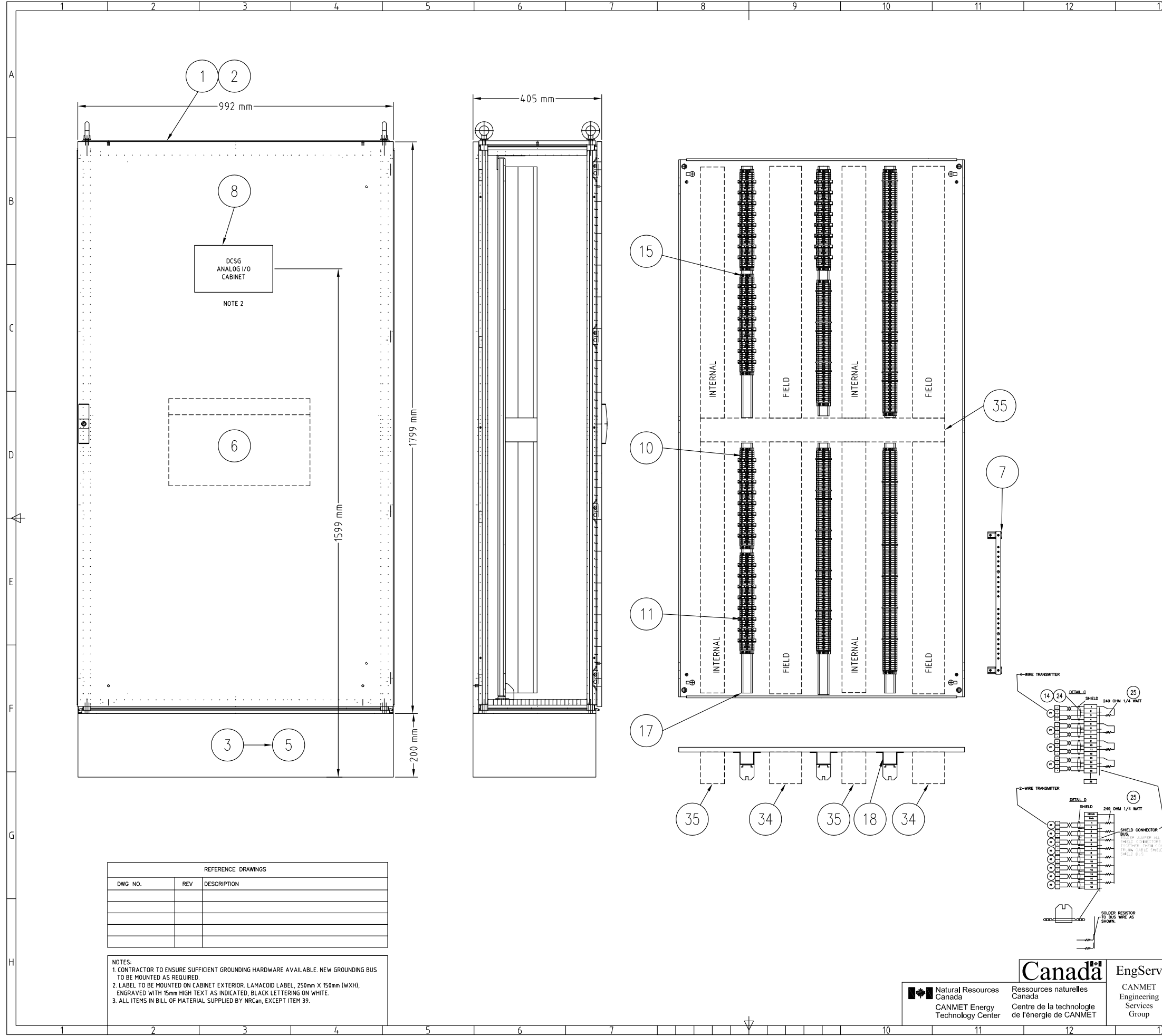


RevNo	Revision note	Date	Signature	Checked
X	X			



ITEM	QTY	MFR	DESCRIPTION	PART NO.
1	1	RITTAL	ENCLOSURE, 997mm X 1805mm X 405mm (W X H X D), SINGLE DOOR C/W REAR DETACHABLE PANEL, MOUNT PLATE	8084.500
2	1	RITTAL	TS SIDE PANELS, 1800 X 400mm, PACKAGE OF 2	8184.235
3	1	RITTAL	FLEX-BLOCK CORNER PIECES BASE/PLINTH SYSTEM, FIBREGLASS-REINFORCED PLASTIC	8200.000
4	1	RITTAL	FLEX-BLOCK TRIM PANELS, FOR 1000mm X 200mm (D X H), SOLID	8200.010
5	1	RITTAL	FLEX-BLOCK TRIM PANELS, FOR 400mm X 200mm (D X H), SOLID	8200.400
6	1	RITTAL	"SHEET STEEL WIRING PLAN POCKETS, 855mm X 210mm (W X H), 90mm DEEP"	4124.000
7	1	RITTAL	GROUND BUS, COPPER, 20 GROUNDING CLIPS, 2 ISOLATORS	7113.000
8			LAMACOID LABEL, 250mm X 150mm (W X H), ENGRAVED WITH 15mm HIGH TEXT AS INDICATED, BLACK LETTERING ON WHITE	
9				
10	572	ENTRELEC	STANDARD TERMINAL BLOCK, M 4/6, WITH TEST 2mm TEST SOCKET	115 217.14
11	40	ENTRELEC	FUSED TERMINAL BLOCKM4/8.SF	115 657.25
12		ENTRELEC	TERMINAL BLOCKS, M 6/8	115 118.11
13	8	ENTRELEC	END SECTION, M4/6	118 368.16
14	40	ENTRELEC	END SECTION, M4/8.SF	116 951.15
15	18	ENTRELEC	END STOP (ALL RAILS)	206 351.16
16	31	ENTRELEC	SEPARATOR END SECTION, RAIL MOUNT, SCF6	118 707.03
17	4.8m	ENTRELEC	ASSEMBLY RAIL, PR30 (TS 35/F6), DIN 3, 35mm, 2 meter	173 220.05
18	12	ENTRELEC	RAIL OFFSET MTG BRACKET, TS0441-SM6 40mm HIGH	101 655.06
19		ENTRELEC	RAIL OFFSET MTG BRACKET, TS0441-SM6 20mm HIGH	101 653.04
20		ENTRELEC	COMB-TYPE JUMPER BAR, PC6, 10 POLE, 35A, (M 4/6)	113 548.26
