



LINCOLN ELECTRIC PRODUCTS CO., INC.

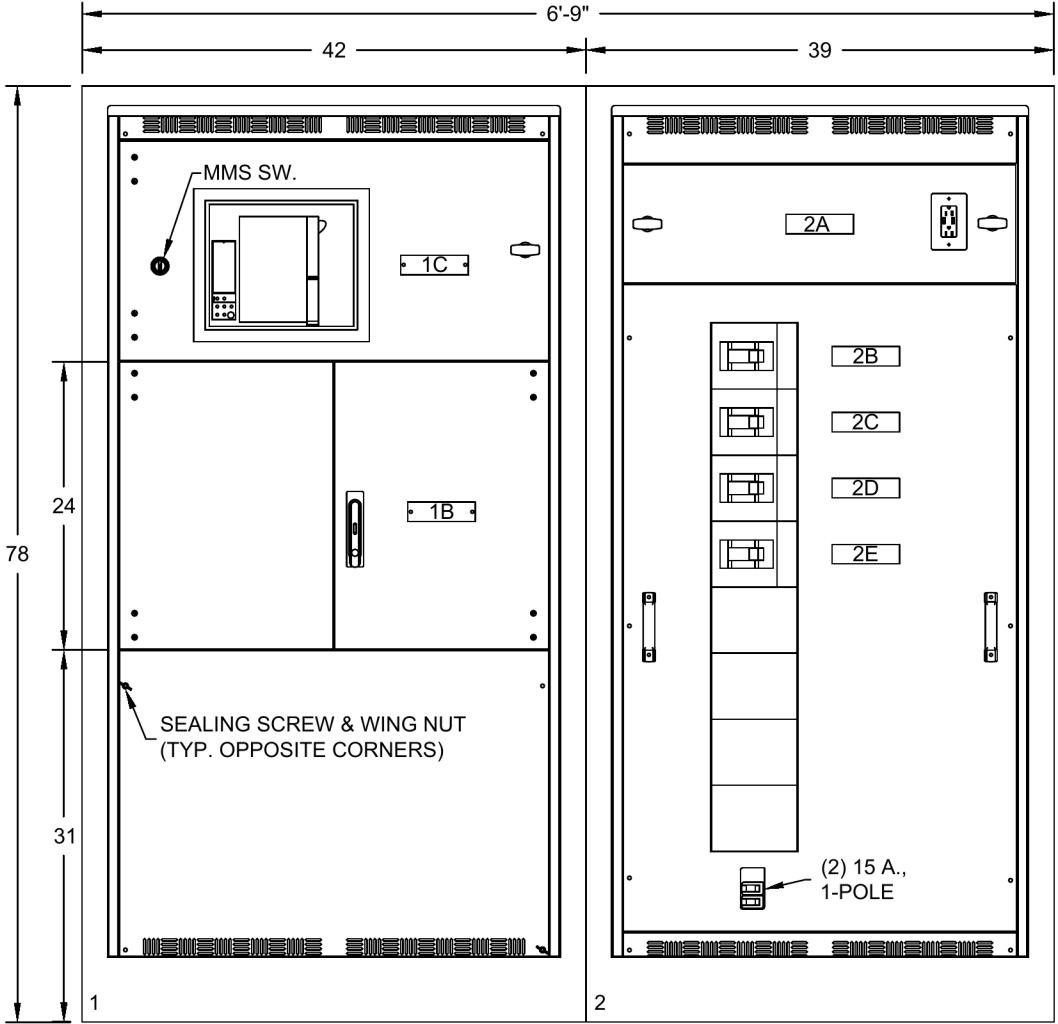
EV-2S 1200A

Inventory serial: 26682

Drawing/Part:		Qty.	Spec section: 262713 - Electricity Metering (Utility)
Number	Rev.		Description of material being submitted:
	1	-	EV-2 Drawing
	0		United Power Utility Metering Section Detail Drawing

NOTES:

1. This submittal represents Lincoln Electric's interpretation of the contract drawings provided. It is the responsibility of the electrical contractor and consulting engineer to verify this submittal for accuracy. Any deviation not indicated on the contract drawings will incur additional charges.
2. The customer must return the approved submittal accompanied by a written release to proceed with manufacturing and delivery of the included equipment.



FRONT VIEW
(SHOWN WITHOUT DOORS)

PRODUCT DESCRIPTION & RATINGS

PRODUCT TYPE [EV-2]

- LEVEL-3 SERVICE SWITCHBOARD

UTILITY INFORMATION [UNITED POWER]

- METER BEFORE DISCONNECT (HOT SEQUENCE)

POWER SYSTEM DATA [INCOMING SERVICE]

- SECTION 1 (BOTTOM FEED)

BUS SYSTEM DATA

- SILVER PLATED COPPER MAIN BUS

- DENSITY RATED AT 1000A PER SQUARE INCH

- 98% CONDUCTIVITY RATED IN ACCORDANCE w/ UL891

ENCLOSURE DATA

- CODE GAUGE, FORMED COVERS & DOORS

- ENCLOSURE SHALL CONFORM TO INGRESS PROTECTION IN ACCORDANCE WITH A TYPE-3R RATING.

- EXTERIOR HARDWARE TO BE TAMPER-RESISTANT S.S. SCREWS.

- DOOR HANDLES ARE EQUIPPED WITH PADLOCK HASP.

- FINISH SHALL BE: ☒ WHITE (STANDARD) ☐ GRAY ☐ GREEN

- FRONT ACCESSIBLE OMLY.

CODE STANDARDS

- UL891

NAMEPLATES

- LAMICOID TYPE, WHITE w/BLACK LETTERS.

ACCESSORIES

- ENCLOSURE HEATERS W/ HYGROSTAT CONTROL

- SERVICE DISCONNECT GROUND FAULT PROTECTION PER N.E.C. 230.95.

