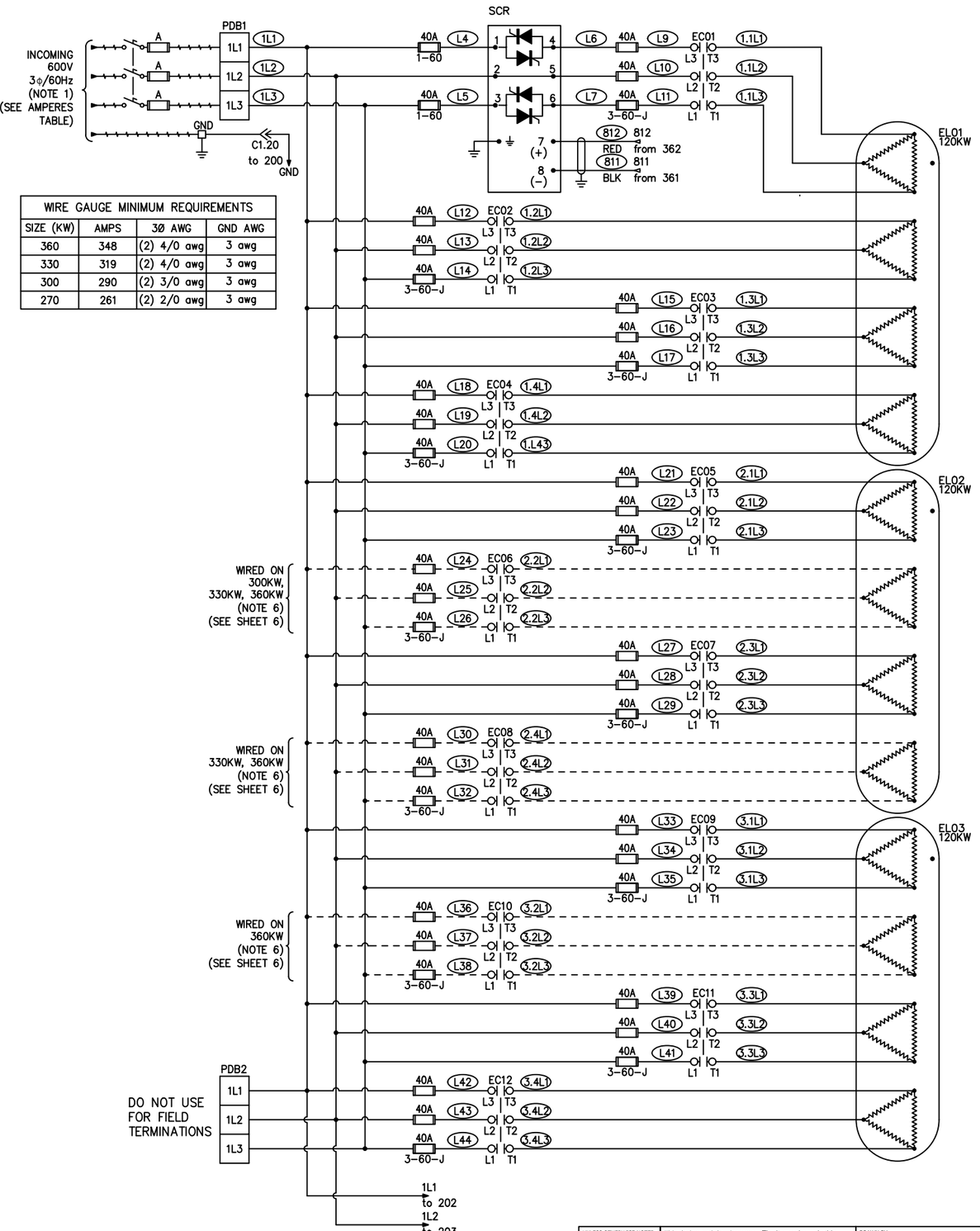

WIRE GAUGE MINIMUM REQUIREMENTS			
SIZE (KW)	AMPS	3Ø AWG	GND AWG
360	348	(2) 4/0 awg	3 awg
330	319	(2) 4/0 awg	3 awg
300	290	(2) 3/0 awg	3 awg
270	261	(2) 2/0 awg	3 awg

AMPERES @ 600V		
SIZE (KW)	FULL LOAD AMPS	MCA
360	348	434.3
330	319	398.2
300	290	362.1
270	261	326.0

NOTES;
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3. FIELD WIRING TO CLASS CC FUSE BLOCKS TO BE TORQUE @ 17.7 IN. LBS.
4. REMOVE FACTORY INSTALLED JUMPER(S) TO ENABLE CONNECTION(S).
5. (————) INDICATES OPTIONAL EQUIPMENT.
6. (— — — — —) INDICATES WIRING CHANGES BASED ON DE-RATED OPTIONS.
7. RS232 NOT TERMINATED.
8. (— · —— · —— · —) INDICATES FACTORY FINAL WIRING.

