NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.

2.For EPC contractors only.

7613133/2023/EEMRT-ENE51

Drawing approval subject to valid vendor registration

Index	Amendment/Revision	Date	Name
A			
B			
C			
D			

Index	Amendment/Revision	Date	Name
E			
F			
G			
H			

Sr. No.	Drawing No.	No. of Sh	Brief details of drawings	Amendment to RECORD OF DRAWINGS A	B	C	D	E	F	G	H	I	J	Qty of Prints
1	(3) G71AHS-NA403-D1503--	3	Design Details											
2	(3) G71AHS-NA403-Z1503--	2	GA Drawing/ Support Structure											
3	(3) G71AHS-NA403-N1503--	2	Rating Plate											
4	(3) G71AHS-NA403-L1503--	3	Equipment Layout (Front/Rear)											
5	(3) G71AHS-NA403-W1503--	9	Wiring Diagram											
6	(3) G71AHS-NA403-T1503--	18	Terminal Plan											
7	(3) G71AHS-NA403-E1503--	10	Equipment List											
8	(3) G71AHS-NA403-C1503--	4	Chamber and support Insulator											
9	( ) -----------													
10	( ) -----------													
11	( ) -----------													
12	( ) -----------													

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR: As Applicable
PROJECT: As Applicable
PO.NO.: As Applicable

TANDU SUDEEVAN KUMAR

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CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

Drg Codes C = Construction Details; D = Design Details / Tech Details; E = Equipment List; L = Equipment Layout (Front, Rear); N = Name Plate / Rating Plate; R = Record of Drawings; S = Single Line Diagram; W = Wiring Drawing / Power & Control Circuit; Z = Any Drawing not covered by other code.

Date	09.05.2023		**Siemens Ltd.**	**Descr:** 245kV,50kA,4000A,SF6 CB	**Sales Ref.:** **Qty:** =
Prep.	MSR				+
Ckd.	SB		Aurangabad	**Type:** 3AP1FI	**Drg No.:** Sh 1
Norm				**Details:** RECORD OF DRAWING	(4) G71AHS-NA403-R1503--
		Original/Replacement for/Replaced by:-			1 Sh

7613133/2023/EEMRT-ENE51

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

SIEMENS

DESIGN DETAILS

1.0		**General**		
	1.1	Type Designation		Siemens Make 3AP1FI
	1.2	Governing Standard		IEC 62271-100
2.0		**Technical Data**		
	2.1	System Parameters		
	.1	Rated Voltage	kV	245 kV
	.2	Frequency	Hz.	50
	.3	No. of Poles		Three
	.4	Ambient Temperature Range	^{0}C	-30 to +55
3.0		**Operating Data**		
	3.1	Type of Operating Mechanism		Spring Energy Stored
	3.2	Mechanism is electrically gang operated		Yes
	3.3	Operating Data		
	.1	Closing	mSec.	62± 7
	.2	Breaking	mSec.	60
	.3	Opening Time	mSec.	35± 4
	.4	Arcing Time	mSec.	≤25
	3.4	Switching Data		
	.1	Rated normal current	A	4000
	.2	Rated short circuit breaking current	kA	50
	.3	Rated short time current	kA	50, (3sec.)
	.4	Rated short circuit making current	kAp	125
	.5	First pole to clear factor		1.3
	.6	Out-of-phase breaking current	kA	12.5
	.7	Rated line charging breaking current	A	125
	.8	Rated cable charging breaking current	A	250
	3.5	Rated operating sequence		O – 0.3sec – CO – 3min – CO

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CHIEF ENGINEER/PROJECTS
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CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR: As Applicable PROJECT: As Applicable PO.NO.: As Applicable					Sales Ref.: Qty.:	
				Date: 09.05.2023	Description: - 245kV,50kA, 4000A SF6 CB.	Sh. 1
				Prepared: MSR		
				Checked: SB	Type: - 3AP1FI	3 Sh.
				Siemens Ltd.		
Issue	Remarks	Date	Name	Office	Details: - DESIGN DETAILS	
Original/Replacement for/ Replaced by :-					Dwg No. :- (3)G71AHS-NA403-D1503-	

SIEMENS

4.0		**Basic Insulation Level**			
4.1		Rated power frequency withstand voltage (1min, 50 Hz)			
	.1	Phase to earth	kV	460	
	.2	Across the open breaker	kV	460	
	.3	Between phases	kV	460	
4.2		Rated lighting impulse withstand voltage (1.2 / 50 micro sec.)			
	.1	To earth	kVp	1050	
	.2	Across the open breaker	kVp	1050	
	.3	Between phases	kVp	1050	
4.3		Creepage distance			
	.1	To earth	mm	[redacted]	
				7595 mm(31mm/kV) As applicable	
	.2	Insulator type		Hollow porcelain	
5.0		**Construction**			
5.1		Clearance			
	.1	To earth	mm	1900	
	.2	Across the open breaker	mm	1900	
	.3	Phase to phase	mm	4500	
5.2		Arc quenching Medium			
	.1	Nominal pressure SF6 (@20^{0}C)	bar	6.0 rel.	
	.2	Signal Loss of SF6 (@20^{0}C)	bar	5.2 rel.	
	.3	General lockout (@20^{0}C)	bar	5.0 rel.	
	.4	Quantity of SF6 gas required per pole of the breaker.	kg	5.5	
	.5	Breaker Poles (3nos.) will be prefilled with the transport pressure of SF6 gas.	Bar	0.5 (3kg Approx.)	
	.6	Gas being supplied per breaker	kg	16.5	
5.3		Installation		Outdoor	
5.4		Approx. weight of the breaker.	kg	[redacted]	
		(Without support structure)	kg	2250 approx.(31mm/kV)	
6.0		**Structures**			
6.1		Material		Mild Steel	
6.2		Surface Treatment		Hot Dip Galvanized	

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CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

Drawing approval subject to valid vendor registration

CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR: As Applicable PROJECT: As Applicable PO.NO.: As Applicable					Sales Ref.: Qty.:	
				Date: 09.05.2023	Description: - 245kV,50kA, 4000A SF6 CB.	Sh. 2
				Prepared: MSR		
				Checked: SB	Type: - 3AP1FI	3 Sh.
				Siemens Ltd.		
Issue	Remarks	Date	Name	Office	Details: - DESIGN DETAILS	
Original/Replacement for/ Replaced by :-					Dwg No. :- (3)G71AHS-NA403-D1503-	

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.

2.For EPC contractors only.

7613133/2023/EEMRT-ENE51

SIEMENS

7.0		**Base Frame**		
7.1		Material		Mild Steel
7.2		Surface Treatment		Hot Dip Galvanized
8.0		**Control Cubicle**		
8.1		Construction		
	.1	Material of enclosure		CR Sheet Steel
	.2	The thickness of sheet steel	mm	2.5
	.3	Painting for control cubicle		Epoxy / Polyester Paint
	.4	Internal / External shade		631 As per IS:5
	.5	Degree of protection of the enclosure		IP 55
	.6	Padlocking facility for cubicle		Provided
	.7	Glass window to see spring status		Provided on control cubicle
8.2		Wiring		
	.1	Control wiring		
		.1 Control cabinet wire		2.5 sq. mm, flexible copper conductor
		.2 Interpole cable		2.5 sq. mm, armored flexible copper conductor
		.3 Insulation		Grey - DC & Black – AC, 1100V Grade
	.2	Earth Wiring		
		.1 Size		2.5 sq. mm, flexible copper conductor
		.2 Insulation		Yellow Green 1100V Grade
8.3		Control Terminals		
	.1	Type		Stud type
	.2	Make		Connectwell / Elmex
	.3	Size	mm^2	4.0
	.4	Spare unwired terminal	Nos.	10(max)

8.4 Auxiliary Supply

Circuit	Rated Voltage	Source	Range
Spring Charging Motor	240V AC	External	85 – 110%
Closing Coil (330W)	220V DC	External	85 – 110%
Trip Coil – 1 & 2 (330W)	220V DC	External	70 – 110%
Space Heater / Socket / Illumination	240V AC	External	--

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CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR: As Applicable PROJECT: As Applicable PO.NO.: As Applicable					Sales Ref.: Qty.:	
				Date: 09.05.2023	Description: - 245kV,50kA, 4000A SF6 CB.	Sh. 3
				Prepared: MSR		
				Checked: SB	Type: - 3AP1FI	3 Sh.
				Siemens Ltd. Office		
Issue	Remarks	Date	Name		Details: - DESIGN DETAILS	
Original/Replacement for/ Replaced by :-					Dwg No. :- (3)G71AHS-NA403-D1503-	

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
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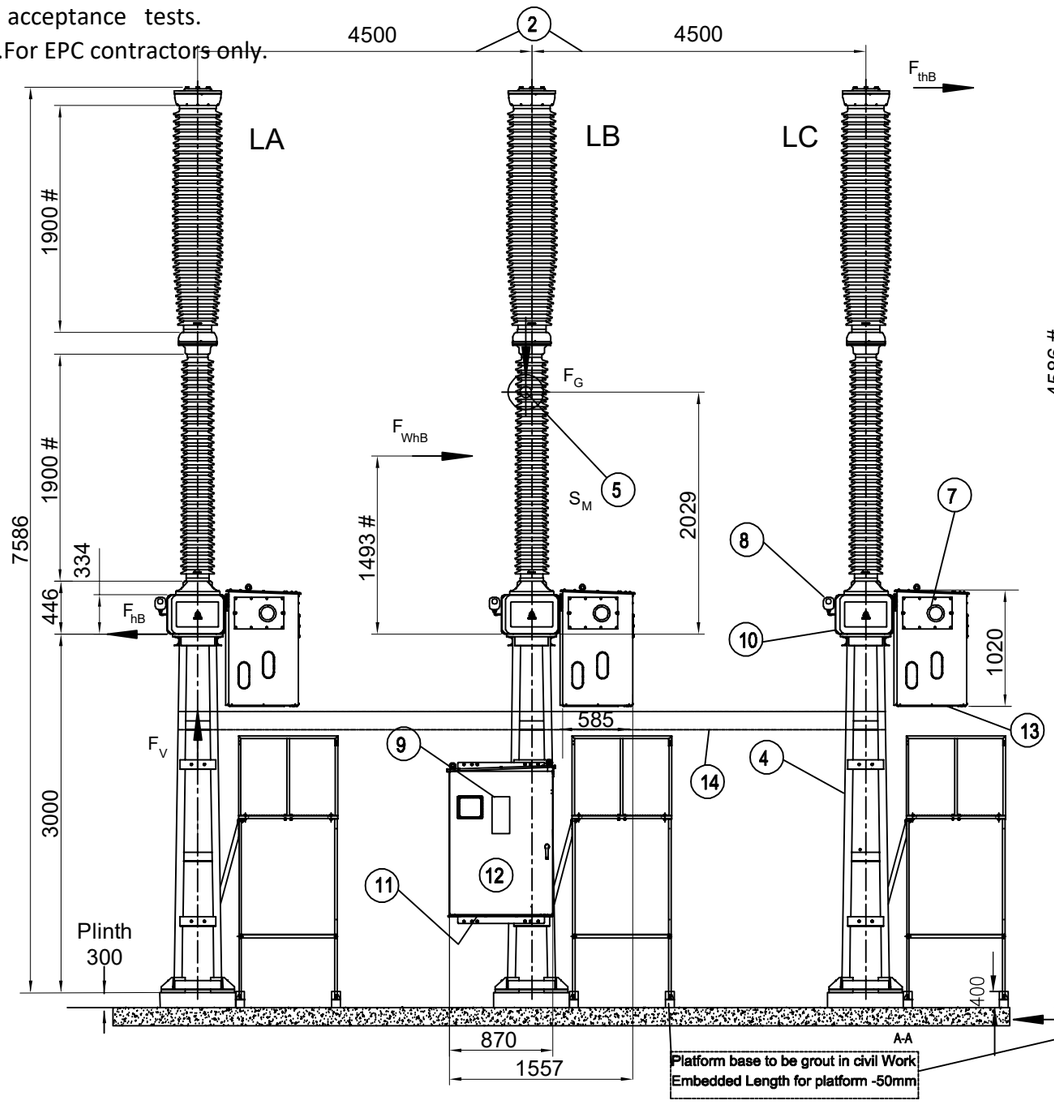
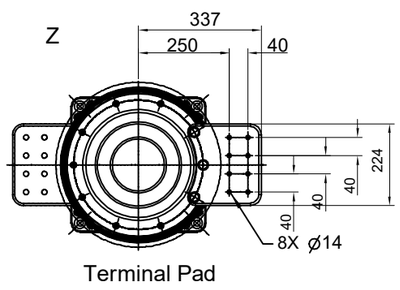
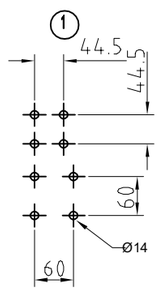




Terminal Pad



Earthing Holes

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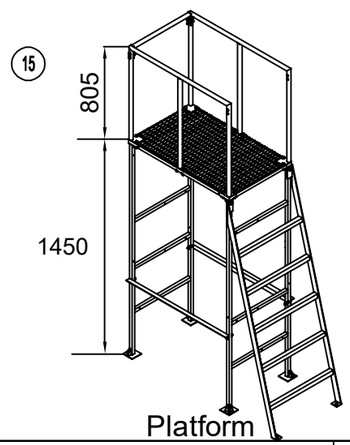
APTRANSCO/VS/VIJAYAWADA



Platform

Bill of Materials :-

1. Pole - 3 nos.
2. Spring Operating Mechanism+baseframe- 3 nos.
3. Marshalling Box (Fixed on B Pole) - 1 nos.
4. Interpole cable - 2.5 mm² Armored.
5. Support Structure - 3 Nos.
6. Foundation Bolts - 12 Nos.
7. Platform - 3 Nos.

Legends :-

1. Holes for earthing terminals
2. Pole to pole distance
3. Aluminium Terminal plates with holes (#thick 20mm)
4. Support structure
5. Center of Gravity
6. Insulator creepage: [redacted] / 31mm/kV(As applicable)*.
   Make:- ABIL/Modern/IEC.
7. Mechanical "on/off" indication
8. Pressure gauge
9. Rating plate
10. Base frame
11. Gland plate location at bottom of panel.
12. Marshalling Box
13. Operating Mechanism Box
14. Cable Tray.
15. Platform.

Note:

Mass of CB (without structure) = 2000 kg approx.(25mm/kV)
- Mass of CB (without structure) = 2250 kg approx.(31mm/kV)
- Mass of heaviest part (pole) = 550 kg approx.
- Mass of SF6 gas per CB = 16.5 kg approx.
- Rated pressure of SF6 gas at 20°C= 6 bar (gauge)

Loads per pole					
F_G	F_{WhA}	F_{WhB}	F_{hA}	F_{hB}	F_V
Weight Loads	Wind Loads,at a Wind speed of 34m/s		Operating Loads Horizontal		Operating Loads Vertical
8.4 kN	2.0 kN	1.4 kN	0 kN	6.5 kN	+23.0 kN(pull) -28.0 kN(push)

- Terminal Pad Current Density = 1.0 A / sq. mm
- Minor deviations from the dimensions and the data stated are permissible.
- Earth Terminals M12, DIN 46 011 and NEMA.
- ' * ' marked dimensions can be changed to suit the site requirements.
- ' # ' marked are standard design dimensions which cannot be changed.

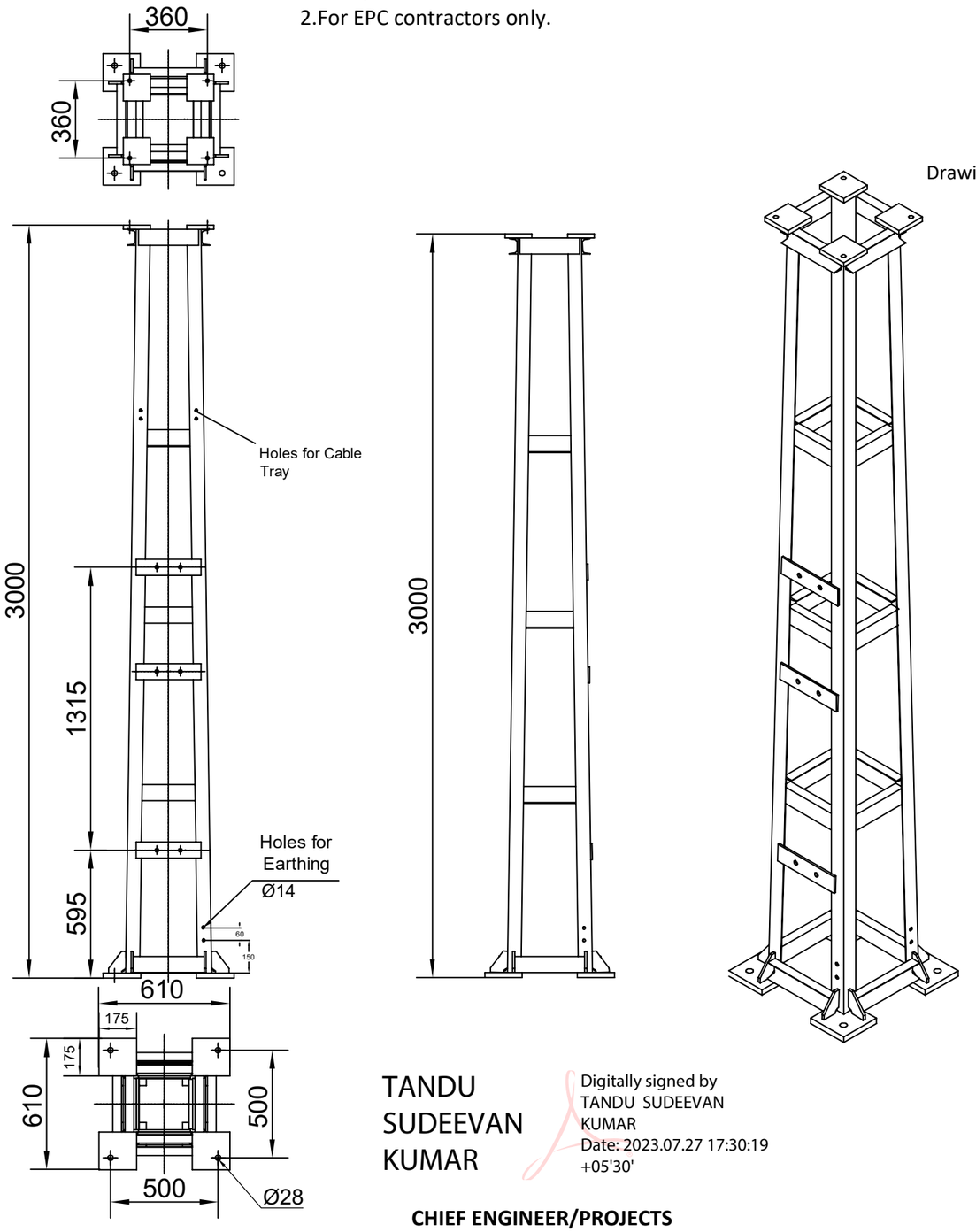
				Date	09.05.2023	CLIENT:Transmission Corporation of Andhra Pradesh Limited	SIEMENS AURANGABAD	Descr : 245kV,50kA,4000A SF6 CB.
				Prep	MSR	CONTRACTOR: As Applicable		Type : 3AP1FI
				Ckd.	SB	PROJECT: As Applicable PO.NO.: As Applicable		Details : GENERAL ARRANGEMENT
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-		

SO No : Qty: 1HG-594-03542-001

Drg. No:- (3)G71AHS-NA403-Z1503 Sh. 1 2 Sh.