21		ENTRELEC	COMB-TYPE JUMPER BAR, PC81, 10 POLE, 35A, (M 4/8.SF)	173 523.11
22		ENTRELEC	COMB-TYPE JUMPER BAR, PC81, 10 POLE, 50A, (M 6/8)	163 313.24
23	208	ENTRELEC	SHIELD CONNECTOR, CBM5, PKG OF 10	178 745.14
24	24	ENTRELEC	SM6 MTG BRACKET SCREWS	101 659.12
25		ENTRELEC	TERMINAL BLOCK BLANK MARKING TAGS, 6m SPACING, 10X10 PER CARD, VERTICAL PRINTED NUMBER RANGE (SEE ATTACHMENT FOR CUSTOM LABELS)	233 000.01
26		ENTRELEC	HORIZONTAL MARKER HOLDER, ATTACHED ACROSS END-STOP, PKG OF 10	163 211.26
27		ENTRELEC	CARD WITH 120 BLANK PRE-CUT MARKERS FOR PEH, AMS 500 COMPATIBLE	163 007.26
28		ENTRELEC	FUSES 5 X 20mm, 250V, 0.5A, OR EQUAL	008 288.15
29		ENTRELEC	FUSES 5 X 20mm, 250V, 1A, OR EQUAL	008 290.13
30	40	ENTRELEC	FUSES 5 X 20mm, 250V, 2A, OR EQUAL	008 291.00
31		ENTRELEC	FUSES 5 X 20mm, 250V, 3A, OR EQUAL	008 289.16
32		ENTRELEC	FUSES 5 X 20mm, 250V, 5A, OR EQUAL	008 292.01
33				
34	3.2m	IBICO	WIRE DUCT, 4.0 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-4040G
35	3.9m	IBICO	WIRE DUCT, 3.0 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-3040G
36	.0m	IBICO	WIRE DUCT, 2.25 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-2240G
37	.0m	IBICO	WIRE DUCT, 1.5 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-1540G
38	.0m	IBICO	WIRE DUCT, 1.0 x 4.0 IN., 8/PK, GRY, SLOTTED, 2M, WITH COVER	T1-1040G
39				
40	160	RESISTOR	249 OHM, 1/2 WATT	
41	160	FASTON	AMP, PIDG FASTON TERMINALS RECEPTACLE, OR EQUAL	8-61060-1
42				