REV	REVISION DESCRIPTION	B.O.M.	ELEC. ENG	MECH. ENG	CHECKED	APPROVED
-	INITIAL RELEASE	-	-	-	-	-
	-	-	-	-	-	-

REVISION HISTORY

UNLESS OTHERWISE NOTED:
DIMENSIONS ARE IN INCHES
TOLERANCES ON
FRACTIONS ± 1/16
(2) PLACE DEC. ± .01
(3) PLACE DEC. ± .005
ANGLES ± 2 DEG.
SURFACE FINISH
250 MICRO-INCHES

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THIRD ANGLE PROJECTION

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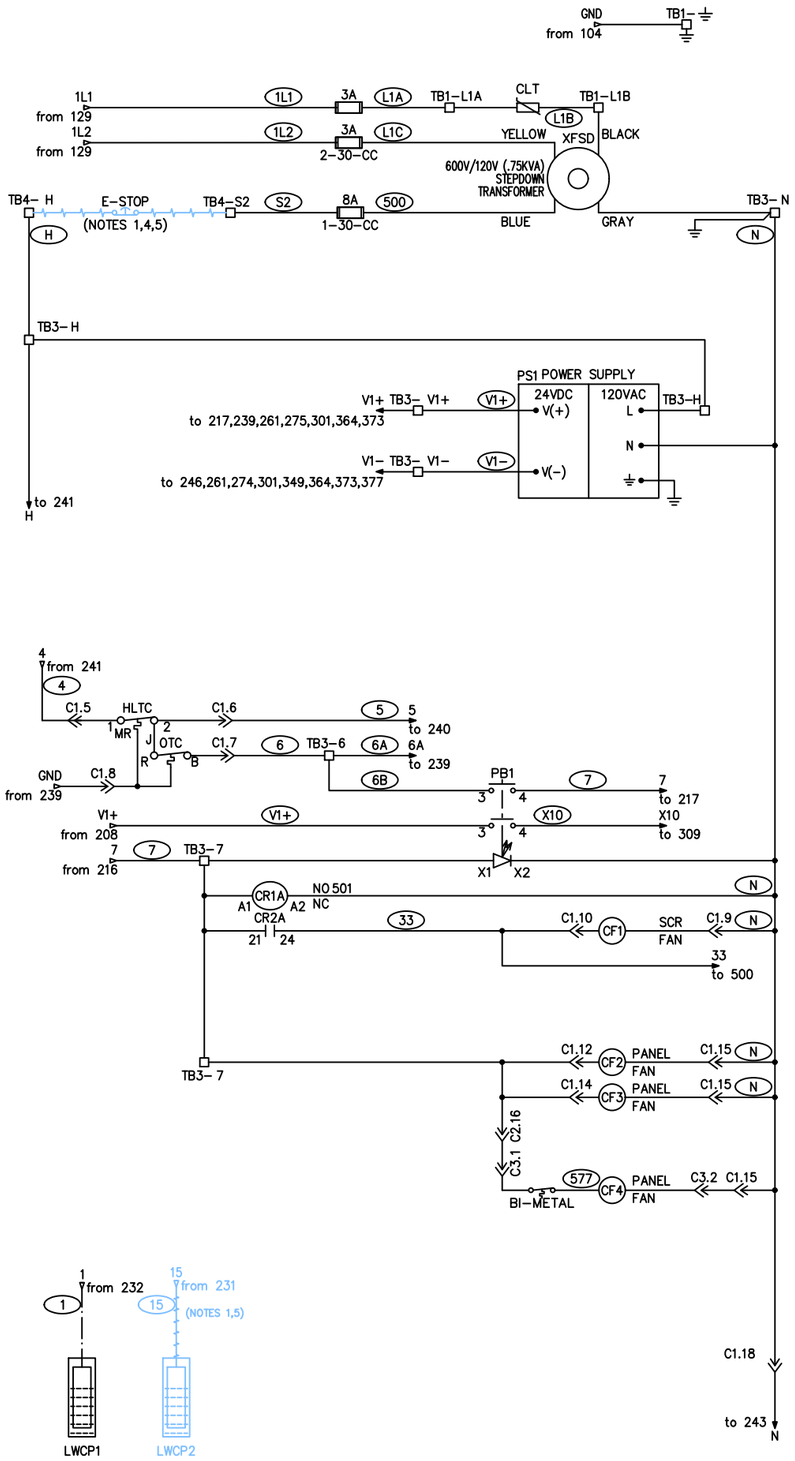
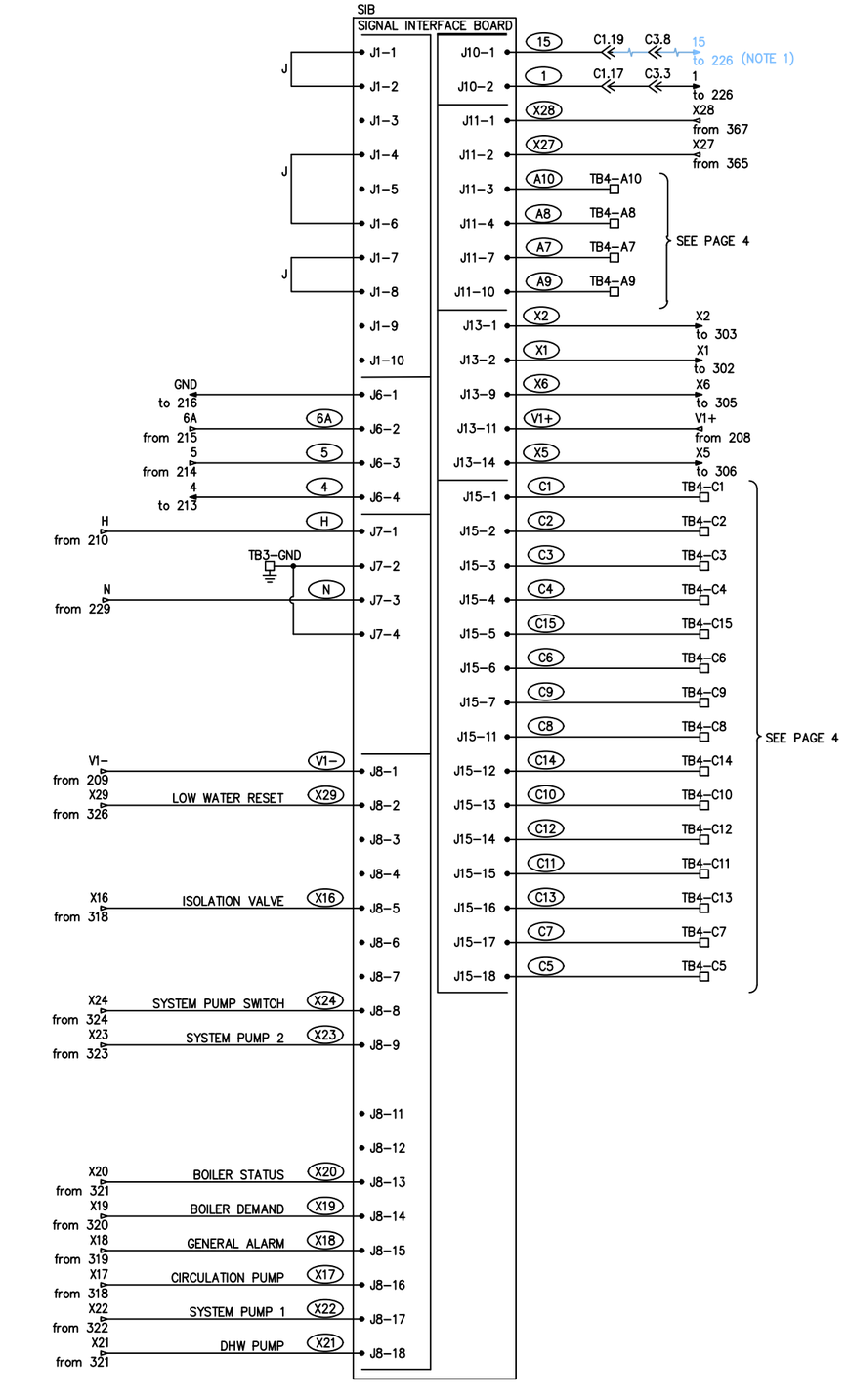
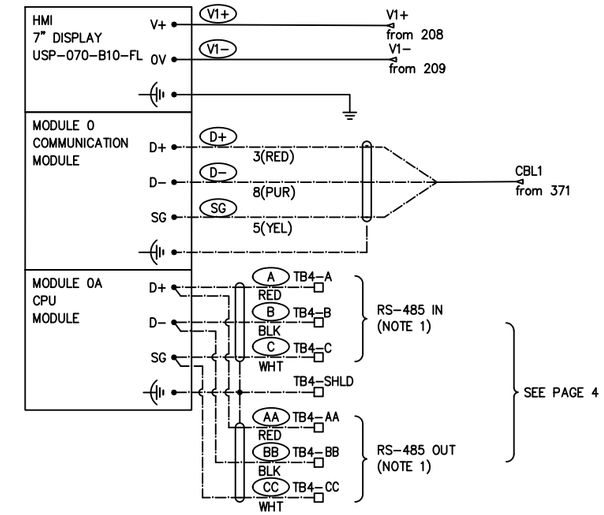
CHECKED BY: LNL 4/4/2025	ELEC. ENG: JES 4/4/2025	PROJECT NAME:	
B.O.M. REVIEW: - -	APPROVED BY: MP 4/4/2025	PROJECT MANAGER:	SHEET 1 OF 6

