Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.

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-OA4044-D0696- -	3	Design Details											
2	(3) G71AHS-OA4044-Z0696- -	2	GA Drawing/ Support Structure											
3	(3) G71AHS-OA4044-N0696- -	1	Rating Plate											
4	(3) G71AHS-OA4044-L0696- -	3	Equipment Layout											
5	(3) G71AHS-OA4044-W0696- -	14	Wiring Diagram											
6	(3) G71AHS-OA4044-T0696- -	21	Terminal Plan											
7	(3) G71AHS-OA4044-E0696- -	10	Equipment List											
8	(3) G71AHS-OA4044-C0696- -	3	Chamber and support Insulator											
9	(3) G71AHS-OA4044-S0696- -	1	SF6 Gas Single Line Diagram											
10	( ) - -													
11	( ) - -													
12	( ) - -													

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

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

For EPC Contracts Only

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:54:39 +05'30'
Chief Engineer
Projects

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	19.02.2024		**Siemens Ltd.**	**Descr:** 420kV,63kA,4000A,SF6 CB	**Sales Ref.:** **Qty :**	=
Prep.	MSR					+
Ckd.	SB		Aurangabad	**Type:** 3AP2FI	**Drg No.:**	Sh 1
Norm				**Details:** RECORD OF DRAWING	(4) G71AHS-OA4044-R0696- -	
		Original/Replacement for/Replaced by:-				1 Sh

Drawing approval subject to valid vendor registration

Ground clearance of 8000 mm shall be maintained during erection. Plinth height of 300 mm shall be maintained

DESIGN DETAILS

For EPC Contracts Only

1.0		**General**		
1.1		Type Designation		Siemens Make 3AP2 FI
1.2		Governing Standard		IEC 62271-100
2.0		**Technical Data**		
2.1		System Parameters		
	.1	Rated Voltage	kV	420 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	Rated Closing/Making Time	mSec.	70+/-10
	.2	Rated Breaking Time	mSec.	40(For test duties 2,3&4)
	.3	Total break time	mSec.	45
	.4	Rated Opening Time	mSec.	22+/-3
	.5	Rated Arcing Time	mSec.	≤25
3.4		Switching Data		
	.1	Rated normal current	A	4000
	.2	Rated short circuit breaking current	kA	63
	.3	Rated short time current	kA	63, (3sec.)
	.4	Rated short circuit making current	kAp	157.5
	.5	First pole to clear factor		1.3
	.6	Out-of-phase breaking current	kA	15.75
	.7	Rated line charging breaking current	A	600
	.8	Rated cable charging breaking current	A	400
3.5		Rated operating sequence		O – 0.3sec – CO – 3min – CO
4.0		**Basic Insulation Level**		
4.1		Rated power frequency withstands voltage (1min, 50 Hz)		Drawing approval subject to valid vendor registratio
	.1	Phase to earth	kV	520
	.2	Across the open breaker	kV	610
	.3	Between phases	KV	520
4.2		Rated lighting impulse withstand voltage (1.2 / 50 micro sec.)		
	.1	To earth	kVp	1425

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:54:51 +05'30'
Chief Engineer
Projects

CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR: As Applicable PROJECT: As Applicable PO.NO.: As Applicable					Sales Ref.: Qty:	
				Date:19.02.2024	Description: - 420kV, 63kA, 4000A, SF6 CB	Sh No.
				Prepared: MSR		
				Checked: SB	Type: - 3AP2FI	1
				Siemens Ltd. Office		
Issue	Remarks	Date	Name		Details: - DESIGN INSTRUCTIONS	No. of Sh
Original/Replaced by: -					(4)G71AHS-OA404-D0696	3

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

	.2	Across the open breaker	kVp	1425 (+240)
	.3	Between phases	kVp	1425
4.3		Rated switching surge withstand voltage (250 / 2500 micro sec.)		
	.1	To earth	kVp	1050
	.2	Across the open breaker	kVp	900 (+350)
	.3	Between phases	kVp	1050
4.4		Creepage distance		
	.1	Support	mm	10500(25 mm/kV)
	.2	Chamber	mm	10500(25 mm/kV)

5.0 Construction

Drawing approval subject to valid vendor registration

5.1		Clearance		
	.1	To earth	mm	Min 3660
	.2	Phase to phase	mm	6525
	.3	Pole to pole center distance	mm	7000
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 breaker.	Kg	13
	.5	Breaker Poles (3nos.) will be prefilled. with transport pressure of SF6 gas.	Bar	0.5
	.6	Gas being supplied per breaker	kg	39
5.3		Installation		Outdoor
5.4		Weight of breaker without structure	kg	4400 approx.

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:55:02 +05'30'
Chief Engineer Projects

6.0 Structures

6.1	Material	Mild Steel
6.2	Surface Treatment	Hot Dip Galvanized (Avg 86 micron)

7.0 Base Frame

7.1	Material	Mild Steel
7.2	Surface Treatment	Hot Dip Galvanized (Avg 86 micron)

Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.

CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR: As Applicable PROJECT: As Applicable PO.NO.: As Applicable					Sales Ref.:	Qty:
				Date:19.02.2024	Description: - 420kV, 63kA, 4000A, SF6 CB	Sh No.
				Prepared: MSR		
				Checked: SB	Type: - 3AP2FI	2
				Siemens Ltd. Office		
Issue	Remarks	Date	Name		Details: - DESIGN INSTRUCTIONS	No. of Sh
Original/Replaced by: -					(4)G71AHS-OA404-D0696	3

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

8.0 Control Cubicle

8.1		Construction		
	.1	Material of enclosure		CR Sheet Steel
	.2	Thickness of sheet steel	mm	2.5
	.3	Painting for control cubicle		Epoxy Paint
	.4	Internal / External shade		631 IS:5
	.5	Degree of protection of enclosure		IP 55
	.6	Padlocking facility for cubicle		Provided
	.7	Glass window to see spring status.		Provided on control cubicle.
	.8	No. of trip coil per pole	Nos.	2
	.9	No. of Auxiliary contact		10NO+10NC & 1 Wipe Contact
8.2		Wiring		
	.1	Control wiring		
		.1 Control Cabinet wire		2.5 sq. mm, flexible copper conductor
		.2 Interpole cable		2.5 sq. mm, Armoured
		.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 /Equivalent
	.3	Size	mm^2	4.0
	.4	Spare unwired terminal	Nos.	10

Circuit	Rated Voltage	Source	Range	Remarks
Spring Charging Motor(500W)	240V AC	External	85 – 110%	
Closing Coil (330W)	220V DC	External	85 – 110%	
Trip Coil – 1 & 2 (1300W)	220V DC	External	70 – 115%	Two separate sources
Space Heater / Socket / Illumination	240V AC	External	--	

Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.

Ground clearance of 8000 mm shall be maintained during erection. Plinth height of 300 mm shall be maintained

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:55:11 +05'30'

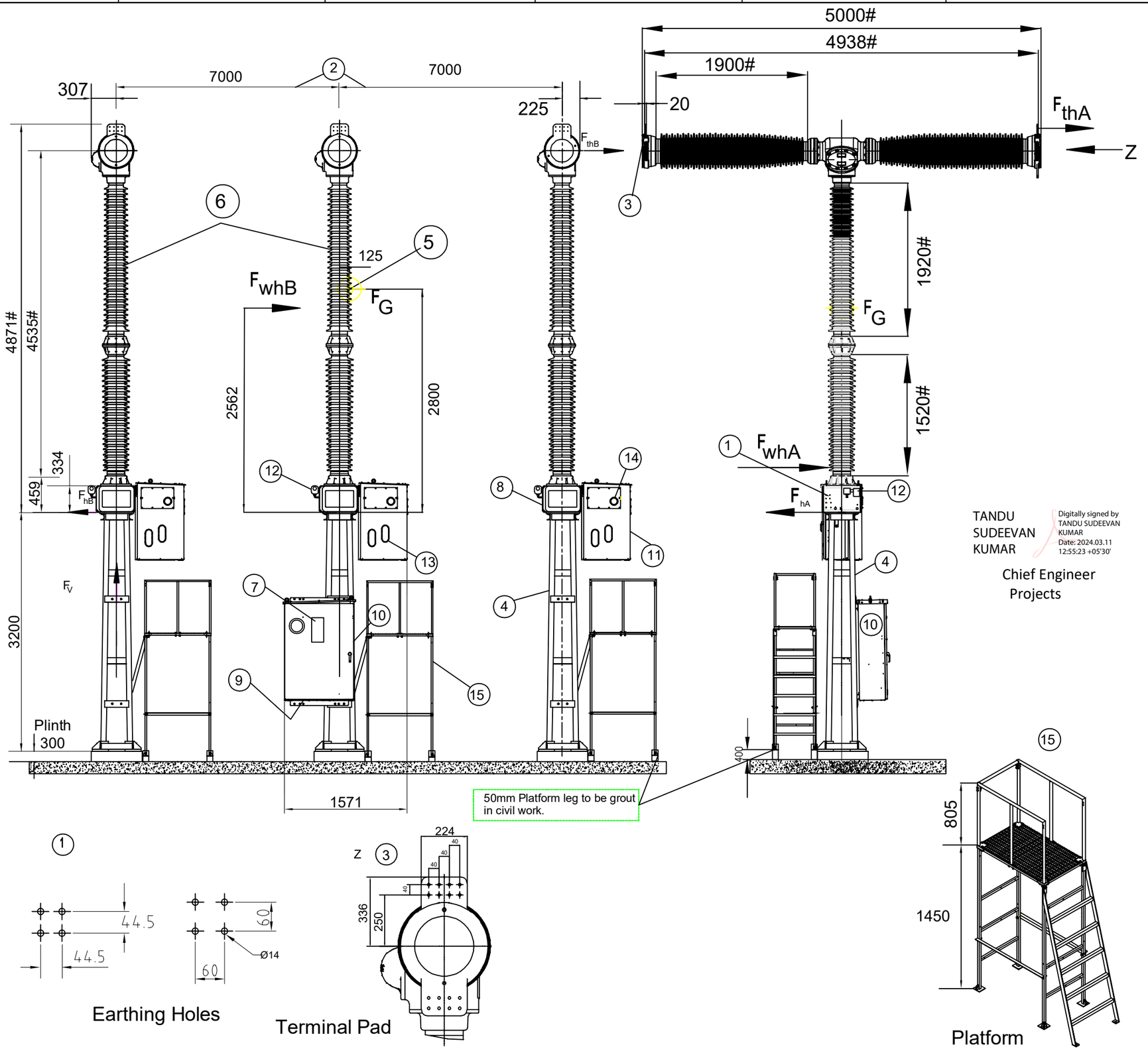
Drawing approval subject to valid vendor registration

