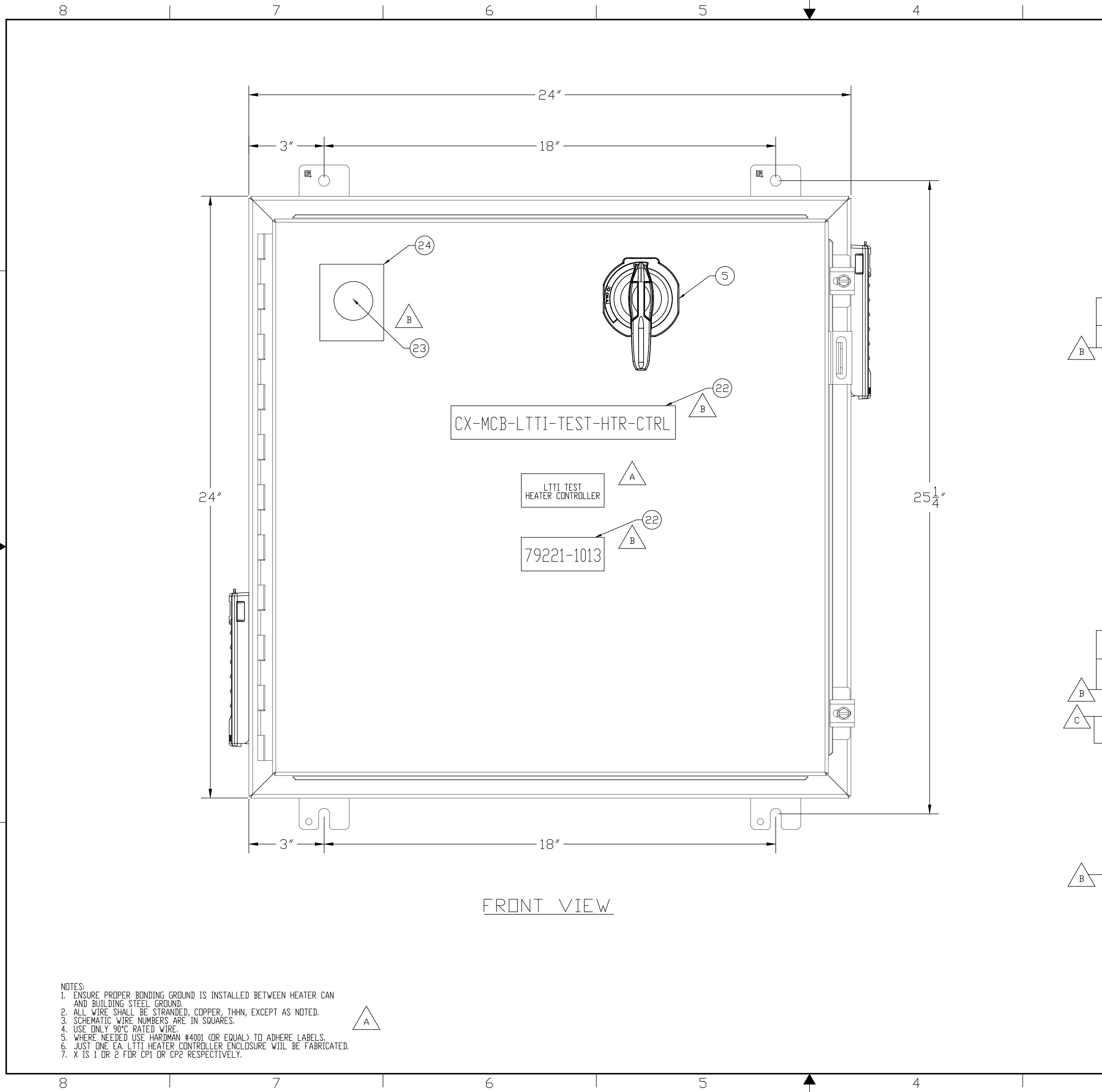


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REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
ALL	-	INITIAL SUBMITTAL	TMM 30AUG17 30AUG17	R. NORTON
VAR	A	1. ADDED VOLTAGE INDICATOR TO PARTS LIST AND BODY OF DRAWING. 2. ADDED LABEL TO PARTS LIST AND ENCLOSURE. 3. ADDED NOTE 5, RELOCATED NOTES TO SH 1. 4. ADDED GENERIC LABELS. 5. REMOVED TEXT ABOVE THE DISCONNECT SWITCH. 6. ADDED NOTE 6.	TMM 29SEP17 29SEP17	R. NORTON
SH1 SH1 SH3 VAR VAR SH 1	B	1. REVISED VOLTAGE INDICATOR IN PART LIST AND DRAWING BODY. 2. ADDED VOLTAGE INDICATOR LABEL IN PART LIST AND DRAWING BODY. 3. REVISED SCHEMATIC ENTIRELY. 4. REVISED ITEM 2, 9, 10 AND 11. 5. ADDED ITEM NO 25. 6. ADDED NOTE 7.	SS 15JAN18 15JAN18	R. NORTON

QTY REQD	ITEM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	NOTES
3	25	WAGO 2004-1401	4-CONDUCTOR THROUGH TERMINAL BLOCK	-	-
1	24	R-3W-L	SAFESIDE VOLTAGE INDICATOR LABEL	-	-
1	23	R-3W	SAFESIDE VOLTAGE INDICATOR	-	-
A/R	22	GENERIC	LABEL, ENGRAVED OR PRINTED	TEXT AS SHOWN	NOTE 5
2	21	WAGO 2002-991	END PLATE FOR FUSE TERMINAL BLOCKS	-	-
4	20	WAGO 249-116	END STOP	-	-