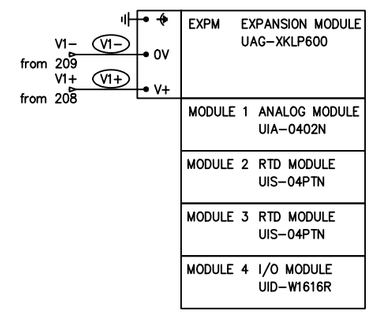
FULTON THERMAL CORPORATION

DRAWING NUMBER 7-53-626360 REV -









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B.O.M. REVIEW: - -	APPROVED BY: MP 4/4/2025	PROJECT MANAGER:	

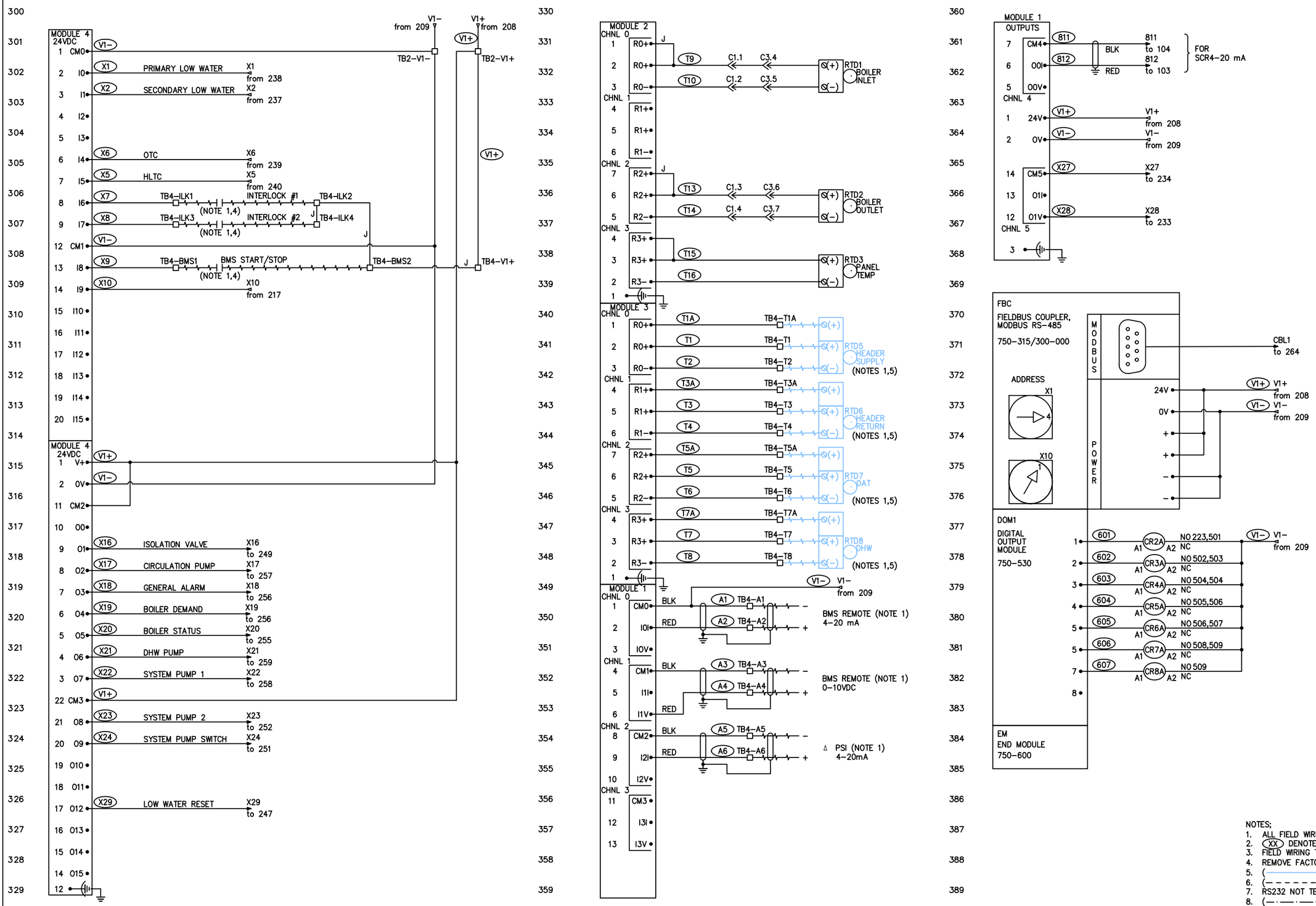
DESCRIPTION:
ELECTRICAL SCHEMATIC - ENDURA ZE BOILER - EZE-360, 600V/60HZ/3Ø

SHEET 2 OF 6

FULTON THERMAL CORPORATION

DRAWING NUMBER: 7-53-626360

REV: -



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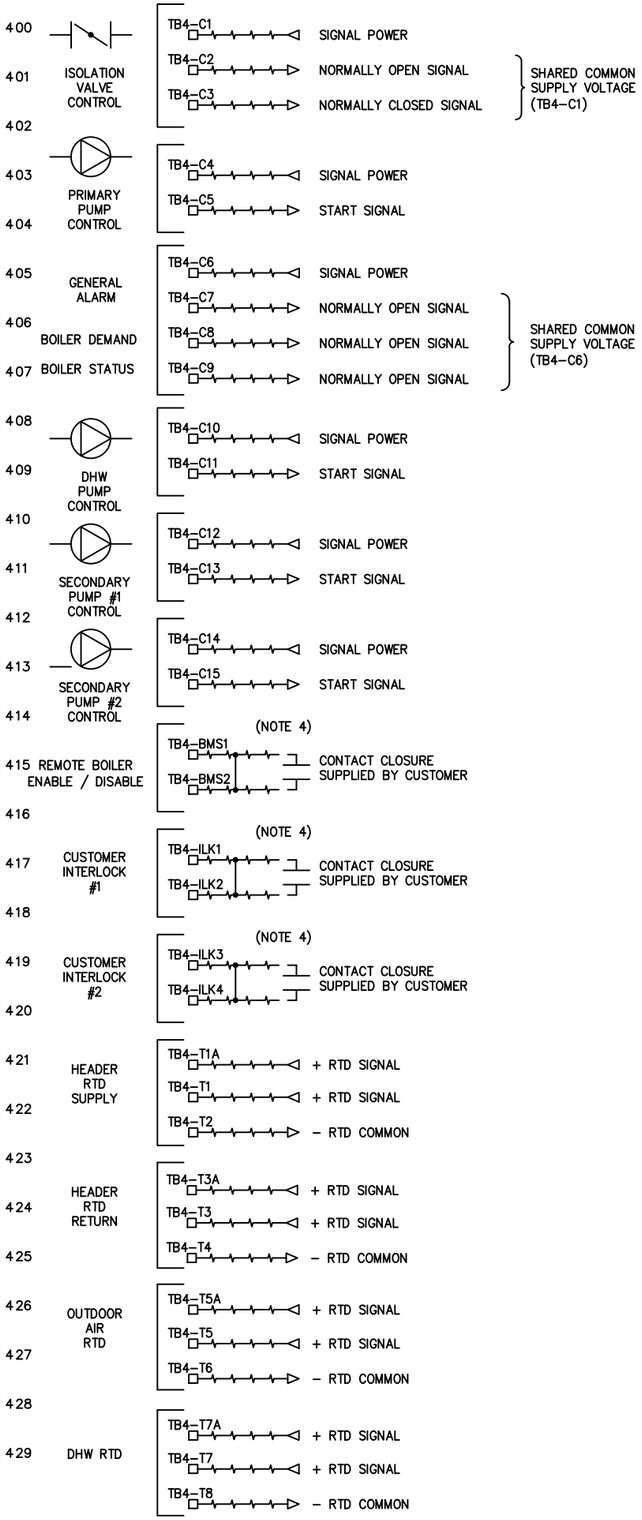
DESCRIPTION:
ELECTRICAL SCHEMATIC - ENDURA ZE BOILER - EZE-360, 600V/60HZ/3Ø