- A DOUBLE PADLOCK HASP IS PROVIDED ON EXTERIOR DOOR [SECTION-1], FOR JOINT CUSTOMER & UTILITY ACCESS TO THE SERVICE DISCONNECT.

REFERENCES:

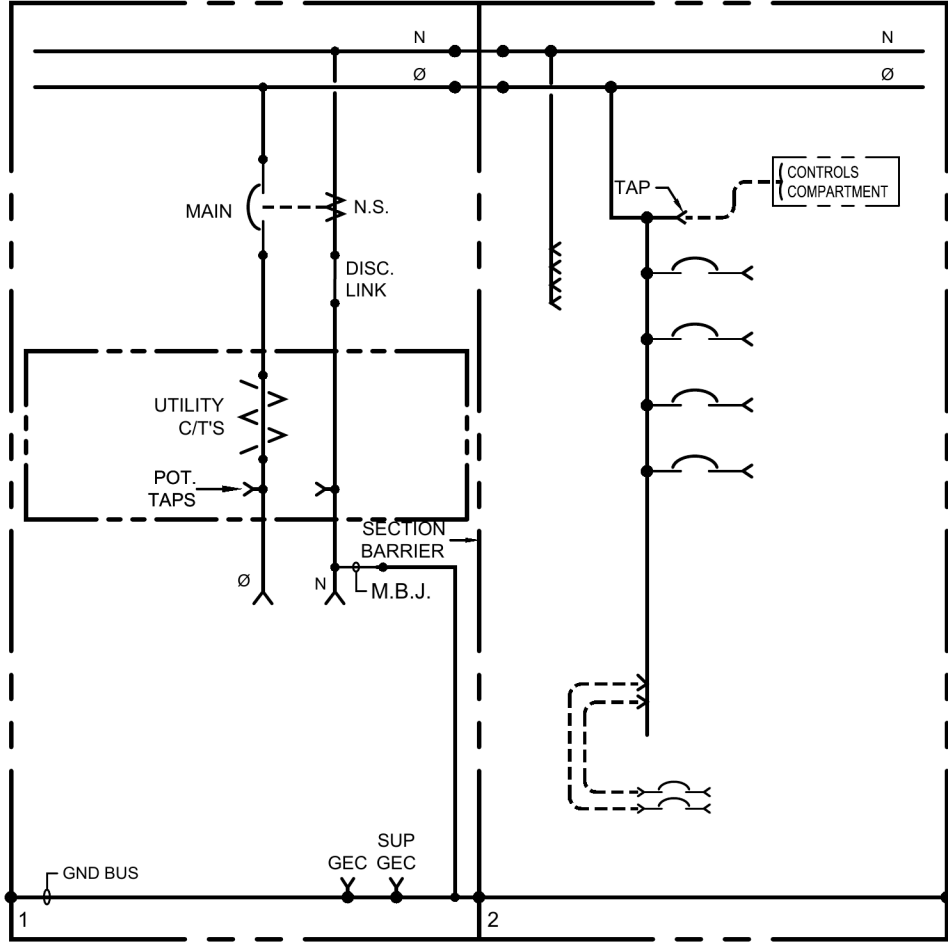
- FOR NAMEPLATE DESIGNATIONS SEE 'SWITCHBOARD SCHEDULE' SHT-03



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PRODUCTS CO., INC.

DRAWING TITLE		EQUIPMENT DESIGNATION				
FRONT VIEW		EV-2				
SHORT CIRCUIT RATING	VOLTAGE	AMPERAGE	SYSTEM	BUS MATERIAL	ENCLOSURE	REV
65kA. SYM. RMS	480Y/277V AC	1200A	3 ϕ , 4W	COPPER	TYPE-3R	0

