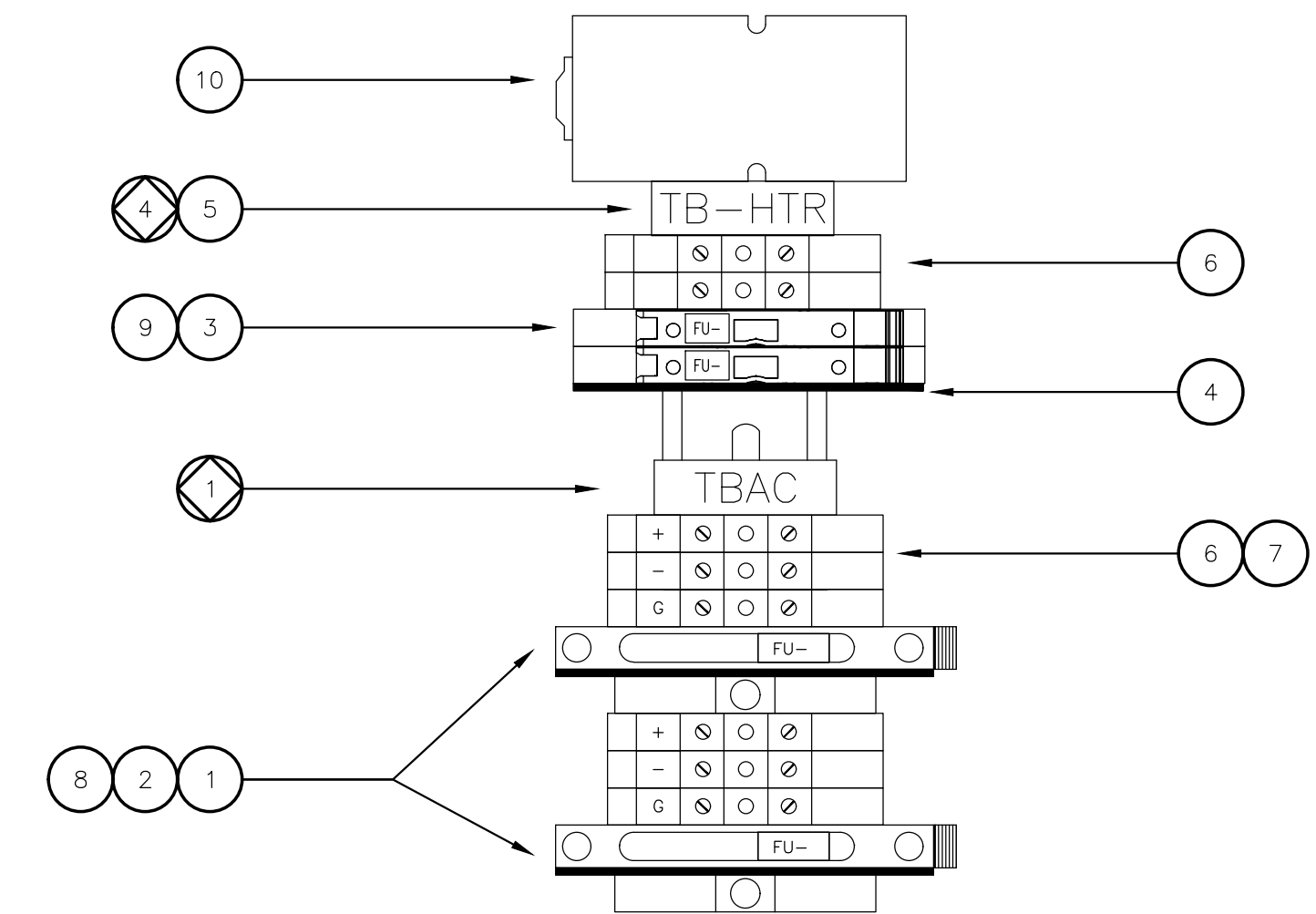


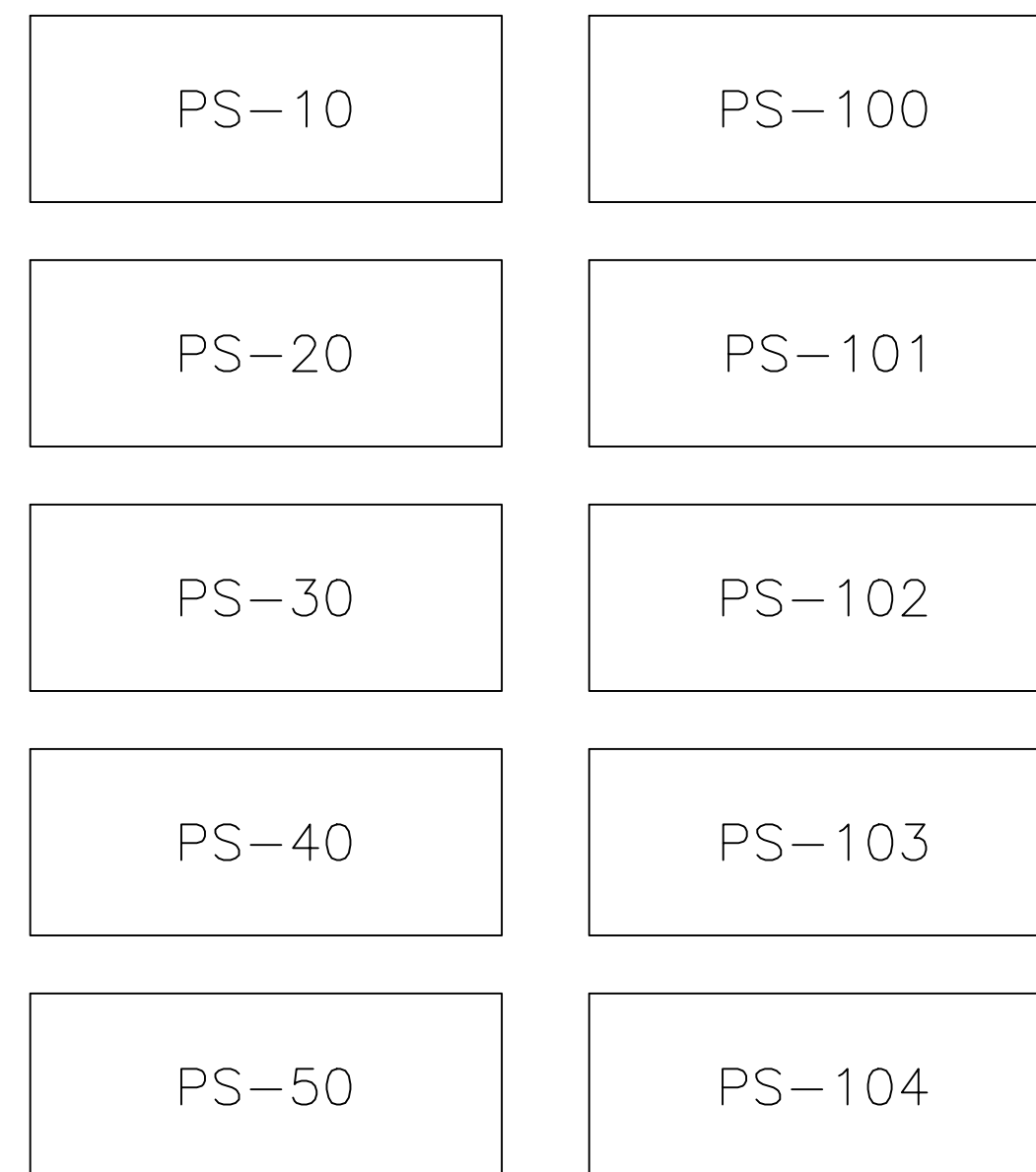
POWER SUPPLY PANEL BILL OF MATERIAL					
ITEM NO.	QTY	DESCRIPTION	VENDOR	PART NUMBER	SUPPLIED BY
1	1	CONCEPT WALL MOUNTED ENCLOSURE	HOFFMAN	CSD363012SS	PANEL SHOP
2	1	BACK PANEL	HOFFMAN	CP3630	PANEL SHOP
3	1	ENCLOSURE MOUNTING BRACKET	HOFFMAN	CMFKSS	PANEL SHOP
4	2	POWER SUPPLY, QUINT4-PS/1AC/24DC/40, 40A	PHOENIX CONTACT	2904603	PANEL SHOP
5	1	DIODE, QUINT4-DIODE/12-24DC/2X40/1X80	PHOENIX CONTACT	2902879	PANEL SHOP
6	40	2-LEVEL TERMINAL BLOCK W/ FEED THRU CIRCUIT AND HINGED ARM CIRCUIT	ALLEN-BRADLEY	1492-JD3FB	PANEL SHOP
7	2	END BARRIER FOR TWO-LEVEL TERMINAL	ALLEN-BRADLEY	1492-EBJD3FB	PANEL SHOP
8	6	END ANCHOR	ALLEN-BRADLEY	1492-EAJ35	PANEL SHOP
9	2	GROUP MARKER	ALLEN-BRADLEY	1492-GM35	PANEL SHOP