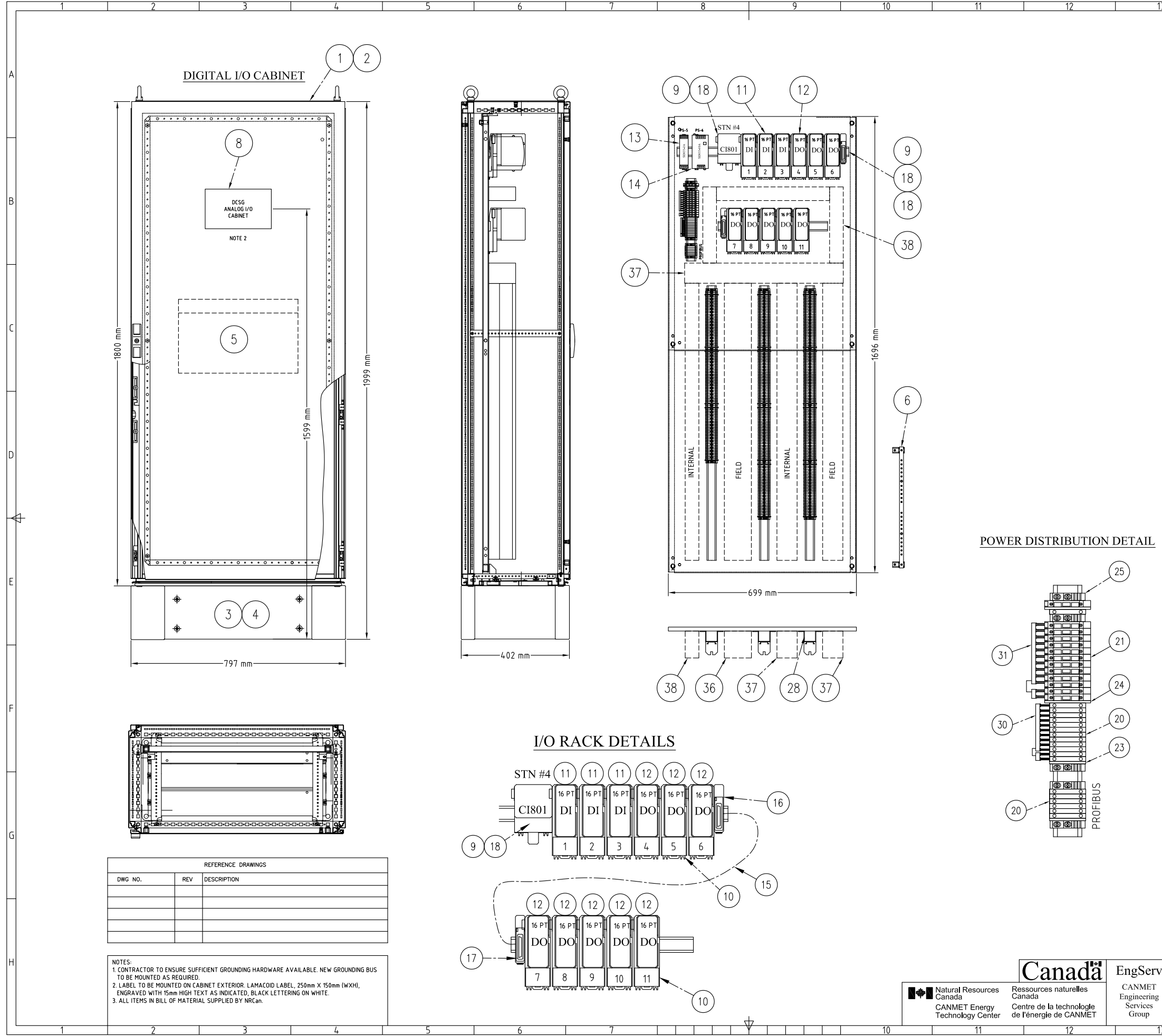
REFERENCE DRAWINGS		
DWG NO.	REV	DESCRIPTION