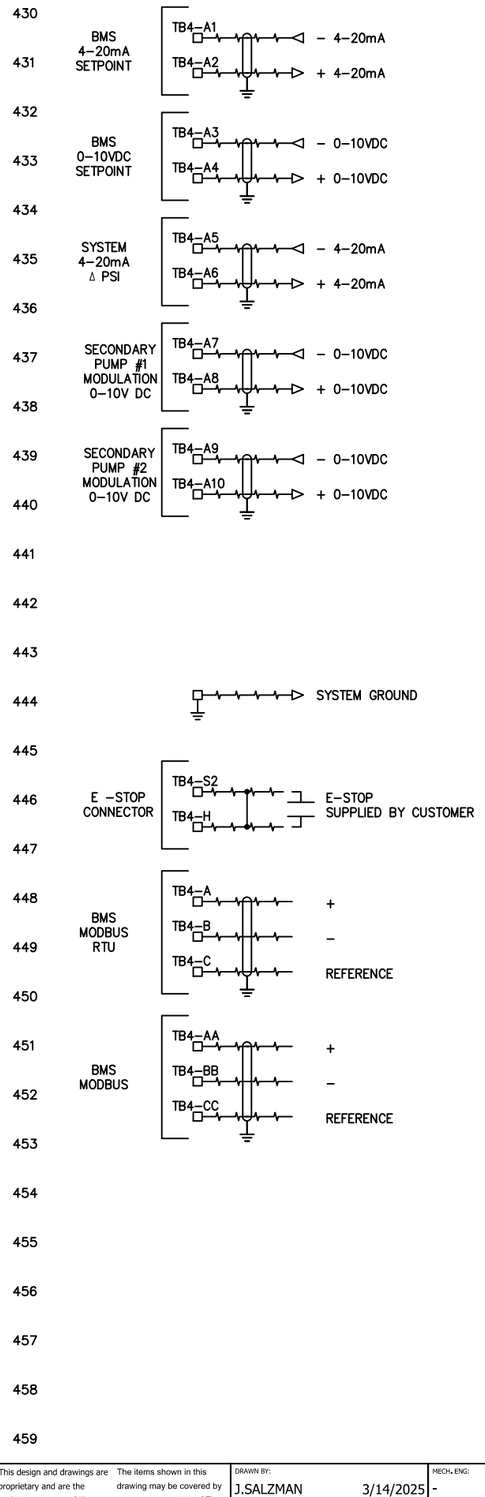
SHEET 3 OF 6

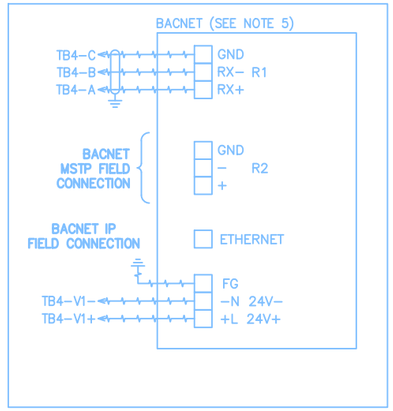
FULTON THERMAL CORPORATION

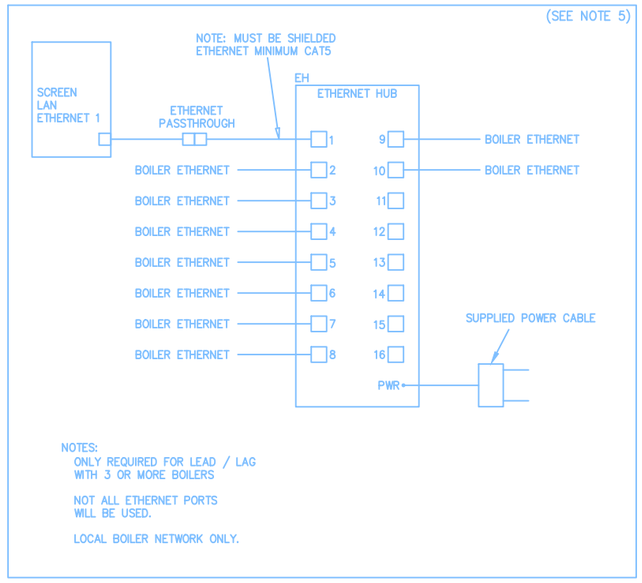
DRAWING NUMBER
7-53-626360

REV
-

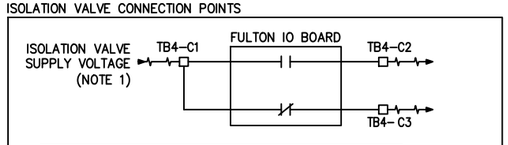








ISOLATION VALVE CONNECTION POINTS



VALVE TYPE	OPEN	CLOSED
POWER CLOSED, SPRING OPEN	N/A	C3
POWER OPEN, SPRING CLOSED	C2	N/A
POWER OPEN, POWER CLOSED	C2	C3

TB–CR		
#'S	A1	A2
CR1A	○	○
CR2A	○	●
CR3A	○	●
CR4A	○	●
CR5A	○	●
CR6A	○	●
CR7A	○	●
CR8A	○	●

TB1–	
#'S	J
L1A	○
L1B	○
GND	○

TB3	
#'S	J
6	○
7	●
7	●
33	○
H	●
H	●
H	●
N	●
N	●
N	●
⏚	○
⏚	○
V1+	●
V1+	●
V1+	●
V1+	●
V1–	●
V1–	●
V1–	●
V1–	●
⏚	○
⏚	○
⏚	○

TB4	
#'S	J
H	●
S2	●
C1	○
C2	○
C3	○
C4	○
C5	○
C6	○
C7	○
C8	○
C9	○
C10	○
C11	○
C12	○
C13	○
C14	○
C15	○
V1–	○
V1+	●
BMS2	●
ILK2	●
ILK4	●
BMS1	○
ILK1	○
ILK3	○
AA	○
BB	○
CC	○
SHLD	○
A	○
B	○
C	○
T1A	○
T1	○
T2	○
T3A	○
T3	○
T4	○
T5A	○
T5	○
T6	○
T7A	○
T7	○
T8	○
A1	●
A2	○
A3	●
A4	○
A5	●
A6	○
A7	○
A8	○
A9	○
A10	○
⏚	○
⏚	○
⏚	○
⏚	○

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-	INITIAL RELEASE	-	-	-	-	-
	-	-	-	-	-	-

REVISION HISTORY

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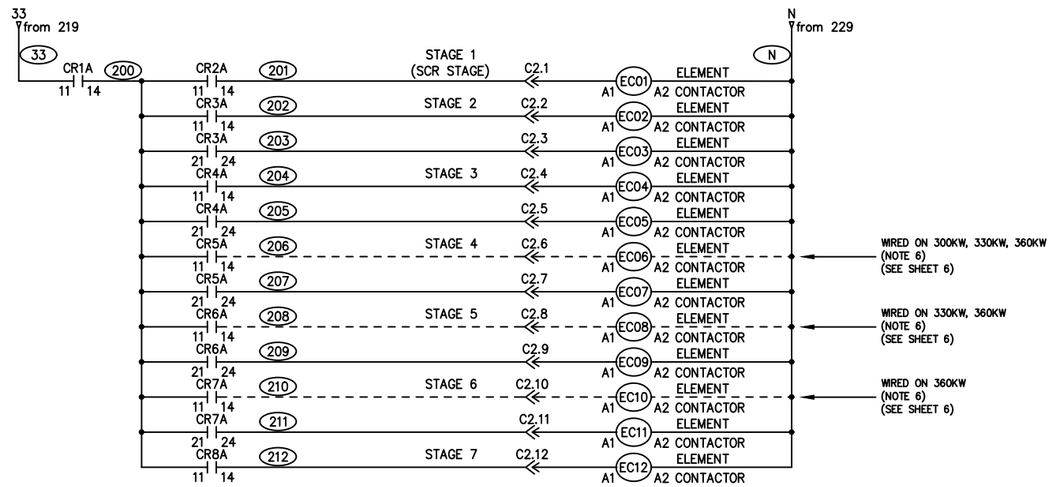
CHECKED BY: LNL 4/4/2025	ELEC. ENG: JES 4/4/2025	PROJECT NAME:	
B.O.M. REVIEW: - -	APPROVED BY: MP 4/4/2025	PROJECT MANAGER:	SHEET 4 OF 6

FULTON THERMAL CORPORATION

DRAWING NUMBER: 7-53-626360

REV: -



Installation: FACTORY Location: DOOR

CATALOG	DESCRIPTION	TAG	QTY