10	3	5x20mm CERAMIC FUSE, 15A	BUSSMAN	S505-15-R	PANEL SHOP
11	5	5x20mm CERAMIC FUSE, 5A	BUSSMAN	S505-5-R	PANEL SHOP
12	12	5x20mm CERAMIC FUSE, 2A	BUSSMAN	S505-2-R	PANEL SHOP
13	20	5x20mm CERAMIC FUSE, 1A	BUSSMAN	S505-2-R	PANEL SHOP
14	A/R	35mm x 7.5mm x 57.4mm DIN RAIL	ALLEN-BRADLEY	1492-DR1	PANEL SHOP
15	A/R	2" x 4" WIREWAY LIGHT GREY W/ COVER	PANDUIT	G2X4LG6	PANEL SHOP
16	A/R	1" x 4" WIREWAY LIGHT GREY W/ COVER	PANDUIT	G1X4LG6	PANEL SHOP
17	A/R	2" x 4" WIREWAY WHITE W/ COVER	PANDUIT	G2X4WH6	PANEL SHOP
18	A/R	1" x 4" WIREWAY WHITE W/ COVER	PANDUIT	G1X4WH6	PANEL SHOP
19	1	ISOLATED GROUND BAR ASSEMBLY	DWG#	L1901-NPDC-ELE-DWG-00002	PANEL SHOP
20	1	EQUIPMENT GROUND BAR ASSEMBLY	DWG#	L1901-NPDC-ELE-DWG-00002	PANEL SHOP
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