NOTES:  
1. CONTRACTOR TO ENSURE SUFFICIENT GROUNDING HARDWARE AVAILABLE. NEW GROUNDING BUS TO BE MOUNTED AS REQUIRED.  
2. LABEL TO BE MOUNTED ON CABINET EXTERIOR. LAMACOID LABEL, 250mm X 150mm (WXH), ENGRAVED WITH 15mm HIGH TEXT AS INDICATED, BLACK LETTERING ON WHITE.  
3. ALL ITEMS IN BILL OF MATERIAL SUPPLIED BY NRCAN, EXCEPT ITEM 39.

Natural Resources Canada / Ressources naturelles Canada  
CANMET Energy Technology Center / Centre de la technologie de l'énergie de CANMET

Itemref	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference
Designed by S. BETHUNE	Checked by S. BETHUNE	Approved by - date	File name 4/01617XXX
NRCAN-CFF, DCSG		ANALOG IO CABINET ASSY	
D-401617-XXX		Edition 0	Sheet 1/1

RevNo	Revision note	Date	Signature	Checked
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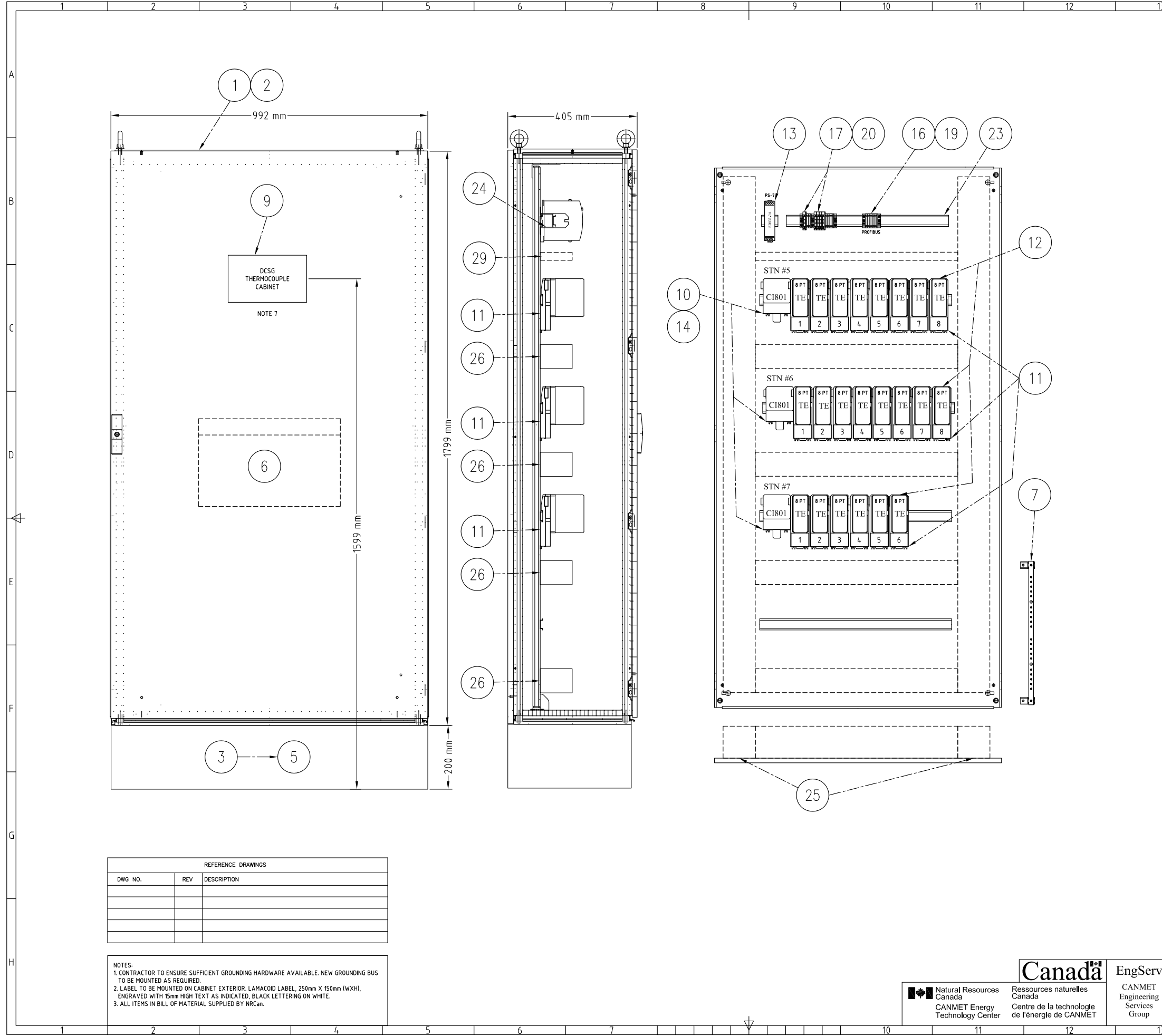
ITEM	QTY	MFR	DESCRIPTION	PART NO.
1	1	RITTAL	TS8, ENCLOSURE, 797mm X 1805mm X 405mm (W X H X D), SINGLE DOOR C/W REAR DETACHABLE PANEL, MOUNT PLATE	8884.500
2	1	RITTAL	TS SIDE PANELS, 1800 X 400mm, PACKAGE OF 2	8184.235
3	1	RITTAL	PLINTH FRONT & REAR PANELS, 800mm X 200mm (D X H), SOLID	8602.800
4	1	RITTAL	PLINTH SIDE PANELS, 400mm X 200mm (D X H), SOLID	8602.040
5	1	RITTAL	PRINT POCKET, STEEL	4118.000
6	1	RITTAL	GROUND BUS, COPPER, 20 GROUNDING CLIPS, 2 ISOLATORS	7113.000
7				
8	1		LAMACOID LABEL, 250mm X 150mm (W X H), ENGRAVED WITH 15mm HIGH TEXT AS INDICATED, BLACK LETTERING ON WHITE	
9	1	ABB	CI801?EA PROFIBUS DP?V1 COMMUNICATION INTERFACE INCLUDING: 1 PCE POWER SUPPLY CONNECTOR 1 PCE TB807 MODULEBUS TERMINATOR	3BSE022366R2
10	11.000000	ABB	TU810V1 COMPACT MODULE TERMINATION UNIT, MTU, 50V 2X8 SIGNAL TERMINALS, RATED ISOL. 50V	3BSE013230R1
11	3	ABB	DI810?EA DIGITAL INPUT 24V D.C. 2X8 CH. RATED ISOLATION 50V.	3BSE008508R2
12	8	ABB	DO810?EA DIGITAL OUTPUT 24 V D.C. 2X8 CH 0.5A	3BSE008510R2
13	1	ABB	SD831 POWER SUPPLY DEVICE, INPUT A.C. 100?240 V OR D.C. 110?300 V. OUTPUT D.C. 24 V 3A.	3BSC610064R1