Chief Engineer
Projects

CLIENT: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR: As Applicable PROJECT: As Applicable PO.NO.: As Applicable					Sales Ref.:	Qty:
				Date:19.02.2024	Description: - 420kV, 63kA, 4000A, SF6 CB	Sh No.
				Prepared: MSR		
				Checked: SB	Type: - 3AP2FI	3
				Siemens Ltd. Office		
Issue	Remarks	Date	Name		Details: - DESIGN INSTRUCTIONS	No. of Sh
Original/Replaced by: -					(4)G71AHS-OA404-D0696	3

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.



Earthing Holes

Terminal Pad

Platform

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:55:23 +05'30'
Chief Engineer Projects

Bill of Materials :-

1. Pole - 3 nos.
2. Spring Operating Mechanism+baseframe- 3 nos.
3. Marshalling Box - 1 nos.
4. Interpole cable - 2.5 sq. mm Armoured.
5. Shield cover - 6 Nos.

Legends :-

1. Holes for earthing terminals
2. Pole to pole distance
3. Aluminum Terminal pad (#thickness 20mm)
4. Support structure
5. Center of Gravity
6. Insulator creepage: 25 mm/kv*.
7. Rating plate
8. Baseframe
9. Gland plate location at bottom of panel.
10. Marshalling Box
11. Operating Mechanism Box
12. SF6 GAS Pressure gauge
13. Spring Charging Indication Window
14. CB Mechanical "on/off" indication (Close/Open)
15. Platform.

Note:

- Mass of CB (without structure) = 4400 kg approx.
- Mass of heaviest part of breaker = 1400 kg approx.
- Mass of SF6 gas per CB = 39 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
15.5 kN	2.0 kN	2.4 kN	0 kN	±6.3 kN	+19.2 kN(pull) -26.2 kN(push)

- Minor deviations from the dimensions and the data stated are permissible.
- Earth Terminals M12, DIN 46 011 and NEMA.
- ' # ' marked are standard design dimensions which cannot be changed
- Inspection to be witness by customer @ 10 % of the offer lot

Issue	Remarks	Date	Name			
				Date	19.02.2024	CLIENT:Transmission Corporation of Andhra Pradesh Limited
				Prep	MSR	CONTRACTOR: As Applicable
				Ckd.	SB	PROJECT: As Applicable
				Norm.		PO.NO.: As Applicable
						Original / Replacement for /Replaced by :-

Siemens Ltd.
AURANGABAD

Descr : 420kV, 63kA, 4000A-SF6-CB
Type : 3AP2FI
Details : GENERAL ARRANGEMENT

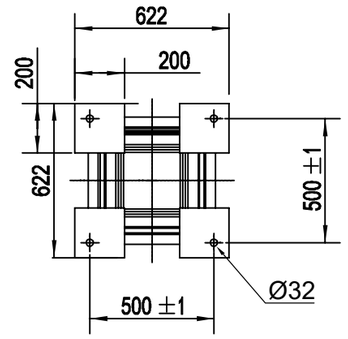
SO No :
Qty:
1HG-594-03542-001
Drg. No:- (3)G71AHS-OA404-Z0696
Sh. 1
2 Sh.

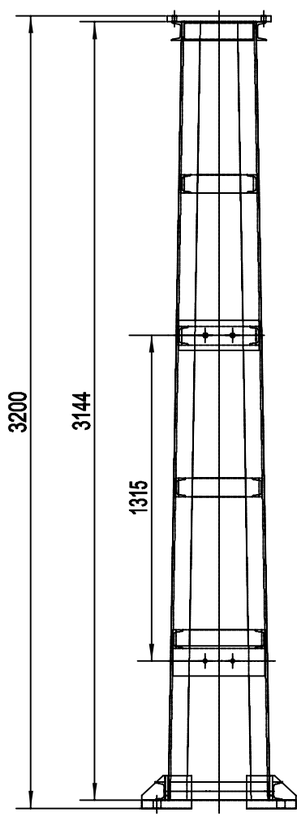
HO/ESD-Coord/9E 03-90

Version 001

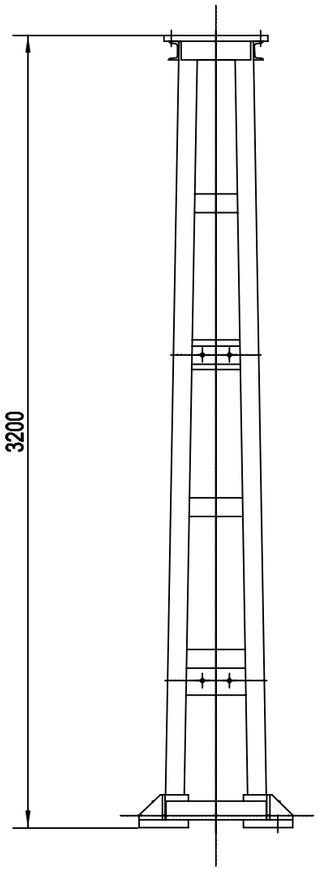
For EPC Contracts Only

Ground clearance of 8000 mm shall be maintained during erection. Plinth height of 300 mm shall be maintained

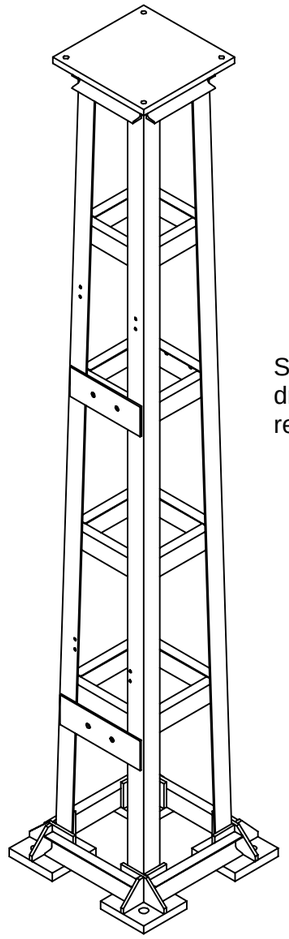




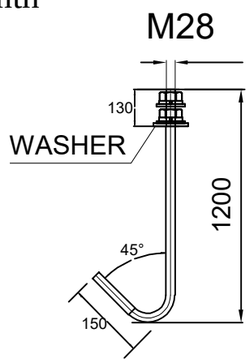
Front View



Side View

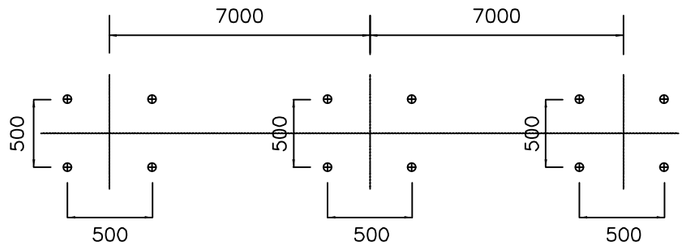


3D View



DETAILS OF FOUNDATION BOLT

Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.