WIRING ASSEMBLY BILL OF MATERIAL					
ITEM NO.	QTY	DESCRIPTION	VENDOR	PART NUMBER	SUPPLIED BY
1	2	SINGLE CIRCUIT TERMINAL BLOCK	ALLEN-BRADLEY	1492-H6	PANEL SHOP
2	2	END BARRIER FOR 1492-H6	ALLEN-BRADLEY	1492-N37	PANEL SHOP
3	2	2-LEVEL TERMINAL BLOCK W/ FEED THRU CIRCUIT AND HINGED ARM CIRCUIT	ALLEN-BRADLEY	1492-JD3FB	PANEL SHOP
4	1	END BARRIER FOR TWO-LEVEL TERMINAL	ALLEN-BRADLEY	1492-EBJD3FB	PANEL SHOP
5	2	GROUP MARKER	ALLEN-BRADLEY	1492-GM35	PANEL SHOP
6	6	FEED-THROUGH TERMINAL, #22...#8AWG	ALLEN-BRADLEY	1492-J6	PANEL SHOP
7	2	FEED-THROUGH TERMINAL, #22...#8AWG, GREEN	ALLEN-BRADLEY	1492-J6-G	PANEL SHOP
8	2	1/4"x1 1/4" CERAMIC FUSE, 12A, TIME DELAY	BUSSMAN	MDA-12-R	PANEL SHOP
9	2	5x20mm CERAMIC FUSE, 5A	BUSSMAN	S505-5-R	PANEL SHOP
10	1	750H HERMETICALLY SEALED RELAY, DPDT	MAGNECRAFT	750XBXH-24D	PANEL SHOP



LAMICOID NAMEPLATE SCHEDULE				
ITEM NO.	FIRST LINE	SECOND LINE	THIRD LINE	SUPPLIED BY
1	POWER SUPPLY	PANEL	PS-XX	PANEL SHOP
2	IGB			PANEL SHOP
3	EGB			PANEL SHOP
4	PS-10A			PANEL SHOP
5	PS-10B			PANEL SHOP
6				
7				
8				
9				
10				

TYPICAL LAYOUT FOR THESE POWER SUPPLY PANELS



TB NAMEPLATE SCHEDULE				
ITEM NO.	FIRST LINE	SECOND LINE	THIRD LINE	SUPPLIED BY
1	TBAC			PANEL SHOP
2	TBDC			PANEL SHOP
3	TBDC			PANEL SHOP
4	TB-HTR			PANEL SHOP
5				
6				
7				
8				
9				
10				

NAMEPLATE SIZES		
	SIZE	LETTERING
USE 1/16" LAMINATED PLASTIC WITH WHITE CORE FOR LETTERING AND BLACK BACKGROUND.		
RELAYS, TIMERS, FUSES, TRANSFORMERS	1/2"x1-1/2"	3/16"
PUSHBUTTONS, PILOT LIGHTS, SELECTOR SWITCHES	9/16"x2-3/8"	1/8"
CONTROL PANELS & IJB's	2"x5"	3/8"

THIS DRAWING AND OTHER RELATED DOCUMENTS, IS A PROPERTY OF LONEB. IT SHALL ONLY BE USED FOR PURPOSES AUTHORIZED IN WRITING BY THE MANAGEMENT. ATTEMPTS OF COPYING, MODIFYING, STORING OR TRANSMITTING IN ANY FORM OR BY ANY MEANS (MECHANICAL, ELECTRONIC OR OTHERWISE) WITHOUT PRIOR AGREEMENT WITH LONEB IS HIGHLY PROHIBITED.	REF DWG. NO.	DESCRIPTION	REV	DESCRIPTION	DATE	BY	CHKD	LTES APV	LONEB APV	NPDC NWD APV
			B	ISSUED FOR APPROVAL	12/23/20	JB	SRB	SCP		
			A	ISSUED FOR BID	12/04/20	JB	SRB	SCP		