SHEET NUMBER
1 OF 6



----- FACTORY WIRED

REFERENCES:
- FOR CONTROLS COMPARTMENT & SUB-PANEL DETAILS SEE SHT-06

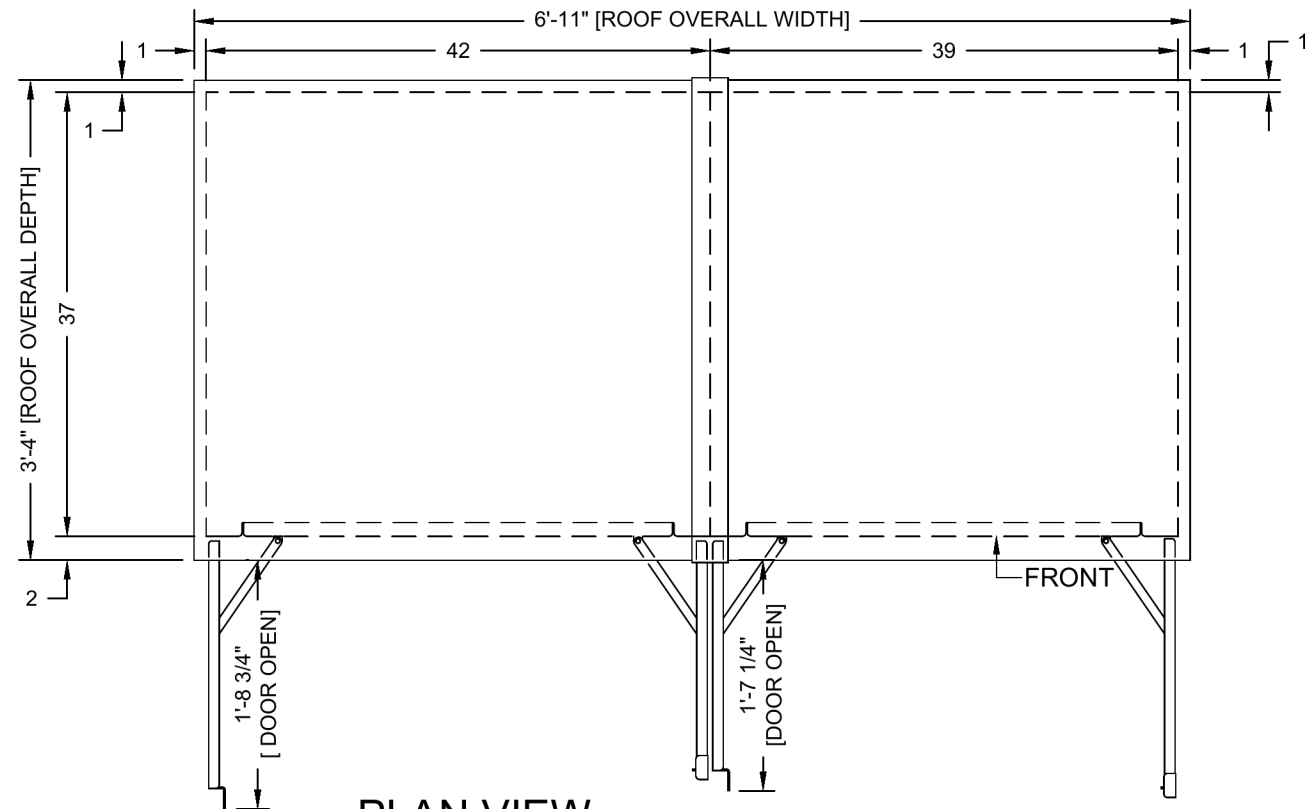


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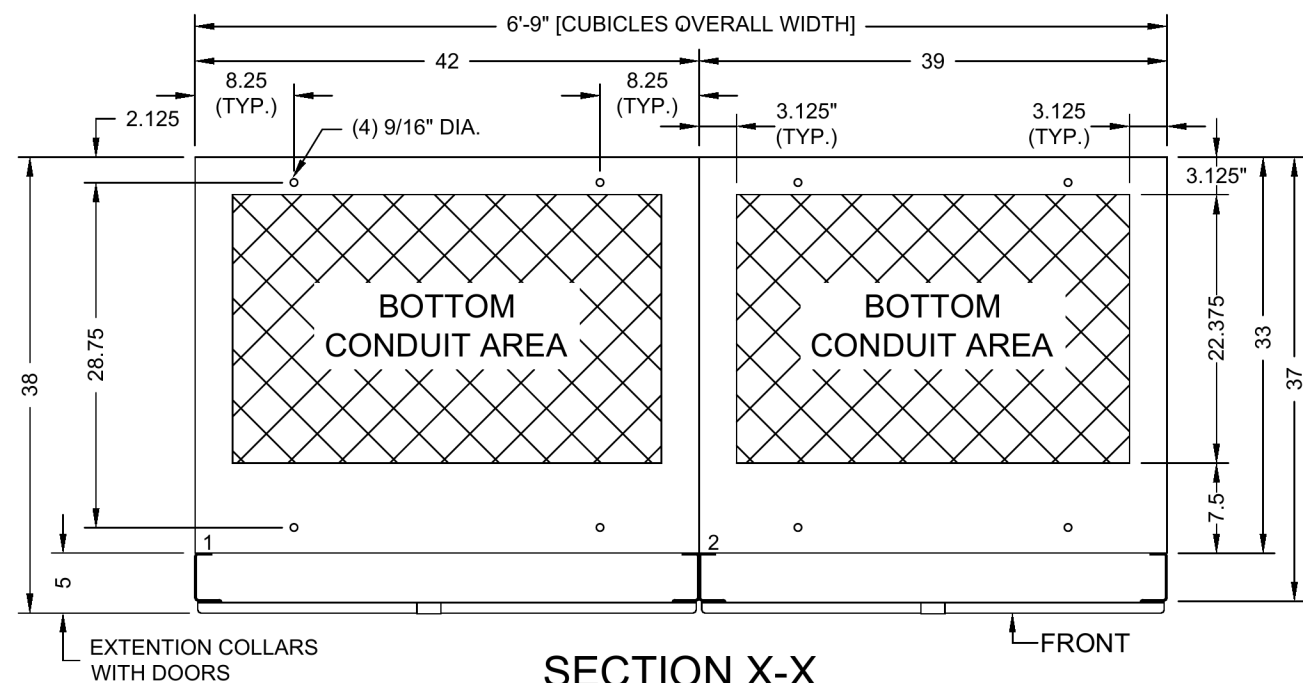
DRAWING TITLE		EQUIPMENT DESIGNATION				
ONE-LINE DIAGRAM		EV-2				
SHORT CIRCUIT RATING	VOLTAGE	AMPERAGE	SYSTEM	BUS MATERIAL	ENCLOSURE	REV
65kA. SYM. RMS	480Y/277V AC	1200A	3φ, 4W	COPPER	TYPE-3R	0