HO/ESD-Coord/SE 03-90

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.



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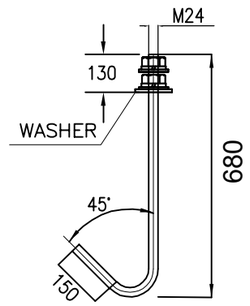
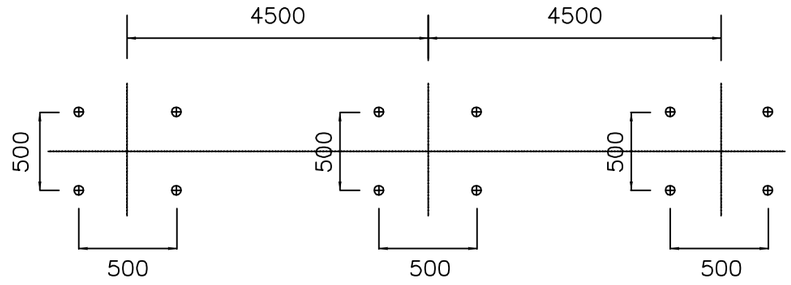


DETAILS OF FOUNDATION BOLT



FOUNDATION PLAN FOR 220KV CB

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Remarks:
1) All dimensions are in mm.
2) All structural steel shall conform to IS:2062
3) Hot dip galvanizing acc. to ISO 1461 (thickness min.86µm average-25mm/kV)
4) Hot dip galvanizing acc. to ISO 1461 (thickness min.120µm average-31mm/kV)
5) All welding shall be done as per IS:816.
6) Faces joined by welding on top and bottom side should be grind.

				Date	09.05.2023	CLIENT:Transmission Corporation of Andhra Pradesh Limited	SIEMENS	Descr : 245kV,50kA,4000A SF6 CB.	SO No : Qty:	1HG 594-03864-004
				Prep	MSR	CONTRACTOR: As Applicable	AURANGABAD	Type : 3AP1FI		
				Ckd.	SB	PROJECT: As Applicable PO.NO.: As Applicable		Details : SUPPORT STRUCTURE	Drg. No:- (3)G71AHS-NA403-Z1503	Sh. 2 2 Sh.
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-				

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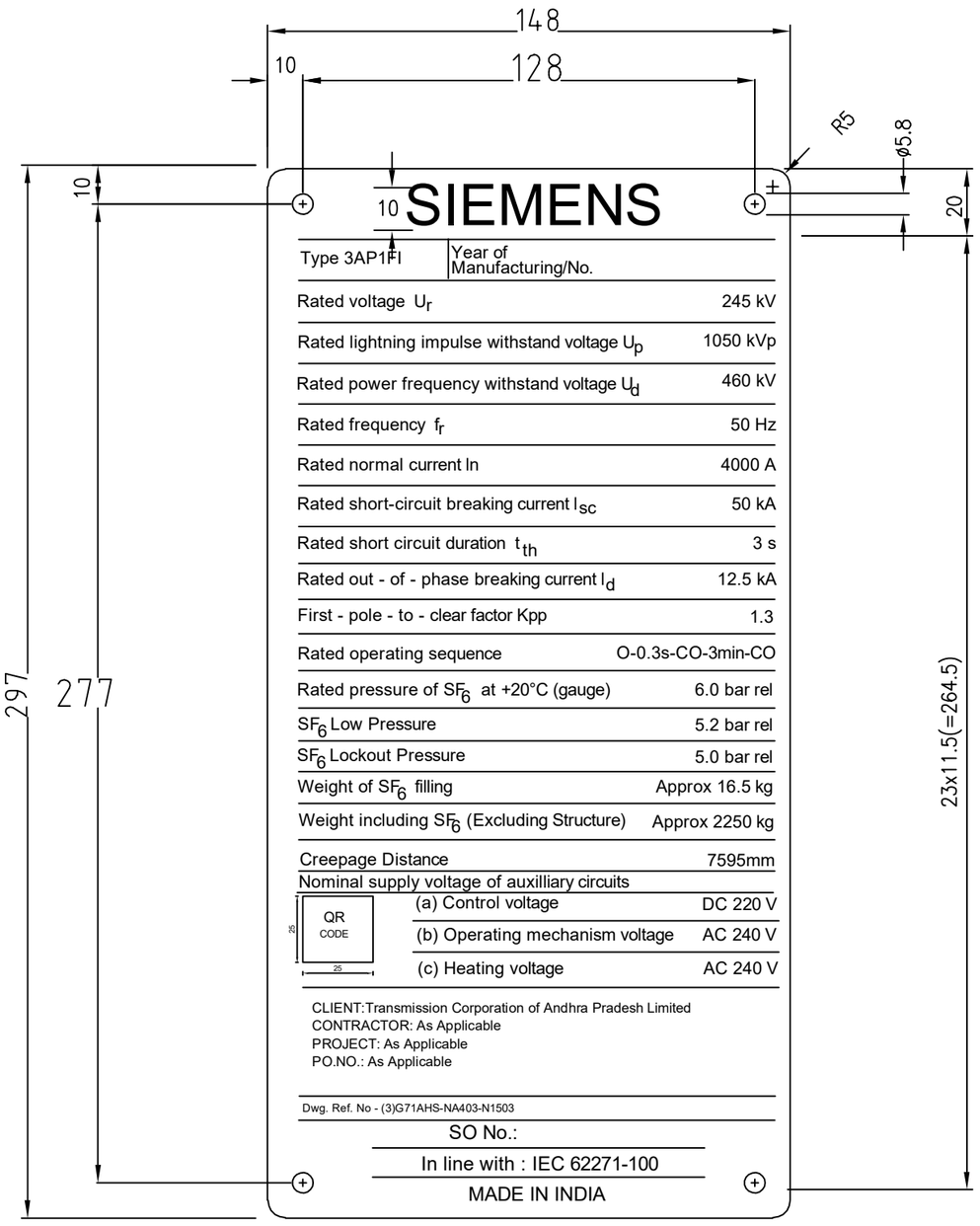

Pole A	
CLIENT:	Transmission Corporation of Andhra Pradesh Limited
Sr No -	

Pole B	
CLIENT:	Transmission Corporation of Andhra Pradesh Limited
Sr No -	

Pole C	
CLIENT:	Transmission Corporation of Andhra Pradesh Limited
Sr No -	

Rating Plate on respective operating mechanism

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1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
2. Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings. The EPC contractor shall be instructed to supply the same line with CT/PT/CVT/Isolator/IVT/LA/Breaker's requirement and compatibility.

NOTE :- NAME PLATE MADE UP OF ALUMINIUM COMPOSITE
LETTERS ARE IN WHITE COLOUR WITH BLACK BACKGROUND

Issue	Remarks	Date	Name				
				Date	09.05.2023	CLIENT:Transmission Corporation of Andhra Pradesh Limited CONTRACTOR: As Applicable PROJECT: As Applicable PO.NO.: As Applicable	SIEMENS AURANGABAD
				Prep	MSR		
				Ckd.	SB		
				Norm.		Original / Replacement for /Replaced by :-	

Descr : 245kV,50kA,4000A SF6 CB.	SO No :	Qty:	
Type : 3AP1FI			
Details : NAME PLATE(31mm/kV)		Drg. No:- (3)G71AHS-NA403-N1503-	Sh. 2 / 2 Sh.

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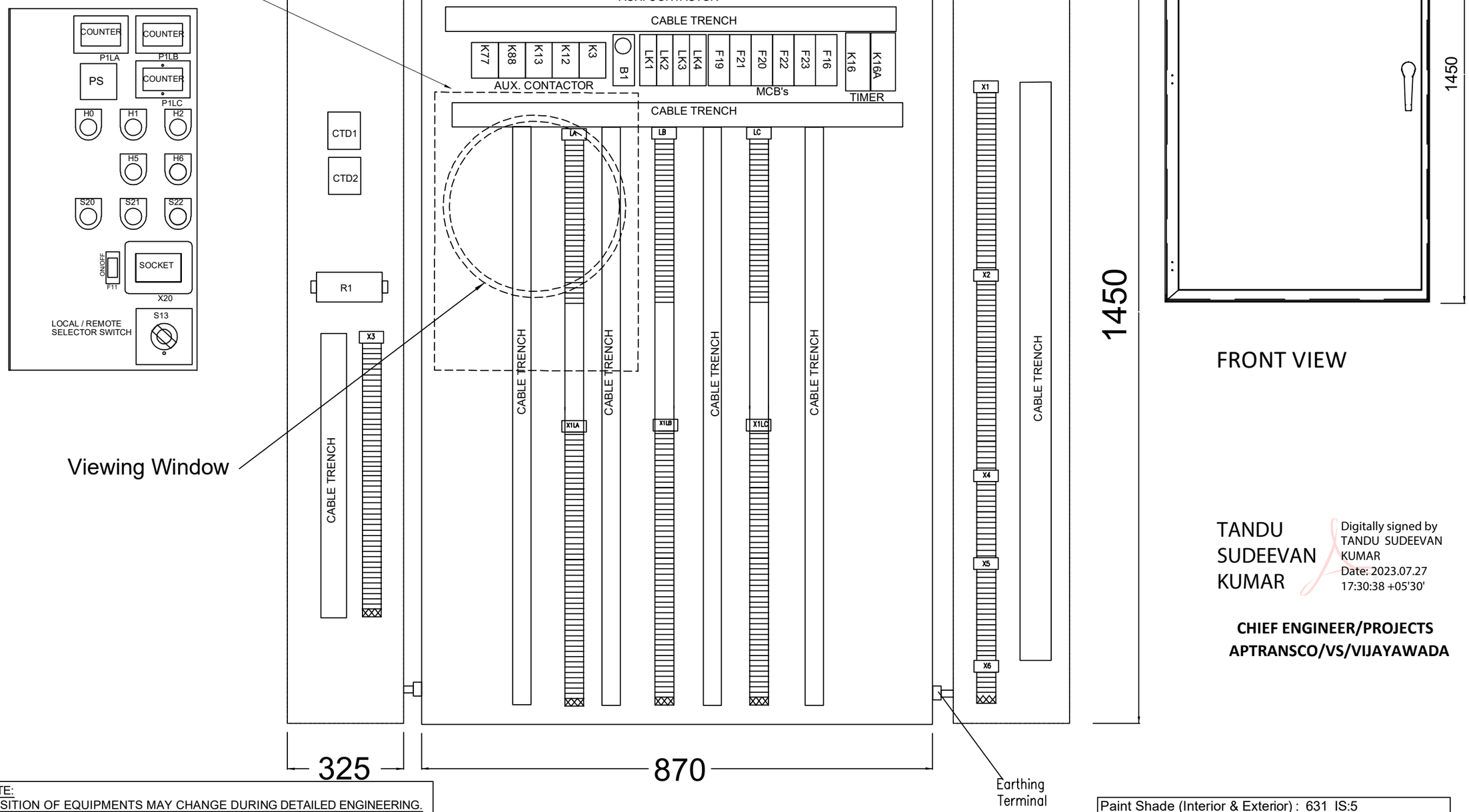
PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.

MARSHALLING BOX

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.



FRONT VIEW

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CHIEF ENGINEER/PROJECTS
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*NOTE:
1.POSITION OF EQUIPMENTS MAY CHANGE DURING DETAILED ENGINEERING.
2.Control Terminals are STUD type
3.Degree of protection - IP55

Paint Shade (Interior & Exterior) : 631 IS:5

				Date	09.05.2023	CLIENT:Transmission Corporation of Andhra Pradesh Limited	SIEMENS AURANGABAD	Descr : 245kV,50kA,4000A SF6 CB.	SO No : Qty:
				Prep	MSR	CONTRACTOR: As Applicable		Type : 3AP1FI	
				Ckd.	SB	PROJECT: As Applicable PO.NO.: As Applicable		Details : MARSHALLING BOX	Drg. No:- (3)G71AHS-NA403-L1503 Sh. 1 3 Sh.
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-			

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OPERATING MECHANISM COMPARTMENT POLE LA, LB, LC

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
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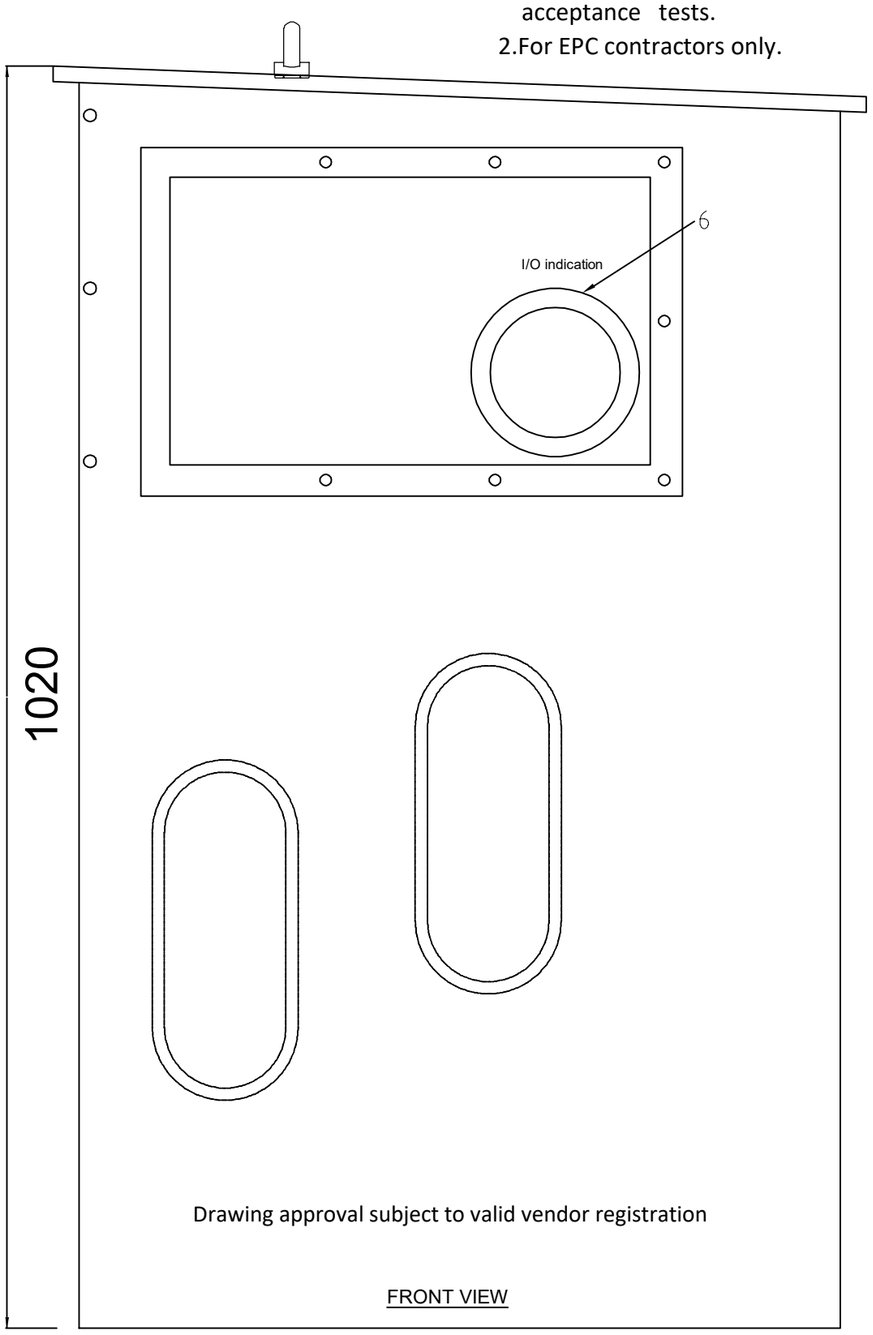
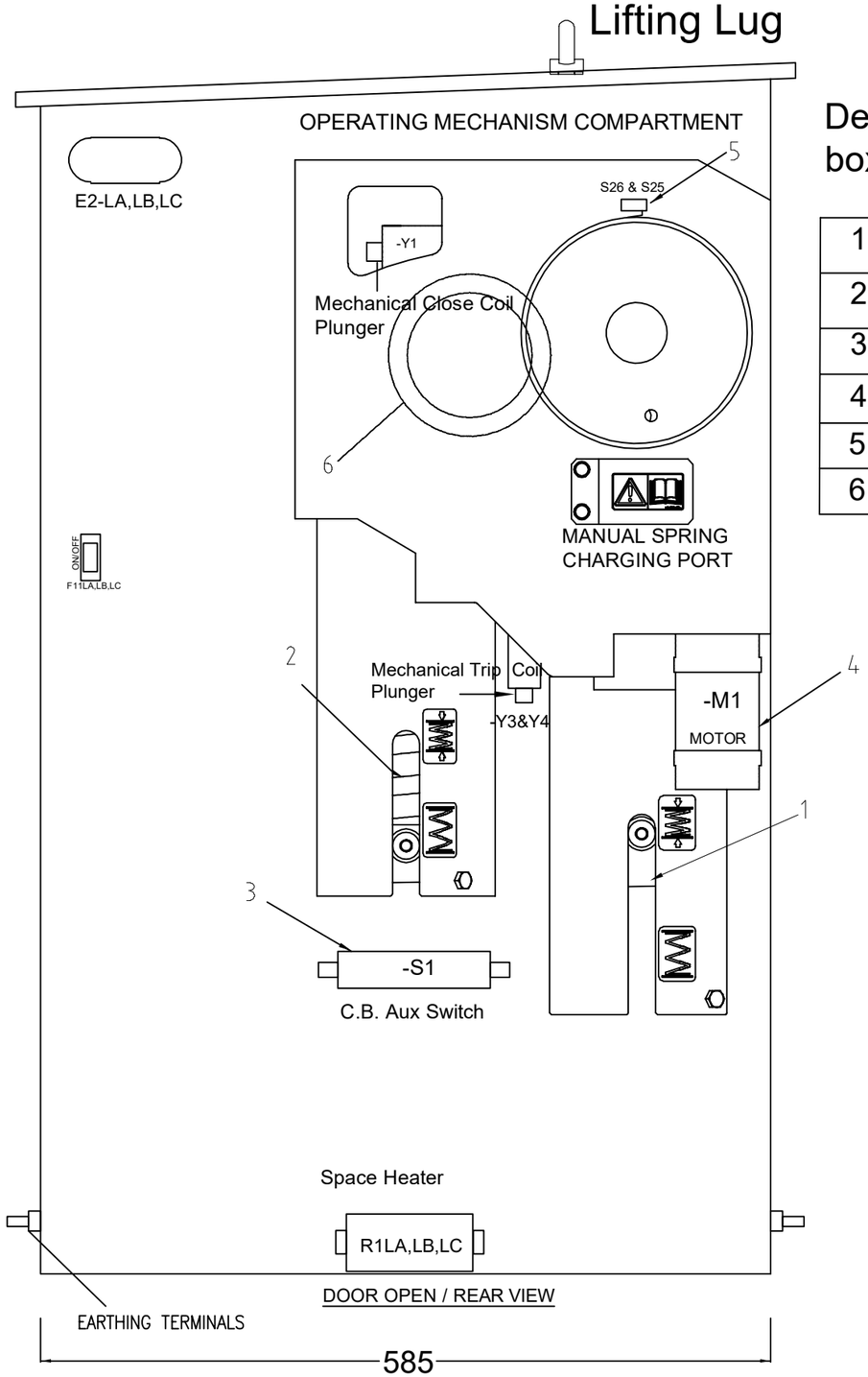