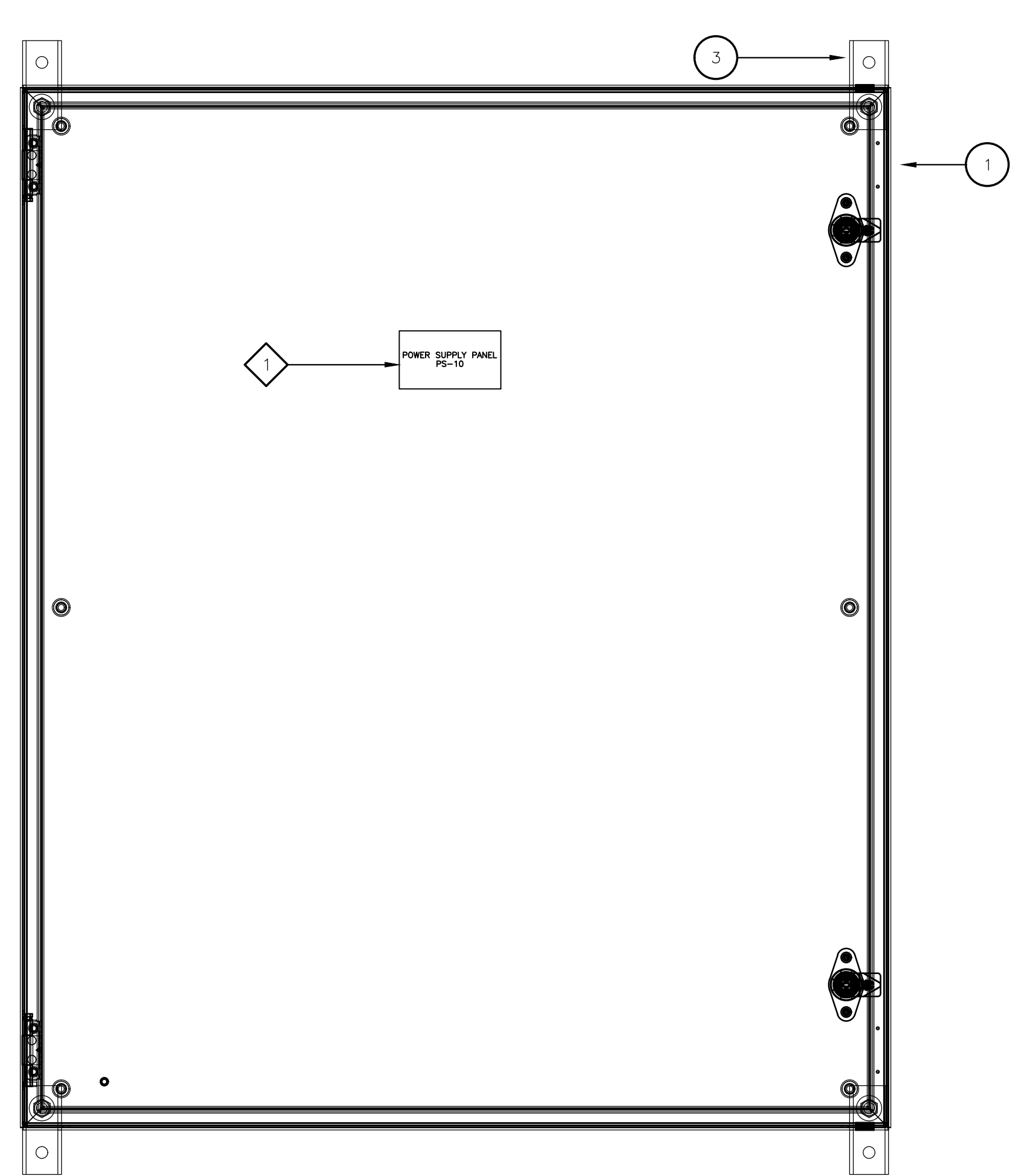
AUTHORIZED FOR RELEASE		
TITLE	DATE	BY
LTES PROJECT MANAGER		
LONEB PROJECT MANAGER		

CLIENT

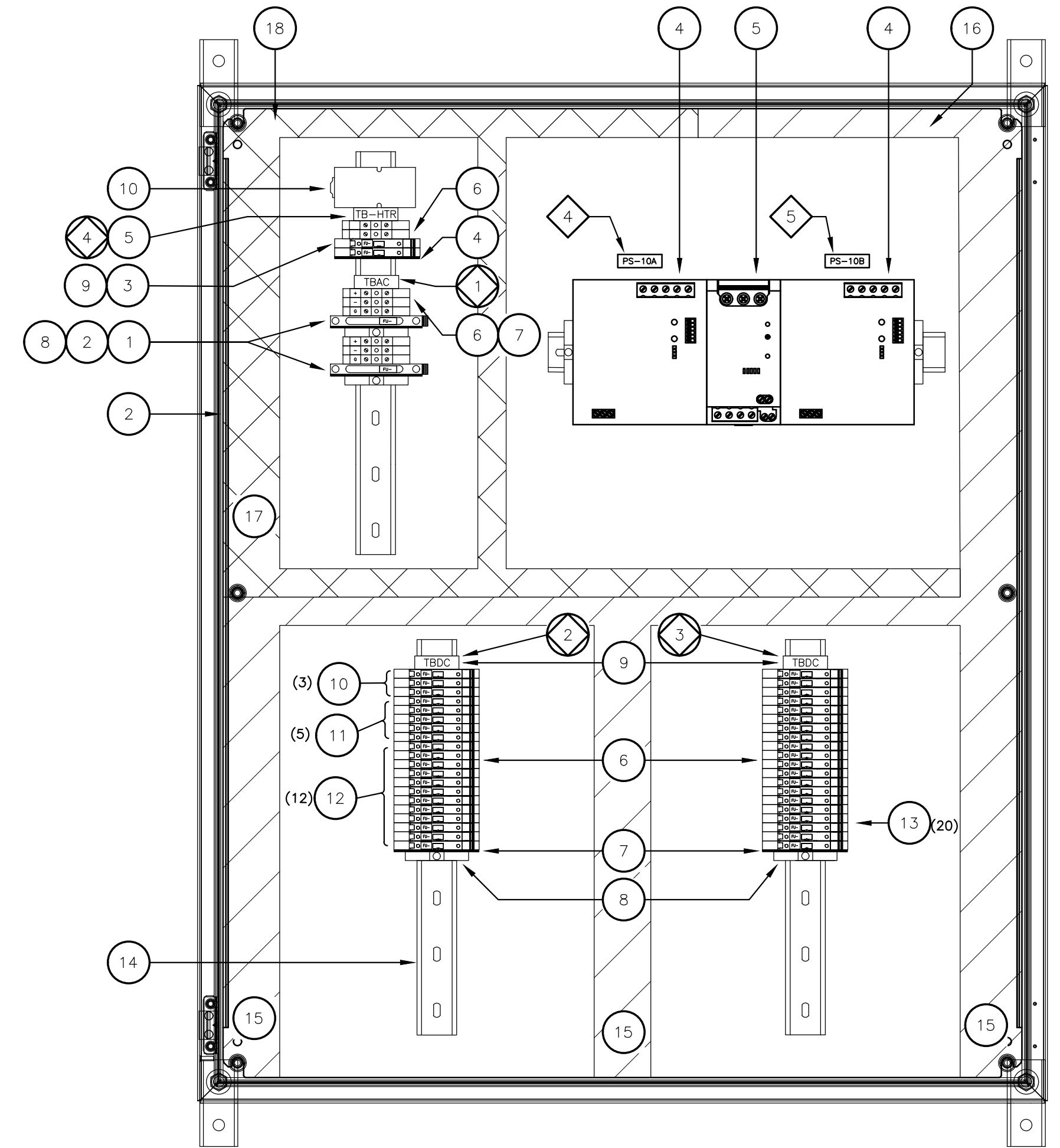
NIGERIAN PETROLEUM DEVELOPMENT COMPANY
LONEB RESOURCES NIG. LTD