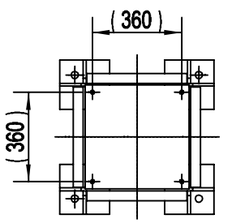
FOUNDATION PLAN FOR 420KV CB

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:55:33 +05'30'

Chief Engineer
Projects



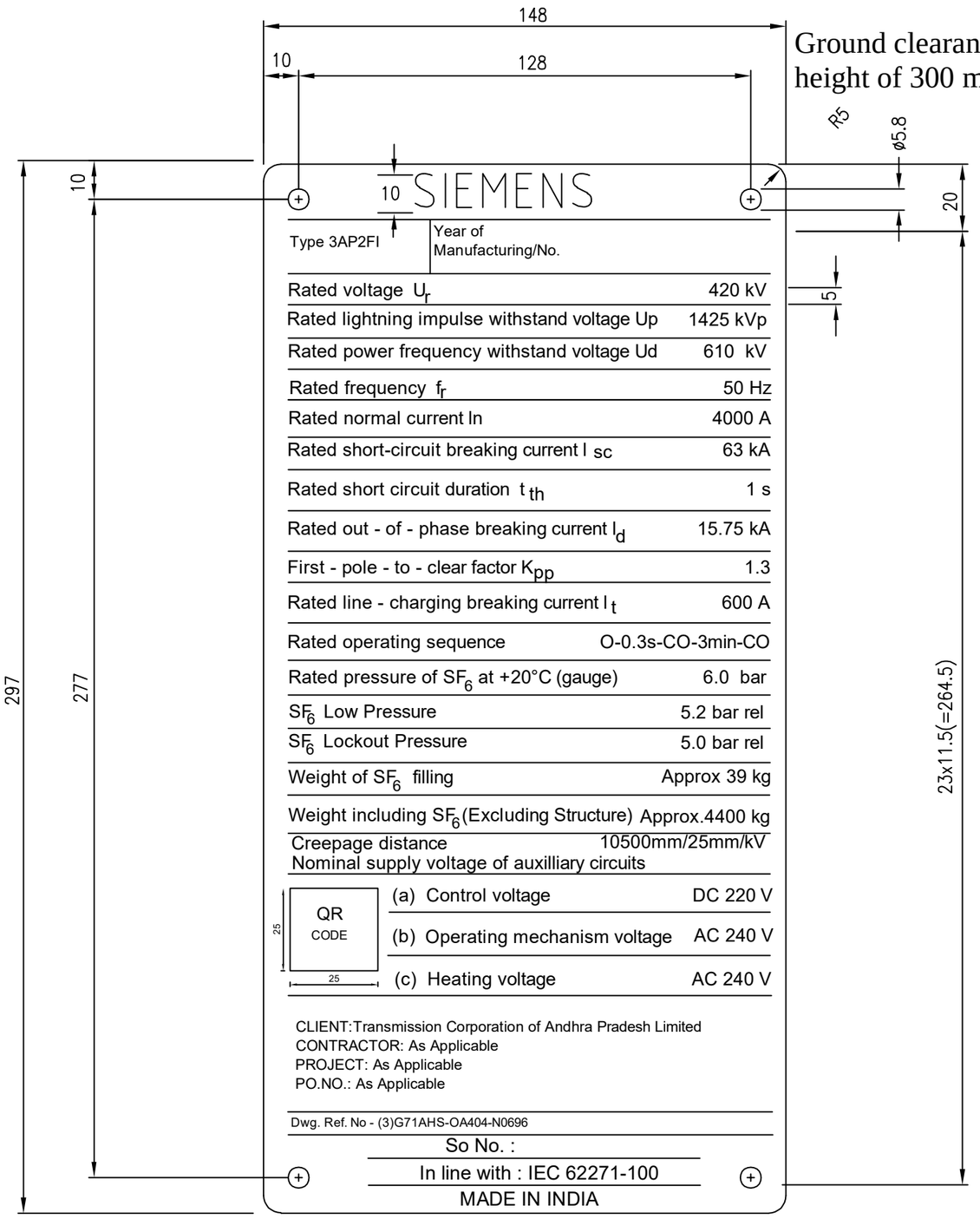
Remarks:
1) All dimensions are in mm.
2) All structural steel shall conform to IS:2062
3) Hot dip galvanizing acc. to ISO 1461 (thickness 86µm average)

Drawing approval subject to valid vendor registration

				Date	19.02.2024	CLIENT:Transmission Corporation of Andhra Pradesh Limited	Siemens Ltd.	Descr : 420kV, 63kA, 4000A-SF6-CB	SO No : Qty: 2HG 594-01323-001
				Prep	MSR	CONTRACTOR: As Applicable		Type : 3AP2FI	
				Ckd.	SB	PROJECT: As Applicable PO.NO.: As Applicable	AURANGABAD	Details : SUPPORT STRUCTURE	Drg. No:- (3)G71AHS-OA404-Z0696 Sh. 2 2 Sh.
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-			

HO/ESD-Coord/9E 03-90

Ground clearance of 8000 mm shall be maintained during erection. Plinth height of 300 mm shall be maintained



Rated voltage U_r	420 kV
Rated lightning impulse withstand voltage Up	1425 kVp
Rated power frequency withstand voltage Ud	610 kV
Rated frequency f_r	50 Hz
Rated normal current In	4000 A
Rated short-circuit breaking current I sc	63 kA
Rated short circuit duration t_{th}	1 s
Rated out - of - phase breaking current I_d	15.75 kA
First - pole - to - clear factor K_{pp}	1.3
Rated line - charging breaking current I_t	600 A
Rated operating sequence	O-0.3s-CO-3min-CO
Rated pressure of SF_6 at +20°C (gauge)	6.0 bar
SF_6 Low Pressure	5.2 bar rel
SF_6 Lockout Pressure	5.0 bar rel
Weight of SF_6 filling	Approx 39 kg
Weight including SF_6(Excluding Structure)	Approx.4400 kg
Creepage distance	10500mm/25mm/kV
Nominal supply voltage of auxilliary circuits	
(a) Control voltage	DC 220 V
(b) Operating mechanism voltage	AC 240 V
(c) Heating voltage	AC 240 V

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

Dwg. Ref. No - (3)G71AHS-OA404-N0696

So No. :

In line with : IEC 62271-100

MADE IN INDIA

Pole A
Client: M/s.Transmission Corporation of Andhra Pradesh Limited
Sr No -

Pole B
Client: M/s.Transmission Corporation of Andhra Pradesh Limited
Sr No -

Pole C
Client: M/s.Transmission Corporation of Andhra Pradesh Limited
Sr No -

Rating Plate on respective operating mechanism

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:55:43 +05'30'

Chief Engineer
Projects

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

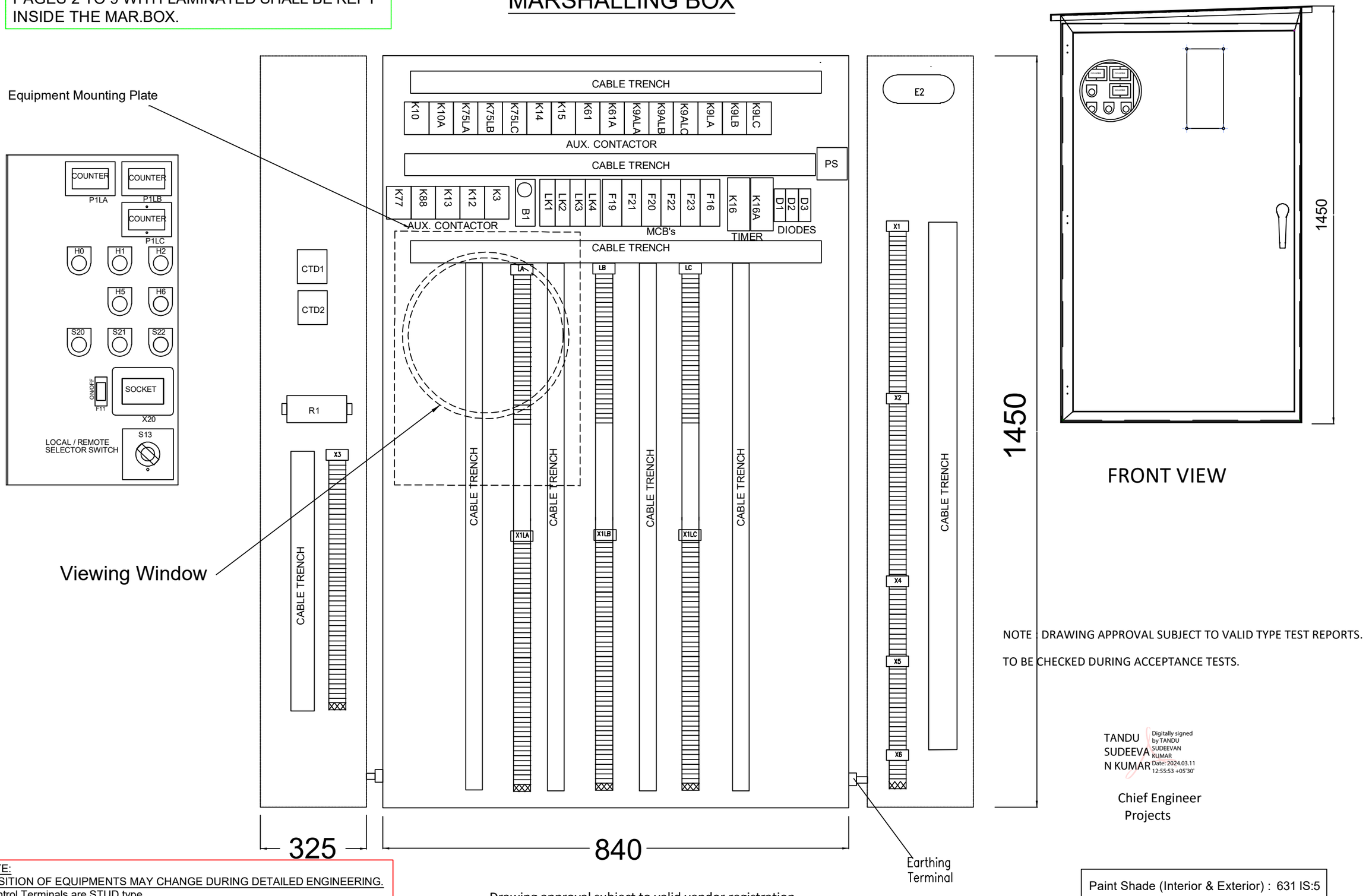
Drawing approval subject to valid vendor registration