Drawing approval subject to valid vendor registration

FRONT VIEW



DOOR OPEN / REAR VIEW

Details of operating mechanism box

1.	Closing Spring
2.	Opening Spring
3.	Circuit breaker auxiliary switch
4.	Spring Charging Motor
5.	Limit Switch for motor
6.	Glass Window- CB ON/OFF

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*NOTE:
1.POSITION OF EQUIPMENTS MAY CHANGE DURING DETAILED ENGINEERING.
2.Degree of protection - IP55

				Date	09.05.2023	CLIENT:Transmission Corporation of Andhra Pradesh Limited	SIEMENS AURANGABAD
				Prep	MSR	CONTRACTOR: As Applicable	
				Ckd.	SB	PROJECT: As Applicable	
Issue	Remarks	Date	Name	Norm.		PO.NO.: As Applicable	
						Original / Replacement for /Replaced by :-	

Descr : 245kV,50kA,4000A SF6 CB.
Type : 3AP1FI
Details : CONTROL PANEL LAYOUT

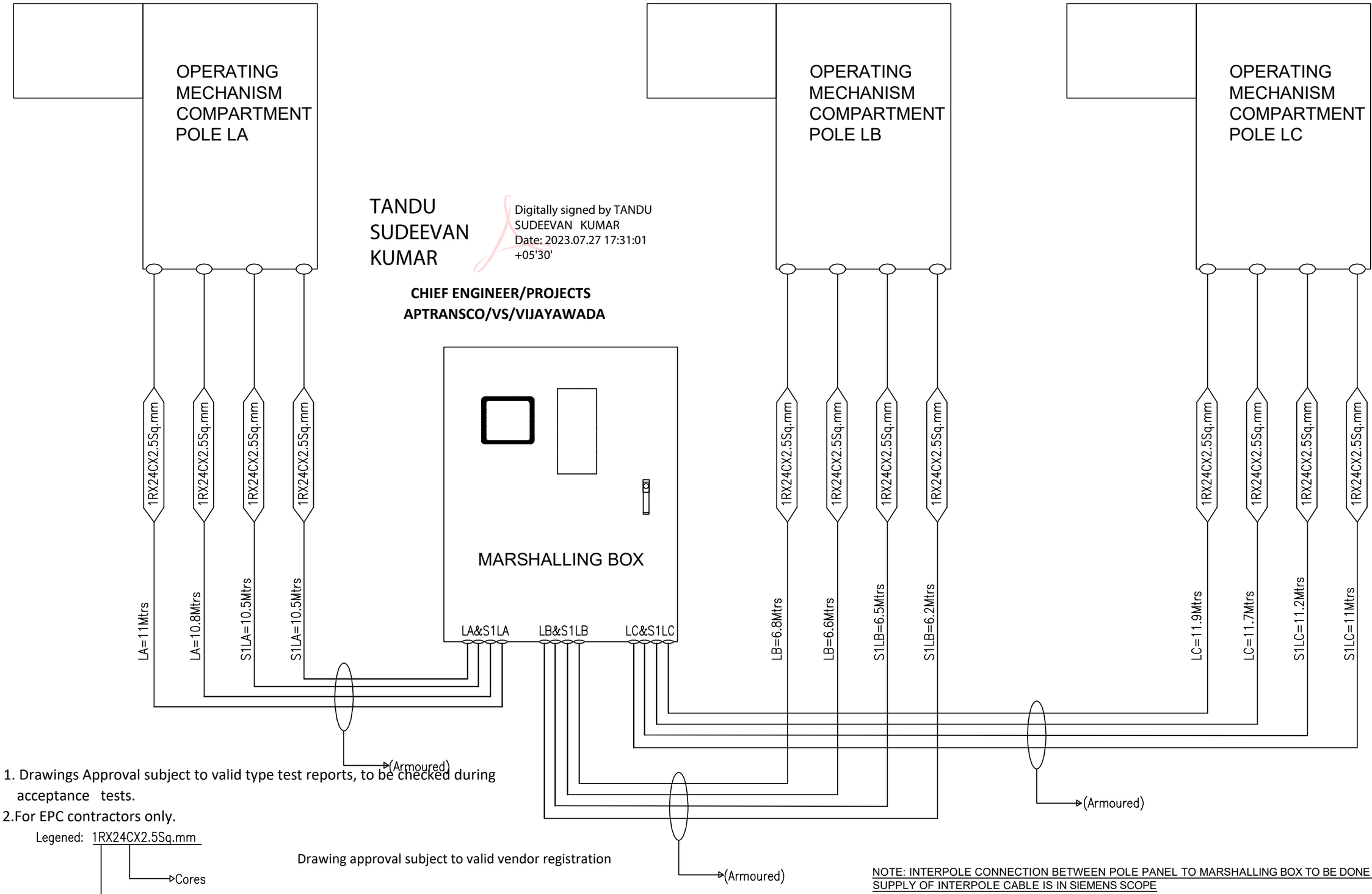
SO No : Qty:

Drg. No:- (3)G71AHS-NA403-L1503

Sh. 2
3 Sh.

HQ/ESD-Coord/9E 03-90

INTER POLE CABLING LAYOUT



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CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

Legened: 1RX24CX2.5Sq.mm
- Cores
- Runs

Drawing approval subject to valid vendor registration

NOTE: INTERPOLE CONNECTION BETWEEN POLE PANEL TO MARSHALLING BOX TO BE DONE AT SITE & SUPPLY OF INTERPOLE CABLE IS IN SIEMENS SCOPE
Interpole cable - Armoured, 2.5 sq mm 24 core 4nos for AC/DC current

BASIC MODULE :-

				Date	09.05.2023	CLIENT:Transmission Corporation of Andhra Pradesh Limited	**Siemens Ltd.**	Descr : 245kV,50kA,4000A SF6 CB.	SO No : Qty:
				Prep	MSR	CONTRACTOR: As Applicable PROJECT: As Applicable	AURANGABAD	Type : 3AP1FI	
				Ckd.	SB	PO.NO.: As Applicable		Details : INTERPOLE_CABLE_DETAILS	Drg. No:- (3)G71AHS-NA403-L1503 Sh. 3
Issue	Remarks	Date	Name	Norm.		Original/Replacement For/Replaced by :-			3 Sh.

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.

2.For EPC contractors only.

NOTES :-

1. ALL AUXILLIARY CONTACTS SHOWN WITH CIRCUIT DE-ENERGISED.

2. ALL CONTACTS OF DENSITY MONITOR SHOWN WITH THE LOW PRESSURE CONDITION.

3. CONTACTS OF LIMIT SWITCH OF SPRING CHARGING MOTOR SHOWN WITH SPRING DISCHARGED.

4. MANUFACTURING TOLERANCE APPLICABLE, EQUIPMENT POSITION MAY CHANGE DURING MANUFACTURING.

5. WIRING IN THE DOTTED LINES INDICATE THE WIRING CIRCUIT INSIDE THE CONTROL CUBICLE (LA,LB,LC)

6. INTERPOLE CONNECTION BETWEEN POLE PANEL TO MARSHALLING BOX TO BE DONE AT SITE & SUPPLY OF INTERPOLE CABLE IS IN SIEMENS SCOPE

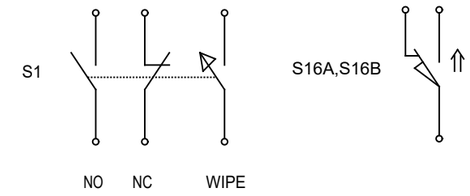
7. PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.

1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
2. Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings. The EPC contractor shall be instructed to supply the same line with CT/PT/CVT/Isolator/IVT/LA/Breaker's requirement and compatibility.

TANDU SUDEEVAN KUMAR

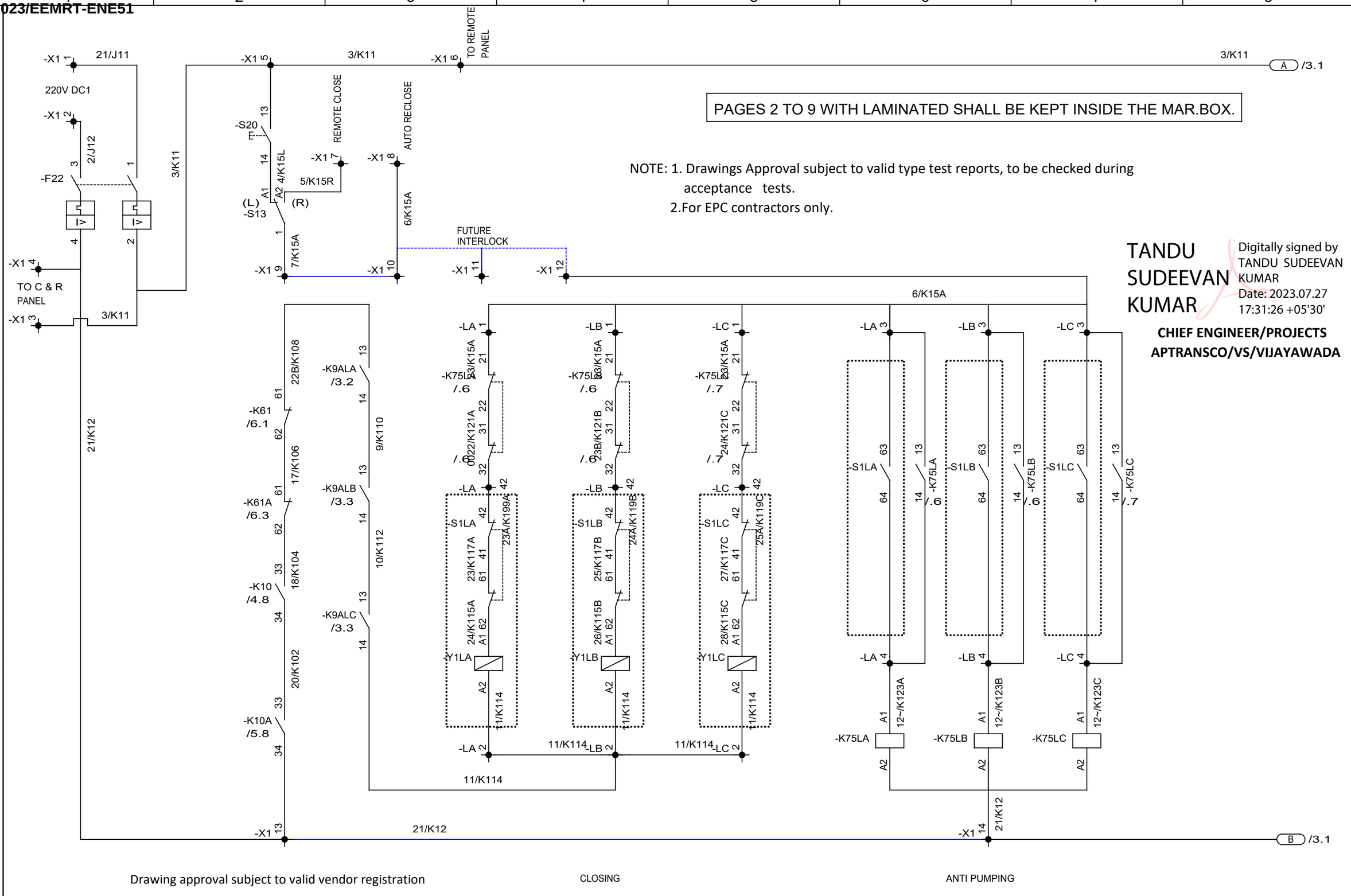
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2023.07.27 17:31:14 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA



CONTACT GEOMETRY OF S1 AND S16A, S16B SWITCH

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As applicable PROJECT: As Applicable PO.NO.: As aplicable	SIEMENS LTD. Aurangabad	Descp:245KV,50KA,4000A Type:3AP1FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			Drg No: (3)G71AHS-NA403-W1503 Sh. 1 9 Sh.



NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2023.07.27 17:31:26 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

Drawing approval subject to valid vendor registration

CLOSING

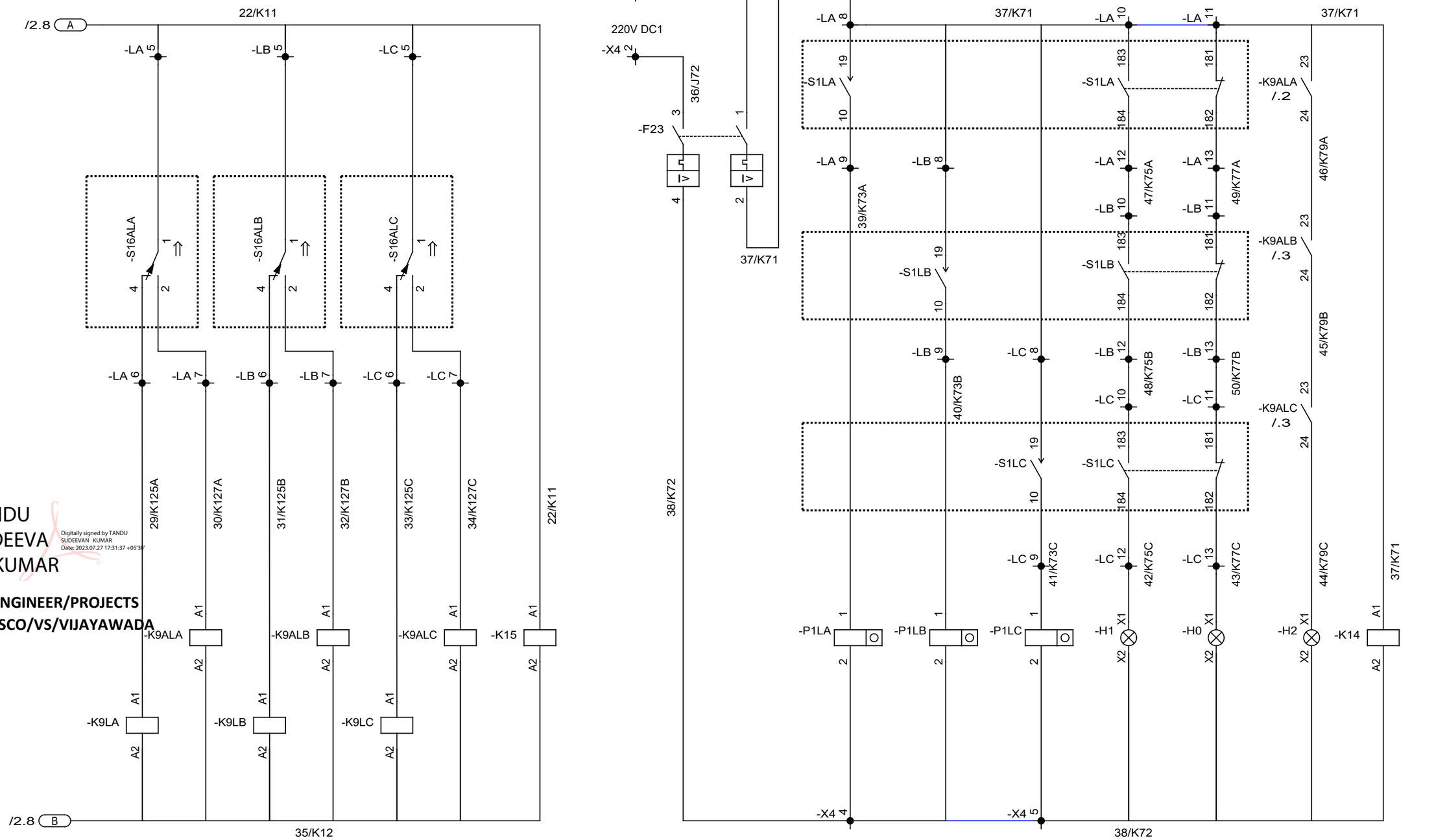
ANTI PUMPING

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited	SIEMENS LTD. Aurangabad	Descp:245KV,50KA,4000A	SO NO: Qty: =ZZA
				Prep.	MSR	CONTRACTOR:As applicable		Type:3AP1FI	++
				Ckd.	SB	PROJECT: As Applicable		Dwg. Name:Schematic drawing	Sh. 2
Issue	Remarks	Date	Name			PO.NO.: As aplicable			Drg No: (3)G71AHS-NA403-W1503 9 Sh.
						ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.

2.For EPC contractors only.

PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.



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Date: 2023.07.27 17:31:37 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

MOTOR CONTROL
MOTOR CONTROL
MOTOR CONTROL
CLOSING CKT SPRING CHARGE SUPPLY MONITOR
SPRING CHARGED STATUS
SPRING CHARGED STATUS
SPRING CHARGED STATUS
OPERATIONAL COUNTER POLE A
OPERATIONAL COUNTER POLE B
OPERATIONAL COUNTER POLE C
CB ON
CB OFF
SPRING CHARGED INDICATION
INDICATION SUPPLY MONITOR

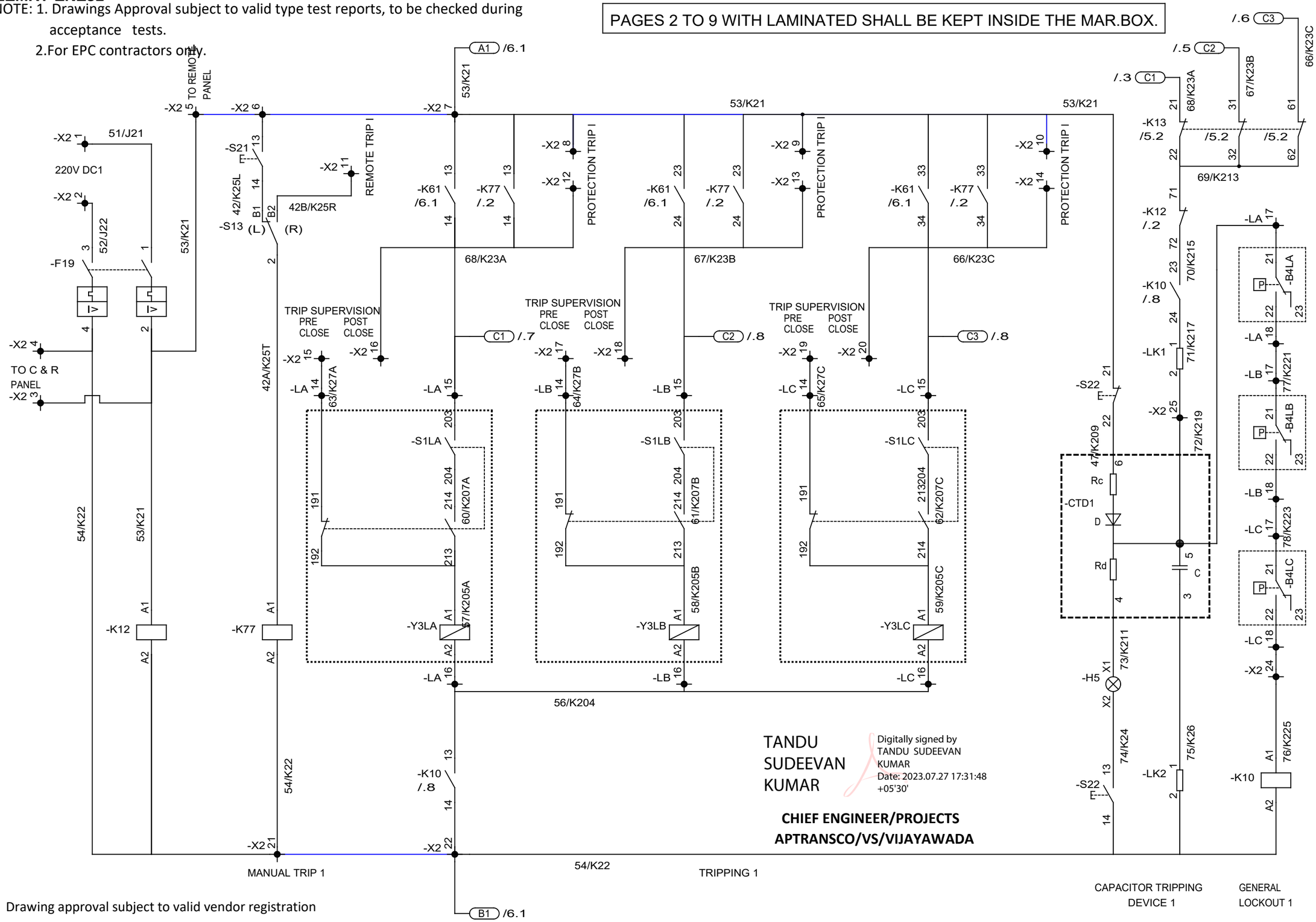
				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited	SIEMENS LTD. Aurangabad	Descp:245KV,50KA,4000A	SO NO: Qty: =ZZA
				Prep.	MSR	CONTRACTOR:As applicable		Type:3AP1FI	++
				Ckd.	SB	PROJECT: As Applicable		Dwg. Name:Schematic drawing	Drg No: (3)G71AHS-NA403-W1503 Sh. 3
Issue	Remarks	Date	Name			PO.NO.: As aplicable			9 Sh.
						ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

7613133/2023/EEMRT-ENE51

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.

