


MANUFACTURING INFORMATION

SYSTEM	
1 STANDARD-----	ANSI Standard
2 FREQUENCY (Hz)-----	60Hz
3 RATED VOLTAGE (kV)-----	27.6kV
4 RATED CURRENT (A)-----	1200A
5 BREAKER RATING BASIS (kA)-----	25kA
6 RATED CLOSING AND LATCHING CURRENT-----	65 peak kA
ENCLOSURE	
7 CABINET MATERIAL-----	Carbon Steel
8 ROOF MATERIAL-----	Carbon Steel
9 GROUND PAD FOR SURGE ARRESTOR MOUNTING-----	Not Required
10 INTERNAL GROUND BAR-----	One Ground bar required
11 HIGH SEISMIC-----	Standard Legs - 1 set of braces
12 EXTERIOR PAINT-----	ASA 61
13 CONTROL PANEL-----	Not Required
14 KIRK KEY INTERLOCK-----	Not Applicable
15 ARC VENTED-----	Arc Vented
CONNECTION	
16 STUD CONNECTOR-----	1.25 inches Tin-Plated Bronze to 4 Hole Pad
17 GROUND CONNECTOR-----	Bronze 2 hole to Cable #6-800 MCM
18 CONTROL TERMINAL BLOCKS-----	Bussmann-Cooper
19 SHORTING TERMINAL BLOCKS-----	General Electric
20 WIRING LUG-----	Insulated Ring Tongue / Panduit
BREAKER CONTROLS	
21 RELEASE COMBINATION-----	1. Spring Trip Coil 2. Trip Coil
22 CONTROL VOLTAGE - SPRING MOTOR/MAGNETIC ACTUATOR-----	DC 48 V
23 CONTROL VOLTAGE - CLOSING COIL SPRING MOTOR/MAGNETIC ACTUATOR-----	DC 48 V
24 CONTROL VOLTAGE - TRIP COIL SPRING MOTOR/MAG ACTUATOR-----	DC 48 V (3.5 cycle)
25 CONTROL VOLTAGE - SECOND TRIP COIL-----	DC 48 V (5 cycle)
26 CONTROL VOLTAGE - UNDER VOLTAGE DEVICE ON BREAKER-----	Not Required
27 AUXILIARY SWITCH PLUG CONNECTOR-----	12NO 12NC
28 CONTROL DISCONNECT-----	Disconnect Fuse 3KN 3FU
HEATERS	
29 HEATER APPLICATION-----	Heater 1/2 Voltage, 600 W
30 -40 DEGREE CENTIGRADE HEATER APPLICATION-----	Not Applicable
31 -50 DEGREE CENTIGRADE HEATER APPLICATION-----	Not Applicable
CONTROLS	
32 ADJUSTABLE THERMOSTAT-----	Not Applicable
33 SELECTION OF OUTLET AND LIGHT-----	Convenience Outlet / Light and Switch Required
34 CONVENIENCE OUTLET-----	Not Applicable
35 LIGHT AND SWITCH-----	Not Applicable
36 CONVENIENCE OUTLET WITH LIGHT SWITCH-----	Internal 20A GFCI Receptacle & Light, Door Activated Light Switch, Fuse Disconnect
37 LOSS OF CONTROL VOLTAGE MOTOR-----	Required
38 LOSS OF CONTROL VOLTAGE CLOSE COIL-----	Required
39 LOSS OF CONTROL VOLTAGE TRIP COIL-----	Required
40 LOSS OF CONTROL VOLTAGE HEATER-----	Required
41 HAND CRANK FOR MANUAL CHARGING OF THE CLOSING SPRING OF BREAKER-----	Required
WIRE SIZE	
42 CONTROL WIRE TYPE-----	SIS
43 CONTROL WIRE SIZE-----	#14 AWG
44 CURRENT TRANSFORMER SECONDARY WIRE SIZE-----	#12 AWG
45 WIRE MARKERS-----	Sleeve
46 WIRE MARKING-----	Source/Destination
SPECIALS	
47 SDV7 BREAKER CERTIFIED TEST REPORT-----	Required
48 27.6kV BUSHING ON 15.5kV-----	Not Applicable
49 WITNESS TESTING-----	Not Applicable
50 EMERGENCY STOP-----	Pull to Trip
51 EXTERNAL LIGHT (SIGNAL LIGHT)-----	Not Applicable
52 TOUCH UP PAINT-----	Required

SHOP NOTES:

1. PROVIDE HIGH TEMPERATURE WIRE FOR HEATER WIRING.
2. SEISMIC BRACING REQUIRED TO SHIP WITH ACCESSORIES.
3. SHOP TO INCLUDE INSTRUCTION MANUALS AND ALL BREAKER DRAWINGS IN THE PRINT POCKET OF EACH CIRCUIT BREAKER.

 Siemens Industry Inc. Raleigh, NC		PRODUCT TYPE SDV7-SE-AR		SCALE NTS		DRAWN: NP APPRV: NP		DOCUMENT NUMBER: SDV22-3009771887-100G101C
		PRELIMINARY APPROVAL CERTIFIED: X		SIEMENS SALES ORDER: 3009771887 LINE ITEM: 100		CUSTOMER: KODITENAI ELECTRIC COOPERATIVE, INC CUSTOMER PROJECT: PRAIRIE SUBSTATION GROUP: SDV7-SE-AR 27.6kV-25kA-1200A CUSTOMER ORDER: P.O. 18621, LINE 1		
DOCUMENT NAME: GENERAL INFORMATION SDV7-SE-AR 27.6kV-25-1200		APPROVED WITH MINOR TEXT CHANGES.		APPROVAL CERTIFIED:		01 10-20-2022 NP		02 12-05-2022 NP

BREAKER NAMEPLATE

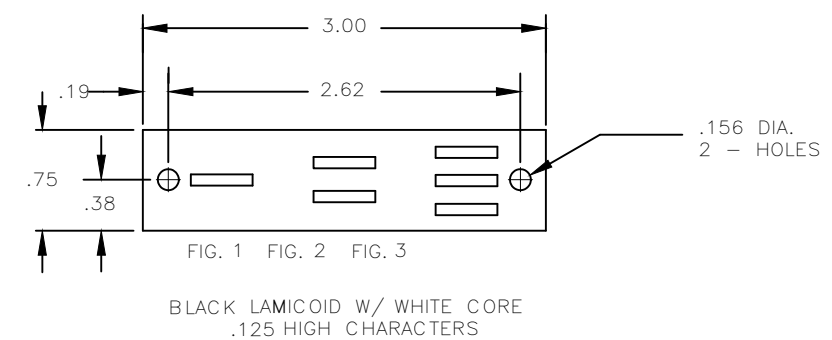
SIEMENS		
AC HIGH VOLTAGE CIRCUIT BREAKER		
Type SDV7-SE-AR With Type VS-25008 Interrupter		
Maximum Voltage 27.6 kV	Voltage Range Factor (K) 1.0	Rated Interrupting Time 3.5 (58) cycles (ms)
Continuous Current 1200 A	Short-Circuit Current 25 kA	Capacitance Current Switching General Purpose
Power Frequency 60 Hz	Out of Phase Current -- kA	Line Charging 5 A
Weight 3069 (1392) lbs (kg)	Full Wave Impulse Withstand (BIL) 150 kV	Isolated Bank Sw. 400 A
Operating Duty Cycle 0-0.3s-C0-15s-C0	% DC Component 48	Definite Purpose Line Charging 100 A
Minimum Reclosing Time 0.3 s	Short-Time Current Duration 3 s	Back-to-Back Sw. 400 A
Date of Mfr. 2023	Sales Order No. 3009771887	Inrush Peak 10 kA
Serial No. *SEE BELOW*	Sales Order Line Item 100	Inrush Frequency 4240 Hz
		Instruction Book and Parts List E50001-F710-K376-X-XXXX
		E50001-F710-K379-X-XXXX

OPERATOR INFORMATION

Type 3AH35-SE		
Motor 36-56 DC Range	Volts 8.0	Amps Nom.
Close 36-56 DC Range	Volts 15.0	Amps Nom.
Trip (Coil 1) 28-56 DC Range	Volts 15.0	Amps Nom.
Trip (Coil 2) 28-56 DC Range	Volts 1.25	Amps Nom.
Siemens Industry, Inc. Wendell, NC		Made in Querétaro, Mexico 18-763-405-002

ENGRAVE SERIAL NUMBERS AS FOLLOWS:
 NAMEPLATE 1 = 3009771887-100-1
 NAMEPLATE 2 = 3009771887-100-2
 NAMEPLATE 3 = 3009771887-100-3
 NAMEPLATE 4 = 3009771887-100-4

QTY. MK. 702	ITEM NO.	ENGRAVING LINE 1	ENGRAVING LINE 2	ENGRAVING LINE 3	FIG.	MOUNTING LOCATION
	101					
	102					
	103					
	104					
	105					
	106					
	107					
	108					
	109					
1	110	08T2	TRIP	POWER DISCONNECT	3	CONTROL COMPARTMENT
1	111	74-1	LOSS OF AC (HEATERS)	ALARM RELAY	3	CONTROL COMPARTMENT
1	112	74-2	LOSS OF DC (MOTOR)	ALARM RELAY	3	CONTROL COMPARTMENT
1	113	74-3	LOSS OF DC (CLOSE)	ALARM RELAY	3	CONTROL COMPARTMENT
1	114	74-4	LOSS OF DC (TRIP 1)	ALARM RELAY	3	CONTROL COMPARTMENT
1	115	74-5	LOSS OF DC (TRIP 2)	ALARM RELAY	3	CONTROL COMPARTMENT
1	116	08T1	TRIP	POWER DISCONNECT	3	CONTROL COMPARTMENT
1	117	08C	CLOSE	POWER DISCONNECT	3	CONTROL COMPARTMENT
1	118	08M	MOTOR	POWER DISCONNECT	3	CONTROL COMPARTMENT
1	119	08H	HEATER	POWER DISCONNECT	3	CONTROL COMPARTMENT
1	120	08R	RECEPTACLE & LIGHT	POWER FUSE	3	CONTROL COMPARTMENT



QUANTITY PER BREAKER
BREAKER MK701 - DEVICES MK702

QTY MK 701	QTY MK 702	ITEM NO.	NAMEPLATE DESCRIPTION	PART NUMBER
1		001	BREAKER NAMEPLATE (STAINLESS)	18-763-405-002
1		002	NAMEPLATE BCM 1200/5	72-180-388-008
1		003	NAMEPLATE BCM 600/5	72-180-388-007
	11	004	.062 X .75 X 3.00 NAMEPLATE	A7E03400000000
TOTAL QTY = 4				
TOTAL QTY = 4				
TOTAL QTY = 4				
TOTAL QTY = 44				

BCT NAMEPLATES

SIEMENS				
Type BCM Bushing Current Transformer				
Shop Order 3009771887-100	Frequency 60 Hertz	ANSI Acc. C400 0.3 B1.8	R. F. 2.0	Part No. 32404700037
Transformers this Part No. are Assembled on Terminals: 2-4-6 X		Current Ratio	Turn Ratio	Secondary Taps
Curve Sheet No. 18761292437		100-5	20-1	X2-X3
		200-5	40-1	X1-X2
Development of Winding		300-5	60-1	X1-X3
Polarity mark adjacent to terminal "X1" indicates that the end of the terminal bushing opposite the breaker contacts and terminal "X1" have like polarity with any combinations of taps. The tap numerically nearest "X1" has the same relative polarity as "X1".		400-5	80-1	X4-X5
		500-5	100-1	X3-X4
		600-5	120-1	X2-X4
		800-5	160-1	X1-X4
		900-5	180-1	X3-X5
		1000-5	200-1	X2-X5
		1200-5	240-1	X1-X5
Siemens Industry, Inc. Wendell, NC		72-180-388-008		

SIEMENS				
Type BCM Bushing Current Transformer				
Shop Order 3009771887-100	Frequency 60 Hertz	ANSI Acc. C200 0.3 B1.8	R. F. 2.0	Part No. 32404700036
Transformers this Part No. are Assembled on Terminals: 1-3-5 X		Current Ratio	Turn Ratio	Secondary Taps
Curve Sheet No. 18761292436		50-5	10-1	X2-X3
		100-5	20-1	X1-X2
Development of Winding		150-5	30-1	X1-X3
Polarity mark adjacent to terminal "X1" indicates that the end of the terminal bushing opposite the breaker contacts and terminal "X1" have like polarity with any combinations of taps. The tap numerically nearest "X1" has the same relative polarity as "X1".		200-5	40-1	X4-X5
		250-5	50-1	X3-X4
		300-5	60-1	X2-X4
		400-5	80-1	X1-X4
		450-5	90-1	X3-X5
		500-5	100-1	X2-X5
		600-5	120-1	X1-X5
Siemens Industry, Inc. Wendell, NC		72-180-388-007		