SHEET NUMBER
2 OF 6

SWITCHBOARD SCHEDULE																
CUB. LOCN.	DESIGNATION	DEVICE MANUFACTURER	FRAME RATING	TRIP RATING/ TYPE	# OF POLES	DEVICE CAT. NO.	LUG INFORMATION						CONDUCTOR MATERIAL	CABLE ENTRY	NOTES	
							QTY	PHASES	QTY	NEUTRAL	QTY	GROUND				
1	G.E.C.	-	-	-	-	-	-	-	-	-	2	(1) #6-350 KCMIL	COPPER	BOTTOM	-	
1	INCOMING	-	-	-	-	-	4	(1) #2-600 KCMIL	4	(1) #2-600 KCMIL	-	-	ALUMINUM	BOTTOM	-	
1A	SERVICE SWITCHBOARD 1200A., 3Ø, 4W., 480Y/277V														- DOUBLE PADLOCK HASP PROVIDED ON EXTERIOR DOOR [SQ-D CAT. NO. SS-2-PL OR EQUAL]	
1B	1200A. UNITED POWER C/T COMPARTMENT	-	-	-	-	(LEPCO-NBB-HS)	-	-	-	-	-	-	BUS CONNECTED	-	- C/T'S SUPPLIED & WIRED BY UTILITY	
1C	MAIN SERVICE DISCONNECT	SCHNEIDER	1200/3 'NW'	1200A LSIG	3	WL1CCV44A9SXXXXXXAZ	-	-	-	-	-	-	BUS CONNECTED	-	- 100% RATED - INTEGRAL GROUND FAULT PROTECTION - MMS (MAINTENANCE MODE SWITCH) - PADLOCK HASP - DOOR ESCUTCHEON (CAT.#: S33929) - NEUTRAL SENSOR (CAT. #: S34036)	
2A	CONTROLS COMPARTMENT	FACTORY WIRED													-	
2B	CHARGING CABINET	SCHNEIDER	400/3	300A ADJ. TRIP	3	LJP36400U31XYP	1	(2) #2/0-500 KCMIL	2	(1) #2-600 KCMIL	2	(1) #6-350 KCMIL	COPPER [CU GND]	BOTTOM	- PADLOCK HASP - MECHANICAL LUGS	
2C	CHARGING CABINET	SCHNEIDER	400/3	300A ADJ. TRIP	3	LJP36400U31XYP	1	(2) #2/0-500 KCMIL	2	(1) #2-600 KCMIL	2	(1) #6-350 KCMIL	COPPER [CU GND]	BOTTOM		
2D	CHARGING CABINET	SCHNEIDER	400/3	300A ADJ. TRIP	3	LJP36400U31XYP	1	(2) #2/0-500 KCMIL	2	(1) #2-600 KCMIL	2	(1) #6-350 KCMIL	COPPER [CU GND]	BOTTOM		
2E	CHARGING CABINET	SCHNEIDER	400/3	300A ADJ. TRIP	3	LJP36400U31XYP	1	(2) #2/0-500 KCMIL	2	(1) #2-600 KCMIL	2	(1) #6-350 KCMIL	COPPER [CU GND]	BOTTOM		
2	ACCESSORY/SPARE (277V.) [QTY: 2]	SCHNEIDER	125/1	15A THERMAL-MAG	1	BJL16015	1	#14-3/0 AWG	1	#14 - 1/0 AWG	1	#14 - 1/0 AWG	COPPER	BOTTOM	-	



PLAN VIEW
DOORS OPEN



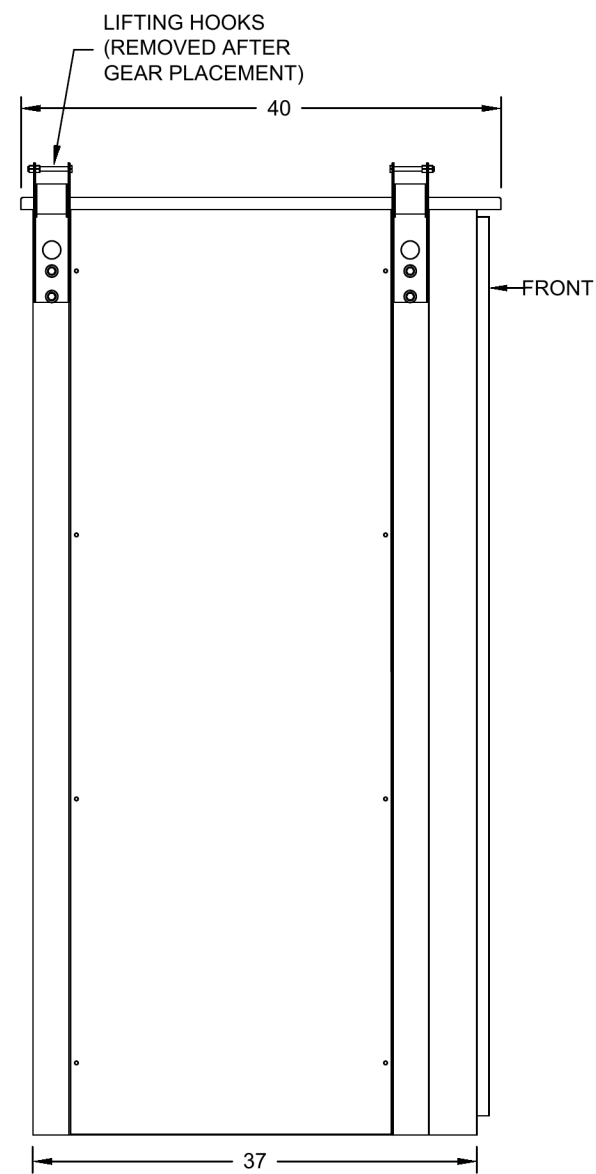
SECTION X-X
ANCHOR BOLT LOCATIONS & BOTTOM CONDUIT AREAS