UTOROGU GAS EXPANSION PROJECT (NAG-3) UTOROGU, NIGERIA L1901-NPDC INSTRUMENT TYPICAL 24VDC POWER SUPPLY BOM				DWG. NO. L1901-NPDC-INS-JBX-00010	REV B
DRAWN BY	DATE	LTES NO:	SCALE:	DWG. NO.	REV
JB	09/16/20	19016-00	NONE	L1901-NPDC-INS-JBX-00010	B

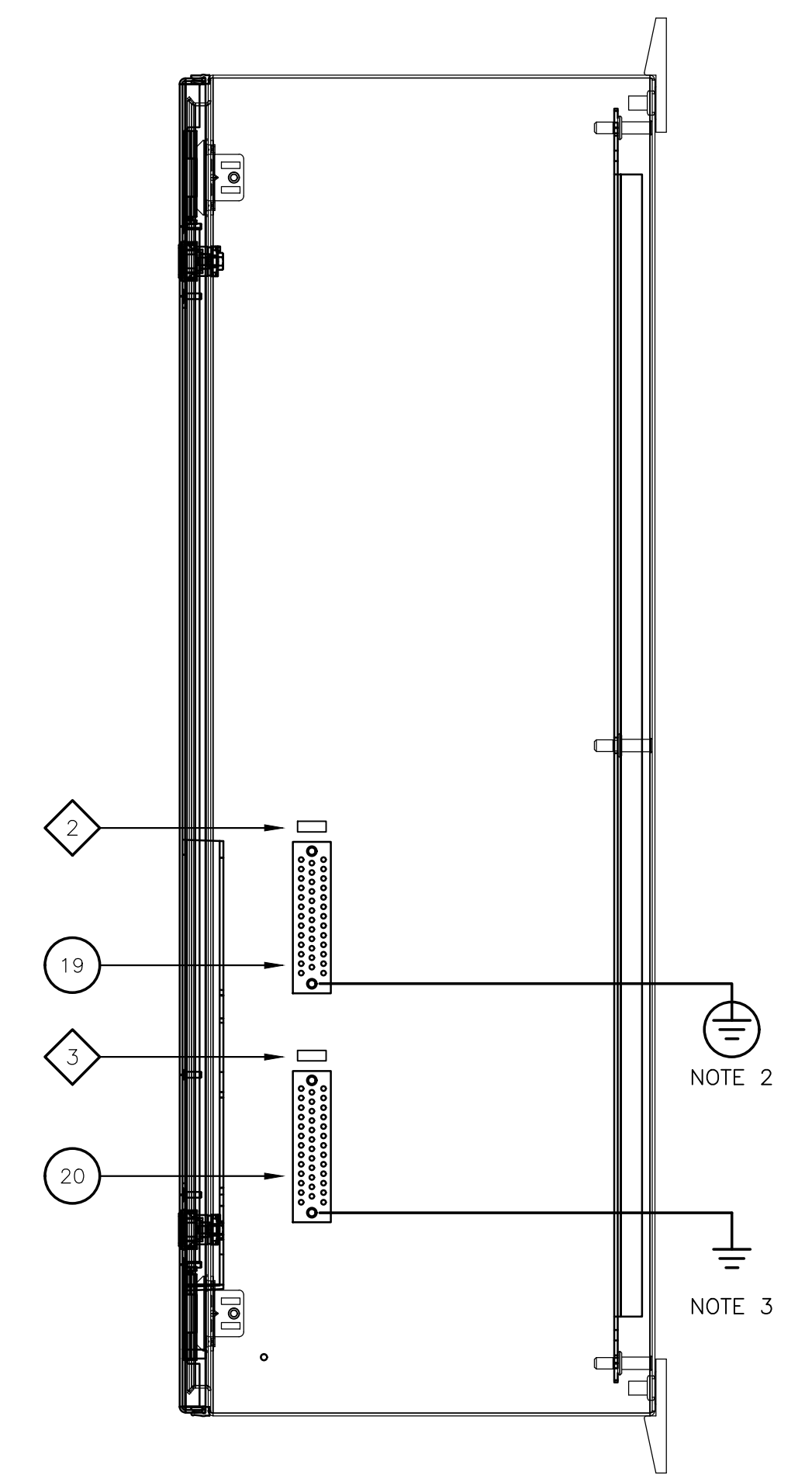
Plotted by: J05EPH.BOND Date: 12/23/2020 1:04 PM Drawing: P:\High Country Sales\Utorogu_Cyo\Drawings\Electrical-Instrumentation\L1901-NPDC-INS-JBX-00010.dwg