				Date	19.02.2024	CLIENT:Transmission Corporation of Andhra Pradesh Limited CONTRACTOR: As Applicable PROJECT: As Applicable PO.NO.: As Applicable	Siemens Ltd. AURANGABAD.	Descr : 420kV,63kA,4000A SF6 CB. Type : 3AP2FI Details : Name Plate	SO No : Qty:	
				Prep	MSR					
				Ckd.	SB				Drg. No:- (3)G71AHS-OA404-N0696	Sh. 1 / 1 Sh.
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-				

HO/ESD-Coord/3E 03-96

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

MARSHALLING BOX



NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:55:53 +05'30'

Chief Engineer
Projects

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

Drawing approval subject to valid vendor registration

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

Issue	Remarks	Date	Name			
				Date	19.02.2024	CLIENT:Transmission Corporation of Andhra Pradesh Limited
				Prep	MSR	CONTRACTOR: As Applicable
				Ckd.	SB	PROJECT: As Applicable
				Norm.		PO.NO.: As Applicable
						Original / Replacement for /Replaced by :-

SIEMENS
AURANGABAD

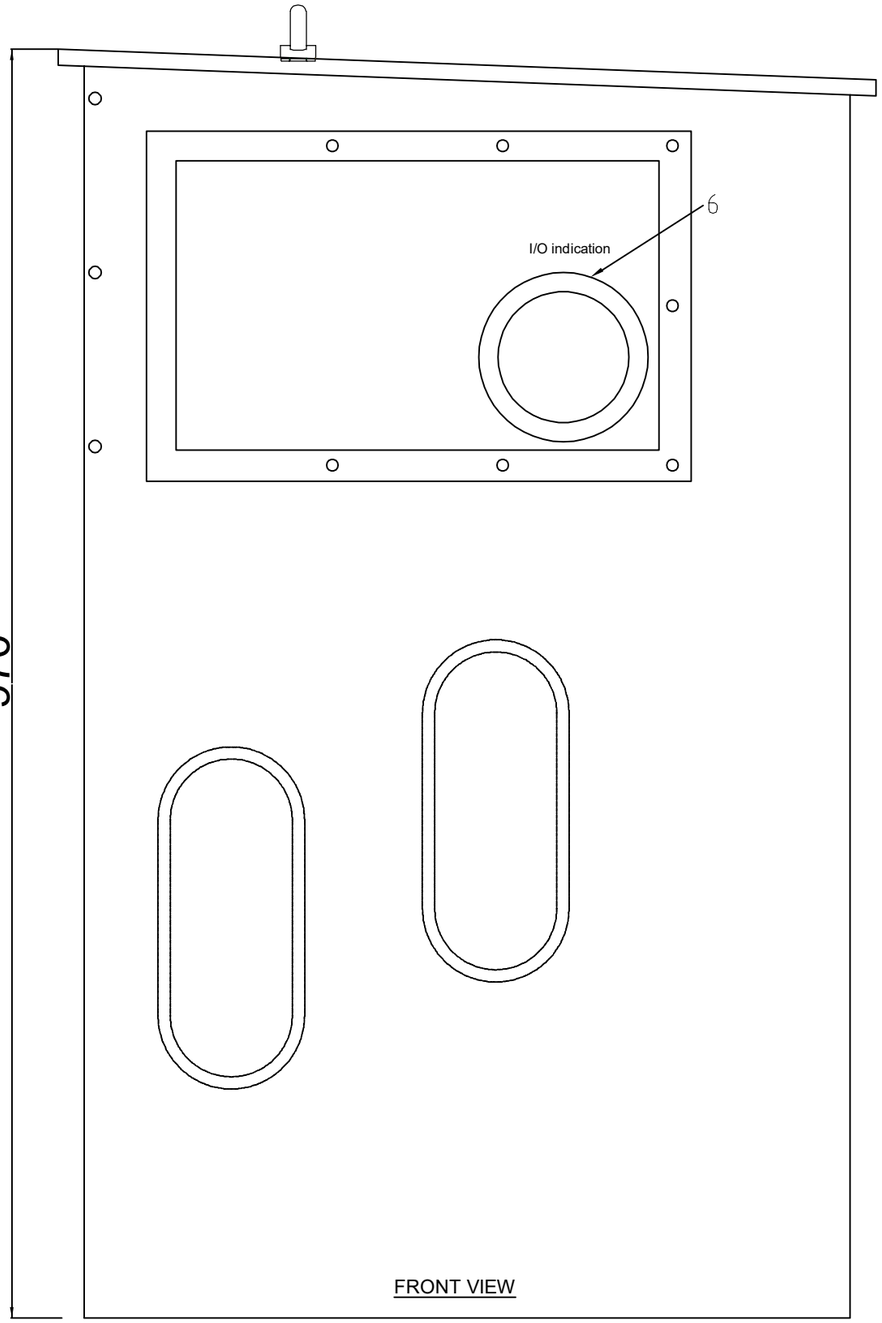
Descr : 420kV, 63kA, 4000A-SF6-CB
Type : 3AP2FI
Details : MARSHALLING BOX

SO No : Qty:

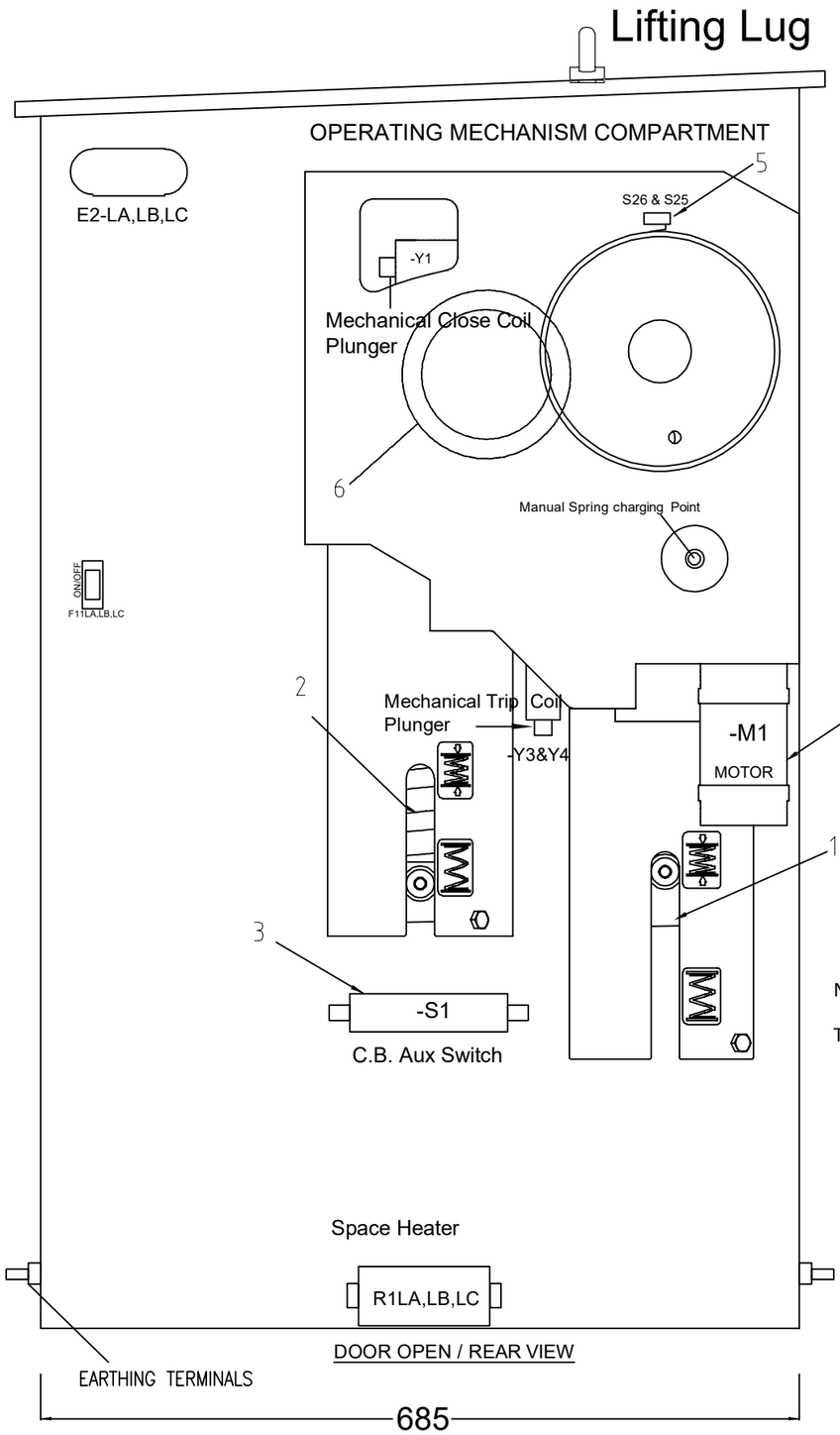
Drg. No:- (3)G71AHS-OA404-L0696 Sh. 1 3 Sh.