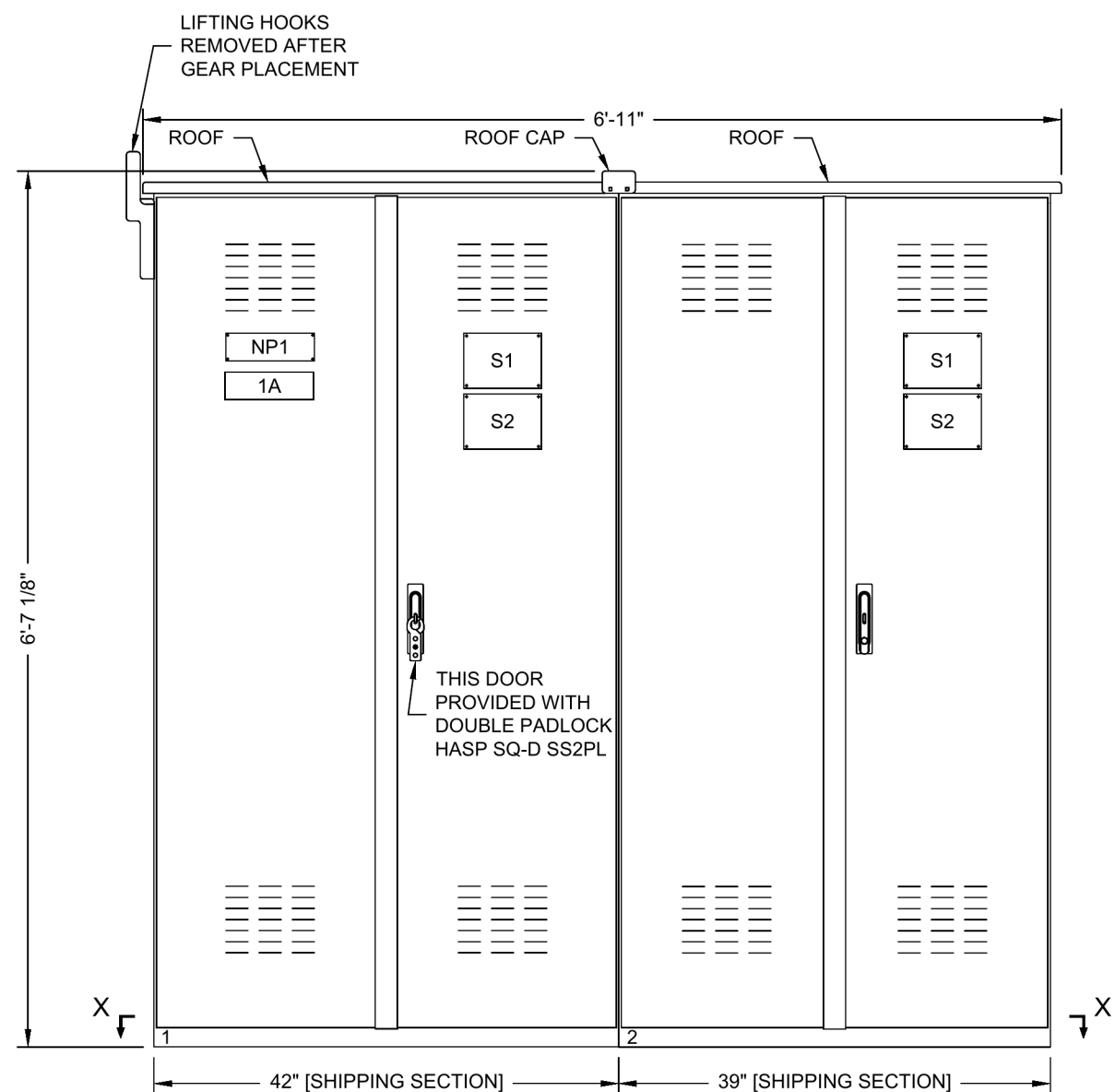
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PRODUCTS CO., INC.

DRAWING TITLE		EQUIPMENT DESIGNATION					
PLAN VIEW		EV-2					
SHORT CIRCUIT RATING	VOLTAGE	AMPERAGE	SYSTEM	BUS MATERIAL	ENCLOSURE	REV	
65kA. SYM. RMS	480Y/277V AC	1200A	3 ϕ , 4W	COPPER	TYPE-3R	0	

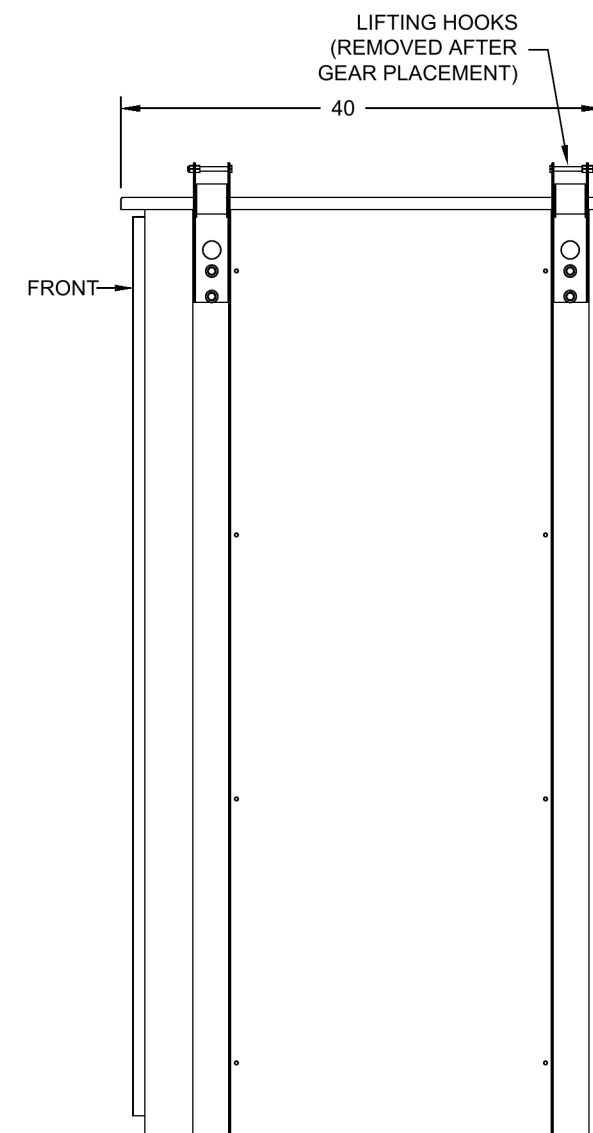
SHEET NUMBER
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LEFT-SIDE VIEW
(END SECTION)