2.For EPC contractors only.

PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.



TANDU SUDEEVAN KUMAR

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Date: 2023.07.27 17:31:48 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

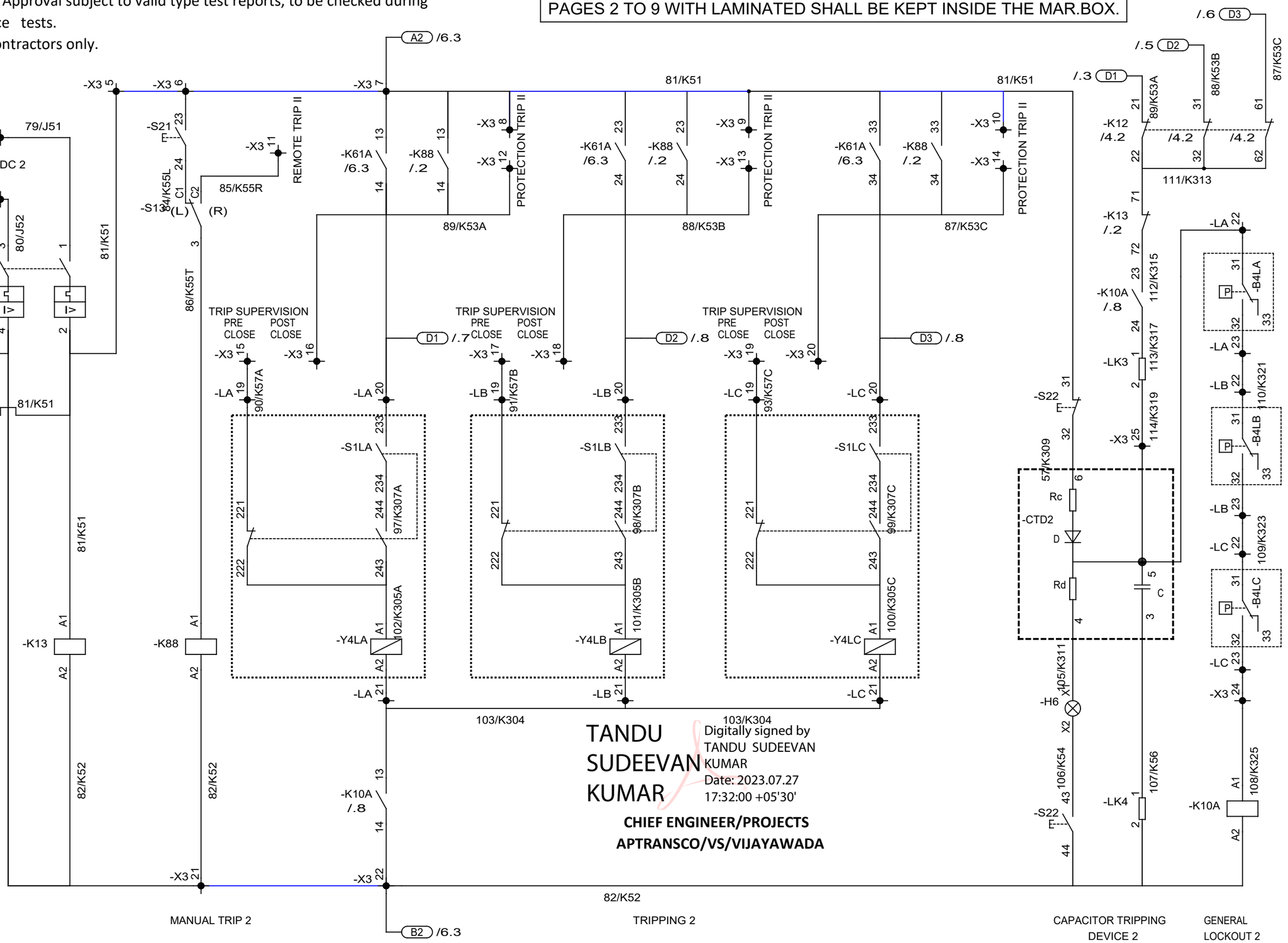
Drawing approval subject to valid vendor registration

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited	SIEMENS LTD. Aurangabad	Descp:245KV,50KA,4000A	SO NO:	Qty:	=ZZA
				Prep.	MSR	CONTRACTOR:As applicable		Type:3AP1FI			++
				Ckd.	SB	PROJECT: As Applicable		Dwg. Name:Schematic drawing			Sh. 4
Issue	Remarks	Date	Name			PO.NO.: As aplicable			Drg No: (3)G71AHS-NA403-W1503		9 Sh.
						ORIGINAL/REPLACEMENT FOR/REPLACED BY:					

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.

2.For EPC contractors only.

PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.



TANDU SUDEEVAN KUMAR

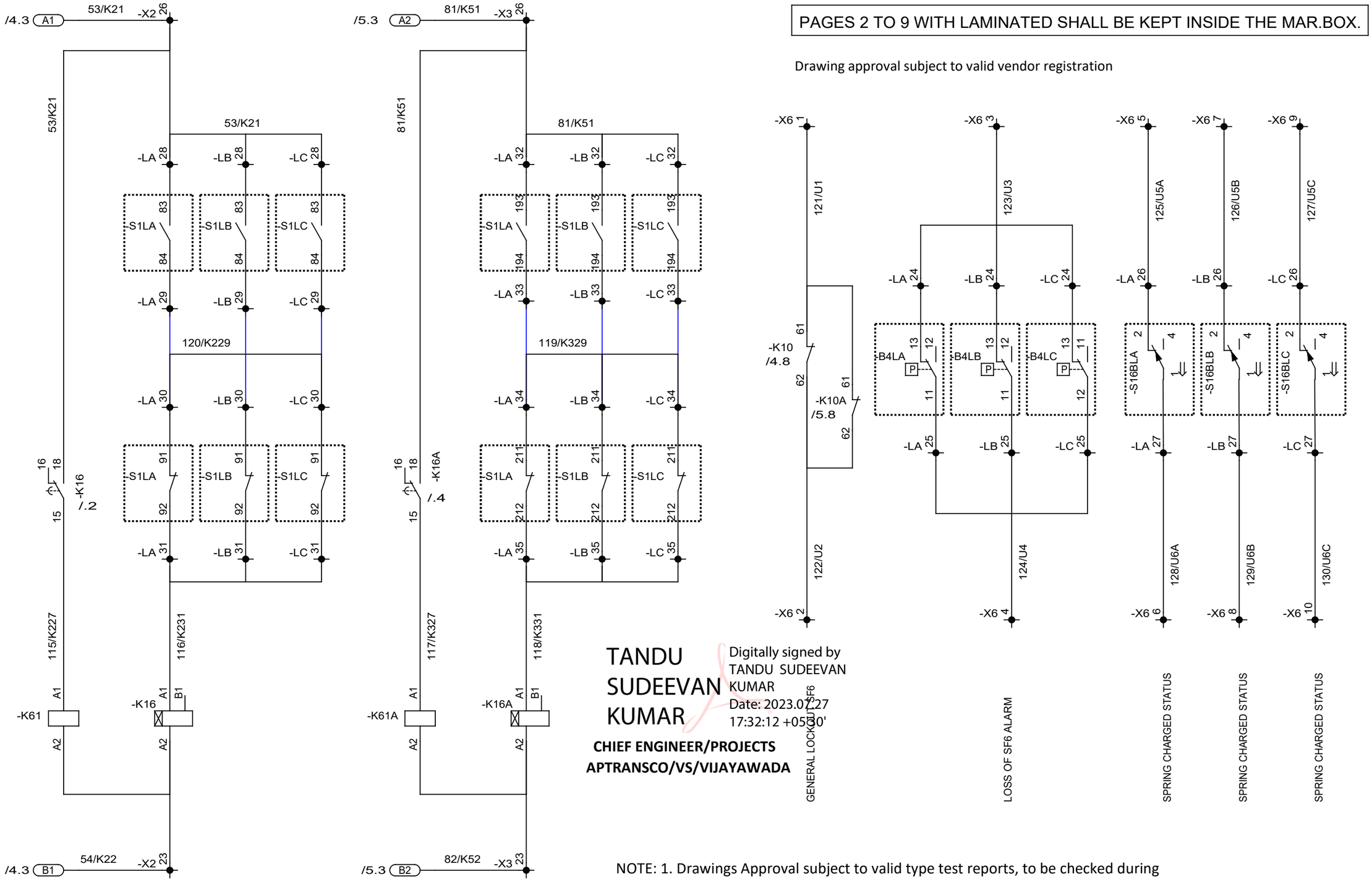
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2023.07.27 17:32:00 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As applicable PROJECT: As Applicable PO.NO.: As aplicable	SIEMENS LTD. Aurangabad	Descp:245KV,50KA,4000A Type:3AP1FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			Drg No: (3)G71AHS-NA403-W1503 Sh. 5 / 9 Sh.

PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.

Drawing approval subject to valid vendor registration



TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2023.07.27 17:32:12 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

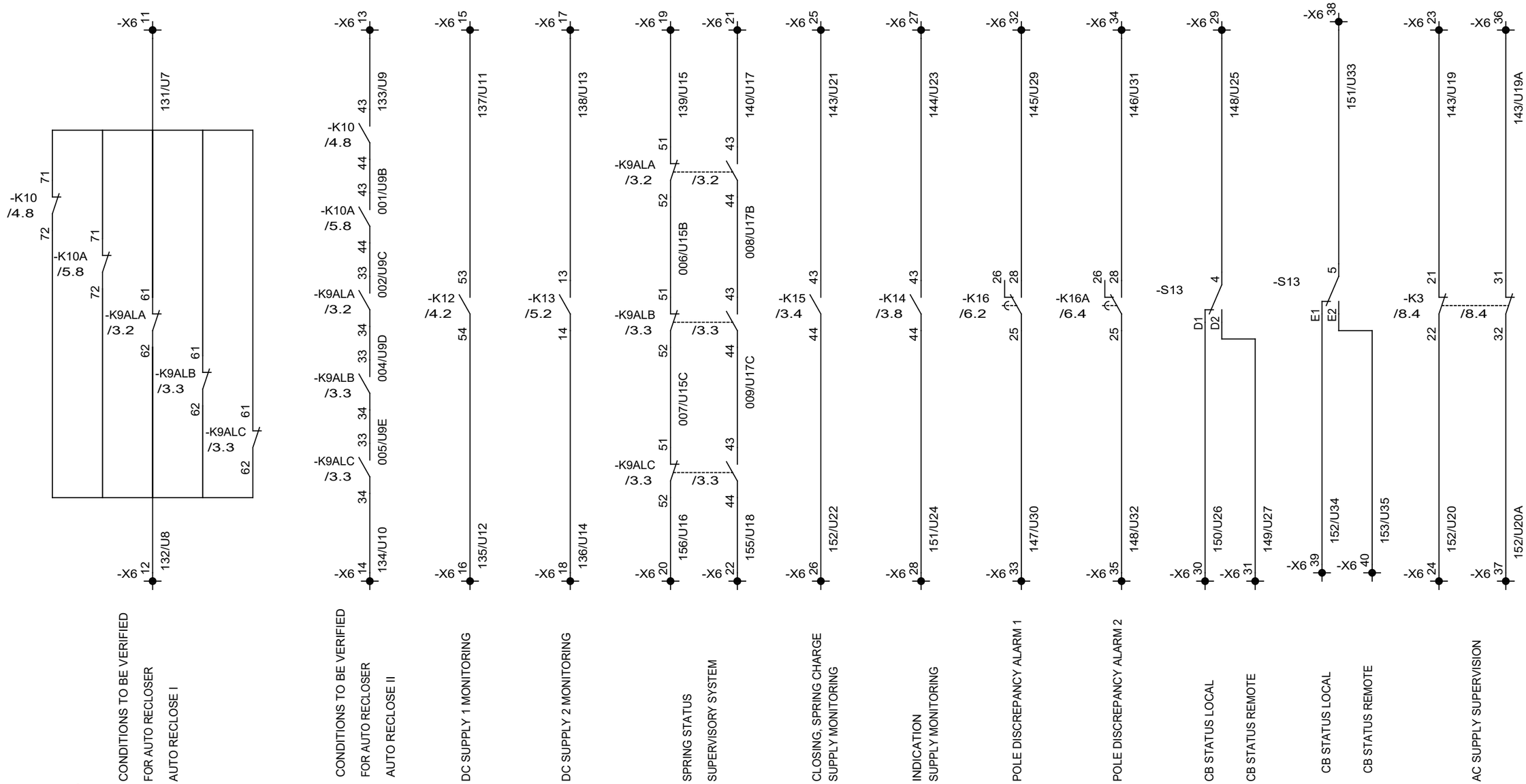
NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited	SIEMENS LTD.	Descp:245KV,50KA,4000A	SO NO: Qty: =ZZA
				Prep.	MSR	CONTRACTOR:As applicable	Aurangabad	Type:3AP1FI	++
				Ckd.	SB	PROJECT: As Applicable		Dwg. Name:Schematic drawing	Drg No: (3)G71AHS-NA403-W1503 Sh. 6
Issue	Remarks	Date	Name			PO.NO.: As aplicable			9 Sh.
						ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.

2.For EPC contractors only.



Drawing approval subject to valid vendor registration

TANDU SUDEEVAN KUMAR

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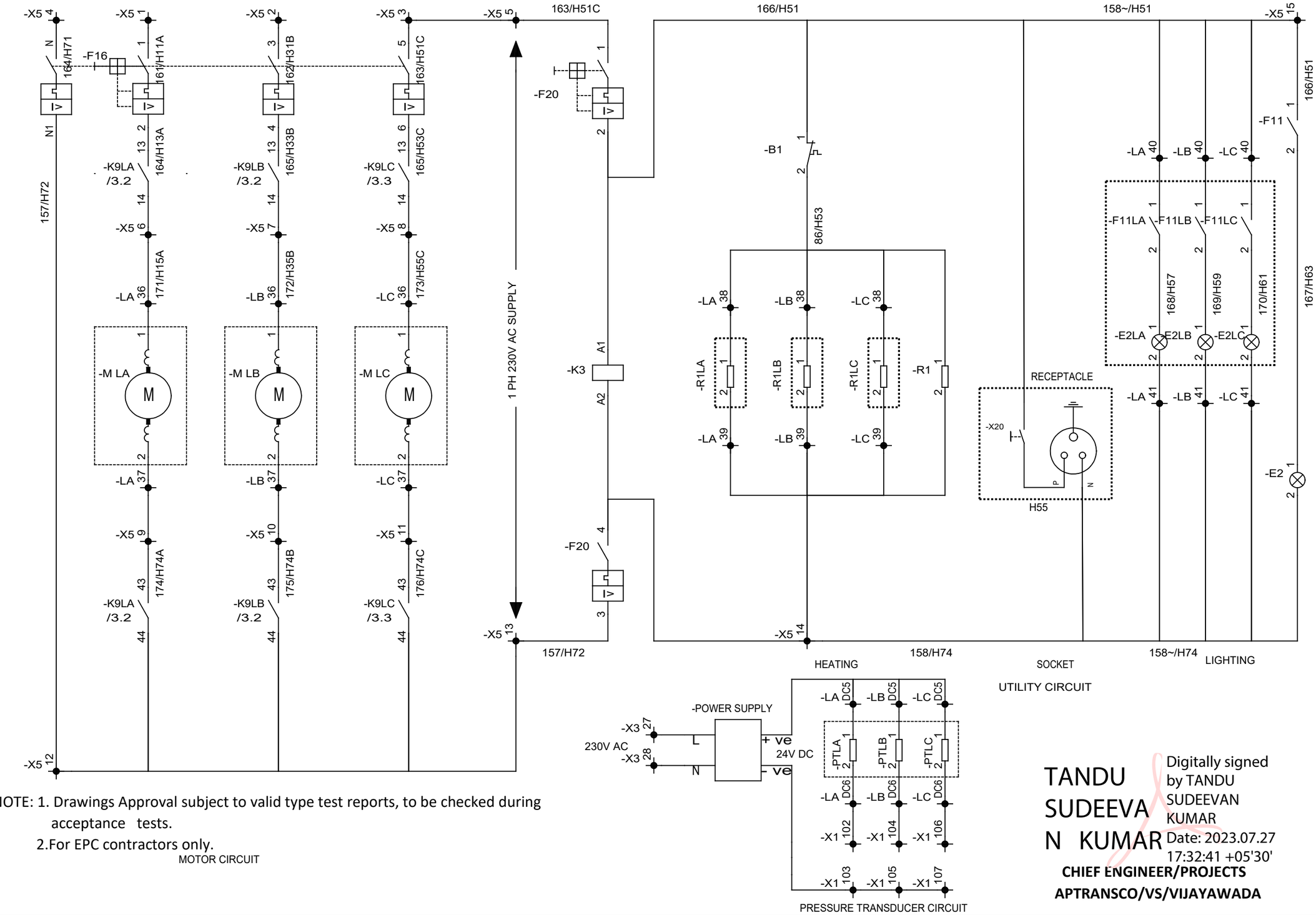
Date: 2023.07.27 17:32:27 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As applicable PROJECT: As Applicable PO.NO.: As aplicable	SIEMENS LTD. Aurangabad	Descp:245KV,50KA,4000A Type:3AP1FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-NA403-W1503 Sh. 7 9 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.