2	19	WAGO 870-568	3 LEVEL TB END BARRIER	-	-
4	18	WAGO 870-551	THREE LEVEL TERMINAL BLOCKS	-	-
1	17	HOFFMAN HF0526414	FAN	-	-
1	16	HOFFMAN HG0500404	EXHAUST GRILLE	-	-
1	15	ALLEN-BRADLEY 700-HN100	RELAY SOCKET, DPDT	-	-
1	14	ALLEN-BRADLEY 700-HA32Z24	RELAY, DPDT, 24VDC COIL	-	-
3	13	WAGO 2002-1611	2-CONDUCTOR FUSE DISCONNECT TERMINAL BLOCK WITH PIVOTING FUSE HOLDER	WITH 2EA 1/2A, 1EA 1A, 250V FUSES	-
A/R	12	WAGO 210-1142	35MM X 7.5MM CARRIER RAIL	-	-
2	11	BUSS CHCC2DU	FUSE BLOCK 2-POSITION	WITH KTK-R-10A FUSES	-
2	10	WAGO 2004-1491	END & INTERMEDIATE PLATE	-	-
2	9	WAGO 2004-1407	4-CONDUCTOR GROUND TERMINAL BLOCK	-	-
1	8	SAGINAW CONTROL SCE-24P24	ENCLOSURE PANEL, 24"x24"	-	-
1	7	SAGINAW CONTROL SCE-242416LP	ENCLOSURE, 24"x24"x16"	-	-
1	6	ALLEN-BRADLEY 194R-N1	DISCONNECT SWITCH SHAFT	-	-
1	5	ALLEN-BRADLEY 194R-PYT	DISCONNECT SWITCH HANDLE	-	-
1	4	DISCONNECT SWITCH 194R-N30-1753	DISCONNECT SWITCH	-	-
1	3	CUTLER-HAMMER CN35DN3AB	CONTACTOR, 3-POLE, 208V CNT 120V COIL	-	-
1	2	OHIOSEMITRONICS PC5-110EY25	POWER TRANSDUCER WITH INTERNAL CURRENT SENSOR	-	-
1	1	HDR POWER SYSTEMS SHZF1-208-30-NC-01	SINGLE PHASE, 208VAC, 30A SCR POWER CONTROLLER	-	-