SIEMENS
Siemens Industry Inc.
Raleigh, NC

DOCUMENT NAME: NAMEPLATE ENGRAVING SDV7-SE-AR 27.6kV-25-1200

PRODUCT TYPE: SDV7-SE-AR

SCALE: NTS

DRAWN: NP

APPROV: NP

DOCUMENT NUMBER: SDV22-3009771887-100NP01C

PRELIMINARY: APPROVAL: CERTIFIED: X

SIEMENS SALES ORDER: 3009771887

LINE ITEM: 100

CUSTOMER: KODITENAI ELECTRIC COOPERATIVE, INC

CUSTOMER PROJECT: PRAIRIE SUBSTATION

GROUP: SDV7-SE-AR 27.6kV-25kA-1200A

CUSTOMER ORDER: P.O. 18621, LINE 1

01 10-20-2022 NP

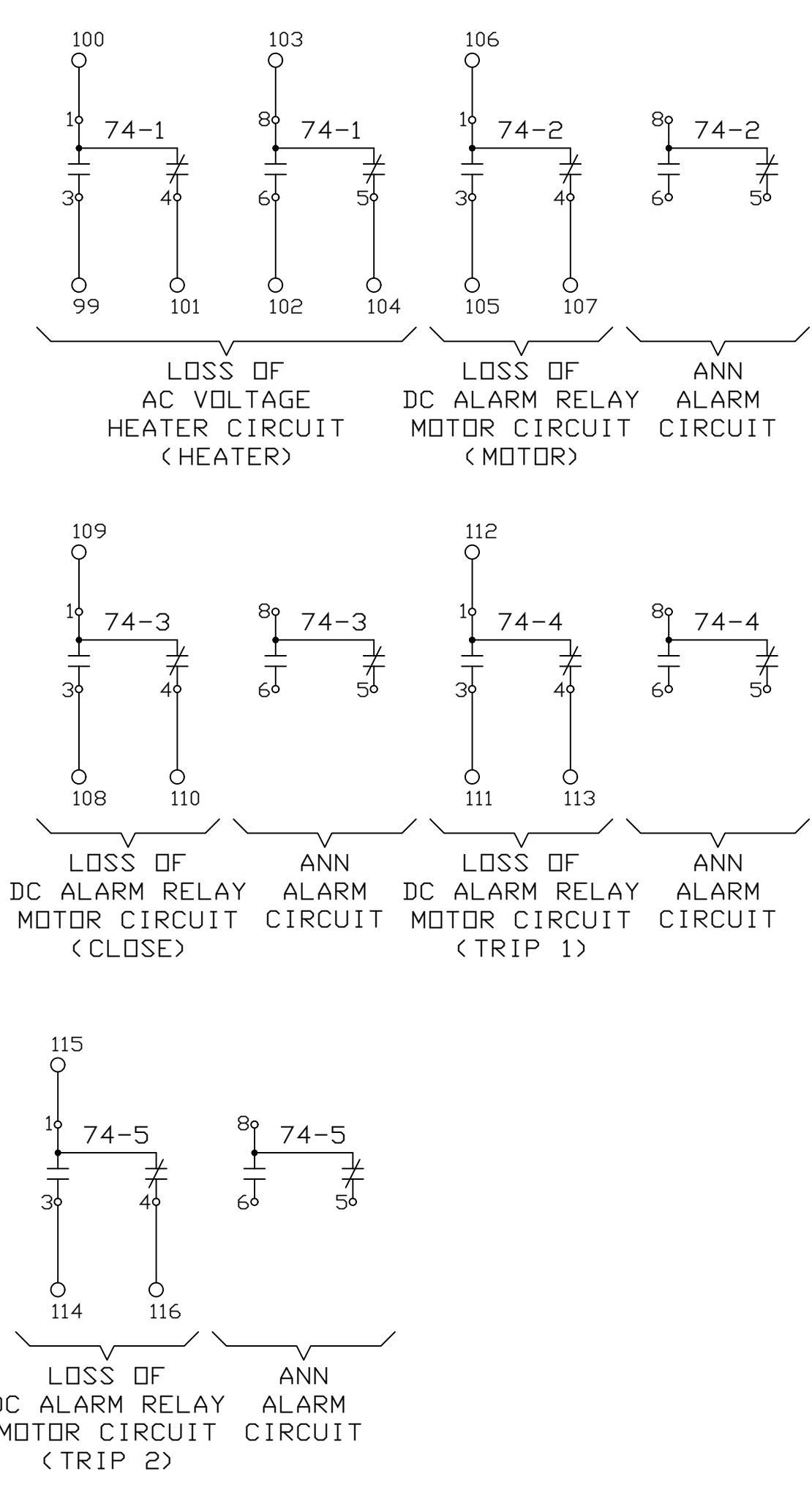
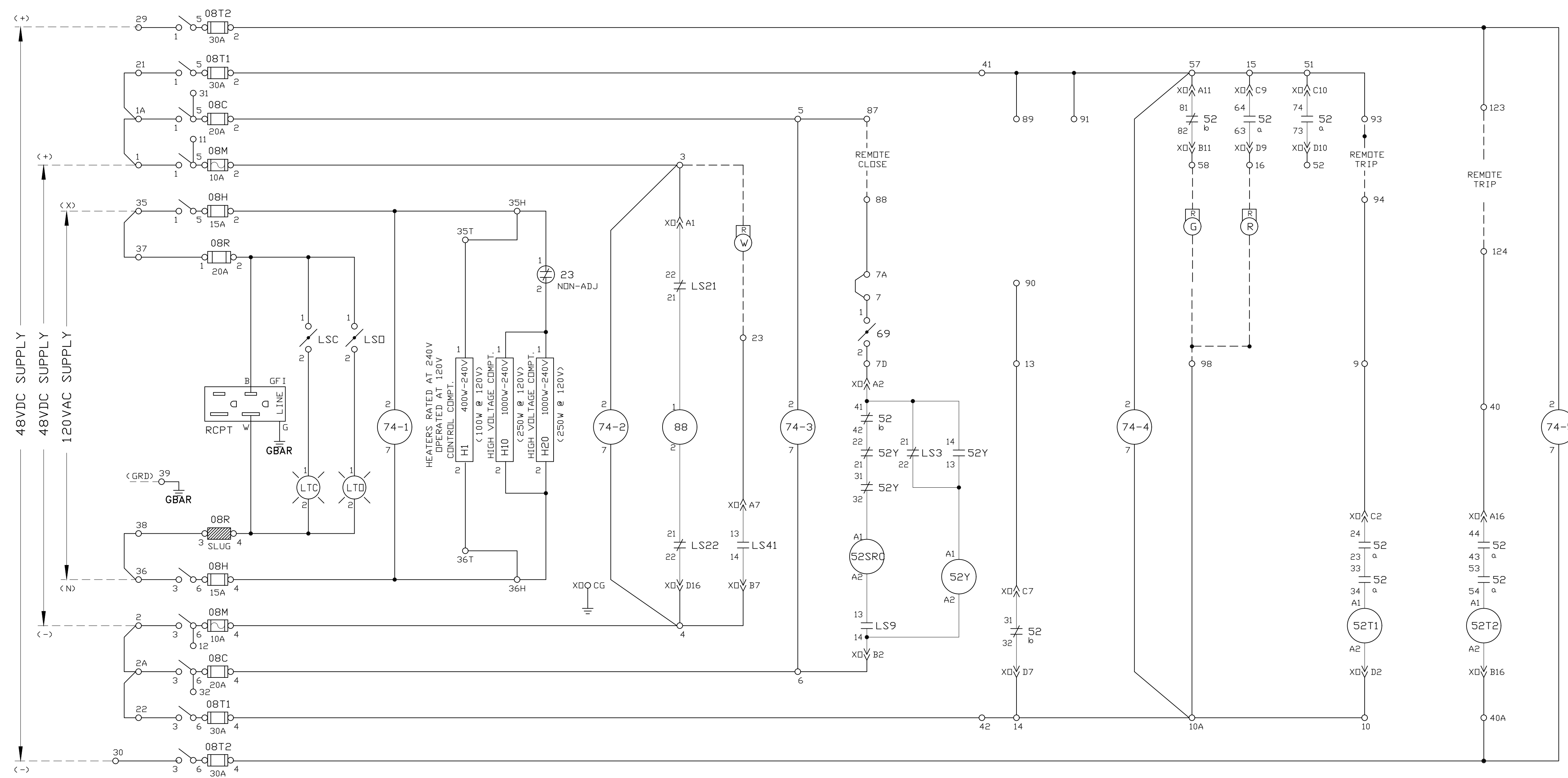
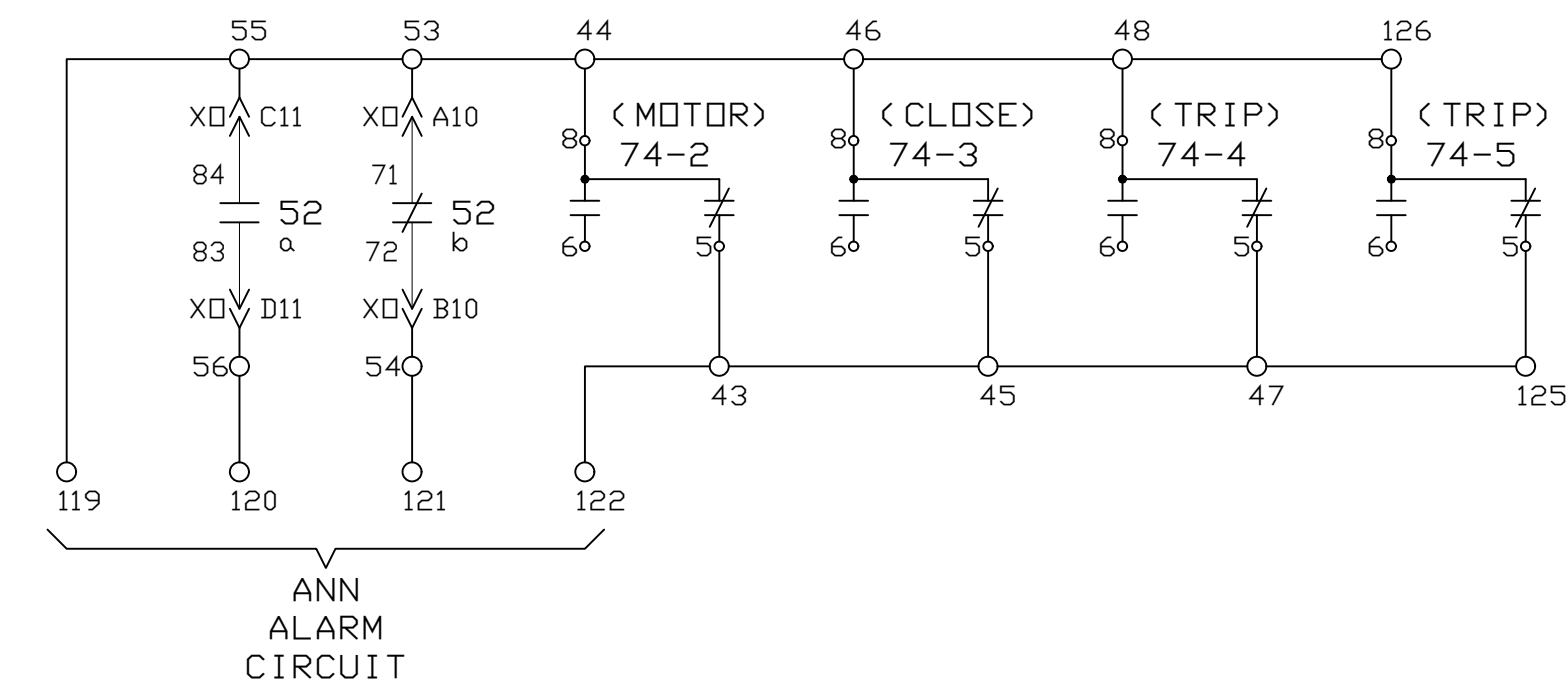
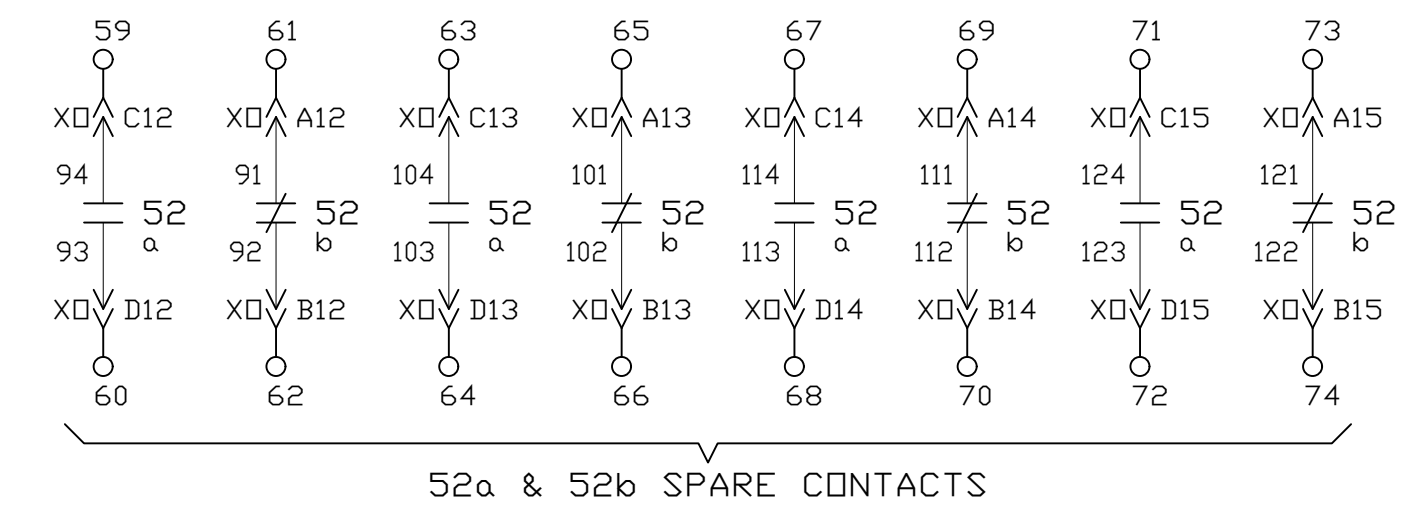
APPROVED WITH MINOR TEXT CHANGES. NOW CERRTIFIED.

02 12-05-2022 NP

LEGEND			
08C	CLOSE POWER DISCONNECT	LS3	CLOSING SPRING POSITION SWITCH, CLOSED
08H	HEATER POWER DISCONNECT	LS9	WHEN CLOSING SPRING IS DISCHARGED
08M	MOTOR POWER DISCONNECT	LS9	CLOSING SPRING POSITION SWITCH, OPEN
08D	LIGHT & RECEPTACLE POWER FUSE	LS21	WHEN CLOSING SPRING IS DISCHARGED
08T1	TRIP POWER DISCONNECT	LS21	MOTOR CUTOFF SWITCH, CLOSED
08T2	TRIP POWER DISCONNECT	LS22	WHEN CLOSING SPRING IS DISCHARGED
23	THERMOSTAT (HIGH VOLTAGE COMPARTMENT)	LS22	MOTOR CUTOFF SWITCH, CLOSED
52a	AUX SWITCH, OPEN WHEN BKR OPEN	LS41	WHEN CLOSING SPRING IS DISCHARGED
52b	AUX SWITCH, CLOSED WHEN BKR OPEN	LS41	CLOSING SPRING POSITION SWITCH, OPEN
52SRC	CLOSING, SPRING RELEASE COIL	LSC	WHEN CLOSING SPRING IS DISCHARGED
52T1	TRIP COIL	LSD	LIGHT SWITCH COMPARTMENT
52Y	ANTI PUMP RELAY	LSD	LIGHT SWITCH OPERATOR
69	CLOSING CUTOFF SWITCH	LTC	CONTROL COMPARTMENT LIGHT
74-1	LOSS OF AC ALARM RELAY (HEATER CKT.)	LTD	OPERATOR COMPARTMENT LIGHT
74-2	LOSS OF DC ALARM RELAY (MOTOR CKT.)	R	RED INDICATING LIGHT (REMOTE)
74-3	LOSS OF DC ALARM RELAY (CLOSE CKT.)	RCPT	DUPLEX RECEPTACLE (GFCI)
74-4	LOSS OF DC ALARM RELAY (TRIP CKT. 1)	W	WHITE INDICATING LIGHT (REMOTE)
74-5	LOSS OF DC ALARM RELAY (TRIP CKT. 2)	X0	PLUG CONNECTOR (OPERATOR CONNECTIONS)
88	MOTOR		
G	GREEN INDICATING LIGHT (REMOTE)		
H*	HEATER		

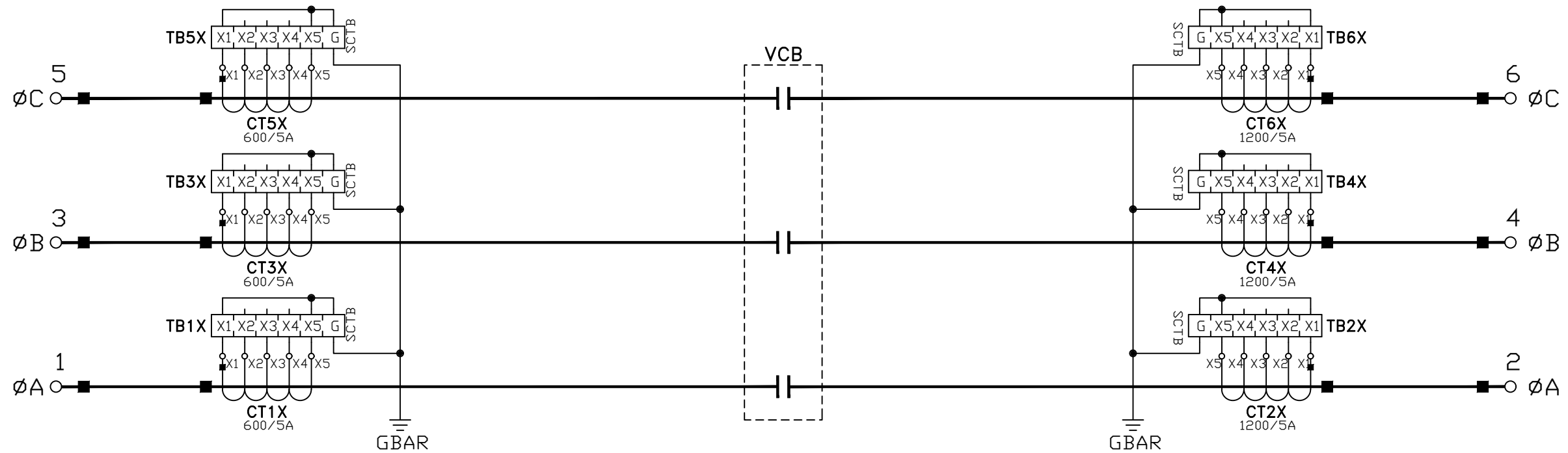
NOTES

1. ALL EQUIPMENT SHOWN WITH CIRCUIT BREAKER OPEN, TRIP LATCH NOT-RESET, RELAY DE-ENERGIZED AND SPRINGS DISCHARGED.

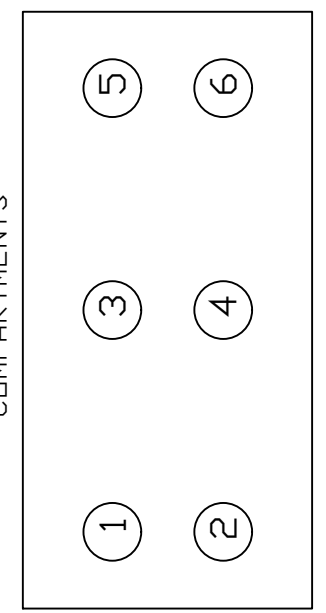


SIEMENS Siemens Industry, Inc. Raleigh, NC		PRODUCT TYPE SDV7-SE-AR	SCALE NTS	DRAWN: NP APPROV: NP
PRELIMINARY APPROVAL CERTIFIED: X	SIEMENS SALES ORDER: 3009771887 LINE ITEM: 100	CUSTOMER: ELECTRIC COOPERATIVE, INC	GROUP: SDV7-SE-AR 27.6kV-25kA-1200A	DOCUMENT NUMBER: SDV22-3009771887-100SC01D
01 10-20-2022 NP	REMOVED RED/GREEN INDICATING LIGHTS, CONTROL SWITCH, LOCAL/REMOTE SWITCH FROM CONTROL CABIN AS REQUESTED			
02 12-05-2022 NP				

NOTE:
SEE ELEMENTARY SCHEMATIC
DIAGRAM FOR DEVICE
LEGEND



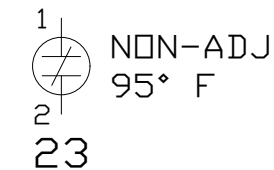
HIGH VOLTAGE AND LOW VOLTAGE
COMPARTMENTS



HIGH VOLTAGE COMPARTMENT
OPERATOR MECHANISM

02 12-05-2022 NP	APPROVED WITHOUT CHANGES. NOW CERTIFIED.	01 10-20-2022 NP	SIEMENS SALES ORDER: 3009771887 LINE ITEM: 100	PRELIMINARY: APPROVAL: CERTIFIED: X	PRODUCT TYPE SDV7-SE-AR	SIEMENS Siemens Industry Inc. Raleigh, NC		
		CUSTOMER: KOOTENAI ELECTRIC COOPERATIVE, INC CUSTOMER PROJECT: PRAIRIE SUBSTATION GROUP: SDV7-SE-AR 27.6kV-25kA-1200A CUSTOMER ORDER: P.O. 18621, LINE 1			SCALE NTS		DOCUMENT NAME: SCHEMATIC DRAWING SDV7-SE-AR 27.6kV-25-1200	
					DRAWN: NP APPRV: NP	DOCUMENT NUMBER: SDV22-3009771887-100SC02B		

HI-VOLTAGE COMPARTMENT
(VIEW FROM UPPER DOOR-CONTROL COMPARTMENT SIDE)



1=TB: 35H (14)
2=H10: 1 (14HT)
2=H20: 1 (14HT)