MOTOR SUPPLY
3 Ph,415 V AC



NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

MOTOR CIRCUIT

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2023.07.27 17:32:41 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

				Date	09.05.2023
				Prep.	MSR
				Ckd.	SB
Issue	Remarks	Date	Name		

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

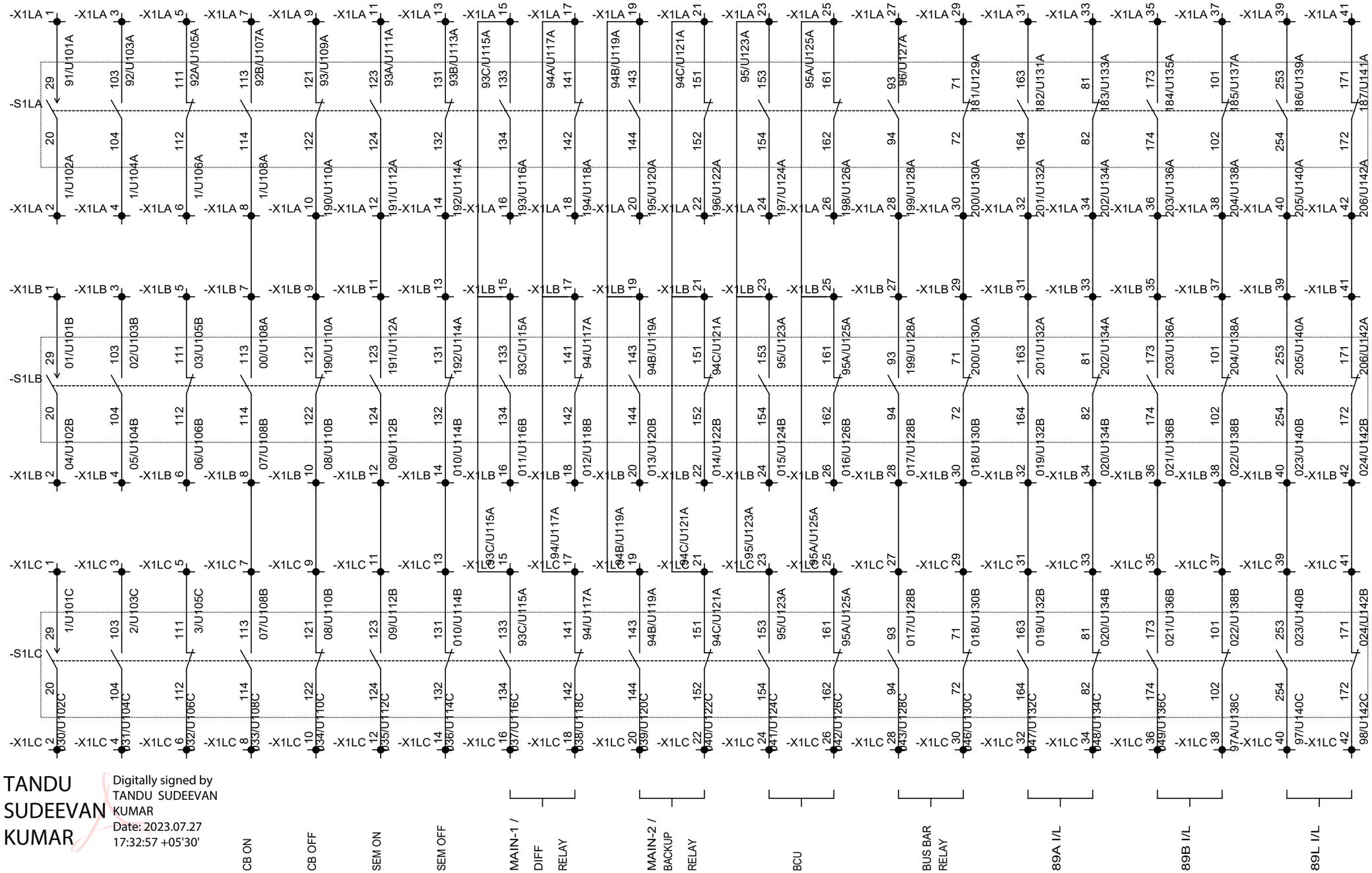
Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Schematic drawing

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-W1503

Sh. 8
9 Sh.

PAGES 2 TO 9 WITH LAMINATED SHALL BE KEPT INSIDE THE MAR.BOX.



TANDU SUDEEVAN KUMAR

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Date: 2023.07.27 17:32:57 +05'30'

CHIEF ENGINEER /PROJECTS
APTRANSCO/VS/VIJAYAWADA

10NO + 10NC + 1Wi SPARE CONTACTS OF CB AUXILIARY SWITCH

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited	SIEMENS LTD.	Descp:245KV,50KA,4000A	SO NO: Qty: =ZZA
				Prep.	MSR	CONTRACTOR:As applicable	Aurangabad	Type:3AP1FI	++
				Ckd.	SB	PROJECT: As Applicable		Dwg. Name:Schematic drawing	Sh. 9
Issue	Remarks	Date	Name			PO.NO.: As aplicable			Drg No: (3)G71AHS-NA403-W1503 9 Sh.
						ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	41xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -LA LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										K15A	-LB	1	A	O	1	STH3	K15A	-K75LA	21	
										K114	-Y1LA	A2		O	2	STH3	K114	-LB	2	A
										K15A	-LC	1	A	O	3	STH3	K15A	-S1LA	63	
											-LB	3					K15A	-K75LA	13	
										K125	-S1LA	64		O	4	STH3	K123A	-K75LA	A1	
																	K125	-K75LA	14	
										K11	-LB	5	A	O	5	STH3	K11	-S16ALA	1	
											-X1	6								
										K131A	-S16ALA	4		O	6	STH3	K125A	-K9LA	A1	
										K133A	-S16ALA	2		O	7	STH3	K127A	-K9ALA	A1	
										K71	-X4	3	B	O	8	STH3	K71	-S1LA	19	
																	K71	-LB	8	A
										K73A	-S1LA	10		O	9	STH3	K73A	-P1LA	1	
										K71	-S1LA	183		O	10	STH3	K71	-LC	8	A
										K71	-S1LA	181		O	11	STH3	K71	-K9ALA	23	
										K75A	-S1LA	184		O	12	STH3	K75A	-LB	10	A
										K77A	-S1LA	182		O	13	STH3	K77A	-LB	11	A
										K27A	-X2	15	A	O	14	STH3	K27A	-S1LA	191	
										K23A	-K13	21		O	15	STH3	K23A	-S1LA	203	
											-K61	14								
										K204	-Y3LA	A2		O	16	STH3	K204	-K10	13	
																	K204	-LB	16	B
										K219	-CTD1	5		O	17	STH3	K219	-B4LA	21	
										K221	-B4LA	22		O	18	STH3	K221	-LB	17	A
										K57A	-X3	15	A	O	19	STH3	K57A	-S1LA	221	
										K53A	-K12	21		O	20	STH3	K53A	-S1LA	233	
											-K61A	14								
										K304	-Y4LA	A2		O	21	STH3	K304	-K10A	13	
																	K304	-LB	21	B
										K319	-CTD2	5		O	22	STH3	K319	-B4LA	31	
										K321	-B4LA	32		O	23	STH3	K321	-LB	22	A
											-LB	24	A	O	24	STH3		-B4LA	13	
											-B4LA	11		O	25	STH3		-LB	25	B
										U5A	-X6	5	A	O	26	STH3	U5A	-S16BLA	2	
										U6A	-S16BLA	1		O	27	STH3	U6A	-X6	6	A
										K21	-LB	28	A	O	28	STH3	K21	-S1LA	83	
											-X2	26								
										K229	-S1LA	84		O	29	STH3				
										K229	-LB	30	A	O	30	STH3	K229	-S1LA	91	

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
SHORT CIRCIUT LINK
INSERTABLE JUMPER
SECTION INSULATING WASHER
INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date 09.05.2023
Prep. MSR
Ckd. SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 1
18 Sh.

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A B C D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	41xSTH3	1)
		EQUIPMENTWIRING

TERMINAL STRIP -LA

TERMINATION A/C DESTINATION/ITEM DESIGNATION				LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
K231	-S1LA	92			31	STH3	K231	-K16	A1	
							K231	-LB	31	B
K51	-LB	32	A		32	STH3	K51	-S1LA	193	
	-X3	26								
K329	-S1LA	194		fixed link 33–34	33	STH3				
K329	-LB	34	A		34	STH3	K329	-S1LA	211	
K331	-S1LA	212			35	STH3	K331	-K16A	A1	
							K331	-LB	35	B
H15A	-X5	6	B		36	STH3	H15A	-M LA	1	
H16A	-M LA	2			37	STH3	H74A	-X5	9	A
					38	STH3	H19	-R1LA	1	
							H19	-LB	38	B
H13	-R1LA	2			39	STH3				
	-LB	39								
H13	-LB	40	A		40	STH3	H13	-F11LA	1	
	-X20	P								
H13	-E2LA	2			41	STH3	H74	-LB	41	B
							H13	-X20	N	
K199A	-K75LA	32			42		K199A	-S1LA	42	
	-LB	DC5	A		DC5			-PTLA	1	
	-POWER SUPPL+Yve									
	-PTLA	2			DC6			-X1	102	A

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK — INSERTABLE JUMPER — INSULATING WASHER
SHORT CIRCIUT LINK — SECTION INSULATING WASHER — COVER

Issue	Remarks	Date	Name		
				Date	09.05.2023
				Prep.	MSR
				Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable
ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty:
=ZZA
++
Drg No: (3)G71AHS-NA403-T1503
Sh. 2
18 Sh.

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	41xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION					TERMINAL STRIP -LB LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										K15A	-LA	1	A		O	1	STH3	K15A	-K75LB	21	
											-LC	1									
										K114	-Y1LB	A2			O	2	STH3	K114	-LC	2	B
											-LA	2							K114	-K9ALC	14	
										K15A	-LA	3	A		O	3	STH3	K15A	-S1LB	63	
											-LC	3							K15A	-K75LB	13	
										K125	-S1LB	64			O	4	STH3	K123B	-K75LB	A1	
																			K125	-K75LB	14	
										K11	-LA	5	A		O	5	STH3	K11	-S16ALB	1	
											-LC	5									
										K131B	-S16ALB	4			O	6	STH3	K125B	-K9LB	A1	
										K133B	-S16ALB	2			O	7	STH3	K127B	-K9ALC	A1	
										K71	-LA	8	B		O	8	STH3	K71	-S1LB	19	
											-LC	8									
										K73B	-S1LB	10			O	9	STH3	K73B	-P1LB	1	
										K75A	-LA	12	B		O	10	STH3	K75A	-S1LB	183	
										K77A	-LA	13	B		O	11	STH3	K77A	-S1LB	181	
										K75B	-S1LB	184			O	12	STH3	K75B	-LC	10	A
										K77B	-S1LB	182			O	13	STH3	K77B	-LC	11	A
										K27B	-S1LB	191			O	14	STH3	K27B	-X2	17	A
										K23B	-K13	31			O	15	STH3	K23B	-S1LB	203	
											-K61	24									
										K204	-Y3LB	A2			O	16	STH3	K204	-LA	16	B
																			K204	-LC	16	B
										K221	-LA	18	B		O	17	STH3	K221	-B4LB	21	
										K223	-B4LB	22			O	18	STH3	K223	-LC	17	A
										K57B	-S1LB	221			O	19	STH3	K57B	-X3	17	A
										K53B	-K12	31			O	20	STH3	K53B	-S1LB	233	
											-K61A	24									
										K304	-Y4LB	A2			O	21	STH3	K304	-LA	21	B
																			K304	-LC	21	B
										K321	-LA	23	B		O	22	STH3	K321	-B4LB	31	
										K323	-B4LB	32			O	23	STH3	K323	-LC	22	A
											-LA	24	A		O	24	STH3		-B4LB	13	
											-B4LB	11			O	25	STH3		-LA	25	B
										U5B	-X6	7	A		O	26	STH3	U5B	-S16BLB	2	
										U6B	-S16BLB	1			O	27	STH3	U6B	-X6	8	A
										K21	-LA	28	A		O	28	STH3	K21	-S1LB	83	
											-LC	28									

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 3
18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	41xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -LB LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										K229	-S1LB	84		O	29	STH3				
										K229	-LA	30	A	O	30	STH3	K229	-S1LB	91	
											-LC	30								
										K231	-S1LB	92		O	31	STH3	K231	-LA	31	B
																	K231	-LC	31	B
										K51	-LA	32	A	O	32	STH3	K51	-S1LB	193	
											-LC	32								
										K329	-S1LB	194		O	33	STH3				
										K329	-LA	34	A	O	34	STH3	K329	-S1LB	211	
											-LC	34								
										K331	-S1LB	212		O	35	STH3	K331	-LA	35	B
																	K331	-LC	35	B
										H35B	-X5	7	B	O	36	STH3	H15B	-M LB	1	
										H16B	-M LB	2		O	37	STH3	H74B	-X5	10	A
										H19	-LC	38	A	O	38	STH3	H19	-R1LB	1	
																	H19	-LA	38	B
										H13	-R1LB	2		O	39	STH3	H13	-LC	39	B
											-LA	39					H13	-X5	14	A
										H13	-LC	40	A	O	40	STH3	H13	-F11LB	1	
											-LA	40								
										H13	-E2LB	2		O	41	STH3	H13	-LC	41	B
																	H74	-LA	41	B
										K119B	-K75LB	32		O	42		K119B	-S1LB	42	
											-LC	DC5	A	O	DC5			-PTLB	1	
											-LA	DC5								
											-PTLB	2		O	DC6			-X1	104	A
														O						
														O						
														O						
														O						
														O						
														O						
														O						
														O						
														O						
														O						
														O						
														O						
														O						
														O						

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 4
18 Sh.

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	41xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION					TERMINAL STRIP -LC LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										K15A	-LB	1	A		O	1	STH3	K15A	-K75LC	21	
											-LA	3									
										K114	-Y1LC	A2			O	2	STH3	K114	-LB	2	B
										K15A	-LB	3	A		O	3	STH3	K15A	-S1LC	63	
											-X1	12							K15A	-K75LC	13	
										K125	-S1LC	64			O	4	STH3	K123C	-K75LC	A1	
																			K125	-K75LC	14	
										K11	-LB	5	A		O	5	STH3	K11	-S16ALC	1	
											-K15	A1									
										K131C	-S16ALC	4			O	6	STH3	K125C	-K9LC	A1	
										K133C	-S16ALC	2			O	7	STH3	K127C	-K9ALC	A1	
										K71	-LB	8	A		O	8	STH3	K71	-S1LC	19	
											-LA	10									
										K73C	-S1LC	10			O	9	STH3	K73C	-P1LC	1	
										K75B	-LB	12	B		O	10	STH3	K75B	-S1LC	183	
										K77B	-LB	13	B		O	11	STH3	K77B	-S1LC	181	
										K75C	-S1LC	184			O	12	STH3	K75C	-H1	X1	
										K77C	-S1LC	182			O	13	STH3	K77C	-H0	X1	
										K27C	-X2	19	A		O	14	STH3	K27C	-S1LC	191	
										K23C	-K61	34			O	15	STH3	K23C	-S1LC	203	
											-K13	61									
										K204	-Y3LC	A2			O	16	STH3	K204	-LB	16	B
										K223	-LB	18	B		O	17	STH3	K223	-B4LC	21	
										K225	-B4LC	22			O	18	STH3	K225	-X2	24	A
										K57C	-X3	19	A		O	19	STH3	K57C	-S1LC	221	
										K53C	-K12	61			O	20	STH3	K53C	-S1LC	233	
											-K61A	34									
										K304	-Y4LC	A2			O	21	STH3	K304	-LB	21	B
										K323	-LB	23	B		O	22	STH3	K323	-B4LC	31	
										K325	-B4LC	32			O	23	STH3	K325	-X3	24	A
										U3	-X6	3	B		O	24	STH3	U3	-B4LC	13	
										U4	-B4LC	12			O	25	STH3	U4	-X6	4	A
										U5C	-X6	9	A		O	26	STH3	U5C	-S16BLC	2	
										U6C	-S16BLC	1			O	27	STH3	U6C	-X6	10	A
										K21	-LB	28	A		O	28	STH3	K21	-S1LC	83	
										K229	-S1LC	84			O	29	STH3				
										K229	-LB	30	A		O	30	STH3	K229	-S1LC	91	
										K231	-S1LC	92			O	31	STH3	K231	-LB	31	B
										K51	-LB	32	A		O	32	STH3	K51	-S1LC	193	

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
SHORT CIRCIUT LINK
INSERTABLE JUMPER
SECTION INSULATING WASHER
INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 5 / 18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A B C D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	41xSTH3	1)
		EQUIPMENTWIRING

TERMINAL STRIP -LC

TERMINATION A/C DESTINATION/ITEM DESIGNATION					LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
K329	-S1LC	194			fixed link (33–34)	33	STH3				
K329	-LB	34	A			34	STH3	K329	-S1LC	211	
K331	-S1LC	212				35	STH3	K331	-LB	35	B
H55C	-X5	8	B			36	STH3	H15C	-M LC	1	
H16C	-M LC	2				37	STH3	H74C	-X5	11	A
H19	-LB	38	A			38	STH3	H19	-R1	1	
	-B1	2						H19	-R1LC	1	
H13	-R1LC	2				39	STH3	H13	-LB	39	B
H13	-LB	40	A			40	STH3	H13	-F11LC	1	
	-X5	15									
H13	-E2LC	2				41	STH3	H13	-E2	2	
								H13	-LB	41	B
K119C	-K75LC	32				42		K119C	-S1LC	42	
	-LB	DC5	A			DC5			-PTLC	1	
	-PTLC	2				DC6			-X1	106	A

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK — INSERTABLE JUMPER — INSULATING WASHER
SHORT CIRCUIT LINK — SECTION INSULATING WASHER — COVER

Issue	Remarks	Date	Name	Date	09.05.2023
				Prep.	MSR
				Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable
ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty:
=ZZA
++
Drg No: (3)G71AHS-NA403-T1503
Sh. 6
18 Sh.