- NOTES:
- ENSURE PROPER BONDING GROUND IS INSTALLED BETWEEN HEATER CAN AND BUILDING STEEL GROUND.
  - ALL WIRE SHALL BE STRANDED, COPPER, THHN, EXCEPT AS NOTED.
  - SCHEMATIC WIRE NUMBERS ARE IN SQUARES.
  - USE ONLY 90°C RATED WIRE.
  - WHERE NEEDED USE HARDMAN #4001 (OR EQUAL) TO ADHERE LABELS.
  - JUST ONE EA. LTTI HEATER CONTROLLER ENCLOSURE WILL BE FABRICATED.
  - X IS 1 OR 2 FOR CP1 OR CP2 RESPECTIVELY.

EACH SHEET OF A MULTI-SHEET DRAWING SHALL ALWAYS CARRY THE SAME REVISION LEVEL

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES ARE:

FRACTIONS	DECIMAL	ANGLES
± 1/8	± .01	± .50°
	± .005	

THIRD ANGLE PROJECTION

FINISH MACHINED SURFACES DEBURR & BREAK ALL SHARP EDGES

UNLESS OTHERWISE NOTED

DO NOT SCALE DRAWING

DATE: 30AUG17

SCALE: NONE

USED IN ASSY NO: N/A

SHEET 1 OF 3

SEE PARTS LIST

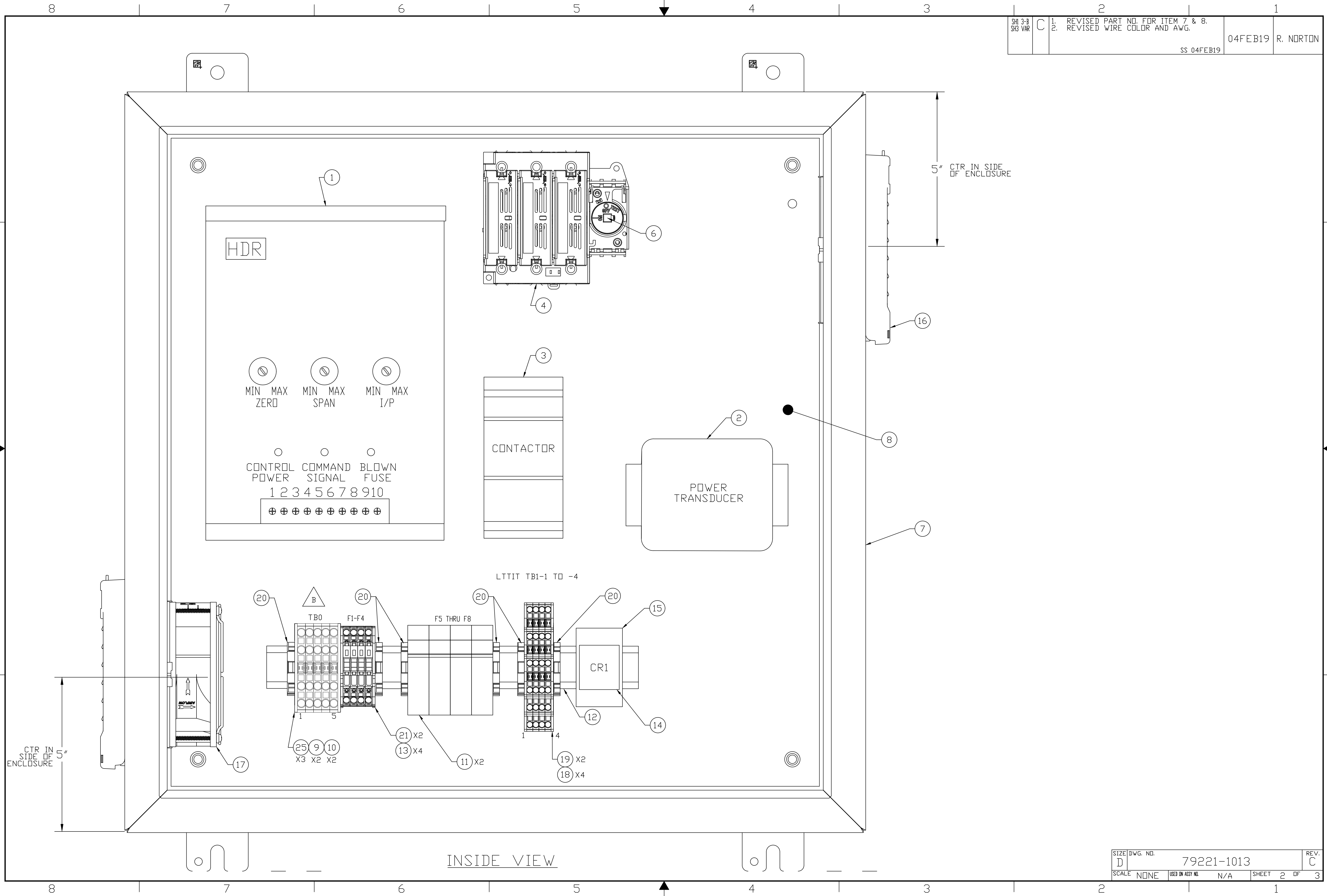
Jefferson Lab  
Office of Science  
LCLS II  
4K COLD BOX SYSTEM  
LTTI TEST HEATER  
CONTROLLER DETAILS & SCHEMATIC