FRONT VIEW
(EXTERIOR DOORS SHOWN)



RIGHT-SIDE VIEW
(END SECTION)

SIGNAGE:

NP1 -LINCOLN NAMEPLATE (2.5" x 8" ALUMINUM)
S1 -DANGER 480 VOLTS (BI-LINGUAL)
S2 -DANGER ARC FLASH (BI-LINGUAL)

REFERENCES:

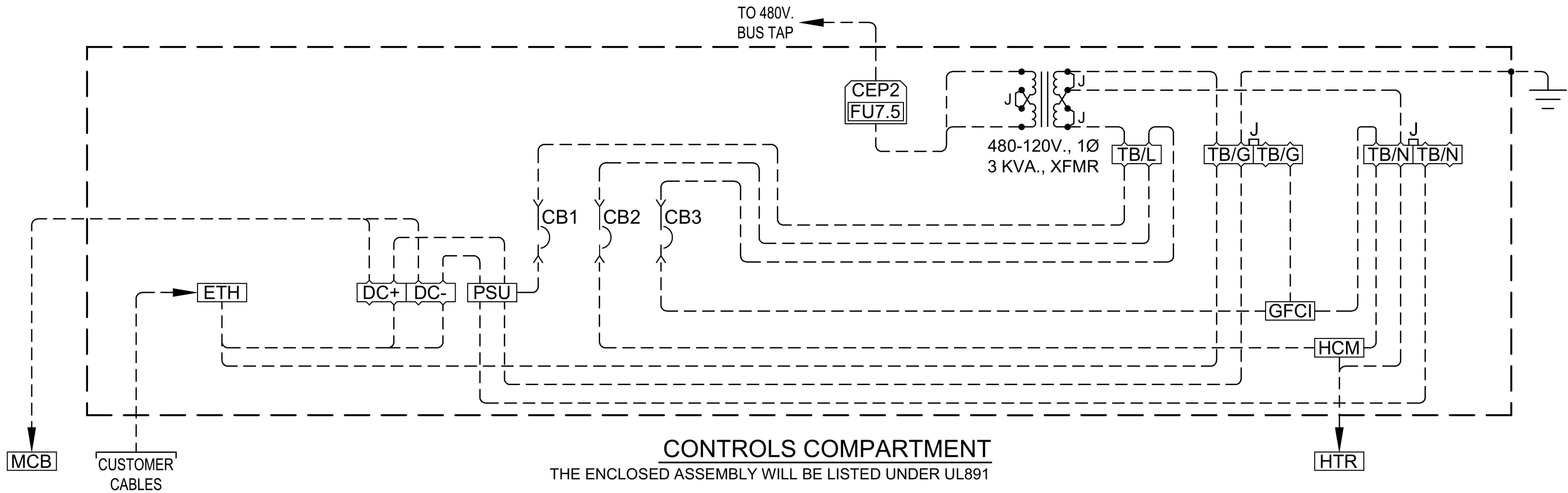
- FOR NAMEPLATE DESIGNATIONS SEE 'SWITCHBOARD SCHEDULE' SHT-03
- FOR SECTION VIEW 'X-X' SEE SHT-04



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DRAWING TITLE		EQUIPMENT DESIGNATION					
EXTERIOR VIEWS		EV-2					
SHORT CIRCUIT RATING	VOLTAGE	AMPERAGE	SYSTEM	BUS MATERIAL	ENCLOSURE	REV	
65kA. SYM. RMS	480Y/277V AC	1200A	3 ϕ , 4W	COPPER	TYPE-3R	0	

SHEET NUMBER
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LEGEND:

- CB1-2** -SCHNEIDER TYPE 'MULTI-9' MINIATURE CIRCUIT BREAKER:
8A. TRIP, 1-POLE, 10k A.I.C. @ 240VAC [CAT. #: M9F42108]
- CB3** -SCHNEIDER TYPE 'MULTI-9' MINIATURE CIRCUIT BREAKER:
15A. TRIP, 1-POLE, 10k A.I.C. @ 240VAC [CAT. #: M9F42115]
- CEP** -COMPACT FUSED DISCONNECT SWITCH [MFR: MERSEN CAT. #CEP-2-30CC]
- DC-** -TERMINAL BLOCK: 24VDC (-)
- DC+** -TERMINAL BLOCK: 24VDC (+)
- FU7.5** -FUSE TYPE 'FNQ-R' [MFR: BUSSMANN CAT. #FNQ-R-7 1/2]
- ETH** -ETHERNET SWITCH

- GFCI** -15A., 120V., GROUND FAULT CIRCUIT INTERRUPTER, DUPLEX RECEPTACLE,
WITH USB-A & USB-C CHARGING PORTS.
- HCM** -HYGROSTAT [MFR: STEGO CAT. # EFR-012]
- HTR** -FINNED STRIP HEATER 250W @ 120V. [MFR: VULCAN CAT. #OSF1310-250A]
- MCB** -MAIN CIRCUIT BREAKER
- PSU** -24VDC POWER SUPPLY UNIT [MFR: MEANWELL 75W. DC [CAT. # SDR-75-24]
- TB/G** -TERMINAL BLOCK: GROUND
- TB/L** -TERMINAL BLOCK: LINE
- TB/N** -TERMINAL BLOCK: NEUTRAL