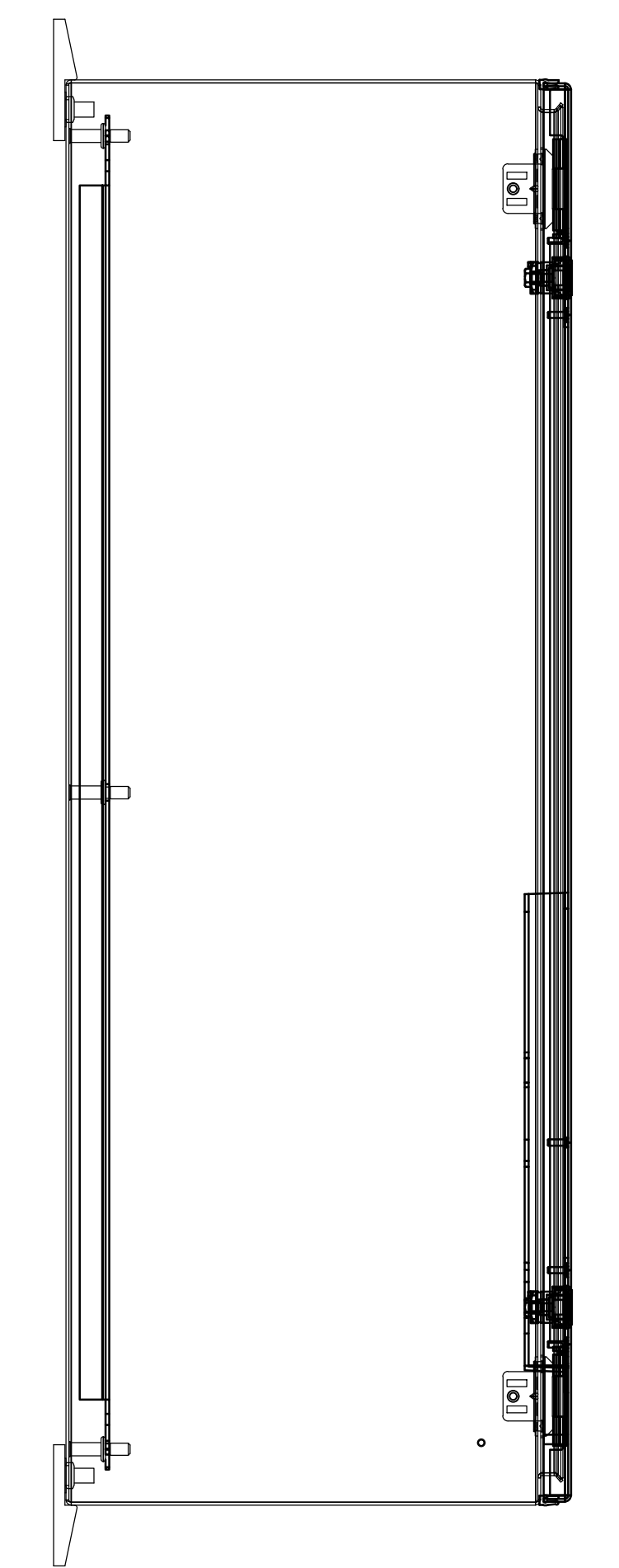
FRONT VIEW



FRONT INSIDE VIEW



LEFT INSIDE VIEW



RIGHT INSIDE VIEW

NOTES:

1. INSULATE PANEL ON ALL SIDES WITH 1/2" STYROFOAM INSULATION.
2. ELECTRICAL CONTRACTOR TO RUN A #2 GND FROM THE ISOLATED GROUND BAR DIRECTLY TO THE GROUND GRID.
3. ELECTRICAL CONTRACTOR TO RUN A #4 GND FROM THE EQUIPMENT GROUND BAR TO THE GROUND GRID OR NEAREST STEEL.

LEGEND:
 AC WIREWAY
 DC WIREWAY

THIS DRAWING AND OTHER RELATED DOCUMENTS, IS A PROPERTY OF LONEB. IT SHALL ONLY BE USED FOR PURPOSES AUTHORIZED IN WRITING BY THE MANAGEMENT. ATTEMPTS OF COPYING, MODIFYING, STORING OR TRANSMITTING IN ANY FORM OR BY ANY MEANS (MECHANICAL, ELECTRONIC OR OTHERWISE) WITHOUT PRIOR AGREEMENT WITH LONEB IS HIGHLY PROHIBITED.