HO/ESD-Coord/9E 03-90

OPERATING MECHANISM COMPARTMENT POLE LA, LB, LC



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

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

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

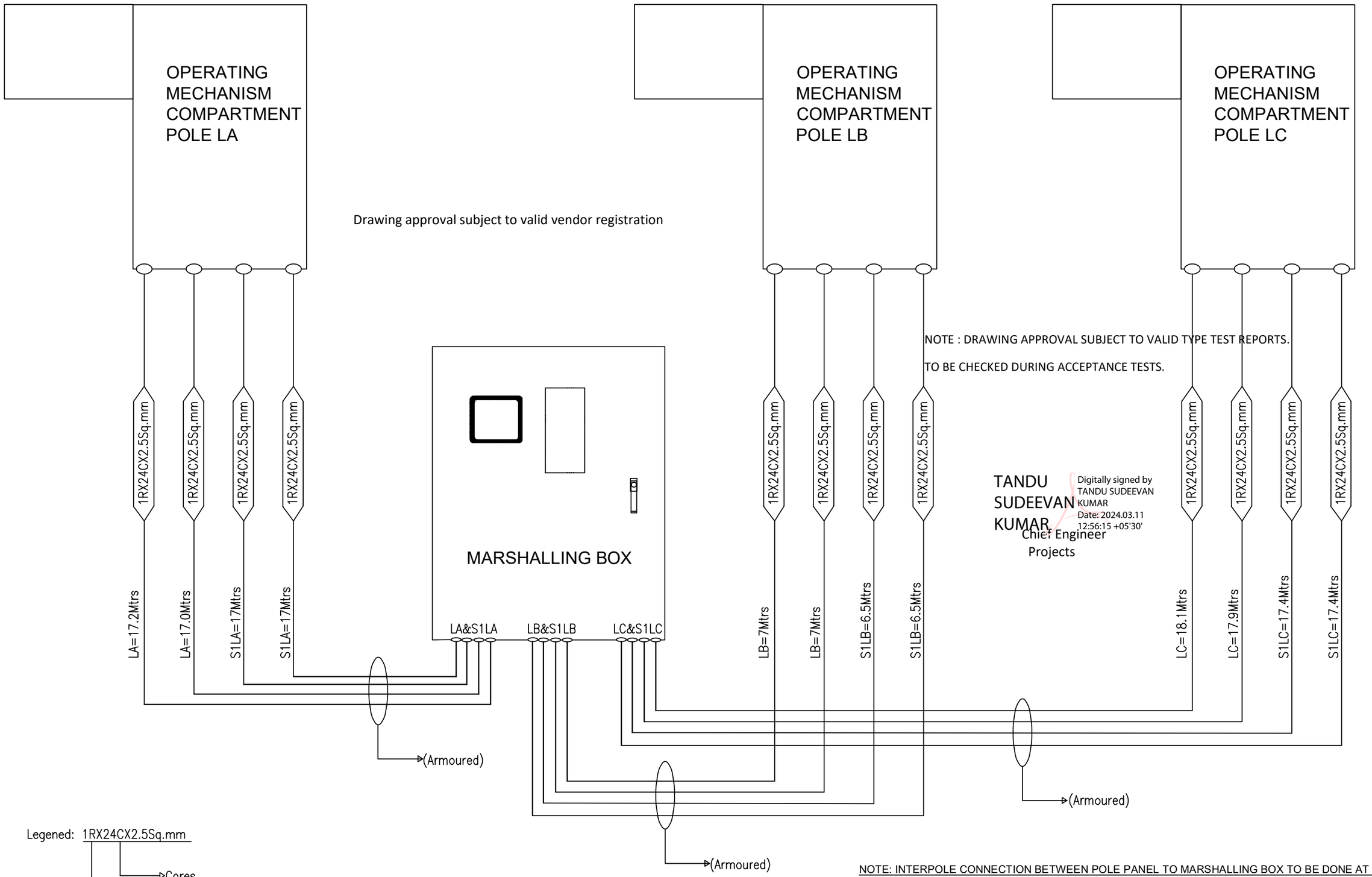
TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:56:05 +05'30'
Chief Engineer Projects

				Date	19.02.2024	CLIENT:Transmission Corporation of Andhra Pradesh Limited	SIEMENS AURANGABAD	Descr : 420kV, 63kA, 4000A-SF6-CB	SO No : Qty:
				Prep	MSR	CONTRACTOR: As Applicable		Type : 3AP2FI	
				Ckd.	SB	PROJECT: As Applicable		Details : CONTROL PANEL LAYOUT	Drg. No:- (3)G71AHS-OA404-L0696 Sh. 2 3 Sh.
Issue	Remarks	Date	Name	Norm.		PO.NO.: As Applicable			
						Original / Replacement for /Replaced by :-			

HO/ESD-Coord/3E 03-96

INTER POLE CABLING LAYOUT

Drawing approval subject to valid vendor registration



NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR
Chief Engineer
Projects
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:56:15 +05'30'

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

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	19.02.2024	CLIENT:Transmission Corporation of Andhra Pradesh Limited	Siemens Ltd. AURANGABAD	Descr : 420kV, 63kA, 4000A-SF6-CB
				Prep	MSR	CONTRACTOR: As Applicable		Type : 3AP2FI
			MSR	Ckd.	SB	PROJECT: As Applicable		Details : INTERPOLE_CABLE_DETAILS
Issue	Remarks	Date	Name	Norm.		PO.NO.: As Applicable		SO No : Qty:
						Original/Replacement For/Replaced by :-		Drg. No:- (3)G71AHS-OA404-L0696 Sh. 3 3 Sh.

For EPC Contracts Only

Drawing approval subject to valid vendor registration

Ground clearance of 8000 mm shall be maintained during erection. Plinth height of 300 mm shall be maintained

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.

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

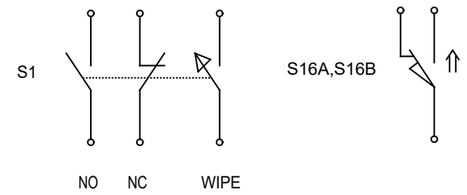
TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVA N KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:56:25 +05'30'
Chief Engineer
Projects

PSD NOTES :

1. PSD DEVICE SHALL BE MOUNTED IN CONTROL RELAY PANEL.
2. PSD BYPASS EQUIPMENT (K0,K1&S14) SHALL BE SUPPLIED BY RESPECTIVE EPC CONTRACTOR .(NOT IN SIEMENS SCOPE)
3. PSD BYPASS SWITCH SHALL BE MOUNTED AND WIRED UP IN CRP.
4. TWISTED PAIR SHIELDED CABLE (1000 mt PER CIRCUIT BREAKER) FOR REFERENCE CONTACT AND TEMPERATURE TRANSDUCER SHALL BE SUPPLIED BY SIEMENS LTD. LAYING OF SHIELDED CABLE WILL BE IN SCOPE OF EPC CONTRACTOR.
5. OTHER THAN SHIELDED CABLES, FOR BALANCE WIRING CAN BE DONE BY USING 1.5 SQ.MM CABLE.
6. WIRING BETWEEN PSD AND CIRCUIT BREAKER WILL BE IN SCOPE OF EPC CONTACTOR.
7. TERMINAL SHOWN FOR PSD IN ABOVE DRAWING IS SHOWN FOR IDENTIFICATION. POSITION OF TERMINAL MAY VARY.

Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.



CONTACT GEOMETRY OF S1 AND S16A, S16B SWITCH

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI 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-OA404-W0696	Sh. 1 / 14 Sh.

8566476/2024/EEMRT-ENE51

- TERMINAL X1-30,X1-31,X1-32 & X1-33 TO BE SHORT FOR WITHOUT PSD

WIRING TO BE DONE IN CRP BY CRP SUPPLIER

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

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

Drawing approval subject to valid vendor registration

+VE -X1 1 — 21/J11 — 220V DC1

-VE -X1 2 — 2/J12 — -F22 — 3/K11

+VE -X1 4 — TO C & R PANEL

-VE -X1 3 — 3/K11

-X1 5 — 3/K11 — -X1 6 — TO REMOTE PANEL

-S20 — REMOTE CLOSE — -X1 7 — 5/K15R

AUTO RECLOSE — -X1 8 — 6/K15A

(L) -S13 (R) — 7/K15A — -X1 9 — -X1 10

FUTURE INTERLOCK — -X1 11 — -X1 12

3/K11 — A /3.1

PSD (LOCATED IN CRP)

X12-3 — X7-13 — X7-14 — X7-12

TB XX — K1 — 31 — 32 — 53 — 54 — 63 — 64 — 73 — 74

-X1 30 — ### — -X1 31 — ### — -X1 32 — ### — -X1 33

-X1 34 — -X1 35 — -X1 36

-LA 1 — 23/K15A 21 — -K75LA /.5 — 22/K121A 31 22 — /.5 — 32 — 42 — -LA

-LB 1 — 23/K15A 21 — -K75LB /.6 — 23B/K121B 31 22 — /.6 — 32 — 42 — -LB

-LC 1 — 23/K15A 21 — -K75LC /.7 — 24/K121C 31 22 — /.7 — 32 — 42 — -LC

-LA 3 — -LB 3 — -LC 3

S1LA 63 64 — S1LB 63 64 — S1LC 63 64

-LA 4 — -LB 4 — -LC 4

A1 12~/K123A — A1 12~/K123B — A1 12~/K123C

-K75LA — -K75LB — -K75LC — A2

-LA 2 — 11/K114 — -LB 2 — 11/K114 — -LC 2 — 11/K114

11/K114

-K9ALA /3.2 — 13 — 14 — 9/K110

-K9ALB /3.3 — 13 — 14 — 10/K112

-K9ALC /3.3 — 13 — 14

-K61 /6.1 — 61 — 62 — 22B/K108

-K61A /6.3 — 61 — 62 — 17/K106

-K10 /4.8 — 53 — 54 — 18/K104

-K10A /5.8 — 53 — 54 — 20/K102

-X1 13 — 21/K12

S1LA 42 — 23A/K199A — 23/K117A 61 41 — 24/K115A A1 62 — Y1LA — A2 — 11/K114

S1LB 42 — 24A/K119B — 25/K117B 61 41 — 26/K115B A1 62 — Y1LB — A2 — 11/K114

S1LC 42 — 25A/K119C — 27/K117C 61 41 — 28/K115C A1 62 — Y1LC — A2 — 11/K114

-X1 14 — 21/K12 — B /3.1

CLOSING

ANTI PUMPING

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:56:35 +05'30'