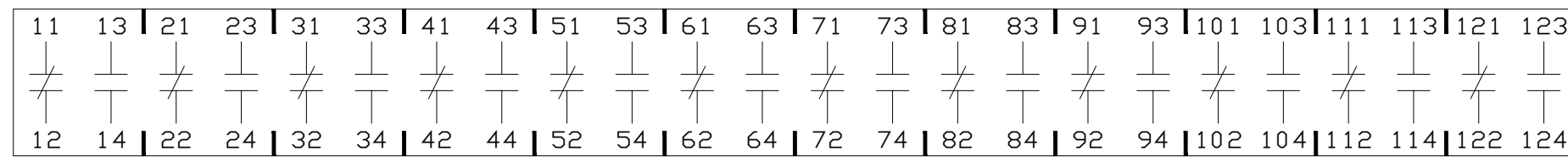
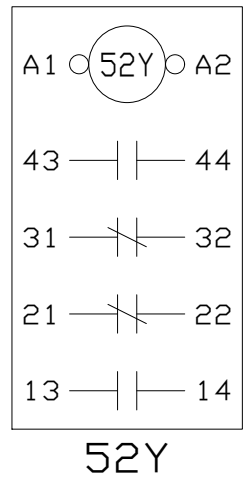
H10
1=23: 2 (14HT)
2=TB: 36H (14HT)



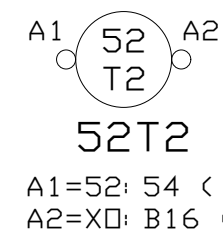
H20
1=23: 2 (14HT)
2=TB: 36H (14HT)

NOTES:

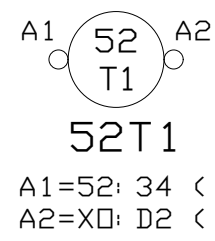
- STANDARD WIRE IS #14 TYPE SIS UNLESS SPECIFIED OTHERWISE.
- WIRING DIAGRAMS DO NOT SHOW EXACT LOCATIONS OF DEVICES.
- FOR ADDITIONAL CONNECTIONS SEE DRAWING SDV22-3009771887-100BCT01C



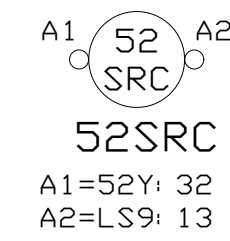
13=52Y: A1 (16)
13=LS3: 22 (16)
14=52: 41 (16)
14=LS3: 21 (16)
21=52Y: 31 (16)
22=52: 42 (16)
31=52Y: 21 (16)
32=52SRC: A1 (16)
A1=52Y: 13 (16)
A2=LS9: 14 (16)
A2=XD: B2 (16)



A1=52: 54 (16)
A2=XD: B16 (16)



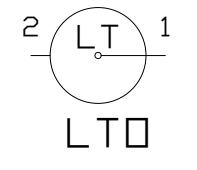
A1=52: 34 (16)
A2=XD: D2 (16)



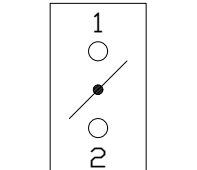
A1=52Y: 32 (16)
A2=LS9: 13 (16)

OPERATOR MECHANISM COMPARTMENT
(VIEW FROM OPERATOR COMPARTMENT DOOR)

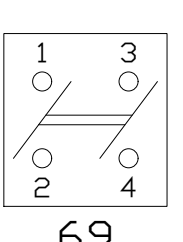
LOW VOLTAGE COMPARTMENT
(OPERATOR MECHANISM VIEW)
(RH SIDE)



1=LS0: 2 (12)
2=08R: 4 (12)

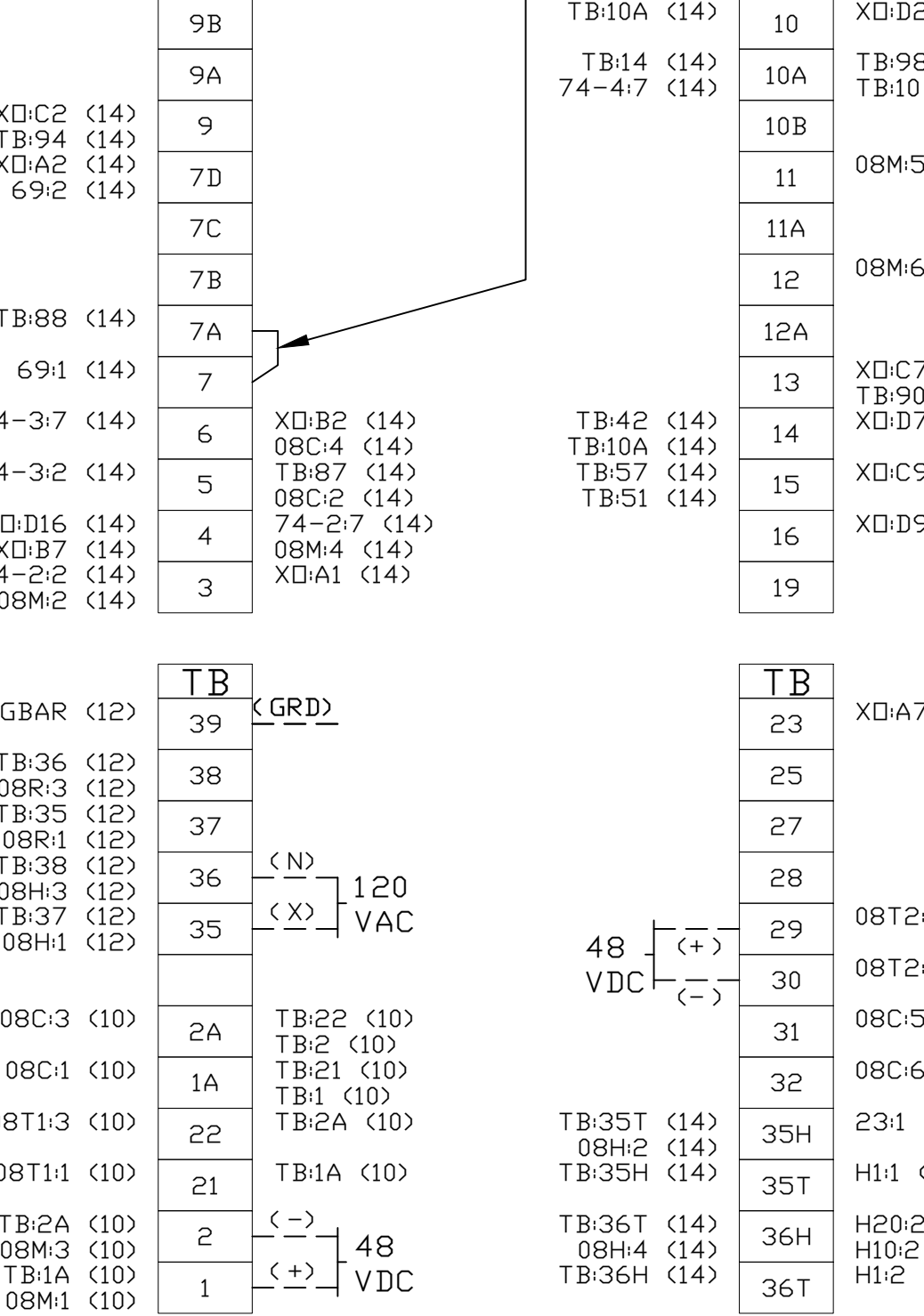


1=08R: 2 (12)
2=LTD: 1 (12)

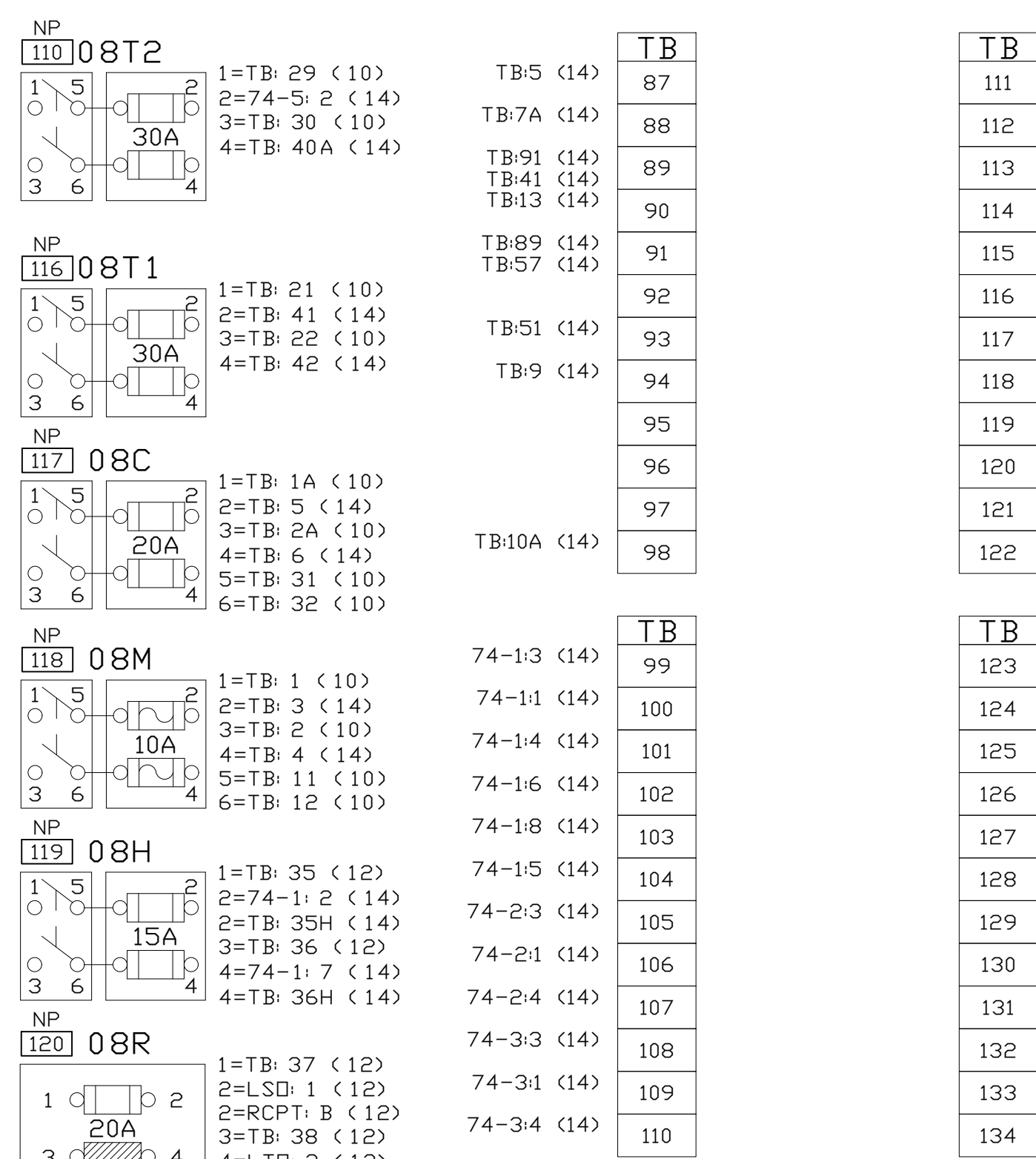


1=TB: 7 (14)
2=TB: 7D (14)

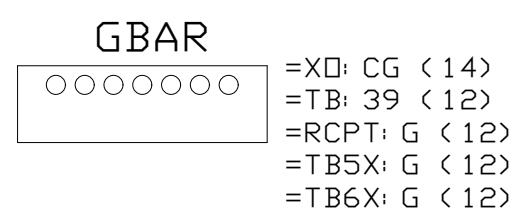
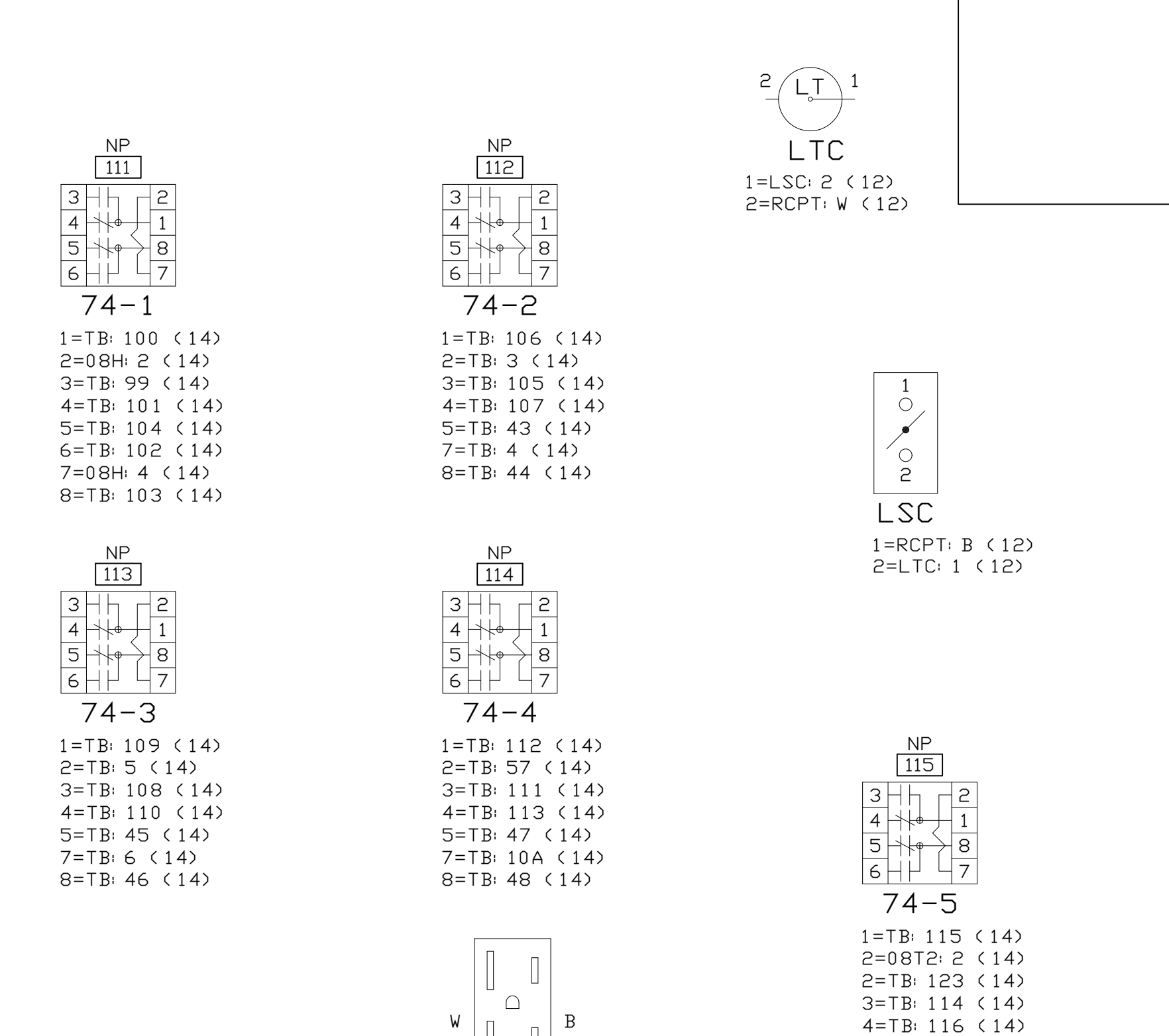
CONTROL COMPARTMENT
(LH SIDE VIEW FROM CONTROL COMPARTMENT DOOR)



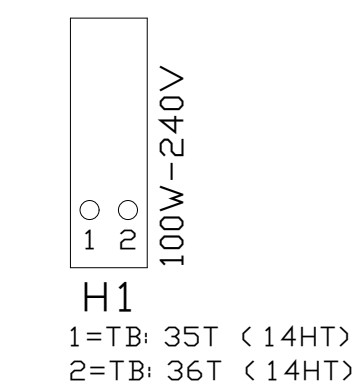
CONTROL COMPARTMENT
(VIEW FROM CONTROL COMPARTMENT DOOR)



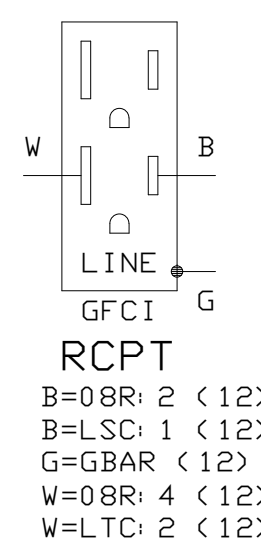
CONTROL COMPARTMENT
(RH SIDE VIEW FROM CONTROL COMPARTMENT DOOR)



=XD: CG (14)
=TB: 39 (12)
=RCPT: G (12)
=TB5X: G (12)
=TB6X: G (12)



H1
1=TB: 35T (14HT)
2=TB: 36T (14HT)



RCPT
B=08R: 2 (12)
B=LSC: 1 (12)
G=GBAR (12)
W=08R: 4 (12)
W=LTC: 2 (12)