14	1	ABB	SD833 POWER SUPPLY DEVICE, INPUT A.C. 100?120/200?240 V, AUTO?SELECT INPUT. OUTPUT D.C. 24 V 10A	3BSC610066R1
15	1	ABB	TK801V012 CABLE. MODULEBUS EXTENSION SHIELDED CABLE 1.2M D?SUB 25, MALE?FEMALE.	3BSC950089R3
16	1	ABB	"TB805 BUS OUTLET MODULEBUS EXTENSION CABLE ADAPTOR D?SUB 25, FEMALE"	3BSE008534R1
17	1	ABB	"TB806 BUS INLET MODULEBUS EXTENSION CABLE ADAPTOR D?SUB 25, MALE"	3BSE008536R1
18	1	EASYCONN	PBR PROFIBUS CONNECTOR, 90 DEG (PA003135)	VIPA972-0DPO1
19				
20	392	ENTRELEC	STANDARD TERMINAL BLOCK, M 4/6, WITH TEST 2mm TEST SOCKET	115 217.14
21	13	ENTRELEC	FUSED TERMINAL BLOCKM4/8.SF	115 657.25
22		ENTRELEC	TERMINAL BLOCKS, M 6/8	115 118.11
23	3	ENTRELEC	END SECTION, M4/6	118 368.16
24		ENTRELEC	END SECTION, M4/8.SF	116 951.15
25	11	ENTRELEC	END STOP (ALL RAILS)	206 351.16
26	19	ENTRELEC	SEPARATOR END SECTION, RAIL MOUNT, SCF6	118 707.03
27	4.5m	ENTRELEC	ASSEMBLY RAIL, PR30 (TS 35/F6), DIN 3, 35mm, 2 meter	173 220.05
28	9	ENTRELEC	RAIL OFFSET MTG BRACKET, TS0441-SM6 40mm HIGH	010165506
29		ENTRELEC	RAIL OFFSET MTG BRACKET, TS0441-SM6 20mm HIGH	0101653.04
30	2	ENTRELEC	COMB-TYPE JUMPER BAR, PC6, 10 POLE, 35A, (M 4/6)	113 548.26
31	2	ENTRELEC	COMB-TYPE JUMPER BAR, PC81, 10 POLE, 35A, (M 4/8.SF)	173 523.11
32		ENTRELEC	COMB-TYPE JUMPER BAR, PC81, 10 POLE, 50A, (M 6/8)	163 313.24
33		ENTRELEC	SHIELD CONNECTOR, CBM5, PKG OF 10	178 745.14
34	18	ENTRELEC	SM6 MTG BRACKET SCREWS	101 659.12
35				
36	1.03m	IBICO	WIRE DUCT, 4.0 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-4040G
37	2.66m	IBICO	WIRE DUCT, 3.0 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-3040G
38	1.98m	IBICO	WIRE DUCT, 2.25 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-2240G
39	.0m	IBICO	WIRE DUCT, 1.5 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-1540G
40	.0m	IBICO	WIRE DUCT, 1.0 x 4.0 IN., 8/PK, GRY, SLOTTED, 2M, WITH COVER	T1-1040G
41				
42				