REF DWG. NO.	DESCRIPTION	REV	DESCRIPTION	DATE	BY	CHKD	LTES APV	LONEB APV	NPDC NWD APV
		B	ISSUED FOR APPROVAL	12/23/20	JJB	SRB	SCP		
		A	ISSUED FOR BID	12/04/20	JJB	SRB	SCP		

AUTHORIZED FOR RELEASE		
TITLE	DATE	BY
LTES PROJECT MANAGER		
LONEB PROJECT MANAGER		

CLIENT

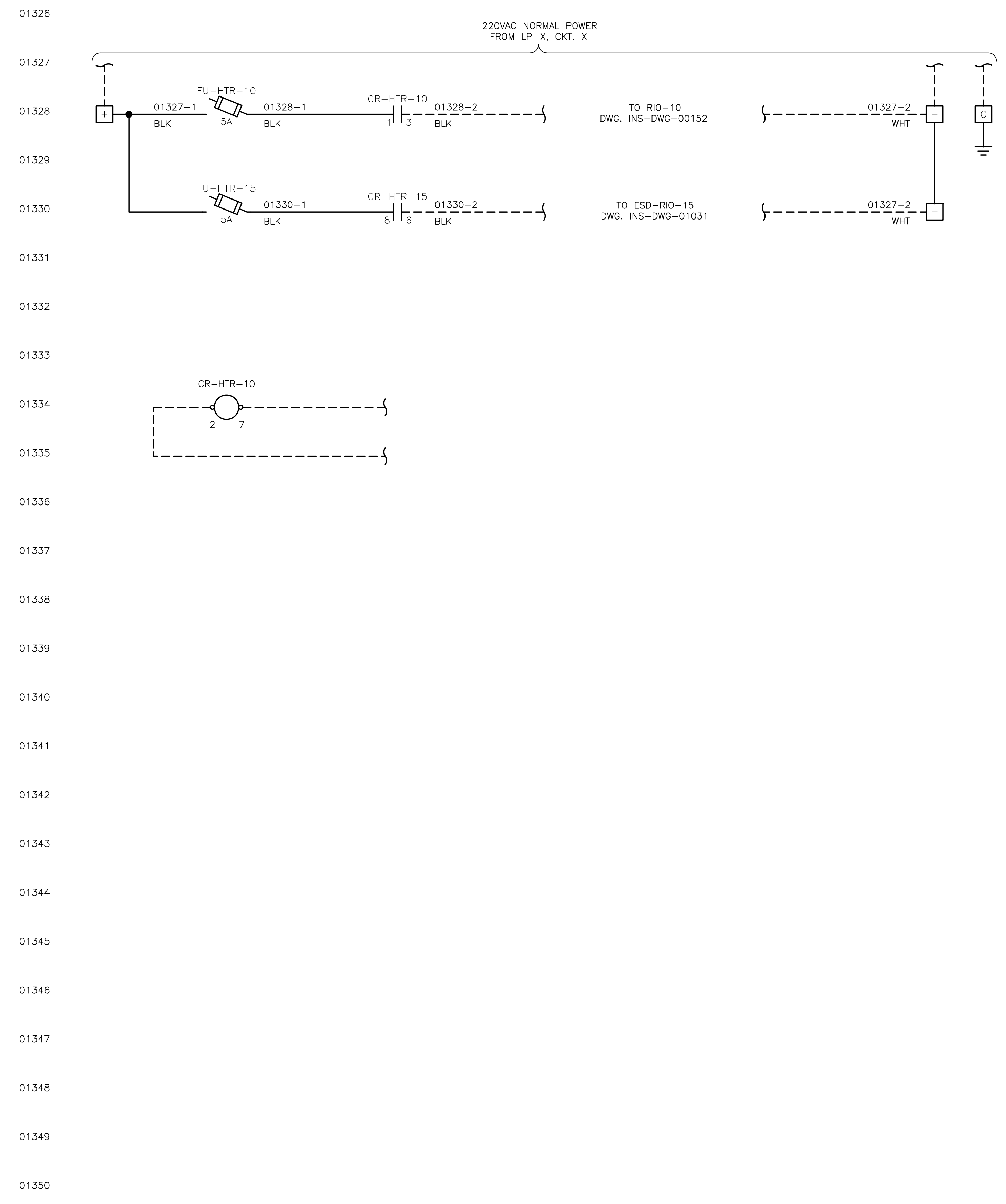
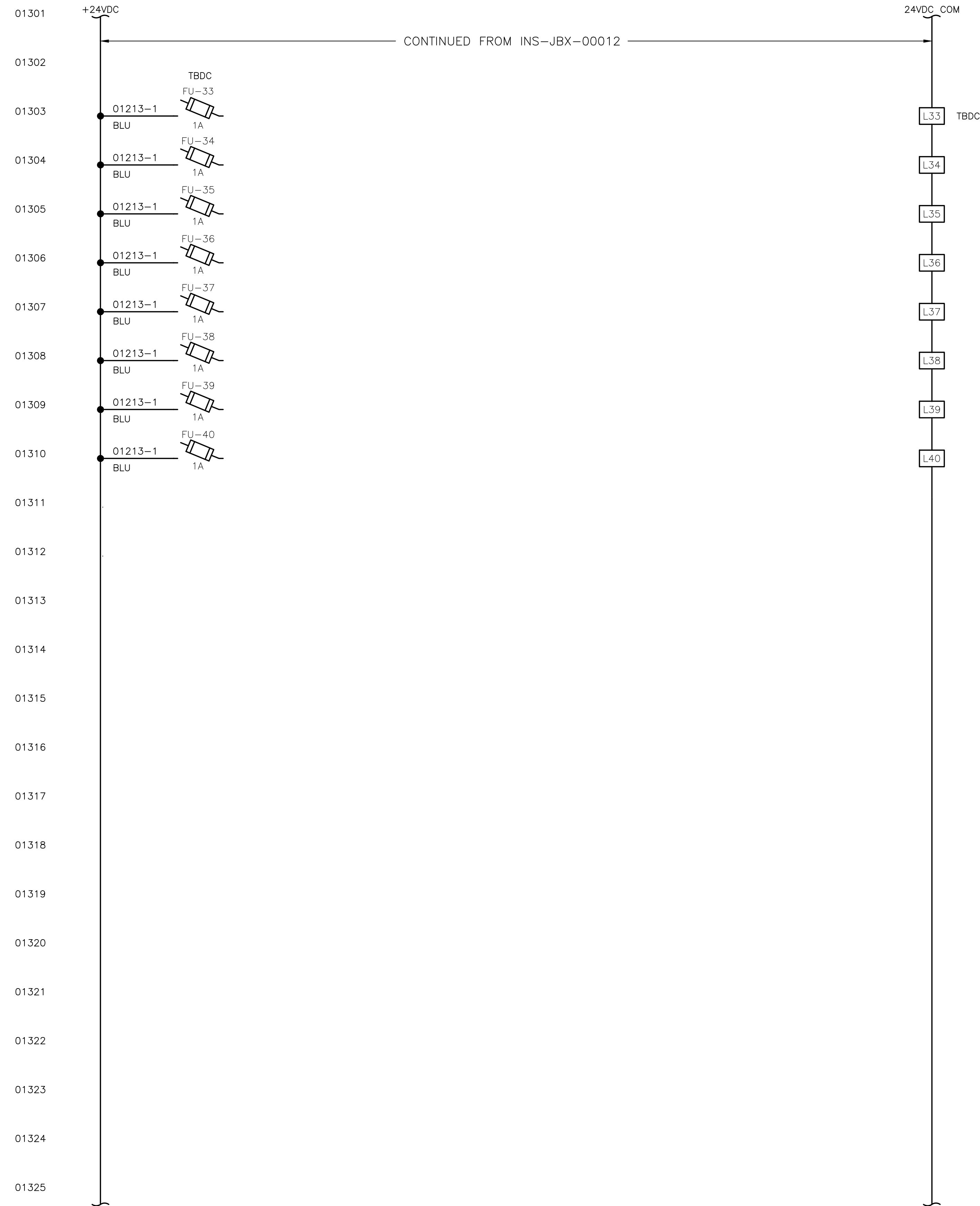
NIGERIAN PETROLEUM DEVELOPMENT COMPANY