SIEMENS
Siemens Energy, Inc.
Roanoke, VA

PRODUCT TYPE: SDV7-SE-AR
SCALE: NTS
DRAWN: NP
APPROV: NP

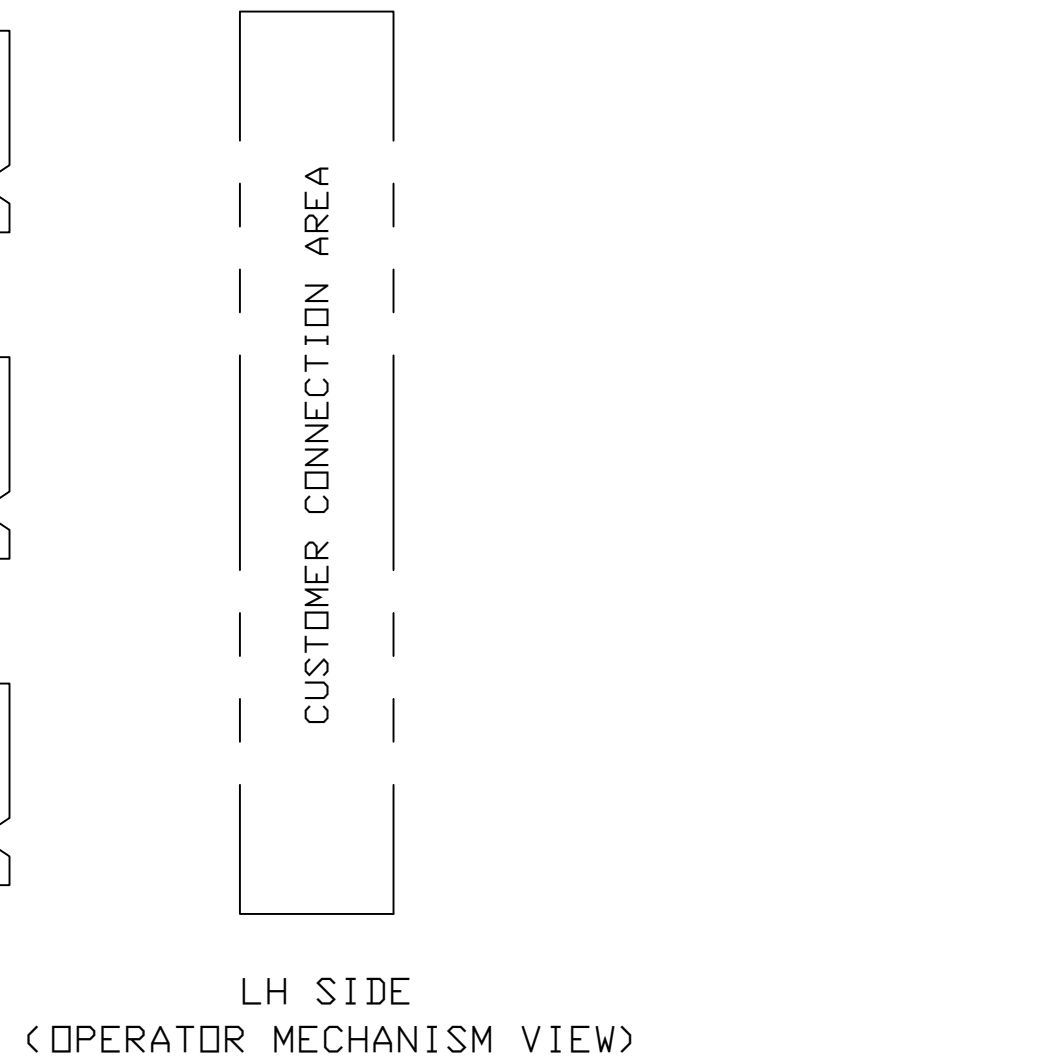
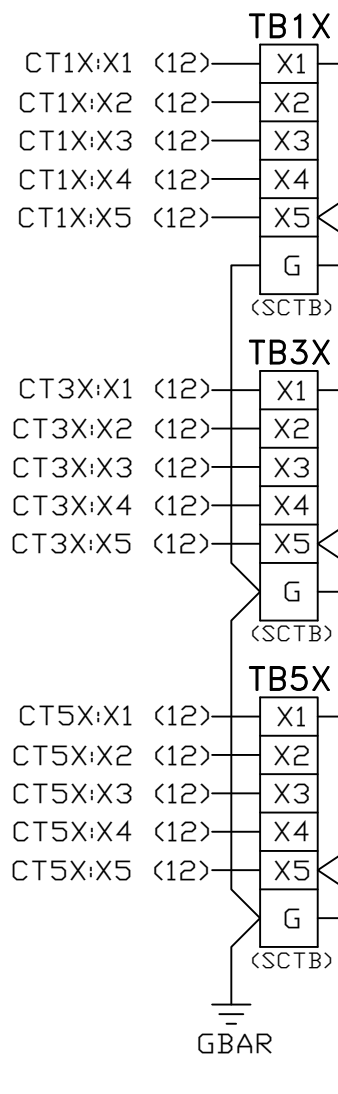
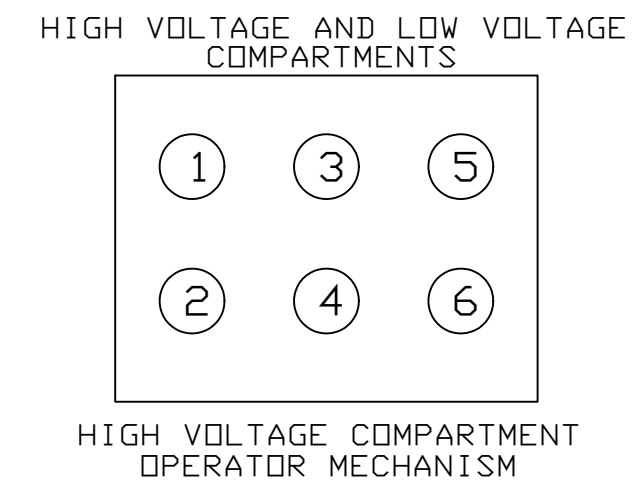
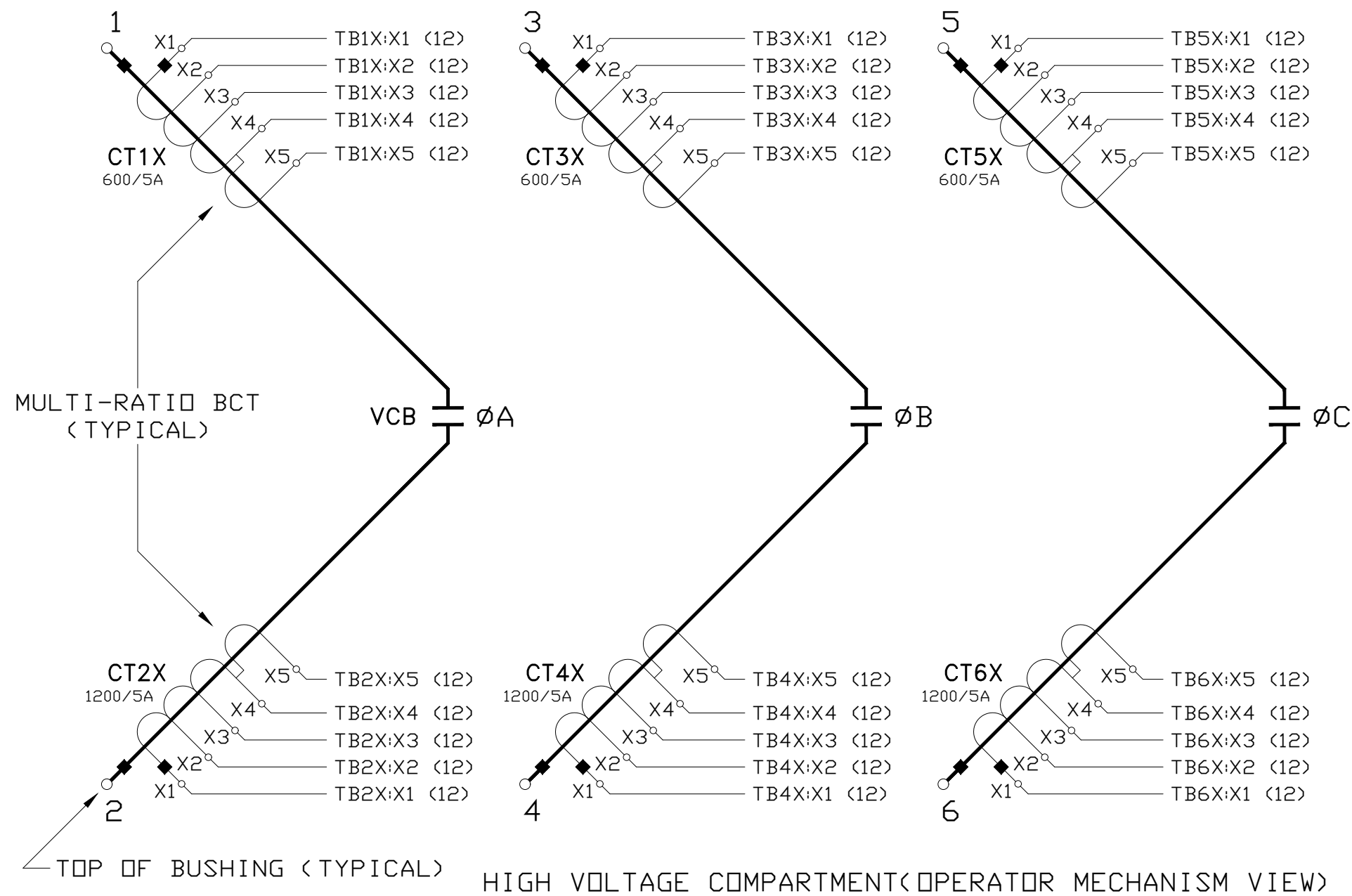
PRELIMINARY: APPROVAL: CERTIFIED: X
SIEMENS SALES ORDER: 3009771887
LINE ITEM: 100

CUSTOMER: KENTON ELECTRIC COOPERATIVE, INC
CUSTOMER PROJECT: PRAIRIE SUBSTATION
GROUP: SDV7-SE-AR 27.6kV-25kA-1200A
CUSTOMER ORDER: P.D. 1862L, LINE 1

DATE: 12-09-2022
DATE: 12-09-2022

CONNECTION DIAGRAM
SDV7-SE-AR 27.6kV-25-1200

DOCUMENT NUMBER: SDV22-3009771887-100WD01D

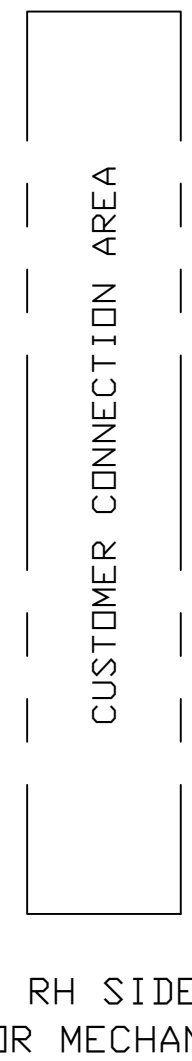
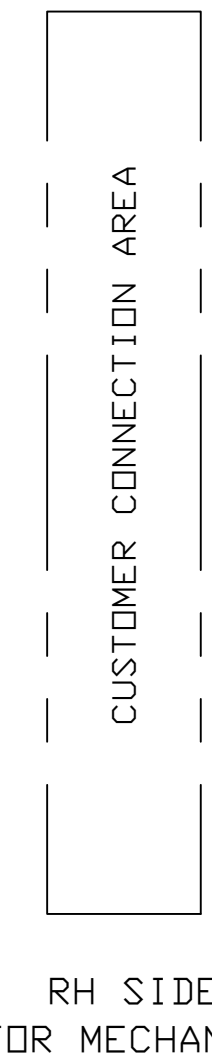


LH SIDE
(OPERATOR MECHANISM VIEW)

- NOTES:
- SHORT CIRCUIT EACH BUSHING CT AT ASSEMBLY USING SHORTING SCREWS.
 - JUMPERS AT CT TERMINAL BLOCKS TO BE LEFT LONG ENOUGH TO REACH ANY POINT FOR CT TAP CHANGE.
 - WIRING IS #12 TYPE SIS UNLESS SPECIFIED OTHERWISE.
 - LEADS FROM RELAY PANEL TO BE LEFT LONG ENOUGH TO REACH ANY POINT ON ANY CT TERMINAL BLOCK.

SHOP NOTE:
TERMINAL BLOCKS MOUNTED ON
SIDE PLATES ADJACENT TO
OPERATOR MECHANISM

LOW VOLTAGE COMPARTMENT
(OPERATOR MECHANISM VIEW)



RH SIDE
(OPERATOR MECHANISM VIEW)

1-3-5 X 2-4-6 X

TAPS	600/5		1200/5		2000/5		3000/5		4000/5	
	TURNS	RATIO	TURNS	RATIO	TURNS	RATIO	TURNS	RATIO	TURNS	RATIO
X2-X3	10	50/5	20	100/5	160	800/5	240	1200/5	300	1500/5
X1-X2	20	100/5	40	200/5	80	400/5	200	1000/5	100	500/5
X1-X3	30	150/5	60	300/5	240	1200/5	440	2200/5	400	2000/5
X4-X5	40	200/5	80	400/5	100	500/5	100	500/5		
X3-X4	50	250/5	100	500/5	60	300/5	60	300/5	200	1000/5
X2-X4	60	300/5	120	600/5	220	1100/5	300	1500/5	500	2500/5
X1-X4	80	400/5	160	800/5	300	1500/5	500	2500/5	600	3000/5
X3-X5	90	450/5	180	900/5			160	800/5		
X2-X5	100	500/5	200	1000/5	320	1600/5	400	2000/5	700	3500/5
X1-X5	120	600/5	240	1200/5	400	2000/5	600	3000/5	800	4000/5

SIEMENS
Siemens Industry Inc.
Raleigh, NC

DOCUMENT NAME: BCT WIRING DIAGRAM
SDV7-SE-AR 27.6kV-25-1200

PRODUCT TYPE: SDV7-SE-AR
SCALE: NTS
DRAWN: NP
APPRV: NP

PRELIMINARY: APPROVAL: CERTIFIED: X
CUSTOMER: KODITENAI ELECTRIC COOPERATIVE, INC
CUSTOMER PROJECT: PRAIRIE SUBSTATION
GROUP: SDV7-SE-AR 27.6kV-25kA-1200A
CUSTOMER ORDER: P.O. 18621, LINE 1

SIEMENS SALES ORDER: 3009771887
LINE ITEM: 100

01 10-20-2022 NP
02 12-05-2022 NP

APPROVED WITHOUT CHANGES.
NOW CERTIFIED.

DOCUMENT NUMBER: SDV22-3009771887-100BCT01C

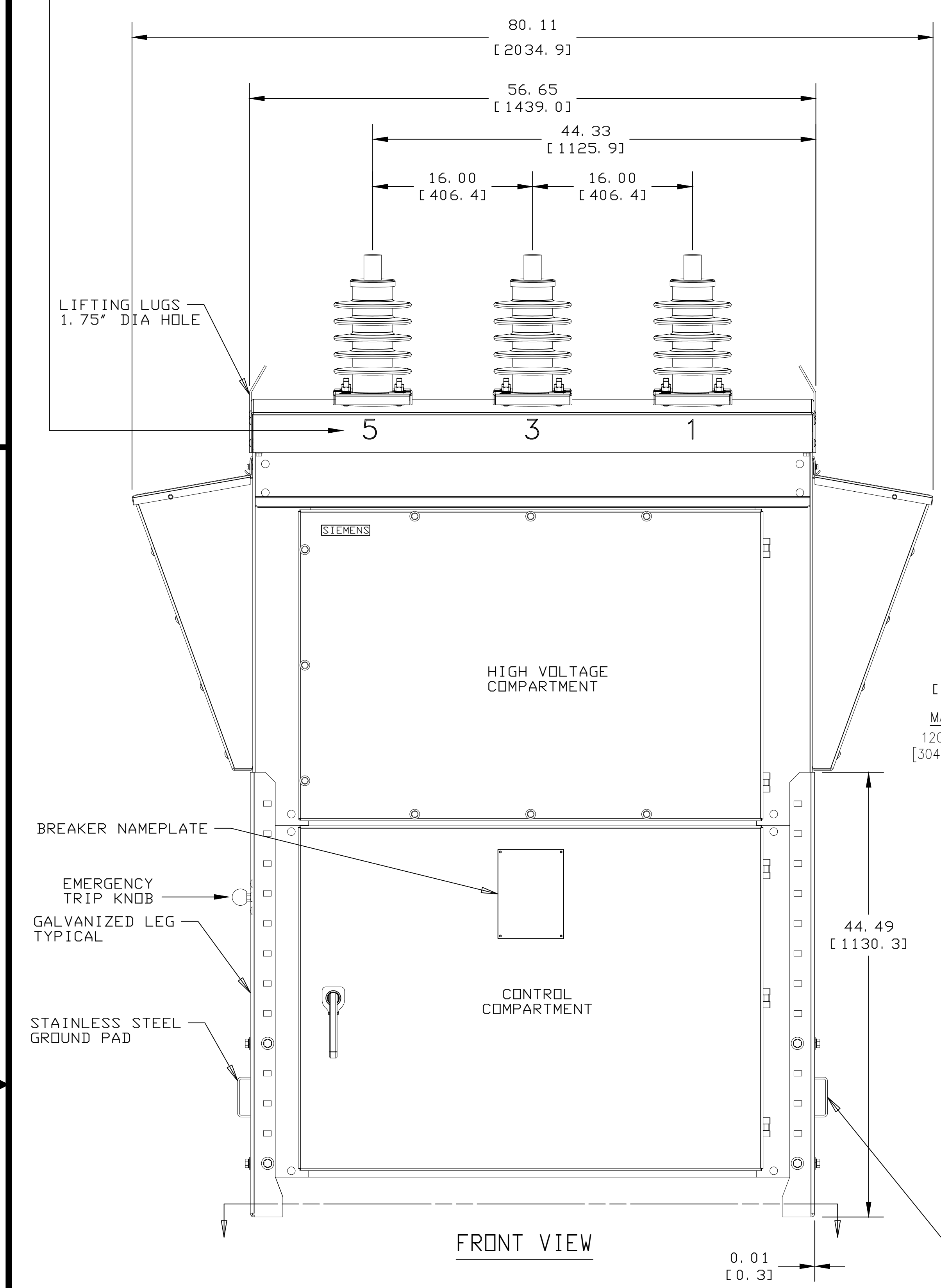
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2

