMPLY WITH THE CURRENT EDITION OF AS/NZS 3000 AND AS 2067.
7. WORKING TOLERANCES FOR ALL DIMENSIONS ARE TO BE WITHIN 2mm. WHERE VARIATIONS ARE GREATER THAN THIS, THE DESIGN ENGINEER SHALL BE NOTIFIED AND WILL MAKE THE FINAL DECISION BEFORE THE EQUIPMENT IS PUT INTO SERVICE.

CLEARANCE DISTANCES

A) MINIMUM GAP FROM EXPOSED 1500V DC CONDUCTORS TO METALLIC FRAME SHALL BE 40mm.

REFERENCE DRAWINGS

EL0671352 FEEDER____SCHEMATIC DIAGRAM
EL0671353 FEEDER____WIRING DIAGRAM
EL0671355 FEEDER____FUSE MOUNTING DETAILS
EL0671432 ADAPTOR CONNECTOR WIRING DIAGRAM

AMD	DESCRIPTION	DESIGNER SIGN./DATE	VERIFIED SIGN./DATE	APPROVED SIGN./DATE
B	AMENDED 'ACCEPTANCE BY ASA' FIELD			

CO-ORDINATE SYSTEM: | HEIGHT DATUM: | SCALE:

NSW GOVERNMENT Transport for NSW

NSW Transport Sydney Trains

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NSW Transport Sydney Trains
MAINTENANCE DIRECTORATE
Engineering & System Integrity Division
ELECTRICAL

DRAWN	R.JONES	08/12/2017
DESIGNED	R.ISLAM	08/12/2017
DRG CHECK	G.CAVALLARO	11/12/2017
DESIGN CHECK	A.SKOFIC	11/12/2017
APPROVED	S.BUDZINSKI	13/12/2017

ASA LEAD ELECTRICAL ENGINEER APPROVED: | SIGN: | DATE:

GENERAL

SUBSTATIONS, MITSUBISHI 1500V FEEDER DCCB TYPE BHF-30i, FITTED WITH UMLE RELAY

ASSEMBLY DETAILS

FILE No. | SHEET: 3 OF 4 | A1
STATUS: FOR CONSTRUCTION | ©
DRG No. | EDMS No. EL0671354 | B

DF 801*554

File Plotted RailCAD/Groups\Elec_des\Jobs_2014\EB13085_DC Circuit Breaker Inter-Trip\Drawings\EL_0671354.dgn
Plot Date & Time 15-AUG-2019 16:09
Plotted by sa_vpp