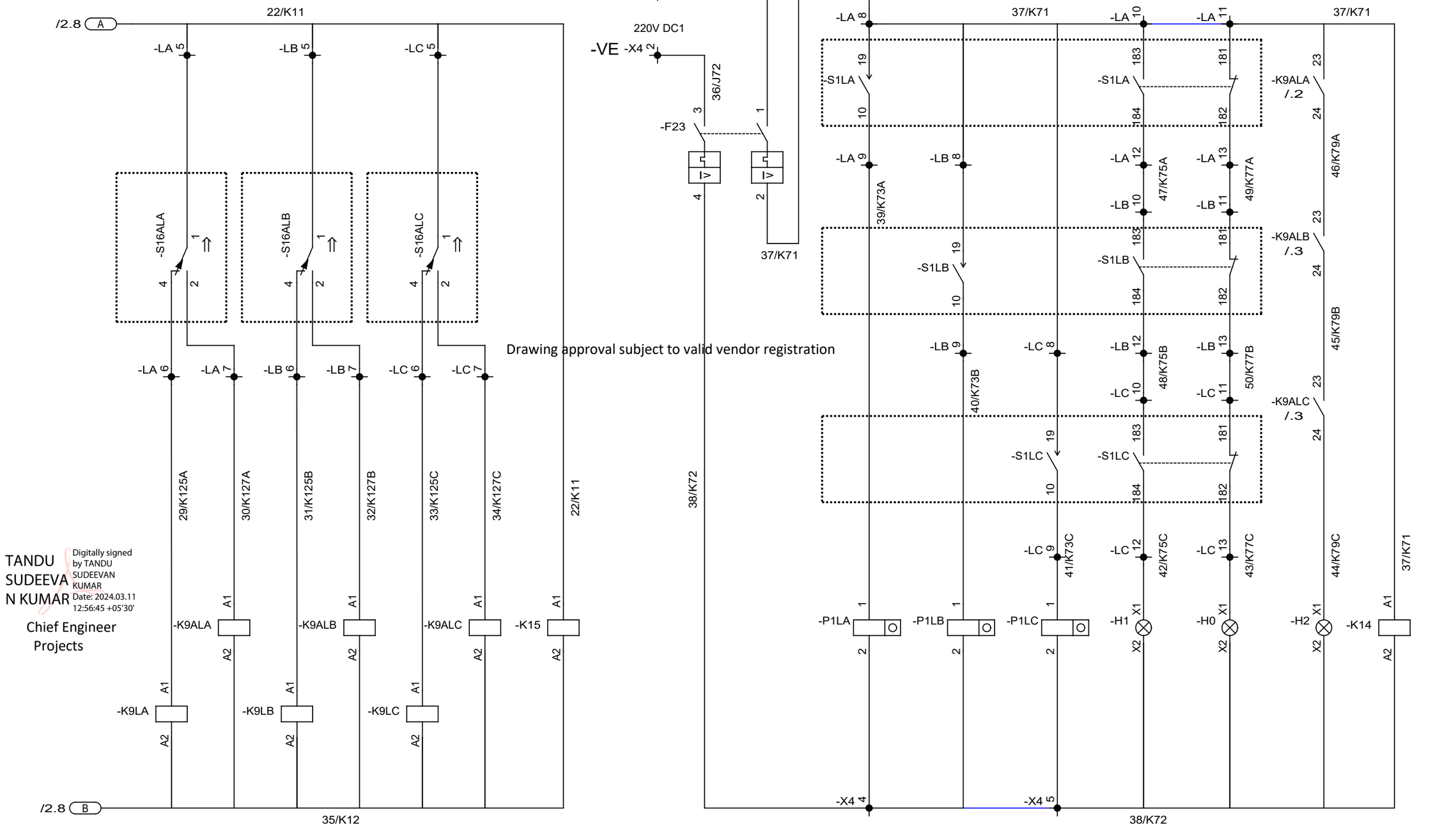
Chief Engineer
Projects

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 2 / 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

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: 2024.03.11 12:56:45 +05'30'
Chief Engineer Projects

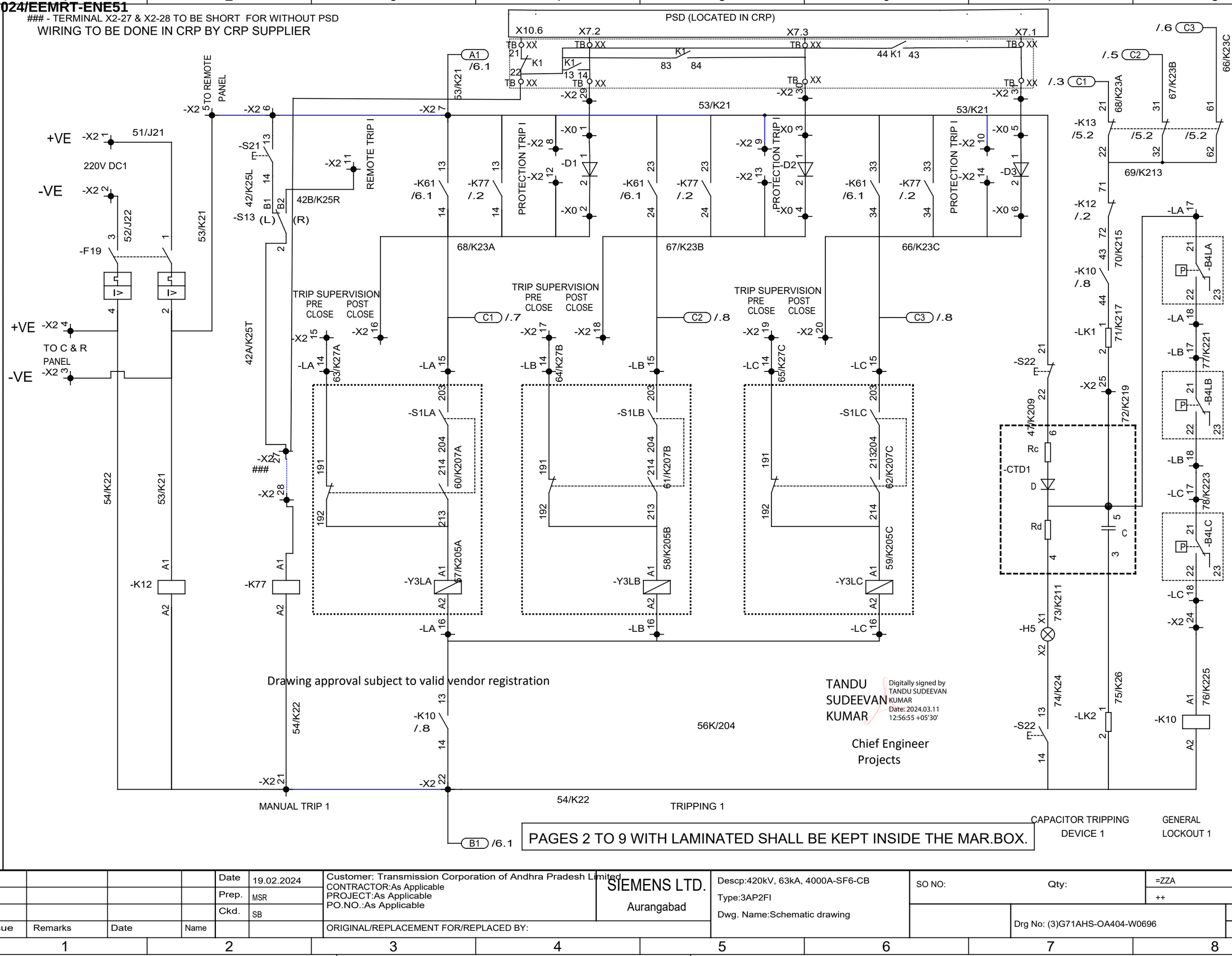
MOTOR CONTROL | SPRING CHARGED STATUS | MOTOR CONTROL | SPRING CHARGED STATUS | MOTOR CONTROL | SPRING CHARGED STATUS | CLOSING CKT SPRING CHARGE SUPPLY MONITOR

OPERATIONAL COUNTER POLE A | OPERATIONAL COUNTER POLE B | OPERATIONAL COUNTER POLE C | CB ON | CB OFF | SPRING CHARGED INDICATION | INDICATION SUPPLY MONITOR

Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
Prep.	MSR				
Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 3 14 Sh.
Issue	Remarks	Date	Name	ORIGINAL/REPLACEMENT FOR/REPLACED BY:	