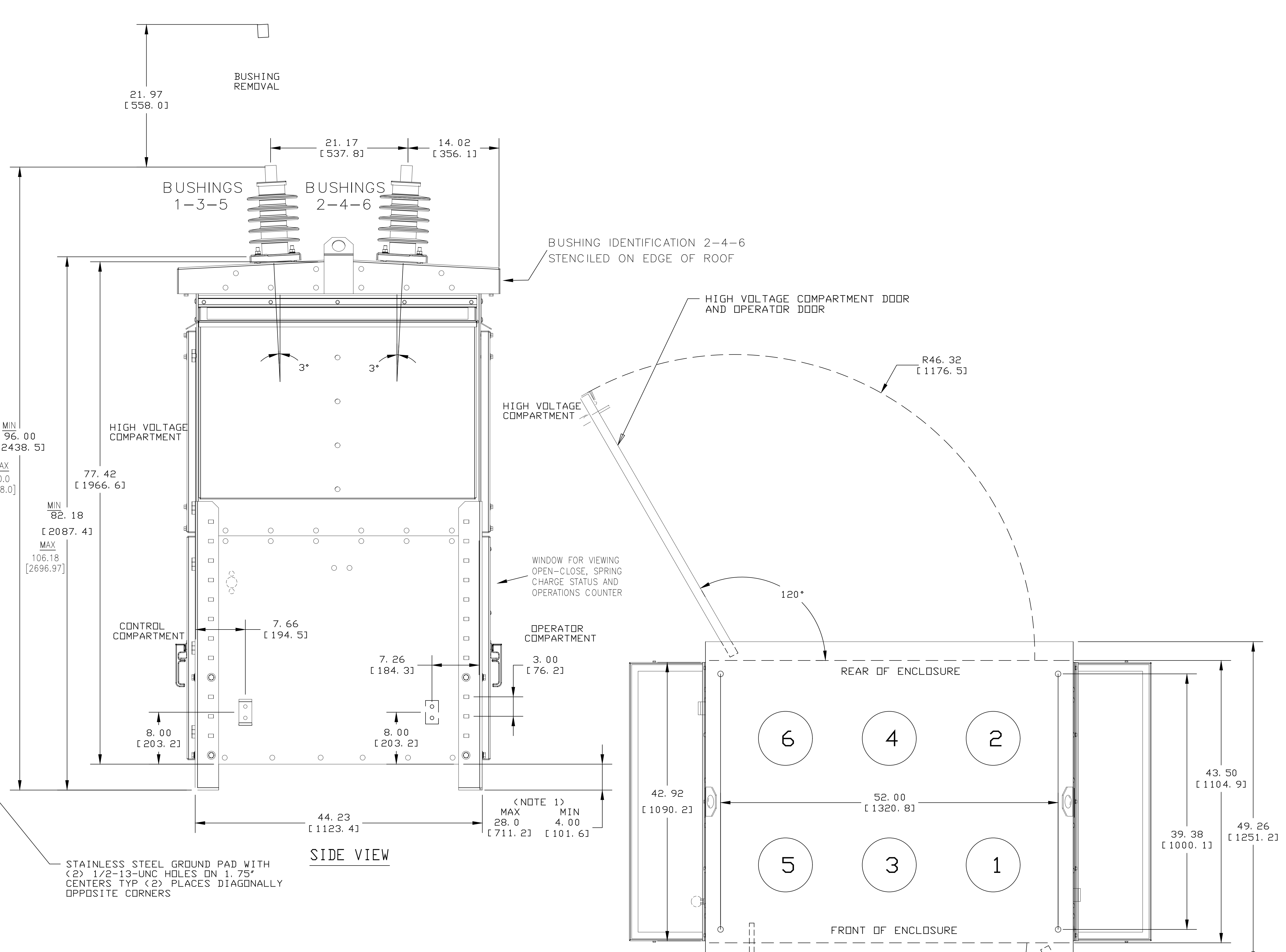
3

4

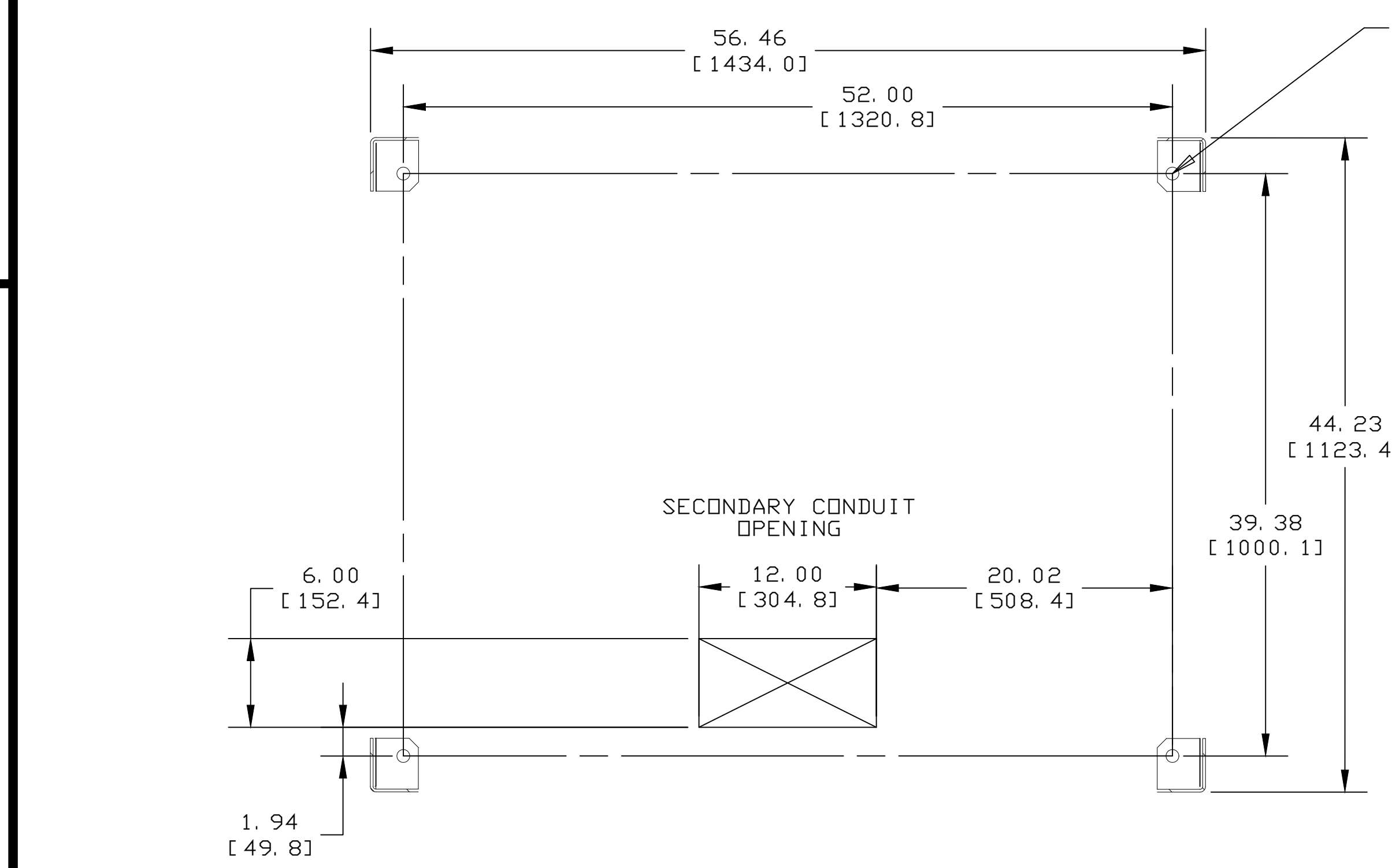
BUSHING IDENTIFICATION
STENCILED ON EDGE OF ROOF
(2-4-6 OTHER SIDE)