REFERENCE DRAWINGS		
DWG NO.	REV	DESCRIPTION

NOTES:  
 1. CONTRACTOR TO ENSURE SUFFICIENT GROUNDING HARDWARE AVAILABLE. NEW GROUNDING BUS TO BE MOUNTED AS REQUIRED.  
 2. LABEL TO BE MOUNTED ON CABINET EXTERIOR. LAMACOID LABEL, 250mm X 150mm (WXH), ENGRAVED WITH 15mm HIGH TEXT AS INDICATED, BLACK LETTERING ON WHITE.  
 3. ALL ITEMS IN BILL OF MATERIAL SUPPLIED BY NRCAN.

 Natural Resources Canada Ressources naturelles Canada Centre de la technologie de l'énergie de CANMET	 CANMET Engineering Services Group	Itemref	Quantity	Title/Name, designation, material, dimension etc	Article No./Reference	
		Designed by S. BETHUNE	Checked by S. BETHUNE	Approved by - date	Filename 4.01617XXX	Date 12 MAY 2015
NRCAN-CFF, DCSG				DIGITAL IO CABINET ASSY		
				D-4.01617-XXX	Edition 0	Sheet 1/1

RevNo	Revision note	Date	Signature	Checked
x	x			



ITEM	QTY	MFR	DESCRIPTION	PART NO.
1	1	RITTAL	ENCLOSURE, 997mm X 1805mm X 405mm (W X H X D), SINGLE DOOR C/W REAR DETACHABLE PANEL, MOUNT PLATE	8084.500
2	1	RITTAL	TS SIDE PANELS, 1800 X 400mm, PACKAGE OF 2	8184.235
3	1	RITTAL	FLEX-BLOCK CORNER PIECES BASE/PLINTH SYSTEM, FIBREGLASS-REINFORCED PLASTIC	8200.000
4	1	RITTAL	FLEX-BLOCK TRIM PANELS, FOR 1000mm X 200mm (D X H), SOLID	8200.010
5	1	RITTAL	FLEX-BLOCK TRIM PANELS, FOR 400mm X 200mm (D X H), SOLID	8200.400
6	1	RITTAL	"SHEET STEEL WIRING PLAN POCKETS, 855mm X 210mm (W X H), 90mm DEEP"	4124.000
7	1	RITTAL	GROUND BUS, COPPER, 20 GROUNDING CLIPS, 2 ISOLATORS	7113.000
8				
9	1		LAMACOID LABEL, 250mm X 150mm (W X H), ENGRAVED WITH 15mm HIGH TEXT AS INDICATED, BLACK LETTERING ON WHITE	
10	3	ABB	"CI801?EA PROFIBUS DP?V1 COMMUNICATION INTERFACE INCLUDING: 1 PCE POWER SUPPLY CONNECTOR 1 PCE TB807 MODULEBUS TERMINATOR"	EBSE022366R2
11	22	ABB	"TU810V1 COMPACT MODULE TERMINATOR ON UNIT, MTU, 50V 2X8 SIGNAL TERMINALS, RATED ISOL. 50V"	EBSE013230R1
12	22	ABB	"AI835A?EA ANALOG INPUT 8 CH. THERMOCOUPLE/MV RATED ISOL. 50V"	EBSE051306R2