- TERMINAL X2-27 & X2-28 TO BE SHORT FOR WITHOUT PSD

WIRING TO BE DONE IN CRP BY CRP SUPPLIER



Drawing approval subject to valid vendor registration

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:56:55 +05'30'

Chief Engineer Projects

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

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 4 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

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

- TERMINAL X3-29 & X3-30 TO BE SHORT FOR WITHOUT PSD

WIRING TO BE DONE IN CRP BY CRP SUPPLIER

+VE -X3 1 79/J51

220V DC 2

-VE -X3 2 80/J52

-F21

+VE -X3 4 82/K52

TO C & R PANEL

-VE -X3 3 81/K51

81/K51

-X3 5 -X3 6 -X3 7 A2 /6.3

-S21 -S13 (L) (R)

-X3 11 REMOTE TRIP II

85/K55R

84/K55L

-X3 8 -X3 12 PROTECTION TRIP II

-X3 9 -X3 13 PROTECTION TRIP II

-X3 10 -X3 14 PROTECTION TRIP II

81/K51 81/K51

-K61A /6.3 -K88 /.2

89/K53A 88/K53B 87/K53C

TRIP SUPERVISION PRE CLOSE POST CLOSE

-X3 15 -X3 16 D1 /.7

-X3 17 -X3 18 D2 /.8

-X3 19 -X3 20 D3 /.8

-LA 19 -LA 20 90/K57A

-LB 19 -LB 20 91/K57B

-LC 19 -LC 20 93/K57C

-X3 29 ### TO Sheet 13 C6 -X3 30

-S1LA -S1LB -S1LC

221 222 233 234 243 244

97/K307A 98/K307B 99/K307C

-Y4LA 102/K305A -Y4LB 101/K305B -Y4LC 100/K305C

-LA 21 -LB 21 -LC 21

103/K304 103/K304

-K13 A1 A2 82/K52

-K88 A1 A2 82/K52

-K10A /.8 13 14

-X3 21 -X3 22 82/K52

B2 /6.3

MANUAL TRIP 2

TRIPPING 2

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:57:10 +05'30'

Chief Engineer Projects

/.6 D3 /.5 D2 /.3 D1

-K12 /4.2 89/K53A 88/K53B 87/K53C

111/K313

-K13 /.2

-K10A /.8

-LK3 -LK4

112/K315 113/K317 114/K319

-S22 -X3 25

57/K309 Rc -CTD2 D Rd C

105/K311 -H6 106/K54 107/K56

-LA -LB -LC

-B4LA -B4LB -B4LC

110/K321 109/K323 108/K325

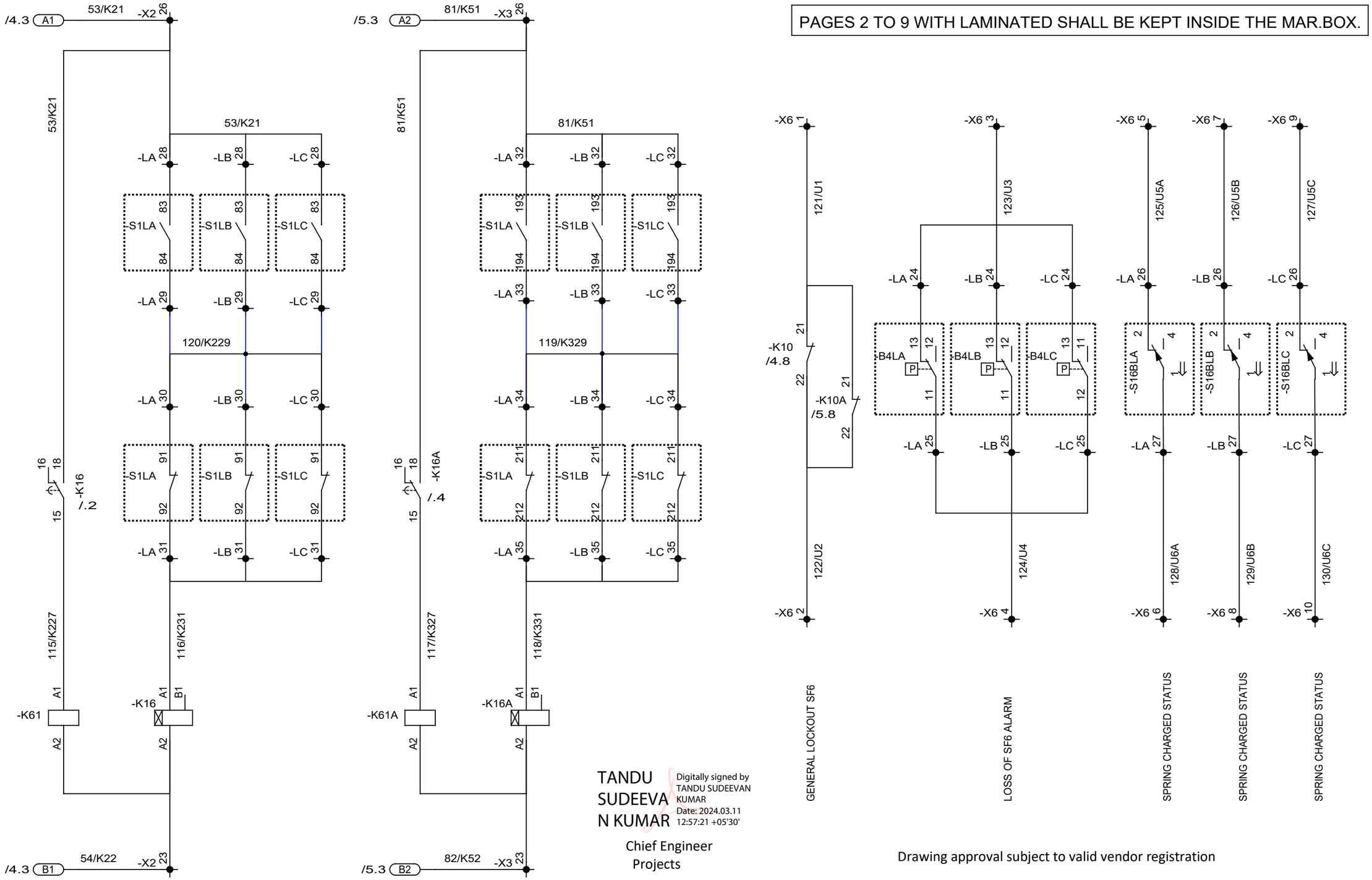
-K10A A1 A2

CAPACITOR TRIPPING DEVICE 2

GENERAL LOCKOUT 2

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 5 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

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



ENFORCED TRIPPLE POLE OPERATION 1

ENFORCED TRIPPLE POLE OPERATION 2

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:57:21 +05'30'

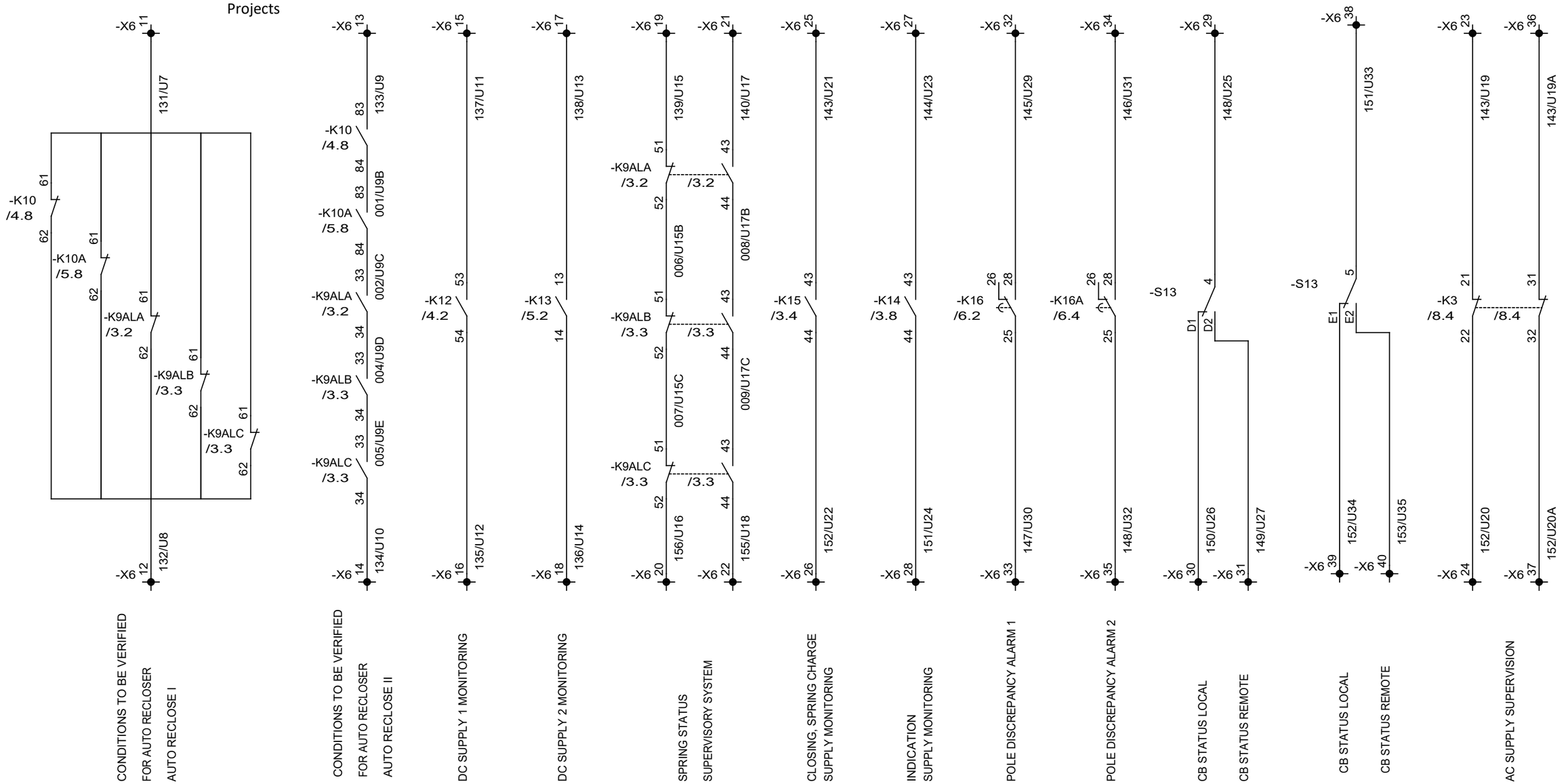
Chief Engineer
Projects

Drawing approval subject to valid vendor registration

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 6 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