FRONT VIEW

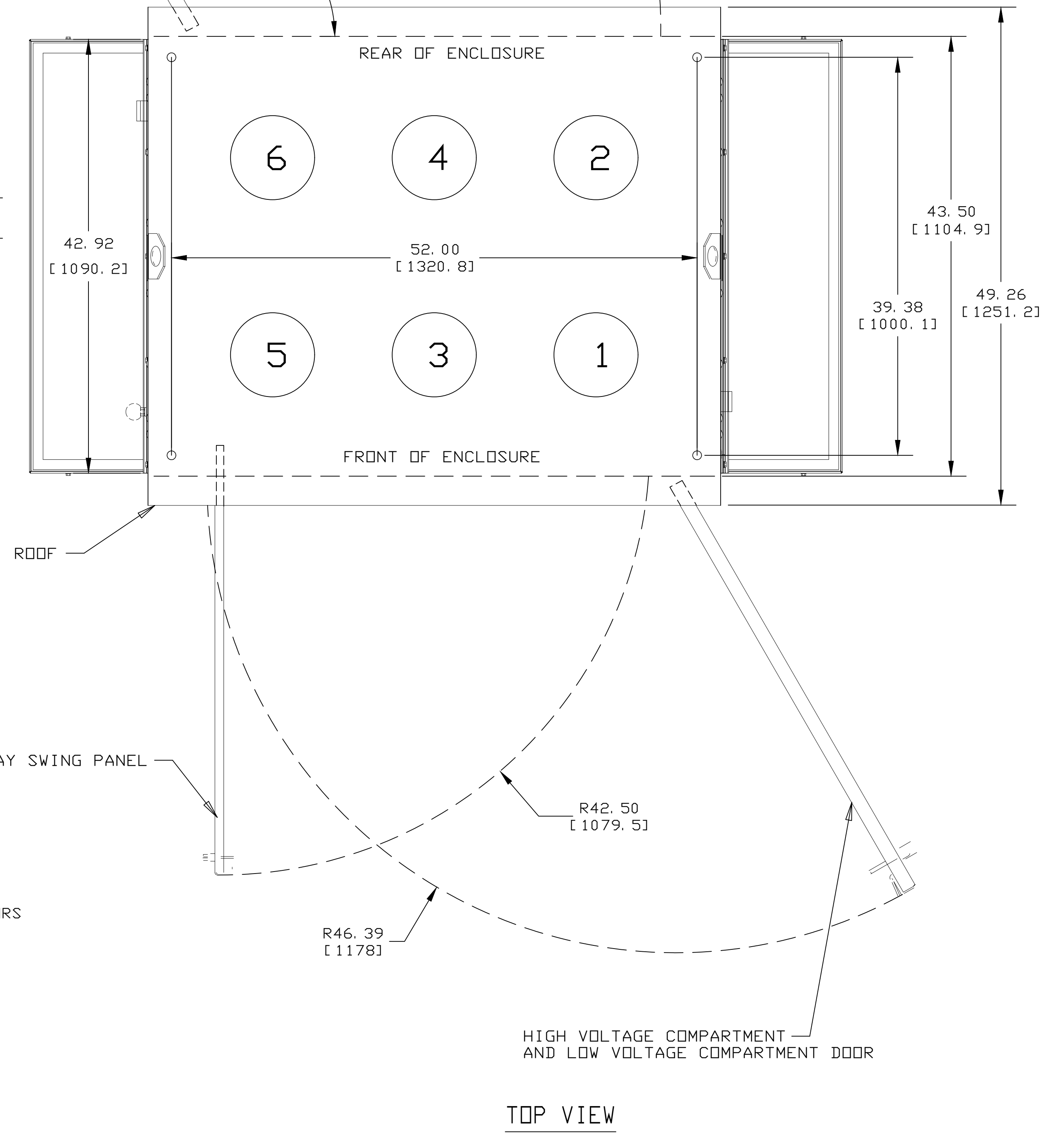


SIDE VIEW



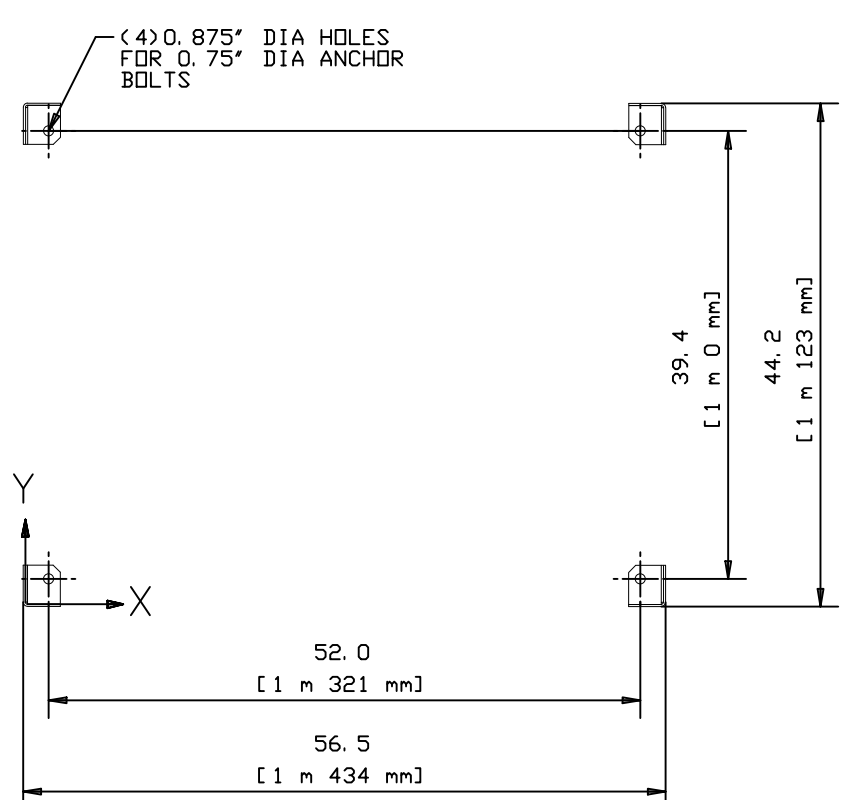
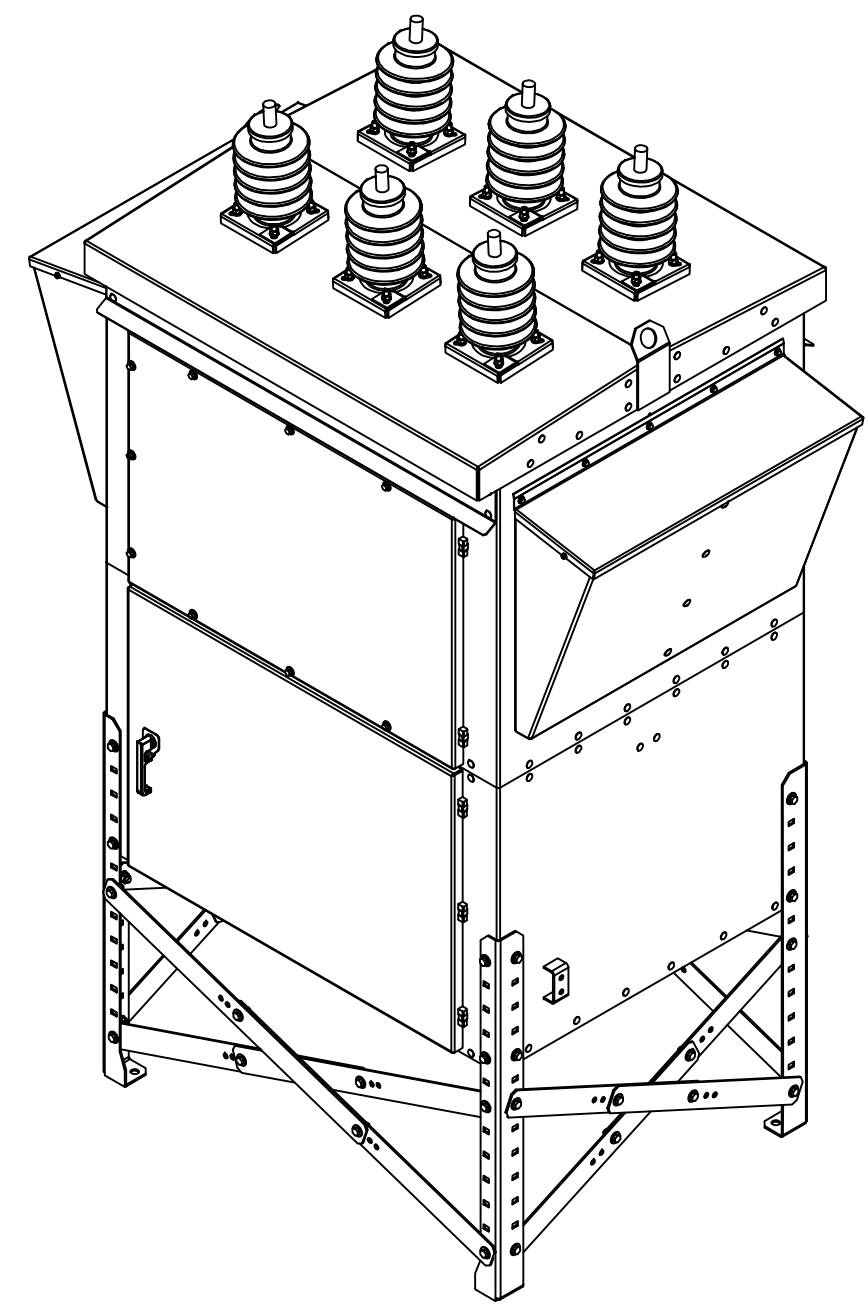
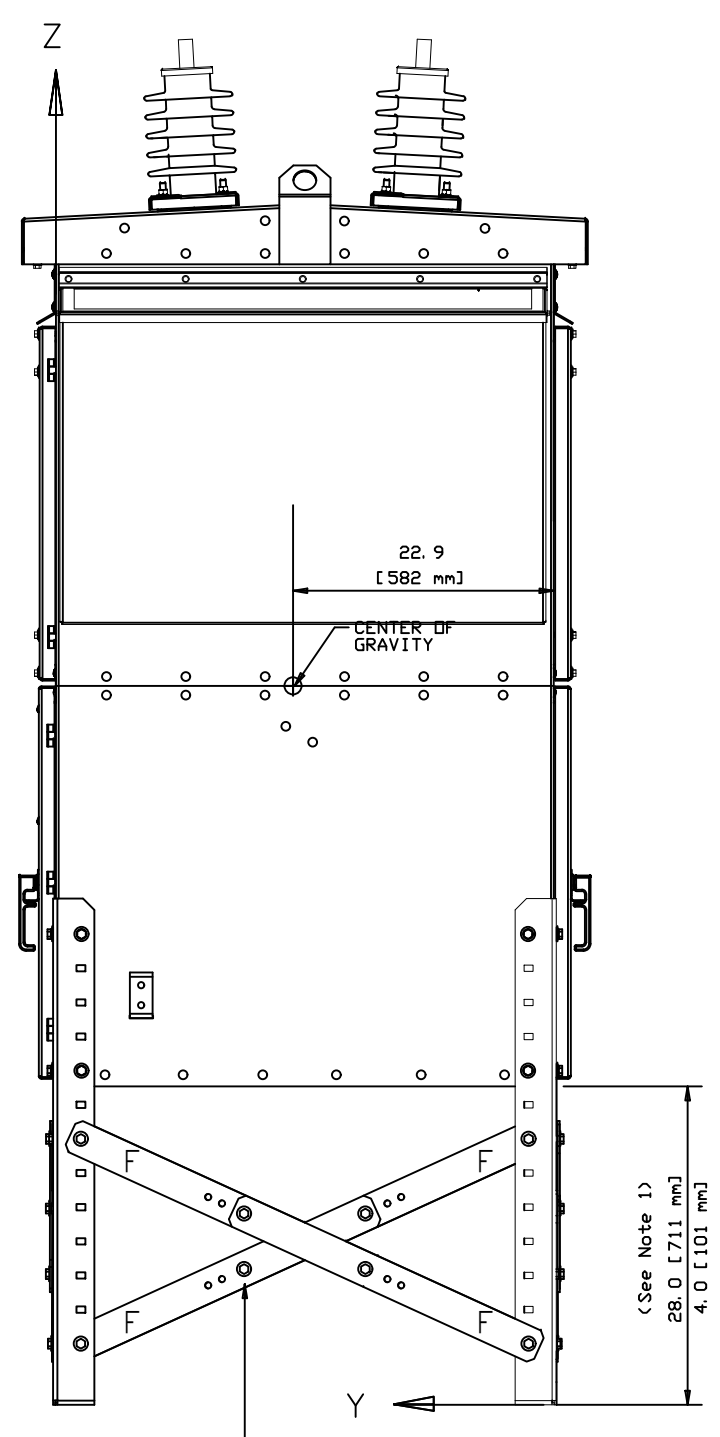
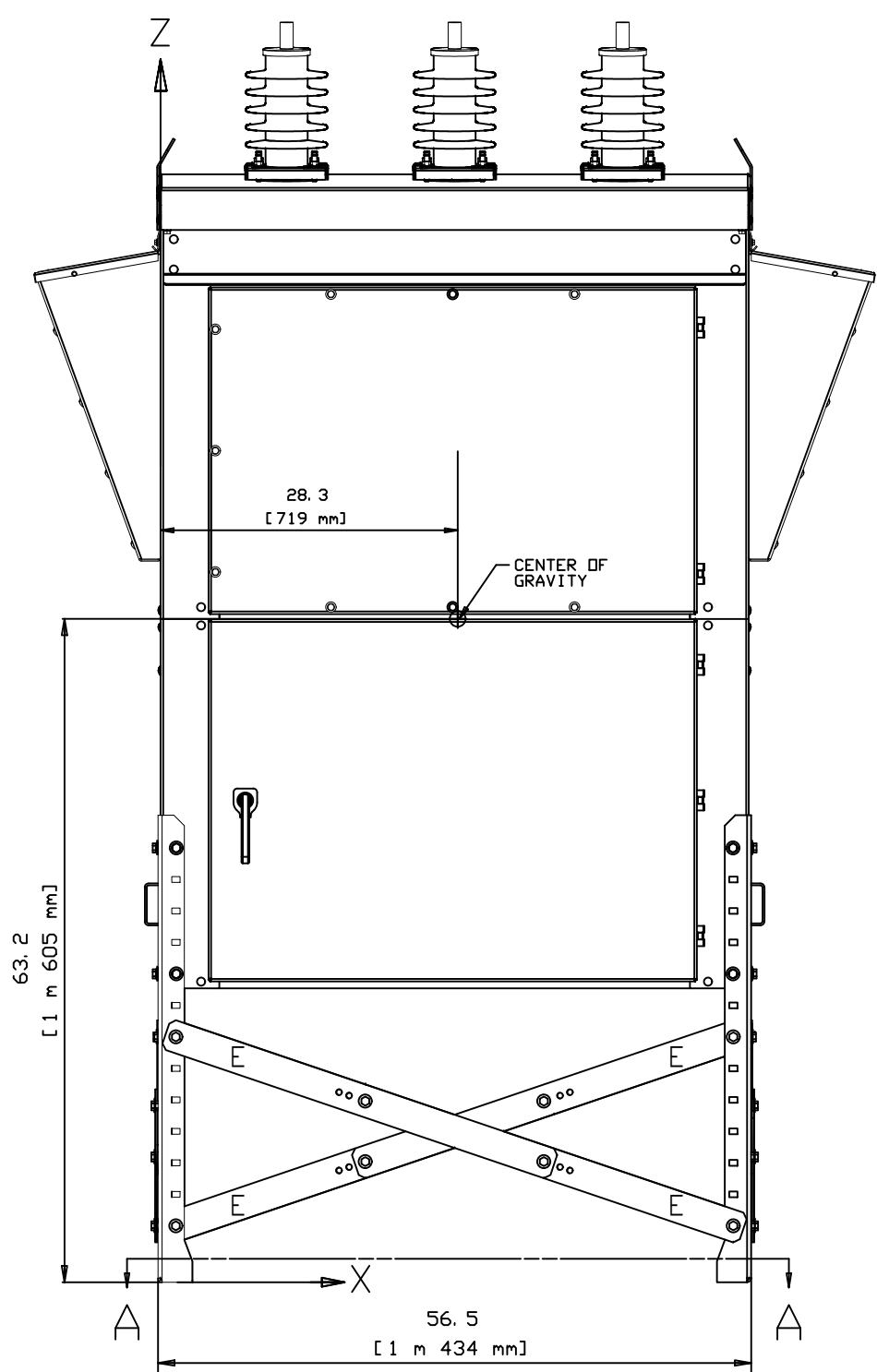
SECONDARY CONDUIT OPENING

- NOTES
1. MIN TO MAX DIMENSIONS WILL CHANGE BY INCREMENTS OF 3 INCHES RELATIVE TO LEG ADJUSTMENT
 2. PAINT COLOR IS ANSI 61 GRAY
 3. REFER TO BUSHING DRAWING FOR STUD SIZE
 4. BREAKER WEIGHT: 1200A - 3069 LBS (1392 KG)
2000A - 3179 LBS (1442 KG)
 5. DIMENSIONS SHOWN IN: IN [mm]
 6. PADLOCKING PROVISIONS PROVIDED ON ALL COMPARTMENT SWINGING DOORS



TOP VIEW

SIEMENS Siemens Industry Inc. Raleigh, NC		PRODUCT TYPE SDV7-SE-AR	SCALE NTS	PRELIMINARY: APPROVAL: CERTIFIED: X	SIEMENS SALES ORDER: 3009771887 LINE ITEM: 100	CUSTOMER: KOOTENAI ELECTRIC COOPERATIVE, INC CUSTOMER PROJECT: PRAIRIE SUBSTATION GROUP: SDV7-SE-AR 27.6kV-25kA-1200A CUSTOMER ORDER: P.O. 18621, LINE 1	DOCUMENT NAME: GENERAL ARRANGEMENT SDV7-SE-AR 27kV 1200A & 2000A STANDARD OUTLINE SDV7-SE-AR 27.6kV-25-1200	DOCUMENT NUMBER: SDV22-3009771887-100GAD1C	REV'D 03/21/2012
		APPROVED WITHOUT CHANGES:			01 10-20-2022 NP				
		02 12-05-2022 NP							



SECTION A-A
Foundation Anchor Bolt Plan

Item	PART No.	Qty	DESCRIPTION
A	00611315548	32	SCREW: 1/2"-13X1-1/2"
B	00631059108	32	NUT: HEX HEAVY 1/2"-13
C	00651007300	32	WASHER: STEEL. 562" ID
D	00655017036	32	LOCKWASHER: 1/2"
E	32404284009	8	SEISMIC BRACE (Front & Rear)
F	32404284010	8	SEISMIC BRACE (Sides)

- Notes:**
1. Minimum and Maximum Dimensions shown. Height adjustable in increments of approximately 3 inches (76.2mm).
 2. Weight reflects Maximum Weight used in Seismic Analysis.
 3. Dimensions shown in: INCHES [MILLIMETERS]

Condition:	Legs adjusted to max height (28 inch) and without X-braces installed	Legs adjusted to max height (28 inch) and with X-braces installed
Total Weight:	W= 3328 lbs	W= 3390 lbs
Maximum Deflection at top:	dx = 0.19 inches dy = 0.07 inches	dx = 0.04 inches dy = 0.02 inches
Maximum Reaction: (Dead Load +/- Seismic)	Tz = 2,658 lbs (Up) Vx = 845 lbs (Shear) Vy = 838 lbs (Shear)	Tz = 2,670 lbs (Up) Vx = 864 lbs (Shear) Vy = 852 lbs (Shear)
Qualified By: W. E. Gundy & Associates, Inc.	IEEE-693-2005 IBC-2006, Ss=2.0, lp=1.0 ASCE 7-05, 100 mph Wind REPORT No. 1018-124a-R1	IEEE-693-2005 IBC-2006, Ss=3.2, lp=1.0 ASCE 7-05, 135 mph Wind REPORT No. 1018-124a-R1

SIEMENS
Siemens Industry Inc.
Raleigh, NC

DOCUMENT NAME: SEISMIC OUTLINE DRAWING
SDV7-AR 27kV 1200A & 2000A
SDV7-SE-AR 27.6kV-25-1200

PRODUCT TYPE: SDV7-SE-AR
SCALE: NTS
DRAWN: NP
APPRV: NP

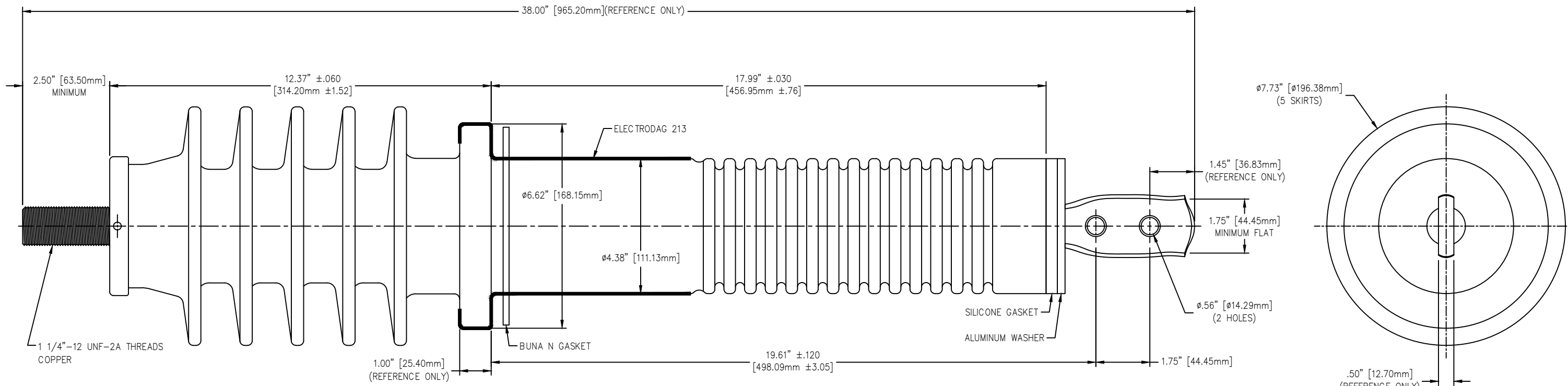
PRELIMINARY: APPROVAL: CERTIFIED: X
SIEMENS SALES ORDER: 3009771887
LINE ITEM: 100

CUSTOMER: KODITENAI ELECTRIC COOPERATIVE, INC
CUSTOMER PROJECT: PRAIRIE SUBSTATION
GROUP: SDV7-SE-AR 27.6kV-25kA-1200A
CUSTOMER ORDER: P.O. 18621, LINE 1

APPROVED WITHOUT CHANGES. NOW CERTIFIED.

01 10-20-2022 NP
02 12-05-2022 NP

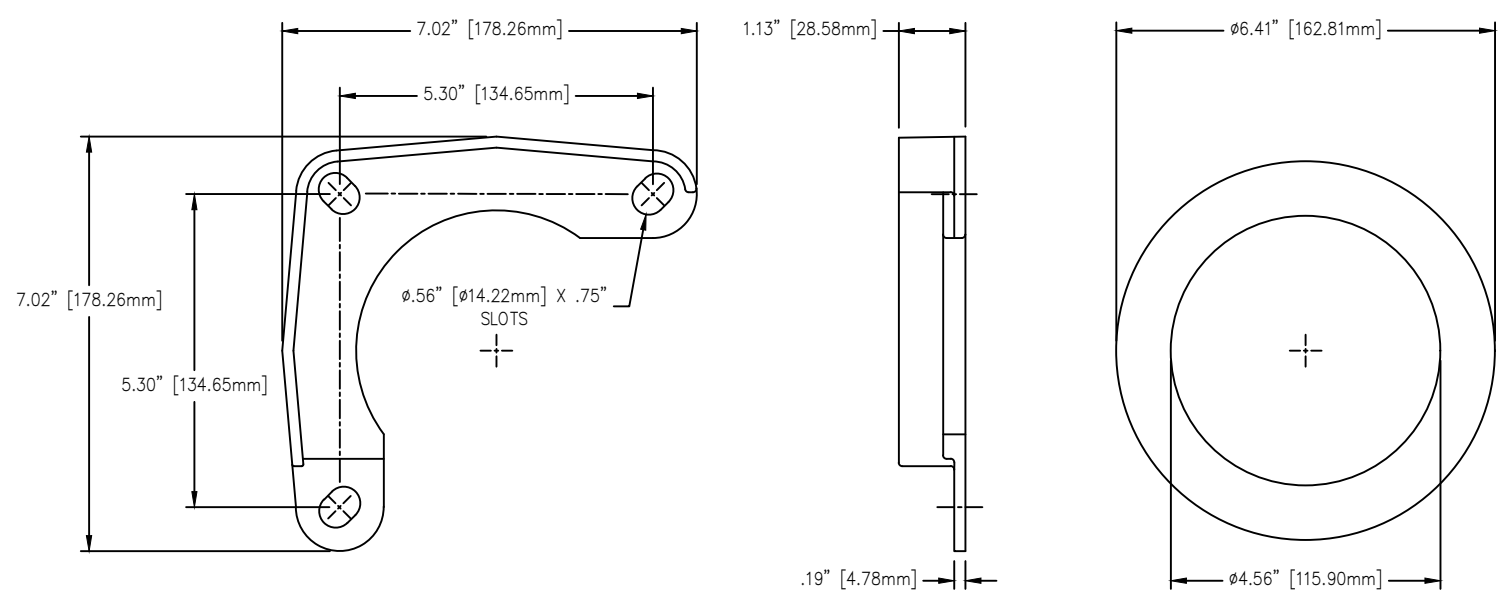
DOCUMENT NUMBER: SDV22-3009771887-100GA02C



- NOTES:
- BUSHING MATERIAL IS WET PROCESS ELECTRICAL PORCELAIN
 - GRAY GLAZE ANSI 70 SKY GREY - MUNSELL 5BG 7.0/0.4
 - 60HZ WITHSTAND: 60KV DRY
50KV WET
 - CREEPAGE: > 26.52" TOP
> 17.54" BOTTOM
 - STRIKE: 10.91"
 - TOP AND BOTTOM TERMINALS ARE TIN PLATED
 - BIL: 150kV
 - CANTILEVER STRENGTH: REQUIRED: 2000 NEWTONS
TESTED: 2010 NEWTONS

ROOF MOUNTING FLANGE
TWO PIECES REQUIRED PER ASSEMBLY
MATERIAL: ALUMINUM TENZALLOY

BUSHING TO ROOF GASKET
ONE REQUIRED PER ASSEMBLY
MATERIAL: .19" ±.020" NITRILE BUNA N



STANDARD DRAWING
DO NOT DESTROY, CHANGE OR
ADD MARK NO'S W/O APPROVAL
OF DESIGN ENGINEERING.

SIEMENS SALES ORDER: 3009771887 LINE ITEM: 100	PRELIMINARY: APPROVAL: CERTIFIED: X	PRODUCT TYPE: SDV7-SE-AR	SIEMENS Siemens Industry Inc. Raleigh, NC
CUSTOMER: KOOTENAI ELECTRIC COOPERATIVE, INC	CUSTOMER PROJECT: PRAIRIE SUBSTATION	SCALE: NTS	DOCUMENT NAME: BUSHING, 27KV-1200A-SDV SDV7-SE-AR 27.6kV-25-1200
GROUP: SDV7-SE-AR 27.6kV-25kA-1200A	CUSTOMER ORDER: P.O. 18621, LINE 1	DRAWN: NP	APPRV: NP
		DATE: 12-05-2022	QTY:

USED ON: SDV MFG. PROJ. VARIOUS CAD GENERATED, DO NOT CHANGE MANUALLY.