SIZE DWG. NO. 79221-1013

REV. C

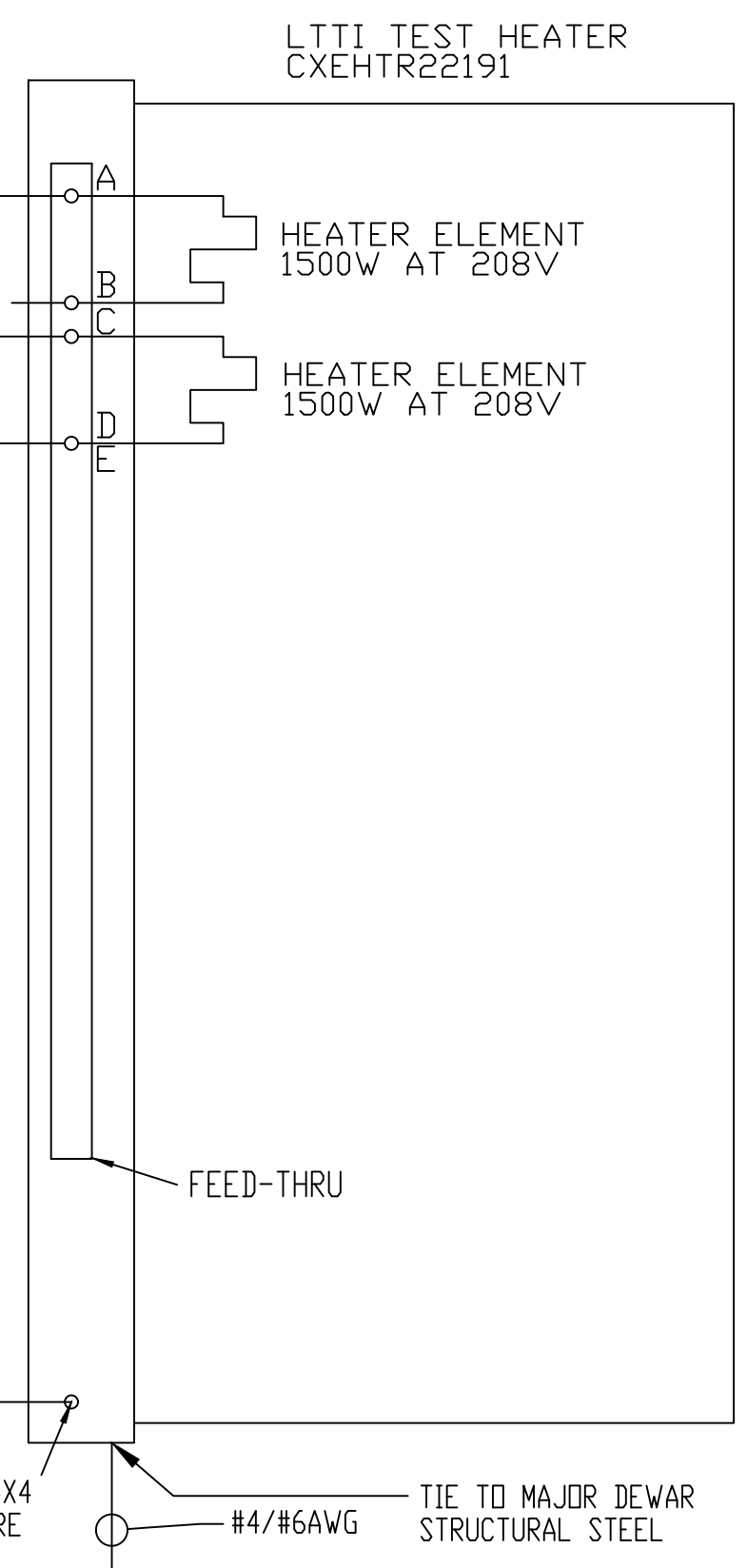
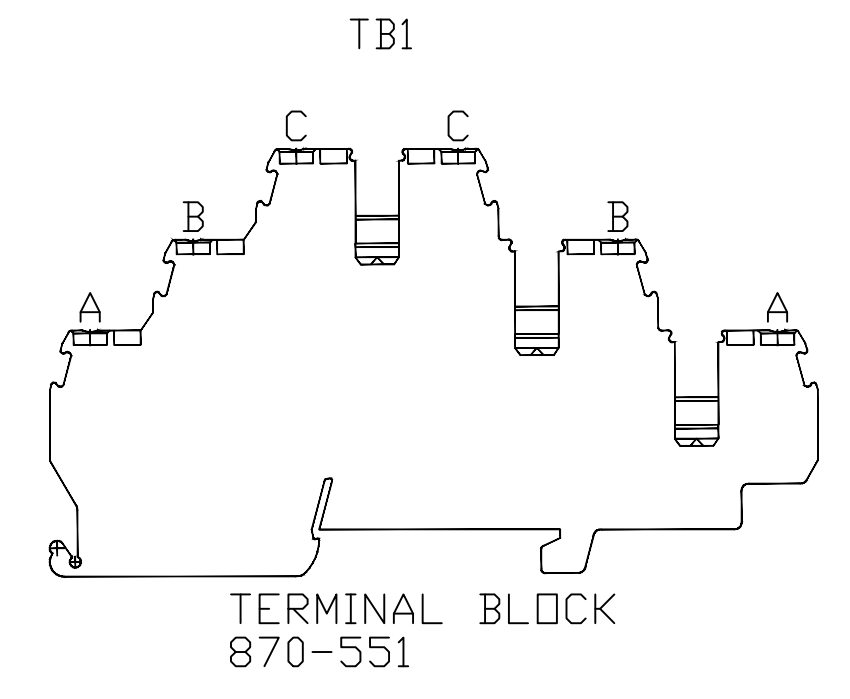
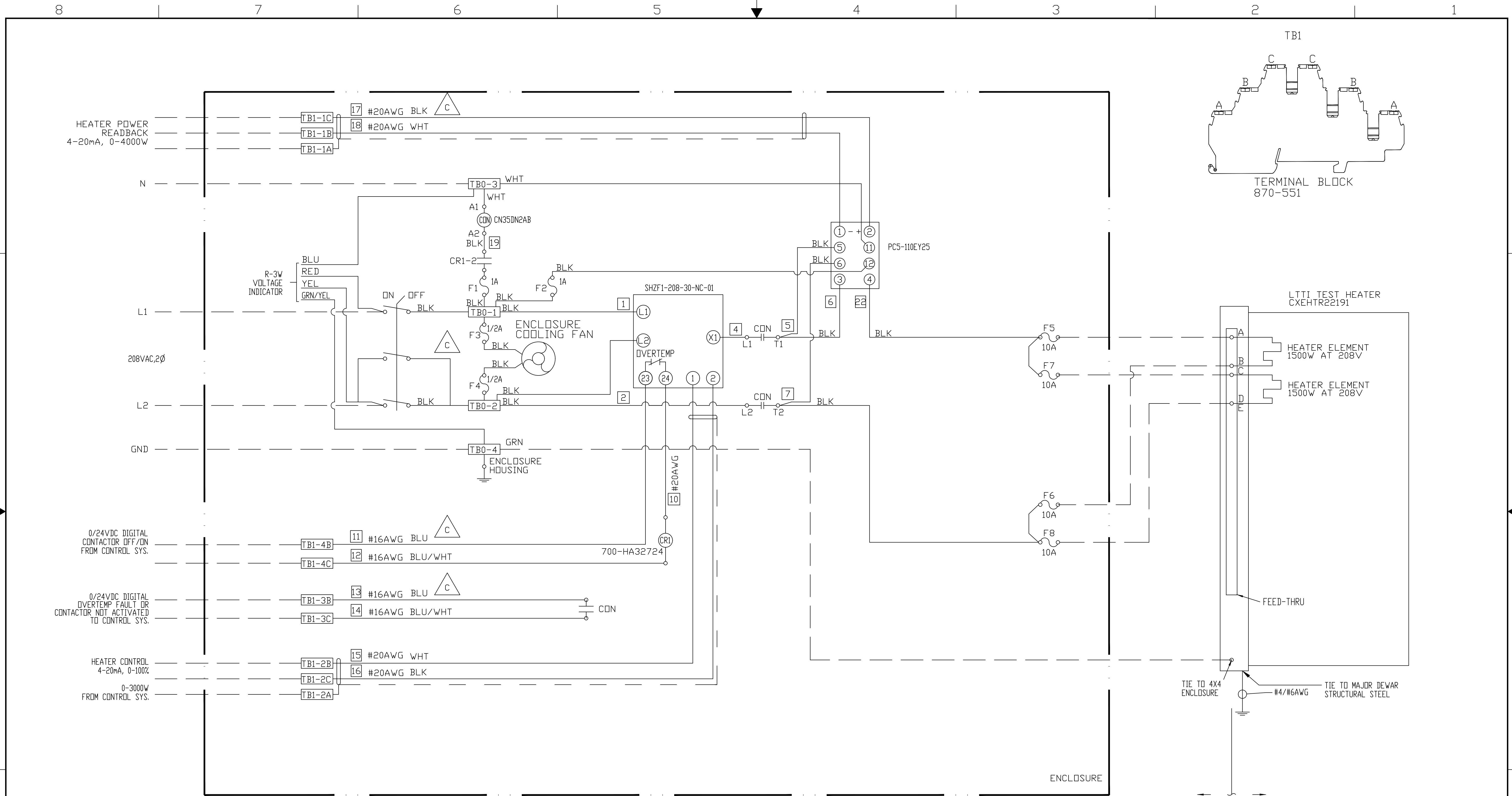
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SH 3-B SH3 VAR	C	1. REVISED PART NO. FOR ITEM 7 & 8. 2. REVISED WIRE COLOR AND AWG.	04FEB19	R. NORTON
			SS 04FEB19	



SIZE	DWG. NO.	REV.
D	79221-1013	C
SCALE	USED ON ASSY NO.	SHEET 2 OF 3
NONE	N/A	

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**SCHMATIC**

OUTSIDE VACUUM SHELL    INSIDE VACUUM SHELL

NOTES:  
1. CONDUCTORS INSIDE THE ENCLOSURE ARE #12AWG BLACK UNLESS OTHERWISE NOTED.

SIZE	DWG. NO.	REV.
D	79221-1013	C
SCALE	USED ON ASSY NO.	SHEET
NONE	N/A	3 OF 3