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	2xCSTSN5U	1)
	18xSTH3	EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION					TERMINAL STRIP -X1 LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										J11	-F22	1			O	1	CSTSN5U				
										J12	-F22	3			O	2	CSTSN5U				
										K11	-F22	2			O	3	STH3				
										K12	-F22	4			O	4	STH3				
										K11	-F22	2			O	5	STH3	K11	-S20	13	
																		K11	-X1	6	B
										K11	-LA	5	A		O	6	STH3	K11	-X1	5	B
															O	7	STH3	K15R	-S13	A2	
										K15A	-X1	10	A		O	8	STH3				
										K15A	-S13	1			O	9	STH3				
										K15A	-X1	8	A		O	10	STH3				
															O	11	STH3				
															O	12	STH3	K15A	-LC	3	A
										K12	-K10A	34			O	13	STH3	K12	-F22	4	
										K12	-K75LB	A2			O	14	STH3	K12	-K9LA	A2	
															O	15	STH3				
															O	16	STH3				
															O	17	STH3				
															O	18	STH3				
															O	19	STH3				
															O	20	STH3				
										-LA	DC6	B			O	102					
										-POWER SUPPLY					O	103			-X1	105	A
										-LB	DC6	B			O	104					
										-X1	103	B			O	105			-X1	107	A
										-LC	DC6	B			O	106					
										-X1	105	B			O	107					

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 7
18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B
O O O O

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	42xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -X1LA LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										U101A	-S1LA	29		O	1	STH3				
										U102A	-S1LA	20		O	2	STH3				
										U103A	-S1LA	103		O	3	STH3				
										U104A	-S1LA	104		O	4	STH3				
										U105A	-S1LA	111		O	5	STH3				
										U106A	-S1LA	112		O	6	STH3				
										U107A	-S1LA	113		O	7	STH3				
										U108A	-S1LA	114		O	8	STH3	U108A	-X1LB	7	B
										U109A	-S1LA	121		O	9	STH3				
										U110A	-S1LA	122		O	10	STH3	U110A	-X1LB	9	B
										U111A	-S1LA	123		O	11	STH3				
										U112A	-S1LA	124		O	12	STH3	U112A	-X1LB	11	B
										U113A	-S1LA	131		O	13	STH3				
										U114A	-S1LA	132		O	14	STH3	U114A	-X1LB	13	B
										U115A	-S1LA	133		O	15	STH3	U115A	-X1LB	15	B
										U116A	-S1LA	134		O	16	STH3				
										U117A	-S1LA	141		O	17	STH3	U117A	-X1LB	17	B
										U118A	-S1LA	142		O	18	STH3				
										U119A	-S1LA	143		O	19	STH3	U119A	-X1LB	19	B
										U120A	-S1LA	144		O	20	STH3				
										U121A	-S1LA	151		O	21	STH3	U121A	-X1LB	21	B
										U122A	-S1LA	152		O	22	STH3				
										U123A	-S1LA	153		O	23	STH3	U123A	-X1LB	23	B
										U124A	-S1LA	154		O	24	STH3				
										U125A	-S1LA	161		O	25	STH3	U125A	-X1LB	25	B
										U126A	-S1LA	162		O	26	STH3				
										U127A	-S1LA	93		O	27	STH3				
										U128A	-S1LA	94		O	28	STH3	U128A	-X1LB	27	B
										U129A	-S1LA	71		O	29	STH3				
										U130A	-S1LA	72		O	30	STH3	U130A	-X1LB	29	B
										U131A	-S1LA	163		O	31	STH3				
										U132A	-S1LA	164		O	32	STH3	U132A	-X1LB	31	B
										U133A	-S1LA	81		O	33	STH3				
										U134A	-S1LA	82		O	34	STH3	U134A	-X1LB	33	B
										U135A	-S1LA	173		O	35	STH3				
										U136A	-S1LA	174		O	36	STH3	U136A	-X1LB	35	B
										U137A	-S1LA	101		O	37	STH3				
										U138A	-S1LA	102		O	38	STH3	U138A	-X1LB	37	B
										U139A	-S1LA	253		O	39	STH3				
										U140A	-S1LA	254		O	40	STH3	U140A	-X1LB	39	B

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
SHORT CIRCIUT LINK
INSERTABLE JUMPER
SECTION INSULATING WASHER
INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 8
18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
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7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	42xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -X1LA LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										U141A	-S1LA	171		O	41	STH3				
										U142A	-S1LA	172		O	42	STH3	U142A	-X1LB	41	B

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 9 / 18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	42xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -X1LB LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										U101B	-S1LB	29		O	1	STH3				
										U102B	-S1LB	20		O	2	STH3				
										U103B	-S1LB	103		O	3	STH3				
										U104B	-S1LB	104		O	4	STH3				
										U105B	-S1LB	111		O	5	STH3				
										U106B	-S1LB	112		O	6	STH3				
										U108A	-S1LB	113		O	7	STH3	U108A	-X1LA	8	B
										U108B	-S1LB	114		O	8	STH3	U108B	-X1LC	7	B
										U110A	-S1LB	121		O	9	STH3	U110A	-X1LA	10	B
										U110B	-S1LB	122		O	10	STH3	U110B	-X1LC	9	B
										U112A	-S1LB	123		O	11	STH3	U112A	-X1LA	12	B
										U112B	-S1LB	124		O	12	STH3	U112B	-X1LC	11	B
										U114A	-S1LB	131		O	13	STH3	U114A	-X1LA	14	B
										U114B	-S1LB	132		O	14	STH3	U114B	-X1LC	13	B
										U115A	-S1LB	133		O	15	STH3	U115A	-X1LA	15	B
																	U115A	-X1LC	15	B
										U116B	-S1LB	134		O	16	STH3				
										U117A	-S1LB	141		O	17	STH3	U117A	-X1LC	17	B
																	U117A	-X1LA	17	B
										U118B	-S1LB	142		O	18	STH3				
										U119A	-S1LB	143		O	19	STH3	U119A	-X1LC	19	B
																	U119A	-X1LA	19	B
										U120B	-S1LB	144		O	20	STH3				
										U121A	-S1LB	151		O	21	STH3	U121A	-X1LA	21	B
																	U121A	-X1LC	21	B
										U122B	-S1LB	152		O	22	STH3				
										U123A	-S1LB	153		O	23	STH3	U123A	-X1LA	23	B
																	U123A	-X1LC	23	B
										U124B	-S1LB	154		O	24	STH3				
										U125A	-S1LB	161		O	25	STH3	U125A	-X1LA	25	B
																	U125A	-X1LC	25	B
										U126B	-S1LB	162		O	26	STH3				
										U128A	-S1LB	93		O	27	STH3	U128A	-X1LA	28	B
										U128B	-S1LB	94		O	28	STH3	U128B	-X1LC	27	B
										U130A	-S1LB	71		O	29	STH3	U130A	-X1LA	30	B
										U130B	-S1LB	72		O	30	STH3	U130B	-X1LC	29	B
										U132A	-S1LB	163		O	31	STH3	U132A	-X1LA	32	B
										U132B	-S1LB	164		O	32	STH3	U132B	-X1LC	31	B
										U134A	-S1LB	81		O	33	STH3	U134A	-X1LA	34	B

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date 09.05.2023
Prep. MSR
Ckd. SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 10
18 Sh.

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	42xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -X1LB LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										U134B	-S1LB	82		O	34	STH3	U134B	-X1LC	33	B
										U136A	-S1LB	173		O	35	STH3	U136A	-X1LA	36	B
										U136B	-S1LB	174		O	36	STH3	U136B	-X1LC	35	B
										U138A	-S1LB	101		O	37	STH3	U138A	-X1LA	38	B
										U138B	-S1LB	102		O	38	STH3	U138B	-X1LC	37	B
										U140A	-S1LB	253		O	39	STH3	U140A	-X1LA	40	B
										U140B	-S1LB	254		O	40	STH3	U140B	-X1LC	39	B
										U142A	-S1LB	171		O	41	STH3	U142A	-X1LA	42	B
										U142B	-S1LB	172		O	42	STH3	U142B	-X1LC	41	B

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 11
18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	42xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -X1LC LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										U101C	-S1LC	29		O	1	STH3				
										U102C	-S1LC	20		O	2	STH3				
										U103C	-S1LC	103		O	3	STH3				
										U104C	-S1LC	104		O	4	STH3				
										U105C	-S1LC	111		O	5	STH3				
										U106C	-S1LC	112		O	6	STH3				
										U108B	-S1LC	113		O	7	STH3	U108B	-X1LB	8	B
										U108C	-S1LC	114		O	8	STH3				
										U110B	-S1LC	121		O	9	STH3	U110B	-X1LB	10	B
										U110C	-S1LC	122		O	10	STH3				
										U112B	-S1LC	123		O	11	STH3	U112B	-X1LB	12	B
										U112C	-S1LC	124		O	12	STH3				
										U114B	-S1LC	131		O	13	STH3	U114B	-X1LB	14	B
										U114C	-S1LC	132		O	14	STH3				
										U115A	-S1LC	133		O	15	STH3	U115A	-X1LB	15	B
										U116C	-S1LC	134		O	16	STH3				
										U117A	-S1LC	141		O	17	STH3	U117A	-X1LB	17	B
										U118C	-S1LC	142		O	18	STH3				
										U119A	-S1LC	143		O	19	STH3	U119A	-X1LB	19	B
										U120C	-S1LC	144		O	20	STH3				
										U121A	-S1LC	151		O	21	STH3	U121A	-X1LB	21	B
										U122C	-S1LC	152		O	22	STH3				
										U123A	-S1LC	153		O	23	STH3	U123A	-X1LB	23	B
										U124C	-S1LC	154		O	24	STH3				
										U125A	-S1LC	161		O	25	STH3	U125A	-X1LB	25	B
										U126C	-S1LC	162		O	26	STH3				
										U128B	-S1LC	93		O	27	STH3	U128B	-X1LB	28	B
										U128C	-S1LC	94		O	28	STH3				
										U130B	-S1LC	71		O	29	STH3	U130B	-X1LB	30	B
										U130C	-S1LC	72		O	30	STH3				
										U132B	-S1LC	163		O	31	STH3	U132B	-X1LB	32	B
										U132C	-S1LC	164		O	32	STH3				
										U134B	-S1LC	81		O	33	STH3	U134B	-X1LB	34	B
										U134C	-S1LC	82		O	34	STH3				
										U136B	-S1LC	173		O	35	STH3	U136B	-X1LB	36	B
										U136C	-S1LC	174		O	36	STH3				
										U138B	-S1LC	101		O	37	STH3	U138B	-X1LB	38	B
										U138C	-S1LC	102		O	38	STH3				
										U140B	-S1LC	253		O	39	STH3	U140B	-X1LB	40	B
										U140C	-S1LC	254		O	40	STH3				

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
SHORT CIRCIUT LINK
INSERTABLE JUMPER
SECTION INSULATING WASHER
INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 12 / 18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	42xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -X1LC	LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										U142B	-S1LC	171		O		41	STH3	U142B	-X1LB	42	B
										U142C	-S1LC	172		O		42	STH3				

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 13
18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	2xCSTSN5U	1)
	24xSTH3	EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -X2 NO.	LINK	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										J21	-F19	1		1		CSTSN5U				
										J22	-F19	3		2		CSTSN5U				
										K21	-F19	2		3		STH3				
										K22	-F19	4		4		STH3				
														5		STH3	K21	-F19	2	
														6		STH3	K21	-S21	13	
										K21	-K61	13		7		STH3	K21	-X2	26	B
											-K77	13								
														8		STH3	K21	-K77	13	
																	K21	-K61	23	
														9		STH3	K21	-K61	33	
																	K21	-K77	23	
														10		STH3	K21	-S22	21	
																	K21	-K77	33	
														11		STH3	K25R	-S13	B2	
										K23A	-K77	14		12		STH3				
										K23B	-K77	24		13		STH3				
														14		STH3	K23C	-K77	34	
										K27A	-LA	14	A	15		STH3				
										K23A	-K61	14		16		STH3				
										K27B	-LB	14	B	17		STH3				
										K23B	-K61	24		18		STH3				
										K27C	-LC	14	A	19		STH3				
										K23C	-K61	34		20		STH3				
										K22	-K77	A2		21		STH3	K22	-K12	A2	
										K22	-K10	14		22		STH3	K22	-X2	23	B
											-S22	14								
										K22	-K16	A2		23		STH3	K22	-X2	22	B
										K225	-LC	18	B	24		STH3	K225	-K10	A1	
										K219	-LK1	2		25		STH3	K219	-CTD1	5	
										K21	-LA	28	A	26		STH3	K21	-X2	7	B
											-K16	18								

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCUIT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date 09.05.2023
Prep. MSR
Ckd. SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 14
18 Sh.

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	2xCSTSN5U	1)
	26xSTH3	EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -X3	LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										J51	-F21	1		O		1	CSTSN5U				
										J52	-F21	3		O		2	CSTSN5U				
										K51	-F21	2		O		3	STH3				
										K52	-F21	4		O		4	STH3				
														O		5	STH3	K51	-F21	2	
														O		6	STH3	K51	-S21	23	
										K51	-K61A	13		O		7	STH3	K51	-X3	26	B
											-K88	13									
														O		8	STH3	K51	-K61A	23	
																		K51	-K88	13	
														O		9	STH3	K51	-K88	23	
																		K51	-K61A	33	
														O		10	STH3	K51	-S22	31	
																		K51	-K88	33	
														O		11	STH3	K55R	-S13	C2	
										K53A	-K88	14		O		12	STH3				
										K53B	-K88	24		O		13	STH3				
														O		14	STH3	K53C	-K88	34	
										K57A	-LA	19	A	O		15	STH3				
										K53A	-K61A	14		O		16	STH3				
										K57B	-LB	19	B	O		17	STH3				
										K53B	-K61A	24		O		18	STH3				
										K57C	-LC	19	A	O		19	STH3				
										K53C	-K61A	34		O		20	STH3				
										K52	-K88	A2		O		21	STH3	K52	-F21	4	
										K52	-K10A	14		O		22	STH3	K52	-X3	23	B
											-S22	44									
										K52	-K16A	A2		O		23	STH3	K52	-X3	22	B
										K325	-LC	23	B	O		24	STH3	K325	-K10A	A1	
										K319	-LK3	2		O		25	STH3	K319	-CTD2	5	
										K51	-K16A	18		O		26	STH3	K51	-X3	7	B
											-LA	32									
											-POWER SUPPLY			O		27	STH3				
											-POWER SUPPLY			O		28	STH3				
														O							
														O							
														O							
														O							
														O							

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date 09.05.2023
Prep. MSR
Ckd. SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 15
18 Sh.

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	2xCSTSN5U	1)
	13xSTH3	EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION				TERMINAL STRIP -X4 LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										J71	-F23	1			1	CSTSN5U				
										J72	-F23	3			2	CSTSN5U				
										K71	-F23	2			3	STH3	K71	-LA	8	A
										K72	-P1LA	2			4	STH3	K72	-F23	4	
																	K72	-P1LB	2	
										K72	-P1LC	2			5	STH3	K72	-H1	X2	
															6	STH3				
															7	STH3				
															8	STH3				
															9	STH3				
															10	STH3				
															11	STH3				
															12	STH3				
															13	STH3				
															14	STH3				
															15	STH3				

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 16
18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

A C D B

CABLE CONNECTION TO TERMINATION A C B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	5xCSTSN5U	1)
	10xSTH3	EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION					TERMINAL STRIP -X5 LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
															O	1	CSTSN5U	H11A	-F16	1	
															O	2	CSTSN5U	H31B	-F16	3	
										H3	-X5	5	B		O	3	CSTSN5U	H51C	-F16	5	
															O	4	CSTSN5U	H71	-F16	N	
										H51C	-F20	1			O	5	CSTSN5U	H3	-X5	3	A
										H15A	-K9LA	14			O	6	STH3	H15A	-LA	36	A
										H15B	-K9LB	14			O	7	STH3	H35B	-LB	36	A
										H15C	-K9LC	14			O	8	STH3	H55C	-LC	36	A
										H74A	-LA	37	B		O	9	STH3	H16A	-K9LA	43	
										H74B	-LB	37	B		O	10	STH3	H16B	-K9LB	43	
										H74C	-LC	37	B		O	11	STH3	H16C	-K9LC	43	
										H72	-F16	N1			O	12	STH3				
											-K9LA	44									
															O	13	STH3	H12	-K9LC	44	
																		H72	-F20	3	
										H13	-LB	39	B		O	14	STH3	H13	-R1	2	
											-X20	N						H74	-F20	4	
										H51	-F11	1			O	15	STH3	H13	-LC	40	A

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date 09.05.2023
Prep. MSR
Ckd. SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 17
18 Sh.

7613133/2023/EEMRT-ENE51

	CABLE DESTINATION	TYPE, CORE NO.,CROSS SECTION	DEST./ITEM DES.	LEVEL
1				
2				
3				
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5				
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7				
8				
9				
10				

A C D B
O O O O

CABLE CONNECTION TO TERMINATION A C / B D

TERMINAL	LINE-UP TERMINAL TYPE	TYPE OF WIRING
	41xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION					TERMINAL STRIP -X6 LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										U1	-K10	61			O	1	STH3				
										U2	-K10	62			O	2	STH3				
															O	3	STH3	U3	-LC	24	A
										U4	-LC	25	B		O	4	STH3				
										U5A	-LA	26	A		O	5	STH3				
										U6A	-LA	27	B		O	6	STH3				
										U5B	-LB	26	A		O	7	STH3				
										U6B	-LB	27	B		O	8	STH3				
										U5C	-LC	26	A		O	9	STH3				
										U6C	-LC	27	B		O	10	STH3				
															O	11	STH3	U7	-K9ALA	61	
															O	12	STH3	U8	-K9ALA	62	
															O	13	STH3	U9	-K10	43	
										U10	-K9ALC	34			O	14	STH3				
										U11	-K12	53			O	15	STH3				
										U12	-K12	54			O	16	STH3				
										U13	-K13	13			O	17	STH3				
										U14	-K13	14			O	18	STH3				
															O	19	STH3	U15	-K9ALA	51	
										U16	-K9ALC	52			O	20	STH3				
															O	21	STH3	U17	-K9ALA	43	
										U18	-K9ALC	44			O	22	STH3				
										U19	-K3	21			O	23	STH3				
										U20	-K3	22			O	24	STH3				
										U21	-K15	43			O	25	STH3				
										U22	-K15	44			O	26	STH3				
										U23	-K14	43			O	27	STH3				
										U24	-K14	44			O	28	STH3				
										U25	-S13	4			O	29	STH3				
										U26	-S13	D1			O	30	STH3				
										U27	-S13	D2			O	31	STH3				
										U29	-K16	28			O	32	STH3				
										U30	-K16	25			O	33	STH3				
										U31	-K16A	28			O	34	STH3				
										U32	-K16A	25			O	35	STH3				
										U19A	-K3	31			O	36	STH3				
										U20A	-K3	32			O	37	STH3				
										U33	-S13	5			O	38	STH3				
										U34	-S13	E1			O	39	STH3				
										U35	-S13	E2			O	40	STH3				

SCREEN BUS
N-BUS
PE-BUS
USED CORES TOTAL
CONTINUED ON SHEET

FIXED LINK
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

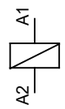
Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-NA403-T1503

Sh. 18
18 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION	FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
COIL 220VDC 330W INSPROSS/SUBHNEEL//Eq	9.00			 NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests. 2.For EPC contractors only.
		=ZZA++-Y1LA	CLOSE COIL FOR POLE A	=WD&EFS/2.3
		=ZZA++-Y1LB	CLOSE COIL FOR POLE B	=WD&EFS/2.4
		=ZZA++-Y1LC	CLOSE COIL FOR POLE C	=WD&EFS/2.5
		=ZZA++-Y3LA	TRIP COIL - 1 FOR POLE A	=WD&EFS/4.3
		=ZZA++-Y3LB	TRIP COIL - 1 FOR POLE B	=WD&EFS/4.5
		=ZZA++-Y3LC	TRIP COIL - 1 FOR POLE C	=WD&EFS/4.6
		=ZZA++-Y4LA	TRIP COIL - 2 FOR POLE A	=WD&EFS/5.3
		=ZZA++-Y4LB	TRIP COIL - 2 FOR POLE B	=WD&EFS/5.5
		=ZZA++-Y4LC	TRIP COIL - 2 FOR POLE C	=WD&EFS/5.6
THERMOSTAT 0-60 deg C Xexagon / Girish Ego/ APT/Eq	1.00			
		=ZZA++-B1	THERMOSTATE	=WD&EFS/8.6
10 A SIEMENS/Eq	4.00			
		=ZZA++-LK1	LINK	=WD&EFS/4.7
		=ZZA++-LK2	LINK	=WD&EFS/4.7
		=ZZA++-LK3	LINK	=WD&EFS/5.7
		=ZZA++-LK4	LINK	=WD&EFS/5.7

TANDU SUDEEVAN KUMAR
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Date: 2023.07.27 17:33:37 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
2. Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings. The EPC contractor shall be instructed to supply the same line with CT/PT/CVT/Isolator/IVT/LA/Breaker's requirement and compatibility.