---RTD----*	RTD	RTD3	1
2-45-315001*	UNISTREAM, HMI, 7" DISPLAY	HMI	1
2-45-315006*	COMMUNICATION MODULE	MODULE 0	1
2-45-315007*	CPU	MODULE 0A	1
2-45-315009*	PUSH BUTTON, MOMENTARY, 22MM, CLEAR	PB1	1
2-45-315110*	MODULE HOLDER, 3 POSITION		1
2-45-315114*	LED MODULE, INTEGRATED LED, 24-240V AC/DC		1
2-45-315115*	CONTACT MODULE, (1) N.O.		2

Installation: FACTORY Location: CABINET

CATALOG	DESCRIPTION	TAG	QTY
---HLTC---	LIMIT CONTROL, TEMPERATURE, WITH MANUAL RESET	HLTC	1
---OTC----	LIMIT CONTROL, TEMPERATURE, WITH AUTO RESET	OTC	1
2-40-420013-42	BI-METAL TEMPERATURE SWITCH, CLOSE ON RISE, [86°F (30°C)]	BI-METAL	1
2-40-420014-42	FAN, 120VAC	CF4	1
2-45-000395*	FAN, 4", ENCLOSURE MOUNT, 120VAC, W/FILTER, 6.11"h x 7.38"w, 0.5"d	CF2 CF3	2
2-22-000602*	STEEL BINDING BARRELS, 10-32 THREAD SIZE, 5/16" LENGTH		4

Installation: FACTORY Location: PRESSURE VESSEL

CATALOG	DESCRIPTION	TAG	QTY
---LWCP----	LOW WATER CUTOFF PROBE	LWCP1	1
---RTD----	RTD	RTD1 RTD2	2
---120KW---	IMMERSION HEATER, 120KW, 4 CIRCUIT	EL01 EL02 EL03	3

Installation: FIELD Location: OPTIONAL

CATALOG	DESCRIPTION	TAG	QTY
--E-STOP--	PUSH BUTTON, E-STOP (BY OTHERS)	E-STOP	1
2-45-001058*	GATEWAY, BACNET	BACNET	1
4-30-000430	LOW WATER CUT-OFF KIT, [LWSR2-SIB]	LWCP2	1
4-30-000500	PT100 - SENSOR KIT, TEMPERATURE [OUTDOOR]	RTD7	1
4-30-000510	PT100 - SENSOR KIT, TEMPERATURE [SUPPLY/RETURN]	RTD5 RTD6	2
4-30-315300	PT100 - SENSOR KIT, TEMPERATURE [DHW]	RTD8	1