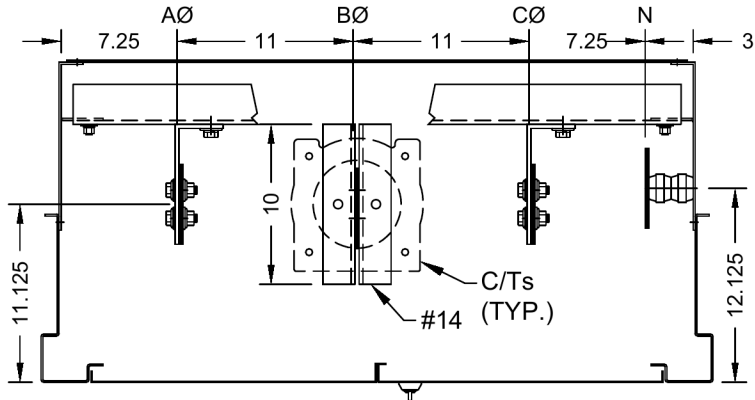
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DRAWING TITLE		EQUIPMENT DESIGNATION				
CONTROLS COMPARTMENT		EV-2				
SHORT CIRCUIT RATING	VOLTAGE	AMPERAGE	SYSTEM	BUS MATERIAL	ENCLOSURE	REV
65kA. SYM. RMS	480Y/277V AC	1200A	3φ, 4W	COPPER	TYPE-3R	0

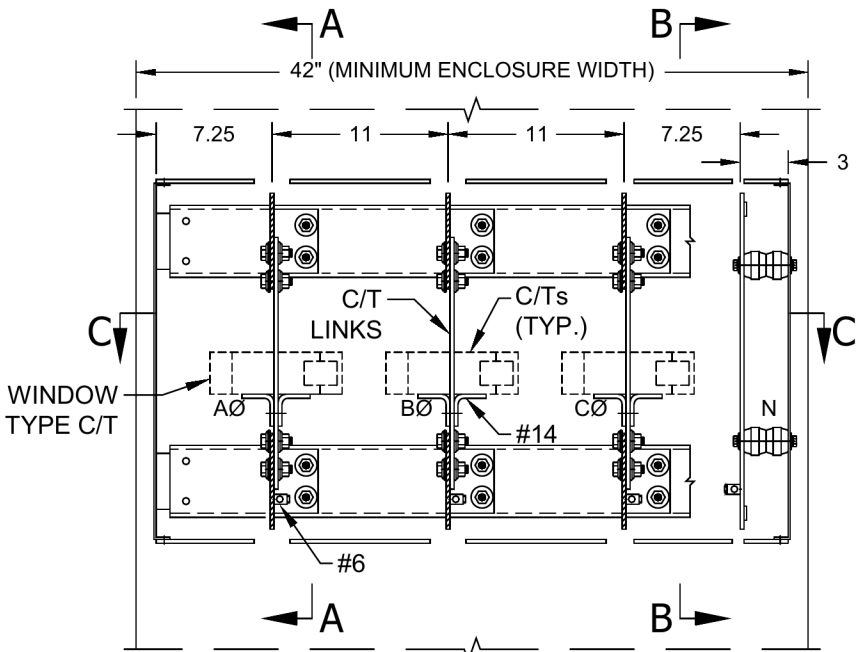
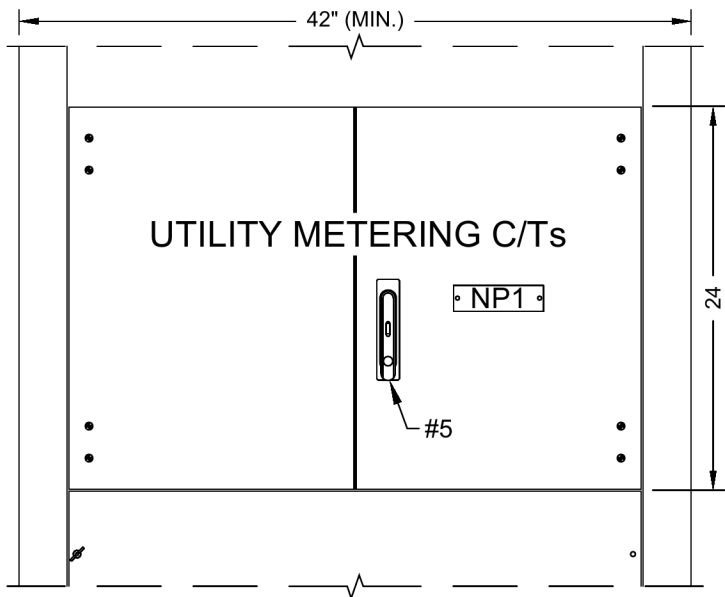
SHEET NUMBER
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NAMEPLATE TABLE (NOTE-8)	
NP	DESCRIPTION
NP1	1200A. UNITED POWER C/T COMPARTMENT

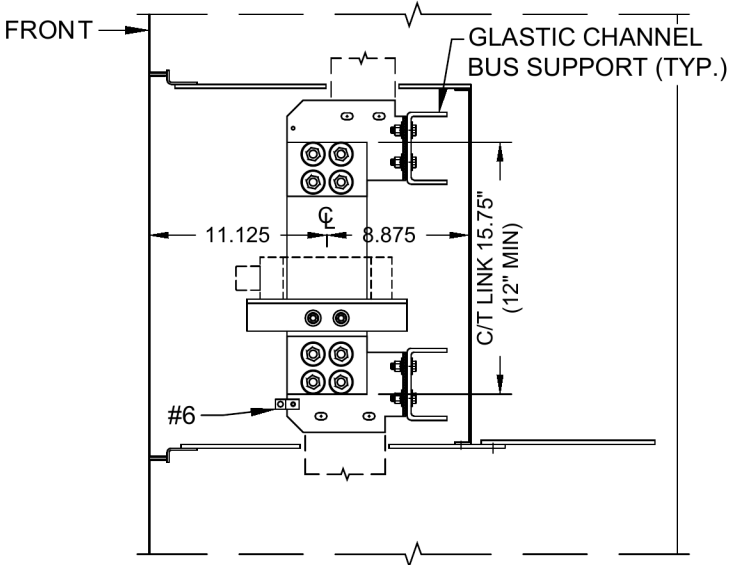
STANDARD BUSSING	
AMPERES	QTY & SIZE
1200	(1) 5" x 1/4" COPPER