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

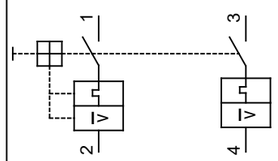
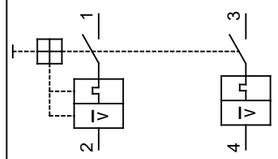
ORIGINAL/REPLACEMENT FOR/REPLACED BY:

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-NA403-E1503

Sh. 1
10 Sh.

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
RESISTOR 100WATT 230VAC GIRISH EGO/VELICO/Eq	4.00		
		=ZZA++-R1 HEATER	=WD&EFS/8.6
		=ZZA++-R1LA SPACE HEATER FOR POLE A	=WD&EFS/8.5
		=ZZA++-R1LB SPACE HEATER FOR POLE B	=WD&EFS/8.6
		=ZZA++-R1LC SPACE HEATER FOR POLE C	=WD&EFS/8.6
PRESSURE TRANSDUCER 12719260 SIGNAL RANGE 4-20mA WIKA/Eq	3.00		
		=ZZA++-PTLA PRESSURE TRANSDUCER	=WD&EFS/8.6
		=ZZA++-PTLB PRESSURE TRANSDUCER	=WD&EFS/8.6
		=ZZA++-PTLC PRESSURE TRANSDUCER	=WD&EFS/8.6
MCB 2 POLE 16A 440VDC SIEMENS/C&S/Eq	4.00		
		=ZZA++-F19 MCB FOR DC SUPPLY - 1	=WD&EFS/4.2 =WD&EFS/4.1
		=ZZA++-F21 MCB FOR DC SUPPLY - 2	=WD&EFS/5.2 =WD&EFS/5.1
		=ZZA++-F22 MCB FOR CLOSING CKT	=WD&EFS/2.2 =WD&EFS/2.1
		=ZZA++-F23 MCB FOR INDICATION CKT	=WD&EFS/3.5 =WD&EFS/3.5
MCB 2 POLE 10A 400VAC SIEMENS/C&S/Eq	1.00		
		=ZZA++-F20 MCB FOR UTILITY CIRCUIT	=WD&EFS/8.4 =WD&EFS/8.4

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
2. Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings. The EPC contractor shall be instructed to supply the same line with CT/PT/CVT/Isolator/IVT/LA/Breaker's requirement and compatibility.

TANDU SUDEEVAN KUMAR

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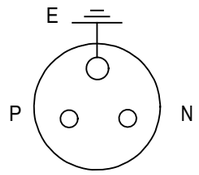
Date: 2023.07.27 17:33:53 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As applicable PROJECT: As Applicable PO.NO.: As aplicable	SIEMENS LTD. Aurangabad	Descp:245KV,50KA,4000A Type:3AP1FI Dwg. Name:Equipment List	SO NO: Qty:		
				Prep.	MSR						
				Ckd.	SB					Drg No: (3)G71AHS-NA403-E1503	Sh. 2 10 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:					

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION	FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
INDICATING LAMP 220 VDC AMBER SIEMENS/TEKNIC/ELAPTRON/Eq	2.00			
		=ZZA++-H5	CTD 1 HEALTHY INDICATION	=WD&EFS/4.7
		=ZZA++-H6	CTD 2 HEALTHY INDICATION	=WD&EFS/5.7
INDICATING LAMP 220 VDC BLUE SIEMENS/TEKNIC/LAPTRON/Eq	1.00			
		=ZZA++-H2	SPRING CHARGED INDICATION	=WD&EFS/3.8
INDICATING LAMP 220 VDC GREEN SIEMENS/TEKNIC/LAPTRON/Eq	1.00			
		=ZZA++-H0	BREAKER OFF INDICATION	=WD&EFS/3.7
INDICATING LAMP 220 VDC RED SIEMENS/TEKNIC/LAPTRON/Eq	1.00			
		=ZZA++-H1	BREAKER ON INDICATION	=WD&EFS/3.7
IMPULSE COUNTER 220VDC NON-RESETABLE GIC/Eq	3.00			
		=ZZA++-P1LA	COUNTER FOR POLE A	=WD&EFS/3.5
		=ZZA++-P1LB	COUNTER FOR POLE B	=WD&EFS/3.6
		=ZZA++-P1LC	COUNTER FOR POLE C	=WD&EFS/3.6
SOCKET 240V 5A ANCHOR/MDS/Eq	1.00			
		=ZZA++-X20	SOCKET	=WD&EFS/8.7

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

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Date: 2023.07.27 17:34:07 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Equipment List

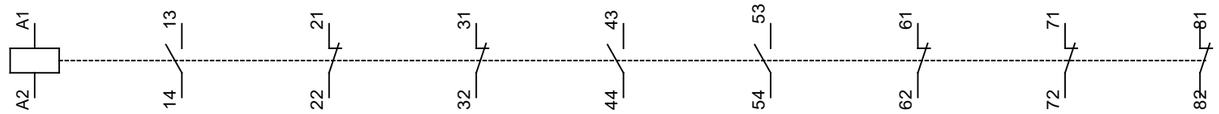
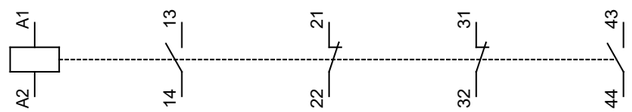
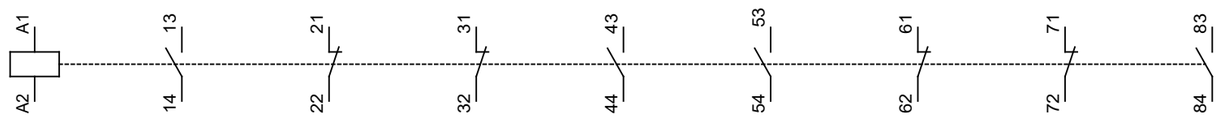
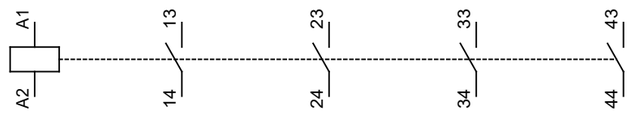
SO NO: Qty:

Drg No: (3)G71AHS-NA403-E1503

Sh. 3
10 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

7613133/2023/EEMRT-ENE51

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
AUXILIARY CONTACTOR 2NO+2NC & add on 1NO+3NC 220V DC SIEMENS/C&S/Eq	2.00		
		=ZZA++-K12 DC SUPPLY 1 MONITORING	=WD&EFS/4.2 =WD&EFS/5.7 =WD&EFS/5.8 =WD&EFS/7.3 =WD&EFS/5.8 =WD&EFS/4.7
		=ZZA++-K13 DC SUPPLY -2 MONITORING	=WD&EFS/5.2 =WD&EFS/7.4 =WD&EFS/4.7 =WD&EFS/4.8 =WD&EFS/4.8 =WD&EFS/5.7
AUXILIARY CONTACTOR 2NO+2NC 230V AC SIEMENS/C&S/Eq	1.00		
		=ZZA++-K3 UTILITY CIRCUIT MONITORING	=WD&EFS/8.4 =WD&EFS/7.8 =WD&EFS/7.8
AUXILIARY CONTACTOR 2NO+2NC & ADD ON 2NO+2NC 220V DC SIEMENS/C&S/Eq	3.00		
		=ZZA++-K75LA ANTI PUMPING DEVICE	=WD&EFS/2.6 =WD&EFS/2.6 =WD&EFS/2.3 =WD&EFS/2.3
		=ZZA++-K75LB ANTI PUMPING DEVICE	=WD&EFS/2.6 =WD&EFS/2.7 =WD&EFS/2.4 =WD&EFS/2.4
		=ZZA++-K75LC ANTI PUMPING DEVICE	=WD&EFS/2.7 =WD&EFS/2.7 =WD&EFS/2.5 =WD&EFS/2.5
AUXILIARY CONTACTOR 4NO 220V DC SIEMENS/C&S/Eq	7.00		
		=ZZA++-K9LA MOTOR CONTROL	=WD&EFS/3.2 =WD&EFS/8.2 =WD&EFS/8.2
		=ZZA++-K9LB MOTOR CONTROL	=WD&EFS/3.2 =WD&EFS/8.3 =WD&EFS/8.3
		=ZZA++-K9LC MOTOR CONTROL	=WD&EFS/3.3 =WD&EFS/8.3 =WD&EFS/8.3
		=ZZA++-K14 INDICATION SUPPLY MONITOR	=WD&EFS/3.8 =WD&EFS/7.5
		=ZZA++-K15 CLOSE,INDICATION,SPRING SUPPLY MONITORING	=WD&EFS/3.4 =WD&EFS/7.5
		=ZZA++-K77 MANUAL TRIP - 1	=WD&EFS/4.2 =WD&EFS/4.4 =WD&EFS/4.5 =WD&EFS/4.6
		=ZZA++-K88 MANUAL TRIP - 2	=WD&EFS/5.2 =WD&EFS/5.4 =WD&EFS/5.5 =WD&EFS/5.6

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

TANDU SUDEEVAN KUMAR
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Date: 2023.07.27 17:34:24 +05'30'
CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

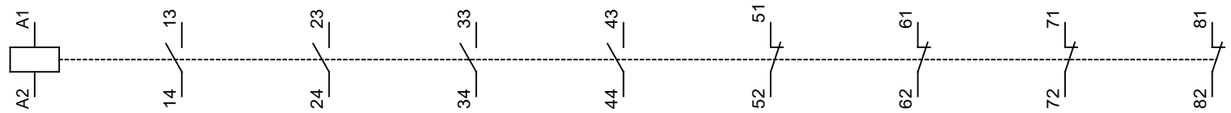
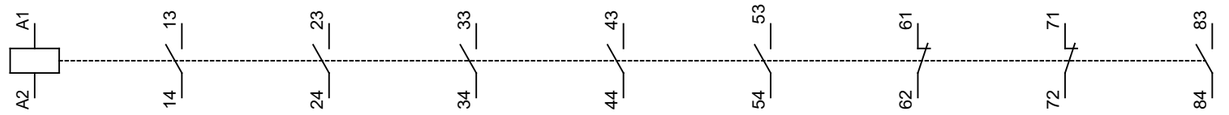
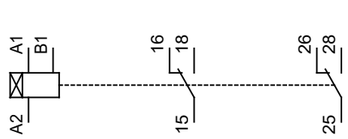
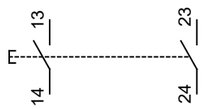
				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As applicable PROJECT: As Applicable PO.NO.: As aplicable	SIEMENS LTD. Aurangabad	Descp:245KV,50KA,4000A Type:3AP1FI Dwg. Name:Equipment List
				Prep.	MSR			
				Ckd.	SB			
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:		

SO NO: Qty:

Drg No: (3)G71AHS-NA403-E1503

Sh. 4
10 Sh.

7613133/2023/EEMRT-ENE51

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
AUXILIARY CONTACTOR 4NO & ADD ON 4NC 220V DC SIEMENS/C&S/Eq	3.00		
		=ZZA++-K9ALA FOR SPRING CHARGED STATUS	=WD&EFS/3.2 =WD&EFS/2.3 =WD&EFS/3.8 =WD&EFS/7.3 =WD&EFS/7.4 =WD&EFS/7.4 =WD&EFS/7.1
		=ZZA++-K9ALB FOR SPRING CHARGED STATUS	=WD&EFS/3.3 =WD&EFS/2.3 =WD&EFS/3.8 =WD&EFS/7.3 =WD&EFS/7.4 =WD&EFS/7.4 =WD&EFS/7.2
		=ZZA++-K9ALC FOR SPRING CHARGED STATUS	=WD&EFS/3.3 =WD&EFS/2.3 =WD&EFS/3.8 =WD&EFS/7.3 =WD&EFS/7.4 =WD&EFS/7.4 =WD&EFS/7.2
AUXILIARY CONTACTOR 4NO & ADD ON 2NO+2NC 220V DC SIEMENS/C&S/Eq	4.00		
		=ZZA++-K10 GENERAL LOCKOUT	=WD&EFS/4.8 =WD&EFS/4.3 =WD&EFS/4.7 =WD&EFS/2.2 =WD&EFS/7.3 =WD&EFS/6.5 =WD&EFS/7.1
		=ZZA++-K10A GENERAL LOCKOUT	=WD&EFS/5.8 =WD&EFS/5.3 =WD&EFS/5.7 =WD&EFS/2.2 =WD&EFS/7.3 =WD&EFS/6.5 =WD&EFS/7.1
		=ZZA++-K61 ENFORCED TRIPLE POLE OPERATION	=WD&EFS/6.1 =WD&EFS/4.3 =WD&EFS/4.4 =WD&EFS/4.6 =WD&EFS/2.2
		=ZZA++-K61A ENFORCED TRIPLE POLE OPERATION	=WD&EFS/6.3 =WD&EFS/5.3 =WD&EFS/5.4 =WD&EFS/5.6 =WD&EFS/2.2
ON-DELAY 3RP1525-1BW30 24-240VAC/DC SIEMENS/GIC/Eq	2.00		
		=ZZA++-K16 ON DELAY TIMER	=WD&EFS/6.2 =WD&EFS/6.1 =WD&EFS/7.6
		=ZZA++-K16A ON DELAY TIMER	=WD&EFS/6.4 =WD&EFS/6.3 =WD&EFS/7.6
PUSH BUTTON RED 2NO SIEMENS/TEKNIC/LAPTRON/Eq	1.00		
		=ZZA++-S20 CLOSING	=WD&EFS/2.2

TANDU SUDEEVAN KUMAR
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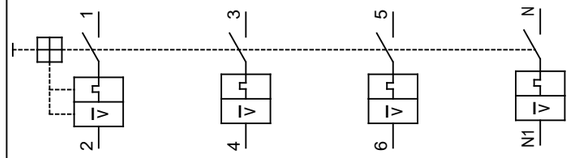
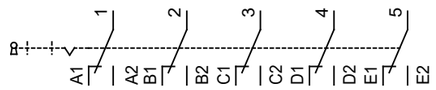
Date: 2023.07.27 17:34:40 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited	SIEMENS LTD.	Descp:245KV,50KA,4000A	SO NO: Qty:
				Prep.	MSR	CONTRACTOR:As applicable PROJECT: As Applicable PO.NO.: As aplicable	Aurangabad	Type:3AP1FI	
				Ckd.	SB			Dwg. Name:Equipment List	Drg No: (3)G71AHS-NA403-E1503 Sh. 5
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			10 Sh.

7613133/2023/EEMRT-ENE51

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAI ITEM REPRESENTATION AND OTHER TECHNICAL DATA
PUSH BUTTON GREEN 4NO SIEMENS/TEKNIC/LAPTRON/Eq	1.00		
		=ZZA++-S21 OPENING	=WD&EFS/4.2 =WD&EFS/5.2
PUSH BUTTON YELLOW 2NO+2NC SIEMENS/TEKNIC/LAPTRON/Eq	1.00		
		=ZZA++-S22 CTD CHECK	=WD&EFS/4.7 =WD&EFS/5.7 =WD&EFS/4.7 =WD&EFS/5.7
MCB FOR MOTOR 4 P, 10A 400VAC SIEMENS/C&S/Eq	1.00		
		=ZZA++-F16 MCB FOR MOTOR SUPPLY	=WD&EFS/8.2 =WD&EFS/8.3 =WD&EFS/8.3 =WD&EFS/8.1
SWITCH (LOCAL/REMOTE CONTROL) 5 POLE 2 WAY NON-LOCKABLE 16A 440VAC/DC Switron/Eq	1.00		
		=ZZA++-S13 LOCAL REMOTE SELECTOR SWITCH	=WD&EFS/2.2 =WD&EFS/5.2 =WD&EFS/7.7 =WD&EFS/4.2 =WD&EFS/7.7
ON/OFF SWITCH 5A, 240VAC ANCHOR/GREAT WHITE/Eq	4.00		
		=ZZA++-F11 ON/OFF SWITCH	=WD&EFS/8.8
		=ZZA++-F11LA ON/OFF SWITCH	=WD&EFS/8.7
		=ZZA++-F11LB ON/OFF SWITCH	=WD&EFS/8.7
		=ZZA++-F11LC ON/OFF SWITCH	=WD&EFS/8.8

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

Drawing approval subject to valid vendor registration

TANDU SUDEEVAN KUMAR
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Date: 2023.07.27 17:34:56 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

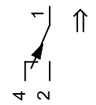
ORIGINAL/REPLACEMENT FOR/REPLACED BY:

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-NA403-E1503

Sh. 6
10 Sh.

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
CAPACITOR TRIPPING DEVICE CTD MULTITECH 25W	2.00		CTD CAPACITOR - 1X Rc : CHARGING RESISTOR - 1X Rd : DISCHARG RESISTOR - 1X DIODE - 1X
		=ZZA++-CTD1 CB TRIP IF DC FAILURE	=WD&EFS/4.7
		=ZZA++-CTD2 CB TRIP IF DC FAILURE	=WD&EFS/5.7
LIMIT SWITCH FOR SPRING CHARGING 1NO+1NC TECHNIQ MAKE./Eq	6.00		
		=ZZA++-S16ALA MOTOR LIMIT SWITCH	=WD&EFS/3.2
		=ZZA++-S16ALB MOTOR LIMIT SWITCH	=WD&EFS/3.2
		=ZZA++-S16ALC MOTOR LIMIT SWITCH	=WD&EFS/3.3
		=ZZA++-S16BLA MOTOR LIMIT SWITCH	=WD&EFS/6.7
		=ZZA++-S16BLB MOTOR LIMIT SWITCH	=WD&EFS/6.8
		=ZZA++-S16BLC MOTOR LIMIT SWITCH	=WD&EFS/6.8
ILLUMINATION LAMP LED 240VAC 9W HAVELLS/ PHILIPS/Eq	4.00		
		=ZZA++-E2 ILLUMINATION LAMP	=WD&EFS/8.8
		=ZZA++-E2LA ILLUMINATION LAMP	=WD&EFS/8.7
		=ZZA++-E2LB ILLUMINATION LAMP	=WD&EFS/8.8
		=ZZA++-E2LC ILLUMINATION LAMP	=WD&EFS/8.8

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2023.07.27 17:35:12 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
2. Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings. The EPC contractor shall be instructed to supply the same line with CT/PT/CVT/Isolator/IVT/LA/Breaker's requirement and compatibility.

Issue	Remarks	Date	Name		
				Date	09.05.2023
				Prep.	MSR
				Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

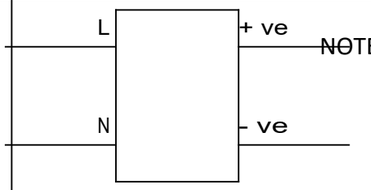
Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Equipment List

SO NO: Qty:

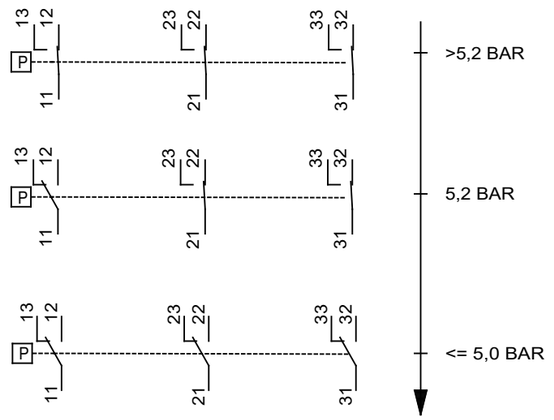
Drg No: (3)G71AHS-NA403-E1503

Sh. 7
10 Sh.