CB SERIAL No:
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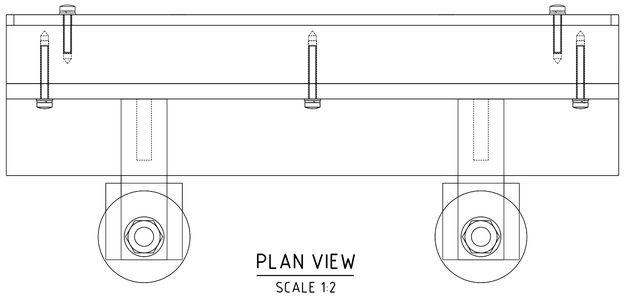
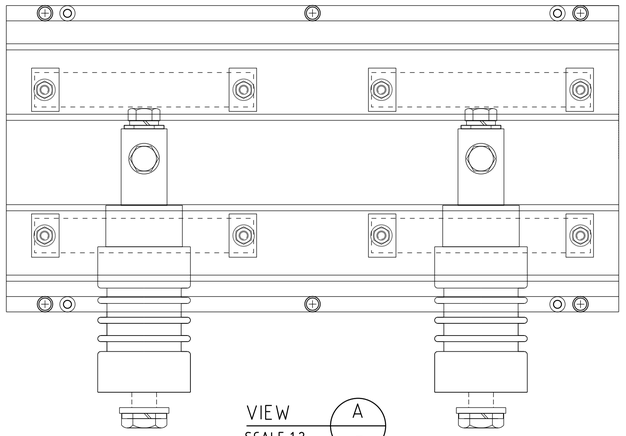
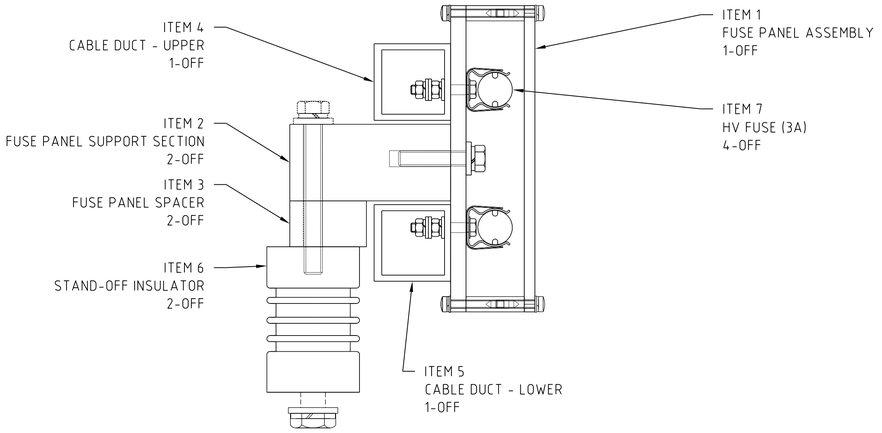


PLAN VIEW
SCALE 1:2

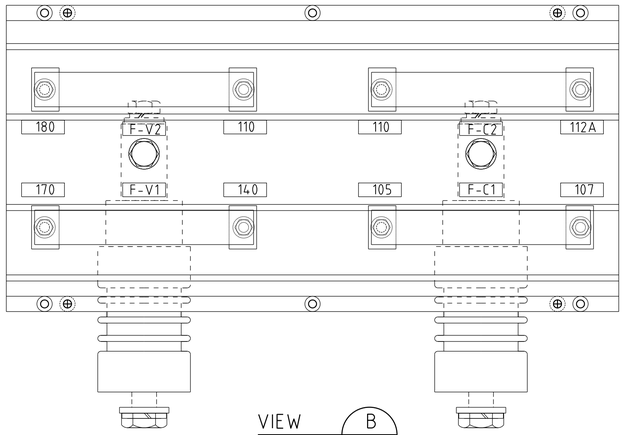


VIEW A
SCALE 1:2

FUSE MOUNTING ASSEMBLY

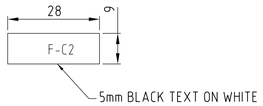


VIEW C
SCALE 1:2



VIEW B
SCALE 1:2

FUSE MOUNTING ASSEMBLY AND LABEL DETAILS



TYPICAL LABEL

NOTES
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. SECURE ITEM 1 USING SELF TAPPING SCREWS AS NEEDED.

MATERIALS

ITEM	FUNCTION	MATERIAL	QTY
1	FUSE PANEL (W400xH200xTHK10)	POM DELRIN	1
2	FUSE PANEL SUPPORT (W30xH50xD105)	POM DELRIN	2
3	FUSE PANEL SPECER (W50xH30xD50)	POM DELRIN	2
4	CABLE DUCT (UPPER) (W50xH50xL400)	IBOCO/MEA	1
5	CABLE DUCT (LOWER) (W50xH50xL400)	IBOCO/MEA	1
6	STAND-OFF INSULATOR	HC EPOXY RESIN	2
7	HV FUSE ASSEMBLY (WITH MOUNTING CLIPS AND 3A FUSE)	MEA/element14	4

REFERENCE DRAWINGS
EL0671352 FEEDER____SCHEMATIC DIAGRAM
EL0671353 FEEDER____WIRING DIAGRAM
EL0671354 FEEDER____ASSEMBLY DETAILS

0 20 40 60 80 100 200
MILLIMETRES 1 TO 2

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