05 10-04-2012 DLC	REVISED SDV6 TO SDV.	04 10-26-2010 DKD	DEFINED STUD MATERIAL	03 09-17-07 KF	ADDED NOTE 9	02 09/18/06 DLC	ADDED NOTE 8	01 06/26/06 DLC	ADDED NOTE 8	SIEMENS Siemens Industry Inc. Raleigh, NC	ANGULAR	SIMILAR TO	DR DLC	CH	APP DC
1-PLACE DECIMAL± .06 2-PLACE DECIMAL± .03 3-PLACE DECIMAL± .01										MACHINED SURFACE TEXTURE					

MATERIAL	PART NUMBER A7B91500022745		SCALE 3.5X	CHARACTERISTICS	SHEET NO. 01-F
WEIGHT (LBS) 49	PART NAME BUSHING, 27KV - 1200A - SDV				

INSTRUMENT CURRENT TRANSFORMER

TECHNICAL DATA ACCORDING TO ANSI/IEEE C57.13

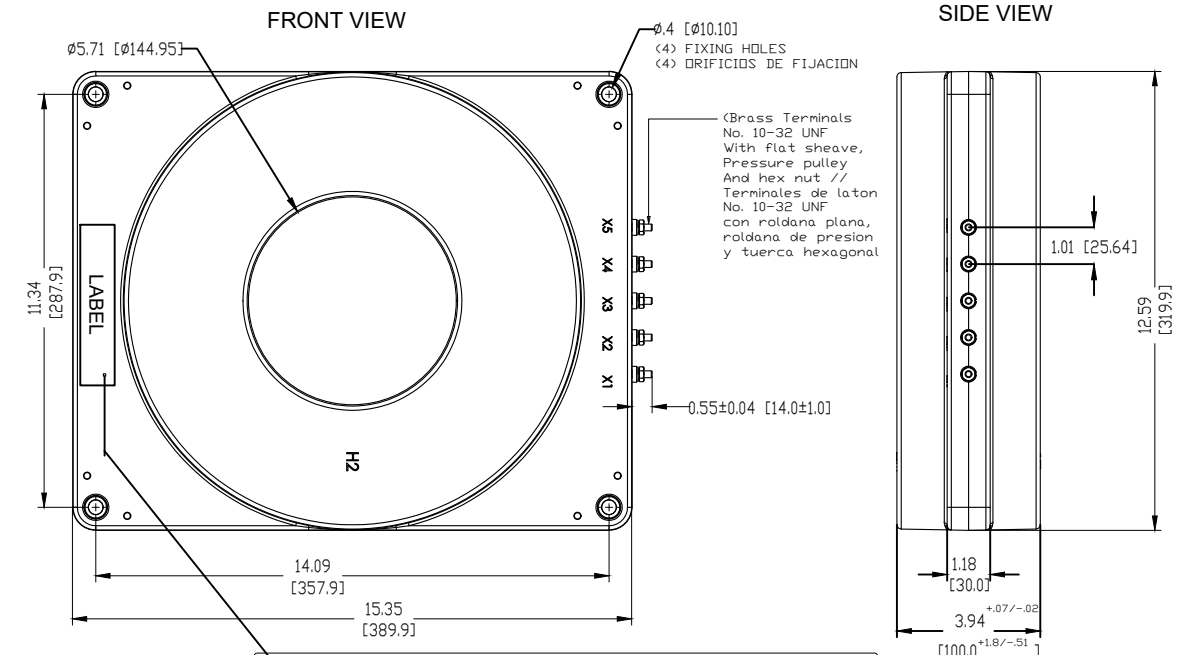
GENERAL CHARACTERISTICS AND CONDITIONS // CARACTERISTICAS Y CONDICIONES GENERALES

- RELAYING AND CURRENT METERING APPLICATIONS // APLICACIONES EN PROTECCIÓN Y MEDICIÓN
- INDOOR SERVICE // SERVICIO INTERIOR
- OPERATING TEMPERATURE // TEMPERATURA DE OPERACION : -40° TO 105°C
- CONTAMINATION LEVEL // NIVEL DE CONTAMINACION : MEDIUM // MEDIO
- ALTITUDE // ALTITUD : 2500 m.s.n.m

CONDITIONS OF OPERATION // CONDICIONES DE OPERACION

- FREQUENCY // FRECUENCIA : 50 - 400Hz
- SECONDARY CURRENT // CORRIENTE EN EL SECUNDARIO : 5A
- NOMINAL SYSTEM VOLTAGE // CLASE NOMINAL DE AISLAMIENTO : 0.6kV / 0.72 kV
- B.I.L. & FULL WAVE CREST // NIVEL BASICO DE IMPULSO : 10 kV

MECHANICAL SPECIFICATION // ESPECIFICACIONES MECANICAS



ELECTRICAL SPECIFICATIONS // ESPECIFICACIONES ELECTRICAS

SIEMENS REV. LEVEL	CURVES LOCATED ON PAGE	SIEMENS P.N. 324-04700-	CATALOG NUMBER	MULTI-RATIO	CURRENT RATIO (A), (X1-X5)	RELAY CLASS	ANSI METERING CLASS AT 60HZ (X1-X5)					SECONDARY WINDING RESISTANCE (OHMS @75°C), (X1-X5)	RATING FACTOR @30°C	THERMAL CURRENT (kA)	DYNAMIC CURRENT (kA)
							B0.1	B0.2	B0.5	B0.9	B1.8				
02	2 of 25	037	ICT11A01	5	1200:5	C-400	0.3	0.3	0.3	0.3	0.3	0.72	2.0	90.0	225.0
02	3 of 25	034	ICT11A02	5	3000:5	C-400	0.3	0.3	0.3	0.3	0.3	0.65	2.0	119.0	297.0
02	4 of 25	033	ICT11A03	5	2000:5	C-400	0.3	0.3	0.3	0.3	0.3	0.77	2.0	190.0	475.0
02	5 of 25	038	ICT11A04	5	2000:5	C-800	0.3	0.3	0.3	0.3	0.3	0.95	2.0	190.0	475.0
02	6 of 25	032	ICT11A05	5	1200:5	C-200	0.3	0.3	0.3	0.3	0.3	0.55	2.0	90.0	225.0
02	7 of 25	031	ICT11A06	5	600:5	C-100	0.3	0.3	0.3	0.3	0.3	0.31	2.0	44.0	110.0
02	8 of 25	036	ICT11A07	5	600:5	C-200	0.3	0.3	0.3	0.3	0.3	0.36	2.0	46.0	115.0
02	9 of 25	039	ICT11A08	5	3000:5	C-800	0.3	0.3	0.3	0.3	0.3	0.79	2.0	119.0	297.0
02	10 of 25	040	ICT11A09	5	4000:5	C-800	0.3	0.3	0.3	0.3	0.3	1.19	2.0	94.0	236.0
02	11 of 25	041	ICT11A10	5	2000:5 **	C-400	0.3	0.3	0.3	0.3	0.3	0.76	2.0	190.0	475.0
02	12 of 25	048	ICT11A17	5	2000:5	2.5L200	0.3	0.3	0.3	0.3	0.3	0.64	2.0	190.0	475.0

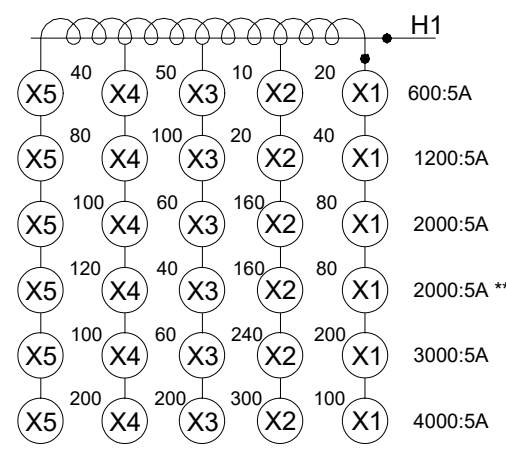
TRANSFORMADOR DE CORRIENTE TIPO BOQUILLA
 Relacion 1200:5 Amps 0.6 kV 60 Hz HECHO EN MEXICO
 Clasificación B0.1 B0.2 B0.5 B0.9 B1.8 MODELO: ICT11A01
 Clase de Medicion 0.3 0.3 0.3 0.3 0.3 SERIE: TTTTYYWWXXXXX
 Clase de Proteccion C400 100VA TAIR10kV I_{dyn}=90kA I_{ln}=225kA
 Terminales X2-X3 X1-X2 X1-X3 X4-X5 X3-X4
 Relacion 100:5A 200:5A 300:5A 400:5A 500:5A
 Terminales X2-X4 X1-X4 X3-X5 X2-X5 X1-X5
 Relacion 600:5A 800:5A 900:5A 1000:5A 1200:5A
 Altitud : 2500m.s.n.m Distancia de fuga minima : 20mmkV Masa aproximada :25kg.
 Factor termico 2.0 (30°C ambiente)
 X1 X2 X3 X4 X5
 40 20 100 80
 LABEL EXAMPLE

SERIE: SHIPPING NUMBER (INTERNAL DATA)
 YYWW = YEAR / MANUFACTURING WEEK
 XXXX = CONSECUTIVE NUMBER
 SERIE: NUMERO DE ENVID (DATOS INTERNOS)
 YYWW = AÑO/SEMANA DE FABRICACION
 XXXX = NUMERO CONSECUTIVO

LABEL MATERIAL: POLYESTER FILM WITH ACRYLIC BASE ADHESIVE
 TEMPERATURE -20° TO 105° C
 MATERIAL DE LA ETIQUETA: PELICULA DE POLIESTER CON ADHESIVO DE BASE ACRILICA
 TEMPERATURA DE -20° A 105°C

SIEMENS SALES ORDER: 3009771887 LINE ITEM: 100	PRELIMINARY APPROVAL: CERTIFIED: X	PRODUCT TYPE: SDV7-SE-AR	SIEMENS Siemens Industry Inc. Raleigh, NC
CUSTOMER: KOOTENAI ELECTRIC COOPERATIVE, INC CUSTOMER PROJECT: PRAIRIE SUBSTATION GROUP: SDV7-SE-AR 27.6kV-25kA-1200A CUSTOMER ORDER: P.D. 18621, LINE 1	SCALE: NTS DRAWN: NP APPRV: NP	DOCUMENT NAME: SDV CURRENT TRANSFORMERS FALCO SDV7-SE-AR 27.6kV-25-1200	DATE: 12-05-2022 QTY:

MULTI-RATIO CONNECTION // CONEXIONES DE MULTI-RELA



USED ON: SDV MFG. PROJ. CAD GENERATED, DO NOT CHANGE MANUALLY.

Confidential-Property of **SIEMENS** Siemens Industry, Inc. Raleigh, NC

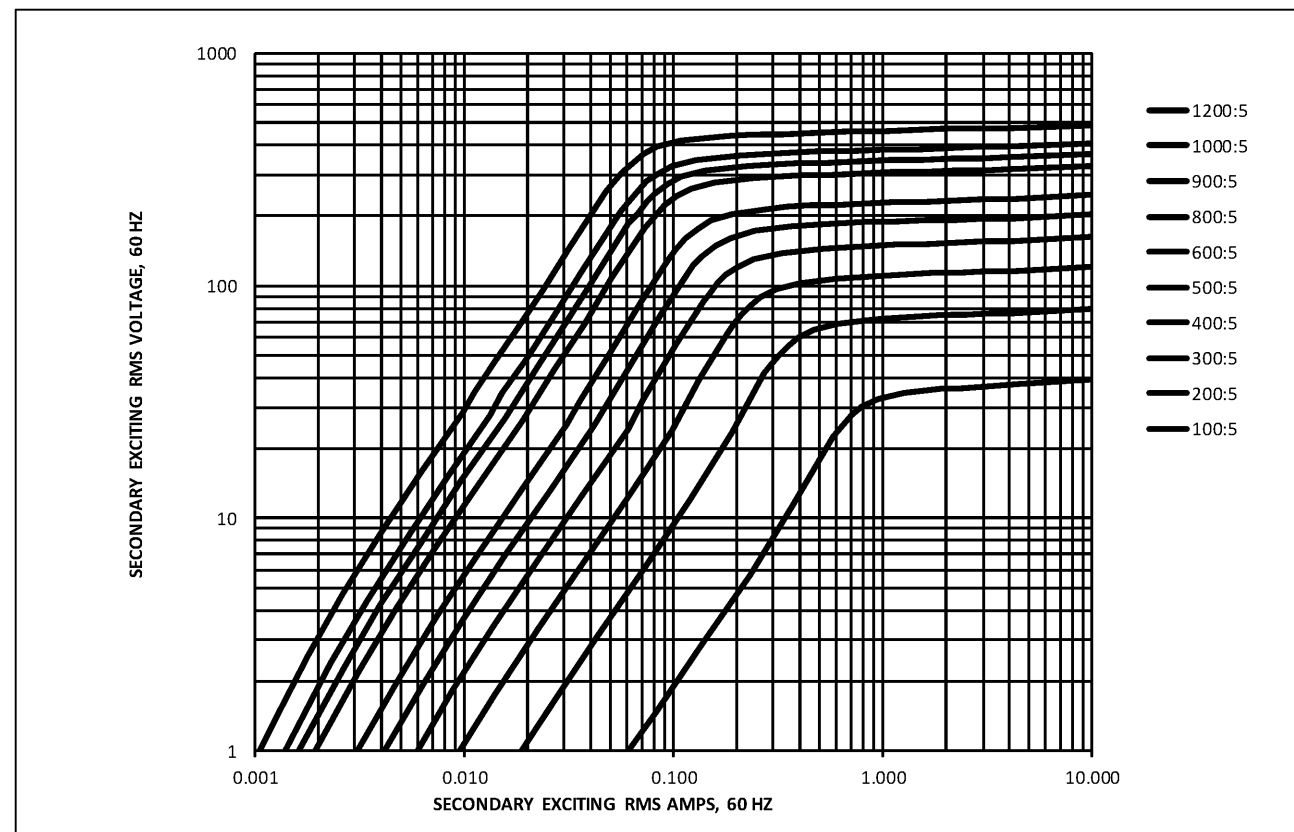
1-PLACE DECIMAL± .06 ANGULAR
 2-PLACE DECIMAL± .03
 3-PLACE DECIMAL± .01

✓ MACHINED SURFACE TEXTURE

PART NUMBER: 324-04700-XXX

WEIGHT (LBS) PART NAME: SDV CURRENT TRANSFORMERS FALCO SCALE: NTS CHARACTERISTICS: SHEET NO.: 1 OF 25

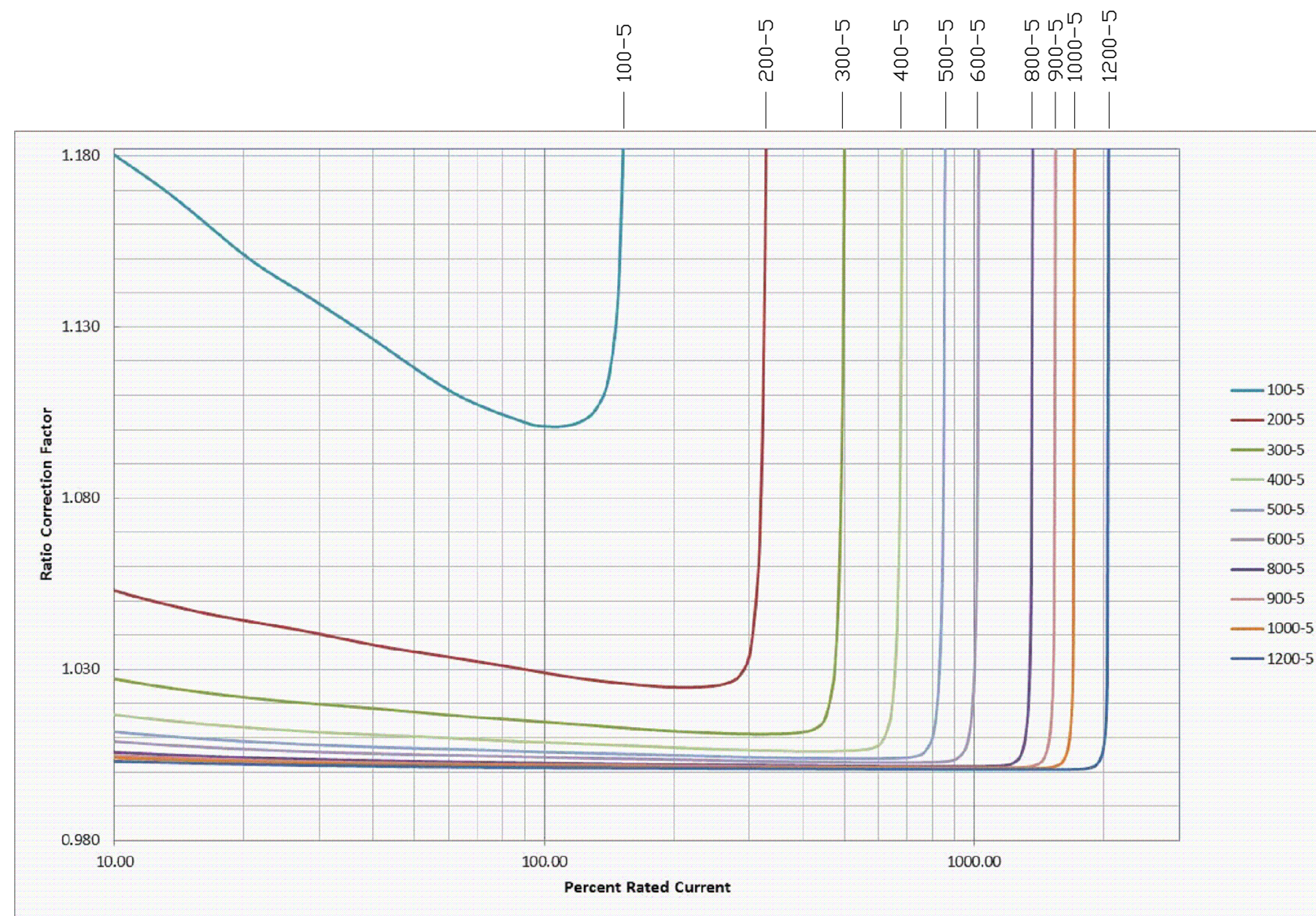
EXCITATION CURVE / CURVA DE EXITACION ICT11A01
SIEMENS PN 324-0477-037



ICT11A01 RATINGS

TERMINALS	X2-X3	X1-X2	X1-X3	X4-X5	X3-X4	DCR (Ohms, @75°C)
RATIO	100:5A	200:5A	300:5A	400:5A	500:5A	
TERMINALS	X2-X4	X1-X4	X3-X5	X2-X5	X1-X5	X1-X5 0.72
RATIO	600:5A	800:5A	900:5A	1000:5A	1200:5A	

ICT11A01 RCF GRAPH
RATIO: 1200:5 BURDEN: 4 OHMS FREQUENCY: 60 HZ
SIEMENS PN 324-0477-037



USED ON: SDV

MFG. PROJ.