13	1	ABB	"SD831 POWER SUPPLY DEVICE, G2 COMPLIANT INPUT A.C. 100?240 V OR D.C. 110?300 V. OUTPUT D.C. 24 V 3A."	EBSC610064R1
14	3	EASYCONN	PBR PROFIBUS CONNECTOR, 90 DEG (PA003135)	VIPA972-0DP01
15				
16	12	ENTRELEC	STANDARD TERMINAL BLOCK, M 4/6, WITH TEST 2mm TEST SOCKET	115 217.14
17	5	ENTRELEC	FUSED TERMINAL BLOCKM4/8.SF	115 657.25
18	0	ENTRELEC	TERMINAL BLOCKS, M 6/8	115 118.11
19	3	ENTRELEC	END SECTION, M4/6	118 368.16
20	2	ENTRELEC	END SECTION, M4/8.SF	116 951.15
21	5	ENTRELEC	END STOP (ALL RAILS)	206 351.16
22	0	ENTRELEC	SEPARATOR END SECTION, RAIL MOUNT, SCF6	118 707.03
23	3.0m	ENTRELEC	ASSEMBLY RAIL, PR30 (TS 35/F6), DIN 3, 35mm, 2 meter	173 220.05
24	10	ENTRELEC	RAIL OFFSET MTG BRACKET, TS0441-SM6 40mm HIGH	101 655.06
25				
26	3.2m	IBICO	WIRE DUCT, 4.0 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-4040G
27	1.9m	IBICO	WIRE DUCT, 3.0 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-3040G
28	.0m	IBICO	WIRE DUCT, 2.25 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-2240G
29	.0m	IBICO	WIRE DUCT, 1.5 x 4.0 IN., 4/PK, GRY, SLOTTED, 2M, WITH COVER	T1-1540G
30	1.6m	IBICO	WIRE DUCT, 1.0 x 4.0 IN., 8/PK, GRY, SLOTTED, 2M, WITH COVER	T1-1040G
31				
32				

REFERENCE DRAWINGS		
DWG NO.	REV	DESCRIPTION

NOTES:  
1. CONTRACTOR TO ENSURE SUFFICIENT GROUNDING HARDWARE AVAILABLE. NEW GROUNDING BUS TO BE MOUNTED AS REQUIRED.  
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3. ALL ITEMS IN BILL OF MATERIAL SUPPLIED BY NRCan.

 Natural Resources Canada Ressources naturelles Canada Centre de la technologie de l'énergie de CANMET	 CANMET Engineering Services Group	Itemref	Quantity	Title/Name, designation, material, dimension etc		Article No./Reference	
		Designed by S. BETHUNE	Checked by S. BETHUNE	Approved by - date	Filename 401617XXX	Date 12 MAY 2015	Scale
NRCan-CFF, DCSG				THERMOCOUPLE IO CAB. ASSY.			
				D-401617-XXX		Edition 0	Sheet 1/1