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAI ITEM REPRESENTATION AND OTHER TECHNICAL DATA
VOLTAGE ADAPTOR PSB2/24/24/1 230VAC/24VDC CONNECTWELL/Eq	1.00	=ZZA++-POWER SUPPLY VOLTAGE ADAPTER	=WD&EFS/8.5
DENSITY MONITOR SF6; 6BAR, 3 POLE COMDE/TRAFAG/EMD/WIKA/Eq	3.00	=ZZA++-B4LA SF6 MONITORING FOR POLE A	=WD&EFS/6.6 =WD&EFS/4.8 =WD&EFS/5.8
		=ZZA++-B4LB SF6 MONITORING FOR POLE B	=WD&EFS/6.6 =WD&EFS/4.8 =WD&EFS/5.8
		=ZZA++-B4LC SF6 MONITORING FOR POLE C	=WD&EFS/6.7 =WD&EFS/4.8 =WD&EFS/5.8



NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.



SETTING AT +20°C AT FALLING PRESSURE	
CONTACT	BAR
11/12/13	5,2
21/22/23 31/32/33	5,0

TANDU SUDEEVAN KUMAR

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Date: 2023.07.27 17:35:30 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
2. Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings. The EPC contractor shall be instructed to supply the same line with CT/PT/CVT/Isolator/IVT/LA/Breaker's requirement and compatibility.

Issue	Remarks	Date	Name

Date	09.05.2023
Prep.	MSR
Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Equipment List

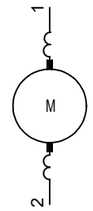
SO NO: Qty:

Drg No: (3)G71AHS-NA403-E1503

Sh. 8
10 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

7613133/2023/EEMRT-ENE51

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION	FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
MOTOR UNIVERSAL 1PH 220VDC/AC 500W KPT/AGNI/Eq	3.00			 NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests. 2.For EPC contractors only.
		=ZZA++-M LA	SPRING CHARGING MOTOR	=WD&EFS/8.2
		=ZZA++-M LB	SPRING CHARGING MOTOR	=WD&EFS/8.3
		=ZZA++-M LC	SPRING CHARGING MOTOR	=WD&EFS/8.3

1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
2. Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings. The EPC contractor shall be instructed to supply the same line with CT/PT/CVT/Isolator/IVT/LA/Breaker's requirement and compatibility.

TANDU SUDEEVAN KUMAR

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Date: 2023.07.27 17:35:48 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

Issue	Remarks	Date	Name		
				Date	09.05.2023
				Prep.	MSR
				Ckd.	SB

CLIENT: Transmission Corporation of Andhra Pradesh Limited
CONTRACTOR:As applicable
PROJECT: As Applicable
PO.NO.: As aplicable

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:245KV,50KA,4000A
Type:3AP1FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-NA403-E1503

Sh. 9
10 Sh.

7613133/2023/EEMRT-ENE51

DESIGNATION / TECHNICAL DATA ITEM DESIGNATION FUNCTIONS	QTY.	TOTAI ITEM REPRESENTATION AND OTHER TECHNICAL DATA
AUXILIARY SWITCH 20NO+19NC+4Wi IMAX/SHIRKE	3.00	NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests. 2.For EPC contractors only. 10 19 20 29 30 39 42 41 52 51 62 61 64 63 72 71 74 73 82 81 84 83 92 91 94 93 102 101 104 103 112 111 114 113 122 121 124 123 132 131 134 133 142 141 144 143 152 151 154 153 162 161 164 163 172 171 174 173 182 181 184 183 192 191 194 193 202 201 204 203 212 211 214 213 222 221 224 223 234 233 244 243 254 253 260 269
=ZZA++-S1LA AUXILIARY SWITCH CB POLE A		=WD&EFS/3.5 =WD&EFS/9.1 =WD&EFS/2.3 =WD&EFS/2.3 =WD&EFS/2.6 =WD&EFS/9.6 =WD&EFS/9.6 =WD&EFS/6.2 =WD&EFS/6.2 =WD&EFS/9.6 =WD&EFS/9.7 =WD&EFS/9.2 =WD&EFS/9.2 =WD&EFS/9.2 =WD&EFS/9.3 =WD&EFS/9.3 =WD&EFS/9.3 =WD&EFS/9.4 =WD&EFS/9.4 =WD&EFS/9.4 =WD&EFS/9.5 =WD&EFS/9.5 =WD&EFS/9.5 =WD&EFS/9.6 =WD&EFS/9.8 =WD&EFS/9.7 =WD&EFS/3.7 =WD&EFS/3.7 =WD&EFS/4.3 =WD&EFS/6.4 =WD&EFS/4.3 =WD&EFS/6.4 =WD&EFS/4.3 =WD&EFS/5.3 =WD&EFS/5.3 =WD&EFS/5.3 =WD&EFS/9.7
=ZZA++-S1LB AUXILIARY SWITCH CB POLE B		=WD&EFS/3.6 =WD&EFS/9.1 =WD&EFS/2.4 =WD&EFS/2.4 =WD&EFS/2.6 =WD&EFS/9.6 =WD&EFS/9.6 =WD&EFS/6.2 =WD&EFS/6.2 =WD&EFS/9.6 =WD&EFS/9.7 =WD&EFS/9.2 =WD&EFS/9.2 =WD&EFS/9.2 =WD&EFS/9.3 =WD&EFS/9.3 =WD&EFS/9.3 =WD&EFS/9.4 =WD&EFS/9.4 =WD&EFS/9.4 =WD&EFS/9.5 =WD&EFS/9.5 =WD&EFS/9.5 =WD&EFS/9.6 =WD&EFS/9.8 =WD&EFS/9.7 =WD&EFS/3.7 =WD&EFS/3.7 =WD&EFS/4.4 =WD&EFS/6.4 =WD&EFS/4.5 =WD&EFS/6.4 =WD&EFS/4.5 =WD&EFS/5.4 =WD&EFS/5.5 =WD&EFS/5.5 =WD&EFS/5.5 =WD&EFS/9.7
=ZZA++-S1LC AUXILIARY SWITCH CB POLE C		=WD&EFS/3.6 =WD&EFS/9.1 =WD&EFS/2.5 =WD&EFS/2.5 =WD&EFS/2.7 =WD&EFS/9.6 =WD&EFS/9.6 =WD&EFS/6.3 =WD&EFS/6.3 =WD&EFS/9.6 =WD&EFS/9.7 =WD&EFS/9.2 =WD&EFS/9.2 =WD&EFS/9.3 =WD&EFS/9.3 =WD&EFS/9.3 =WD&EFS/9.4 =WD&EFS/9.4 =WD&EFS/9.4 =WD&EFS/9.5 =WD&EFS/9.5 =WD&EFS/9.5 =WD&EFS/9.6 =WD&EFS/9.8 =WD&EFS/9.7 =WD&EFS/3.7 =WD&EFS/3.7 =WD&EFS/4.5 =WD&EFS/6.4 =WD&EFS/4.6 =WD&EFS/6.4 =WD&EFS/4.6 =WD&EFS/5.5 =WD&EFS/5.6 =WD&EFS/5.6 =WD&EFS/5.6 =WD&EFS/9.7

1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
2. Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings. The EPC contractor shall be instructed to supply the same line with CT/PT/CVT/Isolator/IVT/LA/Breaker's requirement and compatibility.

TANDU SUDEEVAN KUMAR

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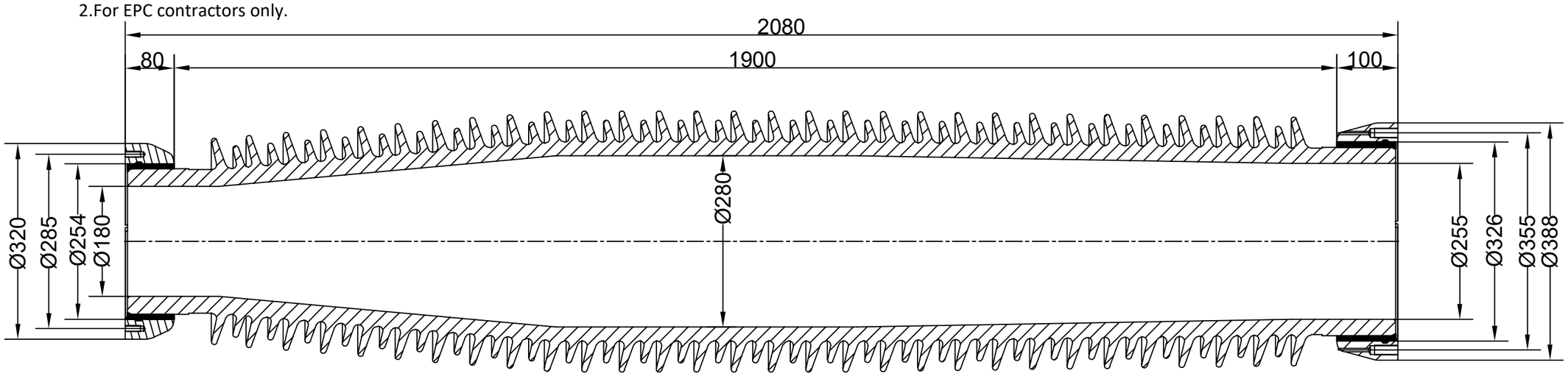
Date: 2023.07.27 17:36:06 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

				Date	09.05.2023	CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As applicable PROJECT: As Applicable PO.NO.: As aplicable	SIEMENS LTD. Aurangabad	Descp:245KV,50KA,4000A Type:3AP1FI Dwg. Name:Equipment List	SO NO: Qty:
				Prep.	MSR				
				Ckd.	SB				Sh. 10
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			Drg No: (3)G71AHS-NA403-E1503 10 Sh.

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.

2.For EPC contractors only.



1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
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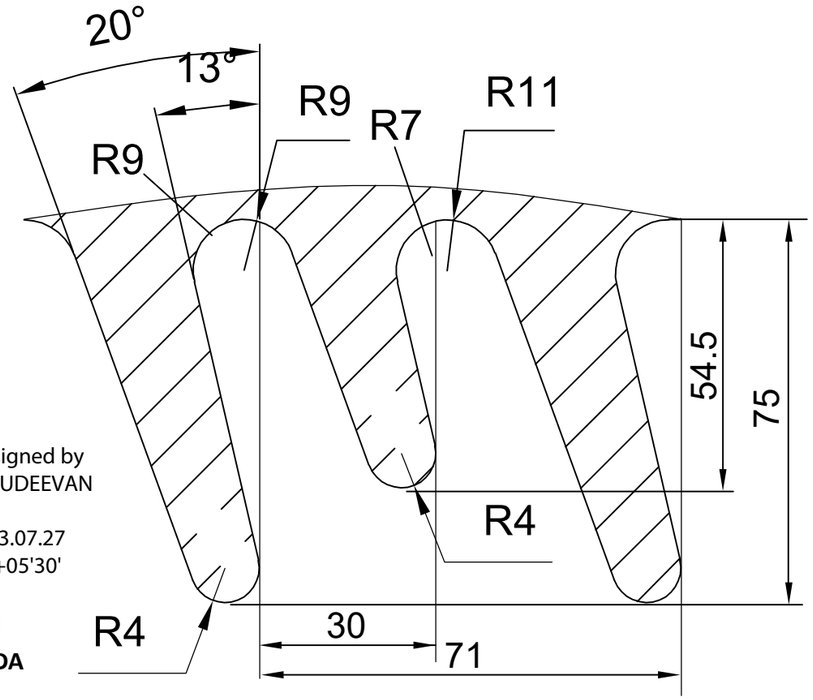

MECHANICAL CHARACTERISTICS:

1. Mechanical routine test: Pressure test 30 bar / 1 min
2. Mechanical routine test: Bending test F = 5250 N / 10 sec / 4 x 90º
3. Design pressure 10 bar

ELECTRICAL PARAMETERS FOR COMPLETE CB:

1. 1 MIN. P.F. withstand voltage = 460 kV
2. Lightning Impluse withstand voltage = 1050 kV_p

Min. creepage distance : 7595 mm

All unspecified dimensional tolerances are as per IEC 62155

TANDU SUDEEVAN KUMAR

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Date: 2023.07.27 17:36:27 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA

Shed Profile as per IEC 60815

				Date	09.05.2023	CLIENT:Transmission Corporation of Andhra Pradesh Limited	Siemens Ltd.	Descr : 245kV,50kA,4000A SF6 CB.
				Prep	MSR	CONTRACTOR: As Applicable		Type : 3AP1FI
				Ckd.	SB	PROJECT: As Applicable PO.NO.: As Applicable	AURANGABAD.	Details : Chamber Insulator(31mm/kV)
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-		

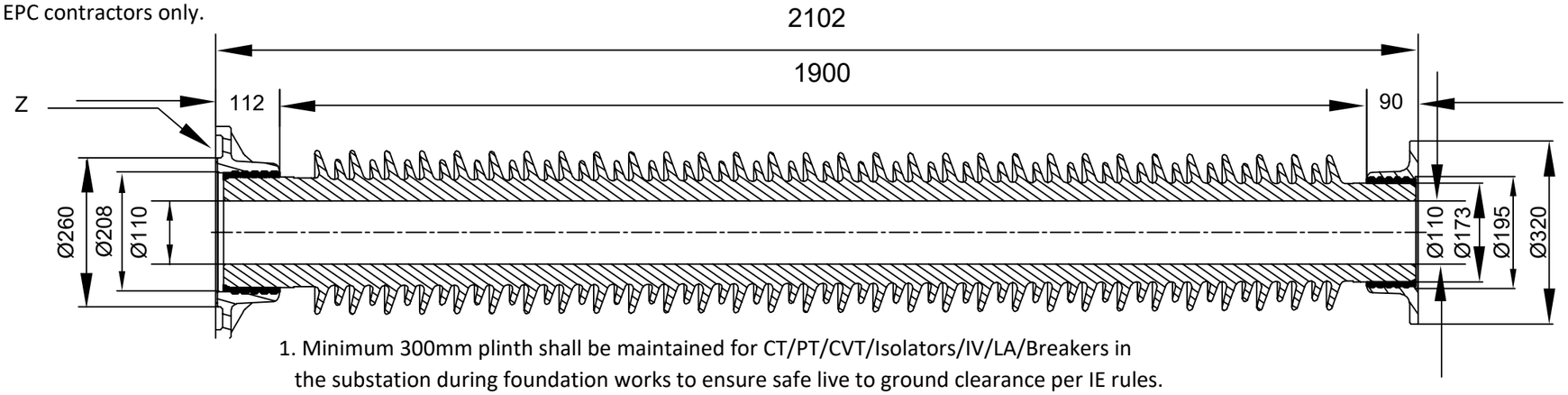
SO No : Qty:

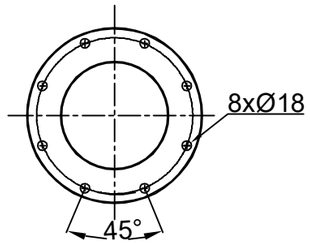
Drg. No:- (3)G71AHS-NA403-C1503-

Sh. 3
4 Sh.

HQ/ESD-Coord/SE 03-90

NOTE: 1. Drawings Approval subject to valid type test reports, to be checked during acceptance tests.
2.For EPC contractors only.





1. Minimum 300mm plinth shall be maintained for CT/PT/CVT/Isolators/IV/LA/Breakers in the substation during foundation works to ensure safe live to ground clearance per IE rules.
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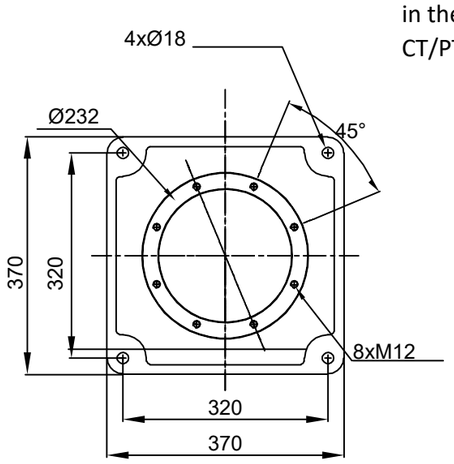
Drawing approval subject to valid vendor registration



View Z

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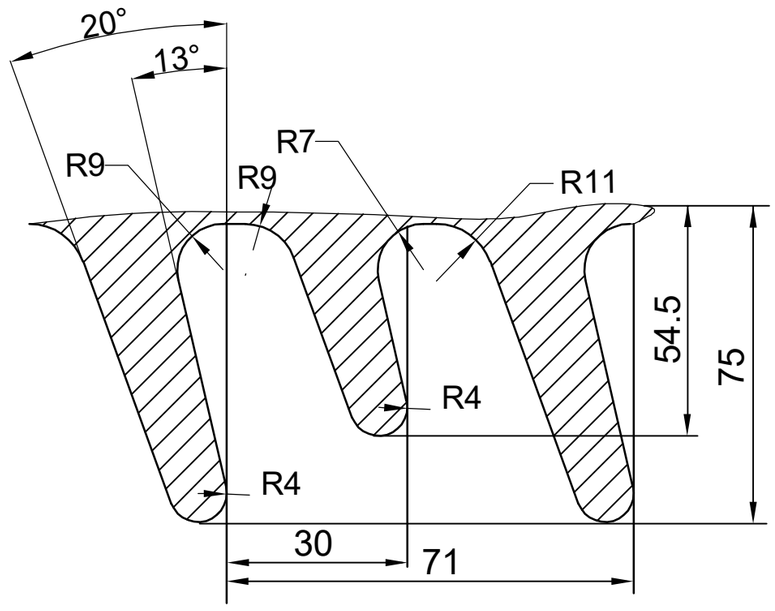
Date: 2023.07.27 17:36:46 +05'30'

CHIEF ENGINEER/PROJECTS
APTRANSCO/VS/VIJAYAWADA



Shed Profile as per IEC 60815

MECHANICAL CHARACTERISTICS:
1. Mechanical routine test: Pressure test 30 bar / 1 min
2. Mechanical routine test: Bending test F = 4667 N / 10 sec / 4 x 90º
3. Design pressure 10 bar

ELECTRICAL PARAMETERS FOR COMPLETE CB:
1. 1 MIN. P.F. withstand voltage = 460 kV
2. Lightning Impulse withstand voltage = 1050 kV_p

Min. creepage distance : 7595 mm

All unspecified dimensional tolerances are as per IEC 62155

				Date	09.05.2023	CLIENT:Transmission Corporation of Andhra Pradesh Limited	Siemens Ltd.	Descr : 245kV,50kA,4000A SF6 CB.	SO No : Qty:
				Prep	MSR	CONTRACTOR: As Applicable PROJECT: As Applicable	AURANGABAD.	Type : 3AP1FI	
				Ckd.	SB	PO.NO.: As Applicable		Details : Support Insulator(31mm/kV)	Drg. No:- (3)G71AHS-NA403-C1503- Sh. 4 4 Sh.
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-			

HO/CSD-Coord/9E 03-90