Installation: FACTORY Location: POWER PANEL

CATALOG	DESCRIPTION	TAG	QTY
---CF----*	FAN, SCR, 120VAC	CF1	1
2-40-003026*	CONTACTOR, ELEMENT, 120VAC	EC01 EC02 EC03 EC04 EC05 EC06 EC07 EC08 EC09 EC10 EC11 EC12	12
2-40-277600*	SCR, POWER CONTROLLER, 277-600Vac	SCR	1
2-45-000011*	FUSE, CLASS J, JLS, 600V, 40 AMP	40A	36
2-45-000244*	HOLDER, FUSE, CLASS J, 3P, 600V, 60A	3-60-J	12
2-45-000581*	COVER, FUSE, CLASS J, FINGER SAFE, 1P, 600V, 60A		36
2-45-100103*	POWER DISTRIBUTION BLOCK, 760A, 3P, 2-LINE (4AWG-500KCMIL), 12-LOAD (14AWG-4AWG)	PDB1 PDB2	2
2-45-100104*	POWER DISTRIBUTION BLOCK, COVER		6
2-45-175114*	HOLDER, FUSE, SEMI-CONDUCTOR, 1P, 700V, 63A	1-60	2
2-45-178040*	FUSE, 40 AMP, SEMI-CONDUCTOR, 700V	40A	2

Installation: FACTORY Location: DOOR PANEL

CATALOG	DESCRIPTION	TAG	QTY
2-45-000365*	FUSE, CLASS CC, KLKD, 600V, 8 AMP	8A	1
2-45-000371*	HOLDER, FUSE, CLASS CC, 1P, 600V, 30A	1-30-CC	1
2-45-000381*	FUSE, CLASS CC, KLDR, 600V, 3 AMP	3A	2
2-45-000433*	HOLDER, FUSE, CLASS CC, 2P, 600V, 30A	2-30-CC	1
2-45-315004*	UNISTREAM-IO, 4-RTD INPUT	MODULE 2 MODULE 3	2
2-45-315005*	UNISTREAM-IO, DIGITAL INPUT/OUTPUT	MODULE 4	1
2-45-315068*	THERMISTOR, NTC, CURRENT LIMITING	CLT	1
2-45-315121*	PLC, INPUT/OUTPUT MODULE, ANALOG	MODULE 1	1
2-45-315123*	POWER SUPPLY, 24VDC	PS1	1
2-45-620001*	FIELDBUS COUPLER, MODBUS, RS-485, 24VDC	FBC	1
2-45-620004*	DB9 CABLE ASSEMBLY, MALE, TINNED WIRE LEADS		1
2-45-620002*	DIGITAL OUTPUT MODULE, 8-CHANNEL, 24VDC	DOM1	1
2-45-620003*	END MODULE	EM	1
2-45-880360*	RELAY, CONTROL, 120VAC, 2P	CR1A	1
2-45-880400*	RELAY, CONTROL, 24VDC, 2P	CR2A CR3A CR4A CR5A CR6A CR7A CR8A	7
7-60-000100*	I/O BOARD, PCB	SIB	1

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B.O.M. REVIEW: - -	APPROVED BY: MP 4/4/2025	PROJECT MANAGER:	SHEET 5 OF 6