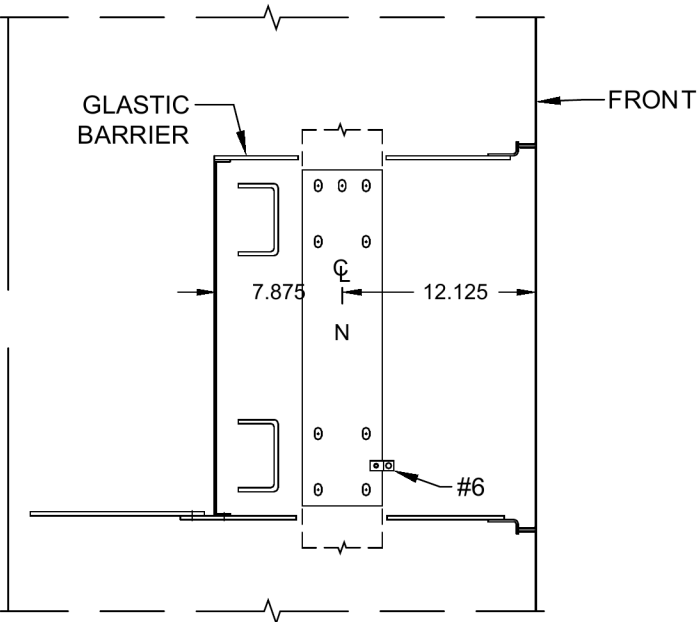
SECTION C-C



FRONT VIEW



SECTION A-A
(PHASE BUS)



SECTION B-B
(NEUTRAL BUS)

NOTES:

1. THE BUS BARS SHALL BE RIGIDLY SUPPORTED AND CAPABLE OF SUPPORTING THE WEIGHT OF THE CURRENT TRANSFORMER (15 POUNDS MAX.)
2. BUS BARS SHALL BE SILVER PLATED COPPER, 98% CONDUCTIVITY, RATED IN ACCORDANCE WITH UL 891.
3. THE C/T CABINET SHALL BE INSTALLED AS HOT-SEQUENCE ONLY (LINE-SIDE OF SERVICE DISCONNECT).
4. THE C/T SECTION SHALL BE SEPARATED FROM THE REST OF THE ENCLOSURE BY BARRIERS AND BE EQUIPPED WITH DOUBLE DOORS WITH A THREE-POINT CATCH.
5. THE C/T DOORS SHALL HAVE A FLUSH MOUNTED SWING-HANDLE WITH INTEGRATED HASP, TO ACCOMMODATE A PADLOCK WITH 5/16" DIAMETER SHANK.
6. A 1/4"-20 POTENTIAL TAPPED HOLE SHALL BE LOCATED ON THE LINE SIDE BUS DETAILS. A #14-1/0 AWG. MECHANICAL LUG, SHALL BE INSTALLED ON THE 1/4"-20 TAPPED HOLE.
7. WHEN HOUSED IN A TYPE-3R ENCLOSURE, THERE SHALL BE A SEPARATE EXTERIOR DOUBLE DOOR, WITH THREE-WAY CATCH. IT SHALL HAVE A FLUSH MOUNTED, SWING-HANDLE WITH INTEGRATED HASP, TO ACCOMMODATE A PADLOCK WITH 5/16" DIAMETER SHANK AND SHALL SPAN THE OVERALL WIDTH OF THE UTILITY COMPARTMENTS AND ALLOW THE HINGED PANELS TO OPEN 90 DEGREES. THE EXTERIOR DOORS SHALL HAVE STOPS TO SECURE THE DOORS IN THE OPEN 90 DEGREE POSITION. A DOUBLE PADLOCK HASP [SQ-D CAT. # SS2PL OR EQUAL] SHALL BE PROVIDED TO ALLOW FOR JOINT CUSTOMER / UTILITY ACCESS TO THE SERVICE DISCONNECT.
8. A LAMICOID NAMEPLATE 'NP1' SHALL BE PERMANENTLY AFFIXED TO THE C/T COMPARTMENT DOOR [REFER TO THE NAMEPLATE TABLE FOR THE DESCRIPTIVE TEXT].
9. REMOVABLE COVERS, OVER UN-METERED CONDUCTORS, SHALL HAVE SEALING SCREWS.
10. THE C/T'S ARE SUPPLIED AND WIRED BY THE UTILITY.
11. C/T LINKS SHALL BE SECURED WITH 1/2"-13, ZINC PLATED STEEL HEX HEAD BOLTS, FLAT & SPLIT LOCK WASHERS AND HEX NUTS.
12. BUS BOLTING TORQUE VALUES SHALL BE IDENTIFIED ON A PERMANENTLY AFFIXED LABEL WITHIN THE COMPARTMENT.
13. 1" HIGH LETTERING SHALL BE CONSPICUOUSLY PLACED ON LINE SIDE BUS DETAILS TO IDENTIFY PHASE AND NEUTRAL CONDUCTORS.
14. THE C/T MOUNTING BRACKETS SHALL BE FABRICATED FROM 2" x 2" x 1/4" THICK GLASTIC ANGLE.



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EQUIPMENT DESIGNATION

UTILITY METERING SECTION

SHORT CIRCUIT RATING	VOLTAGE	AMPERAGE	SYSTEM	BUS MATERIAL	REV
65kA. SYM. RMS	480Y/277	SEE TABLE	3 ϕ , 4W	COPPER	

SHEET NUMBER

1 OF 1