CAD GENERATED, DO NOT CHANGE MANUALLY.

SIEMENS SALES ORDER: 3009771887 LINE ITEM: 100	PRELIMINARY: APPROVAL: CERTIFIED: X	PRODUCT TYPE: SDV7-SE-AR	SIEMENS Siemens Industry Inc. Raleigh, NC
CUSTOMER: KOOTENAI ELECTRIC COOPERATIVE, INC CUSTOMER PROJECT: PRAIRIE SUBSTATION	SCALE NTS	DOCUMENT NAME: ACCURACY CURVES, 1200:5, MR BCT, C400 SDV7-SE-AR 27.6kV-25-1200	
GROUP: SDV7-SE-AR 27.6kV-25kA-1200A CUSTOMER ORDER: P.O. 18621, LINE 1	DRAWN: NP APPRV: NP DATE: 12-05-2022	QTY:	

01
06-05-2016
MGS
ADDED RCF CURVES &
SPLIT CURVES UP TO
1 SET PER SHIT.
EIP CD 500005035974
02
11-09-2017
MGS

Confidential-Property of **SIEMENS** Siemens Industry, Inc.
Raleigh, NC

1-PLACE DECIMAL± .06
2-PLACE DECIMAL± .03
3-PLACE DECIMAL± .01

ANGULAR

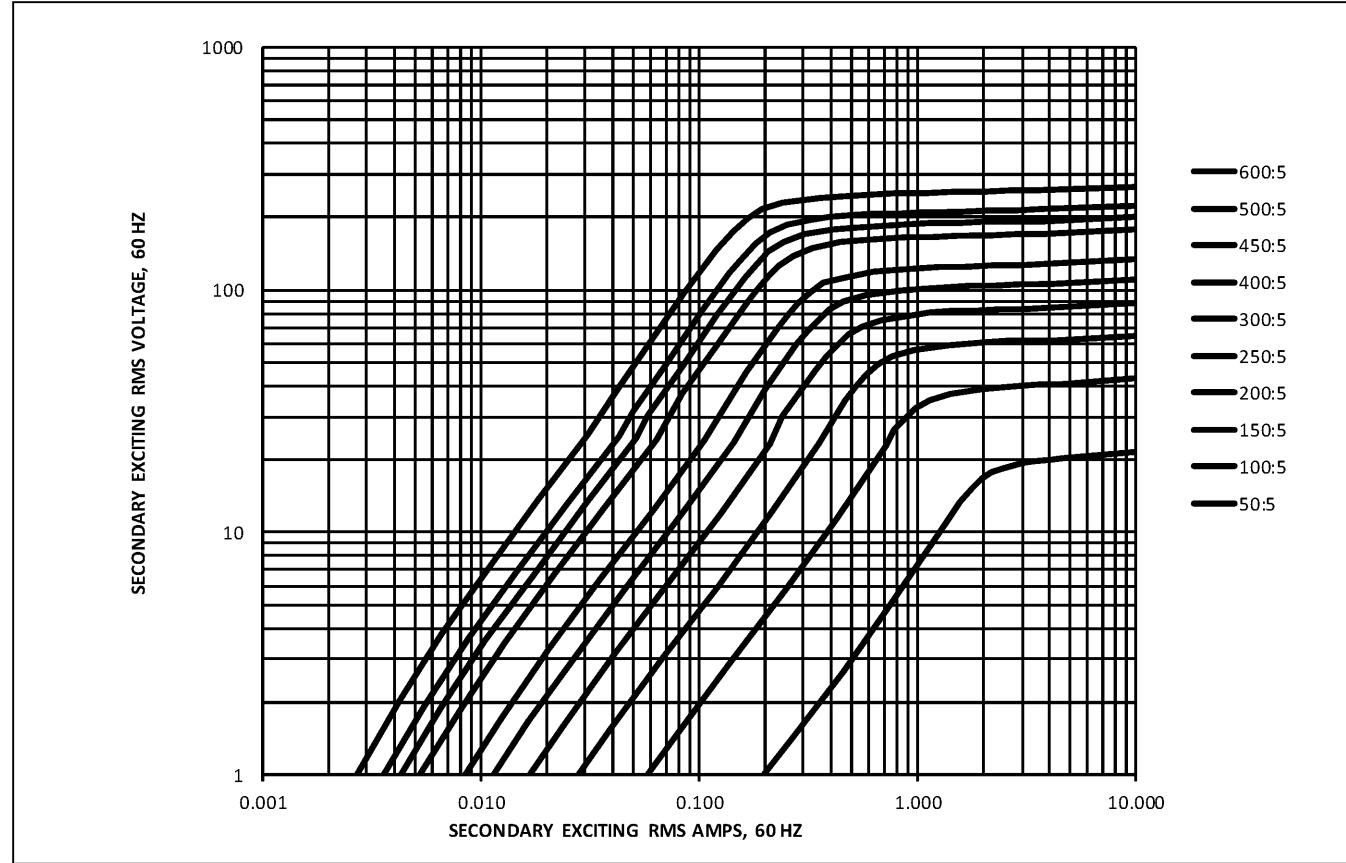
MACHINED SURFACE TEXTURE

SIMILAR TO
77-910-100-XXX

DR MGS
CH
APP

MATERIAL	PART NUMBER 324-04700-XXX		
WEIGHT (LBS)	PART NAME SDV CURRENT TRANSFORMERS FALCO	SCALE NTS	CHARACTERISTICS SHEET NO. 2 OF 25

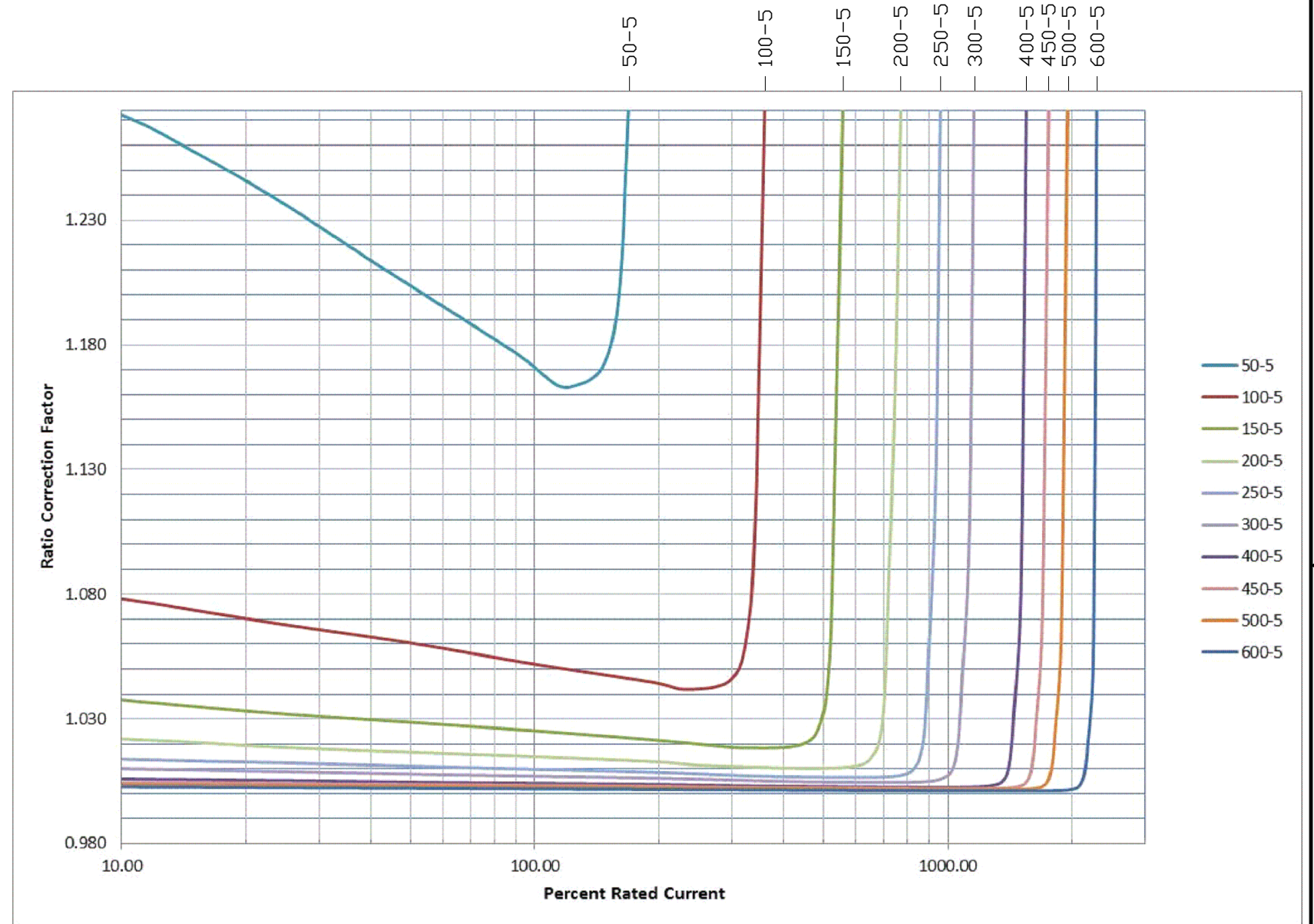
EXCITATION CURVE / CURVA DE EXCITACION ICT11A07
SIEMENS PN 324-0477-036



ICT11A07 RATINGS

TERMINALS	X2-X3	X1-X2	X1-X3	X4-X5	X3-X4	DCR (Ohms, @75°C)
RATIO	50:5A	100:5A	150:5A	200:5A	250:5A	
TERMINALS	X2-X4	X1-X4	X3-X5	X2-X5	X1-X5	X1-X5 0.36
RATIO	300:5A	400:5A	450:5A	500:5A	600:5A	

ICT11A07 RCF GRAPH
RATIO: 600: 5 BURDEN: 2 OHMS FREQUENCY: 60 HZ
SIEMENS PN 324-0477-036



USED ON: SDV

MFG. PROJ.

CAD GENERATED, DO NOT CHANGE MANUALLY.

SIEMENS SALES ORDER: 3009771887 LINE ITEM: 100	PRELIMINARY: APPROVAL: CERTIFIED: X	PRODUCT TYPE: SDV7-SE-AR	SIEMENS Siemens Industry Inc. Raleigh, NC
CUSTOMER: KOOTENAI ELECTRIC COOPERATIVE, INC CUSTOMER PROJECT: PRAIRIE SUBSTATION	SCALE NTS	DOCUMENT NAME: ACCURACY CURVES, 600:5, MR BCT, C200 SDV7-SE-AR 27.6kV-25-1200	
GROUP: SDV7-SE-AR 27.6kV-25kA-1200A CUSTOMER ORDER: P.O. 18621, LINE 1	DRAWN: NP APPRV: NP	DATE: 12-05-2022	QTY:

01
06-05-2016
MGS
ADDED RCF CURVES &
SPLIT CURVES UP TO
1 SET PER SHIT.
EIP CD 500005035974
02
11-09-2017
MGS

Confidential-Property of **SIEMENS** Siemens Industry, Inc.
Raleigh, NC

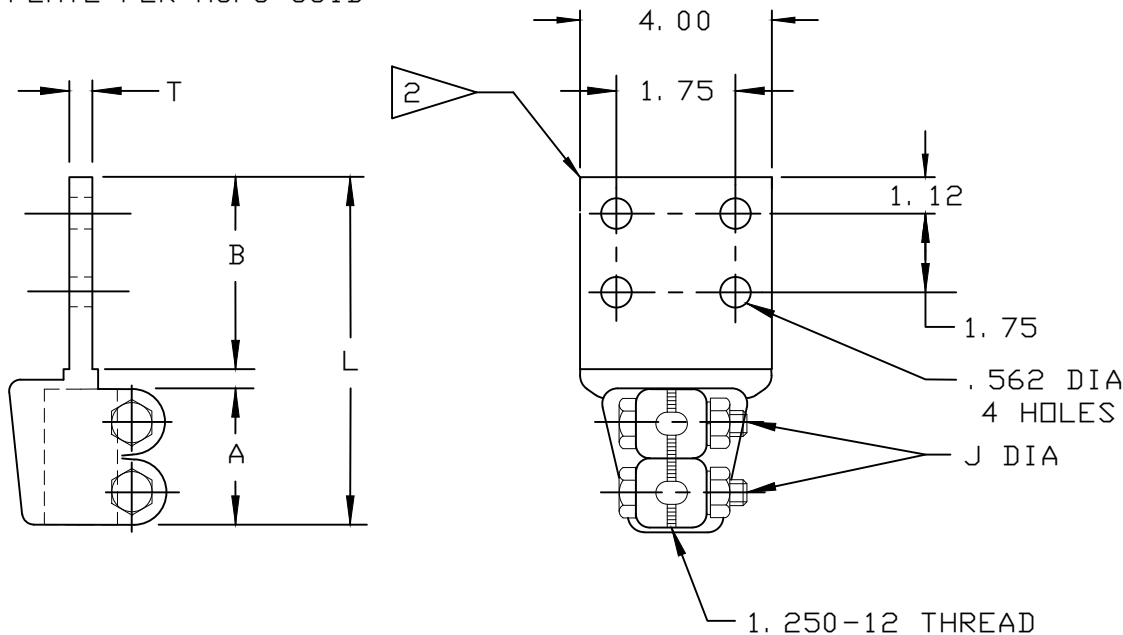
1-PLACE DECIMAL± .06 2-PLACE DECIMAL± .03 3-PLACE DECIMAL± .01	ANGULAR	SIMILAR TO 77-910-100-XXX
	<input checked="" type="checkbox"/>	DR MGS CH APP
PART NUMBER 324-04700-XXX		

MATERIAL	PART NAME	SCALE	CHARACTERISTICS	SHEET NO.
	SDV CURRENT TRANSFORMERS FALCO	NTS		8 OF 25

APPROVED VENDORS	CATALOG NO.	A	B	J	L	T	ALTERNATE
BURNDY	FD66D6W	1.75	4.00	.38	6.84	.38	
DELTA	PM58C12-1-412-E	1.50	4.50	.38	6.38	.38	
H.J. ENTERPRISES	BHDSF40-005TP	2.38	4.25	.50	7.00	.38	

NOTES:

- DIM. SHOWN ARE VENDOR REF DIM.
- ROUNDED OR SQUARED CORNERS, VENDOR'S OPTION.
- TIN PLATE PER ACP5-631B



SIEMENS SALES ORDER: 3009771887 LINE ITEM: 100	PRELIMINARY: APPROVAL: CERTIFIED: X	PRODUCT TYPE SDV7-SE-AR	SIEMENS Siemens Industry Inc. Raleigh, NC
CUSTOMER: KOOTENAI ELECTRIC COOPERATIVE, INC CUSTOMER PROJECT: PRAIRIE SUBSTATION GROUP: SDV7-SE-AR 27.6kV-25kA-1200A CUSTOMER ORDER: P.O. 18621, LINE 1	SCALE NTS	DOCUMENT NAME: STUD CONNECTOR, BRONZE, TIN PLATED 1.25 STUD TO 4 HOLE FLAT PAD SDV7-SE-AR 27.6kV-25-1200	
	DRAWN: NP APPRV: NP	DATE: 12-05-2022	QTY:

STANDARD DRAWING
DO NOT DESTROY, CHANGE OR
ADD MARK NO'S W/O APPROVAL
OF DESIGN ENGINEERING.

USED ON: SDV 2R: * CAD GENERATED, DO NOT CHANGE MANUALLY.

05 10/08/13		04 01/21/10		03 05/09/01		02 01/12/01		01 01/27/99		SIEMENS Siemens Industry Inc. Raleigh, NC 1-PLACE DECIMAL± 2-PLACE DECIMAL± 3-PLACE DECIMAL± ANGULAR MACHINED SURFACE TEXTURE SIMILAR TO DR DLC CH DLC APP DC 10 / 13 BULLETIN		
REVISIED "USED ON" REFERENCE TO SDV. WAS SDV4: DKD				REVISED APPROVED VENDORS LIST. DMJ		ADDED NEW VENDOR E-SDV-010418A RTG		BAAN SYNC RTG E-SDV-010207C		DATA BASE 721\62432101 N-C 2 CURRENT DATE 3-8 PART NUMBER 9-19 ISS 20-21 N 10/08/2013 72-162-432-101 05		
MATERIAL MAKE FROM: 72-112-054-042												
TYPE 22 F	REP. 23 M	PART NAME 24-43 STUD CONNECTOR, BRONZE, TIN PLATED 1.25 STUD TO 4 HOLE FLAT PAD				N.M. 44-48	49-53	SCALE NTS	CHARACTERISTICS	SHEET NO. 1 OF F		