LONEB RESOURCES NIG. LTD

UTOROGU GAS EXPANSION PROJECT (NAG-3)
 UTOROGU, NIGERIA
 L1901-NPDC
 INSTRUMENT
 TYPICAL 24VDC POWER SUPPLY PANEL

DRAWN BY	DATE	LTES NO: 19016-00	DWG. NO.
JJB	09/16/20	SCALE: 1:4	L1901-NPDC-INS-JBX-00011

REV B



THIS DRAWING AND OTHER RELATED DOCUMENTS, IS A PROPERTY OF LONEB. IT SHALL ONLY BE USED FOR PURPOSES AUTHORIZED IN WRITING BY THE MANAGEMENT. ATTEMPTS OF COPYING, MODIFYING, STORING OR TRANSMITTING IN ANY FORM OR BY ANY MEANS (MECHANICAL, ELECTRONIC OR OTHERWISE) WITHOUT PRIOR AGREEMENT WITH LONEB IS HIGHLY PROHIBITED.

REF DWG. NO.	DESCRIPTION	REV	DESCRIPTION	DATE	BY	CHKD	LTES APV	LONEB APV	NPDC NWD APV
		B	ISSUED FOR APPROVAL	12/23/20	JJB	SRB	SCP		
		A	ISSUED FOR BID	12/04/20	JJB	SRB	SCP		

AUTHORIZED FOR RELEASE		
TITLE	DATE	BY
LTES PROJECT MANAGER		
LONEB PROJECT MANAGER		

CLIENT

NIGERIAN PETROLEUM DEVELOPMENT COMPANY

LONEB RESOURCES NIG. LTD

UTOROGU GAS EXPANSION PROJECT (NAG-3)
 UTOROGU, NIGERIA
 L1901-NPDC
 INSTRUMENT
 IJB-PS-10 WIRING DIAGRAM; RIO-10/15

DRAWN BY	DATE	LTES NO: 19016-00	DWG. NO.	REV
JJB	09/16/20	SCALE: NONE	L1901-NPDC-INS-JBX-00013	B

Plotted by: JOSEPH BOND Date: 12/23/2020 1:44 PM Drawing: P:\High Country Sales\Utorogu_Cyo\Drawings\Electrical-Instrumentation\L1901-NPDC-INS-JBX-00013.dwg