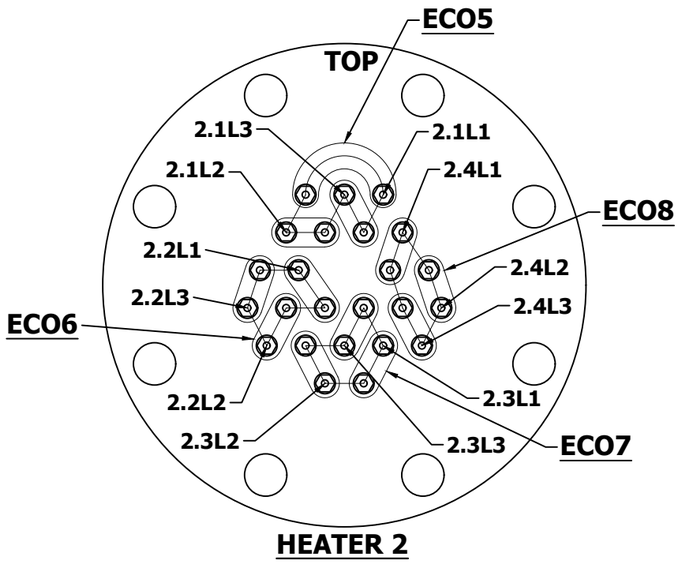
FULTON THERMAL CORPORATION

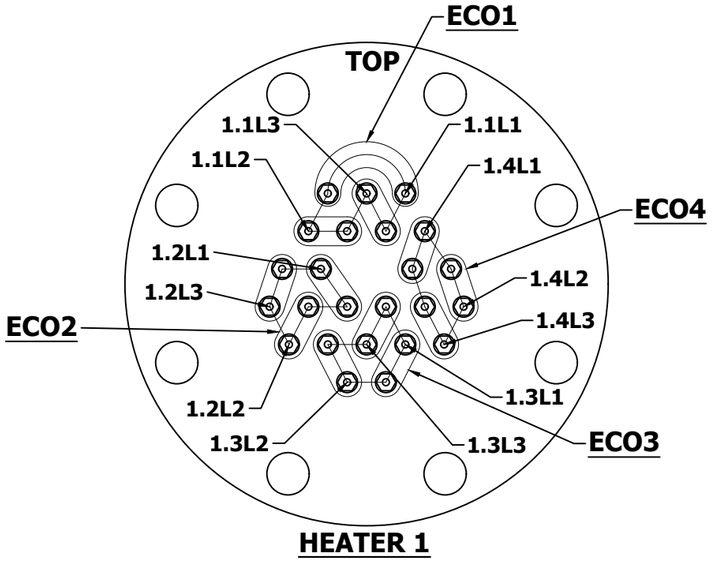
DRAWING NUMBER: 7-53-626360

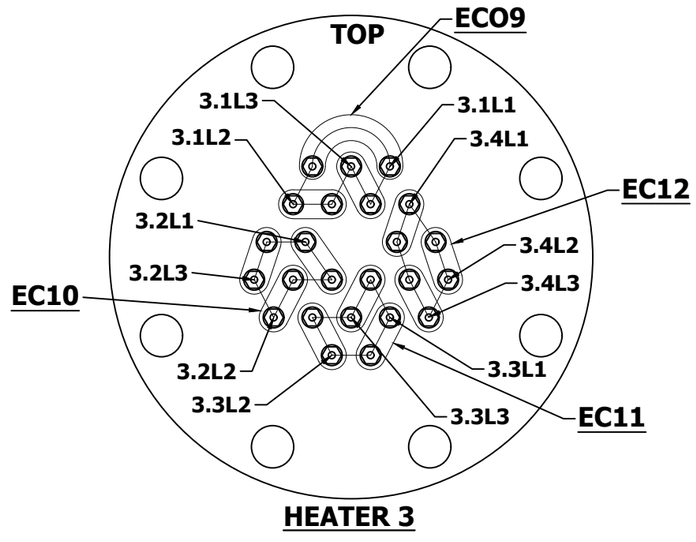
REV: -

ELEMENT DERATE CONFIGURATIONS		
DERATE	EC	ELEMENT CIRCUITS
360KW	EC01 - EC012	1.1L1 -3.4L3
330KW	EC01 - EC011	1.1L1 2.1L3, 2.3L1 - 3.4L3
300KW	EC01 - EC010	1.1L1 2.1L3, 2.3L1 - 2.3L3, 3.1L1 - 3.4L3
270KW	EC01 - EC09	1.1L1 2.1L3, 2.3L1 - 2.3L3, 3.1L1 - 3.3L3, 3.3L1 - 3.4L3

CONTROL RELAY / I/O OUTPUT						
HEATER	ECO	ELEMENT CIRCUITS	360KW	330KW	300KW	270KW
1	ECO 01	1.1 L1 L2 L3	1	1	1	1
1	ECO 02	1.2 L1 L2 L3	2	2	2	2
1	ECO 03	1.3 L1 L2 L3	3	3	3	3
1	ECO 04	1.4 L1 L2 L3	4	4	4	4
2	ECO 05	2.1 L1 L2 L3	5	5	5	5
2	ECO 06	2.2 L1 L2 L3	5			
2	ECO 07	2.3 L1 L2 L3	6	6	6	6
2	ECO 08	2.4 L1 L2 L3	6	6		
3	ECO 09	3.1 L1 L2 L3	7	7	7	7
3	ECO 10	3.2 L1 L2 L3	7	7	7	
3	ECO 11	3.3 L1 L2 L3	8	8	8	8
3	ECO 12	3.4 L1 L2 L3	8	8	8	8







NOTES;
1. ALL FIELD WIRING, CONDUIT (-+-+-+-+-) BY OTHERS.
2. (XX) DENOTES WIRE NUMBERS.
3. FIELD WIRING TO CLASS CC FUSE BLOCKS TO BE TORQUE @ 17.7 IN. LBS.
4. REMOVE FACTORY INSTALLED JUMPER(S) TO ENABLE CONNECTION(S).
5. (————) INDICATES OPTIONAL EQUIPMENT.
6. (- - - - - - - -) INDICATES WIRING CHANGES BASED ON DE-RATED OPTIONS.
7. RS232 NOT TERMINATED.
8. (—·—·—·—) INDICATES FACTORY FINAL WIRING.

REV	REVISION DESCRIPTION	B.O.M.	ELEC. ENG	MECH. ENG	CHECKED	APPROVED
-	INITIAL RELEASE -	- -	- -	- -	- -	- -

REVISION HISTORY

UNLESS OTHERWISE NOTED:
DIMENSIONS ARE IN INCHES
TOLERANCES ON
FRACTIONS ± 1/16
(2) PLACE DEC. ± .01
(3) PLACE DEC. ± .005
ANGLES ± 2 DEG.
SURFACE FINISH
250 MICRO-INCHES

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The items shown in this drawing may be covered by one or more patents of The Fulton Companies.

THIRD ANGLE PROJECTION

DRAWN BY: J.SALZMAN 3/14/2025	MECH. ENG: - -	JOB NUMBER:	DESCRIPTION: ELECTRICAL SCHEMATIC - ENDURA ZE BOILER - EZE-360, 600V/60HZ/3Ø
CHECKED BY: LNL 4/4/2025	ELEC. ENG: JES 4/4/2025	PROJECT NAME:	
B.O.M. REVIEW: - -	APPROVED BY: MP 4/4/2025	PROJECT MANAGER:	SHEET 6 OF 6

FULTON THERMAL CORPORATION

DRAWING NUMBER 7-53-626360 REV -