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

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:57:33 +05'30'
Chief Engineer
Projects

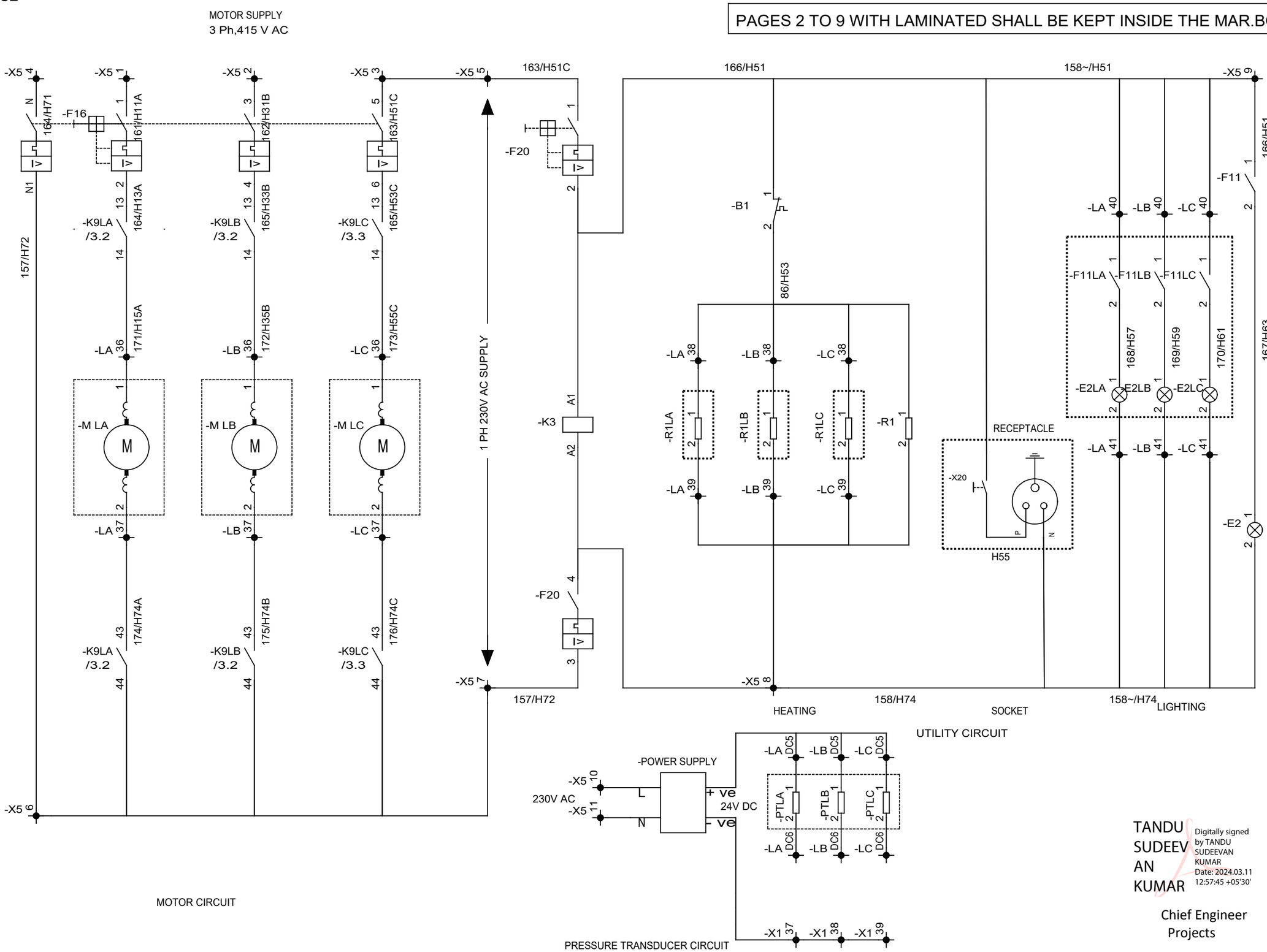


Drawing approval subject to valid vendor registration

Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 7 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

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



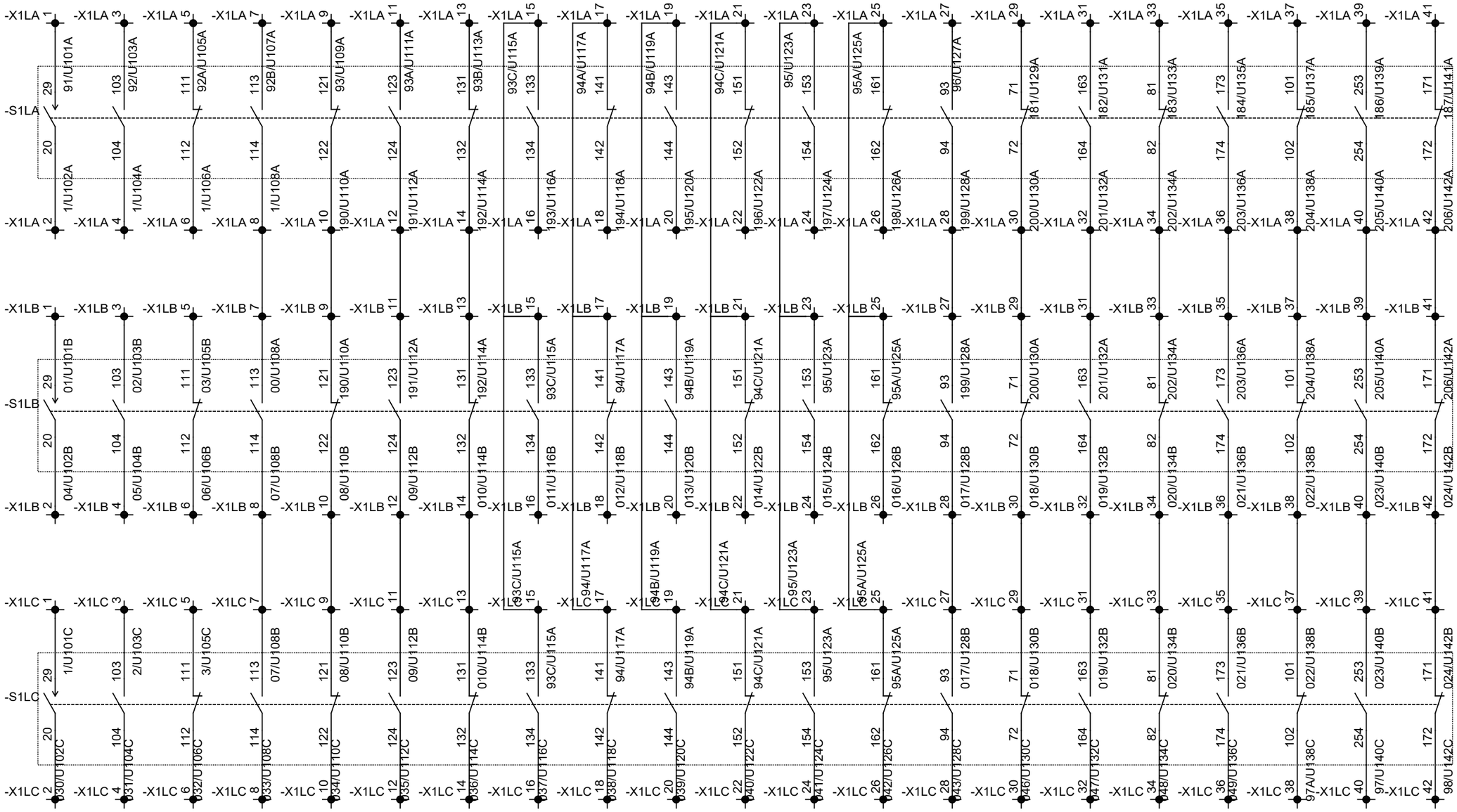
TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:57:45 +05'30'

Chief Engineer
Projects

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 8 / 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

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



TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:57:57 +05'30'

Chief Engineer
Projects

Drawing approval subject to valid vendor registration

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

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 9 / 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

TERMINAL DIAGRAM

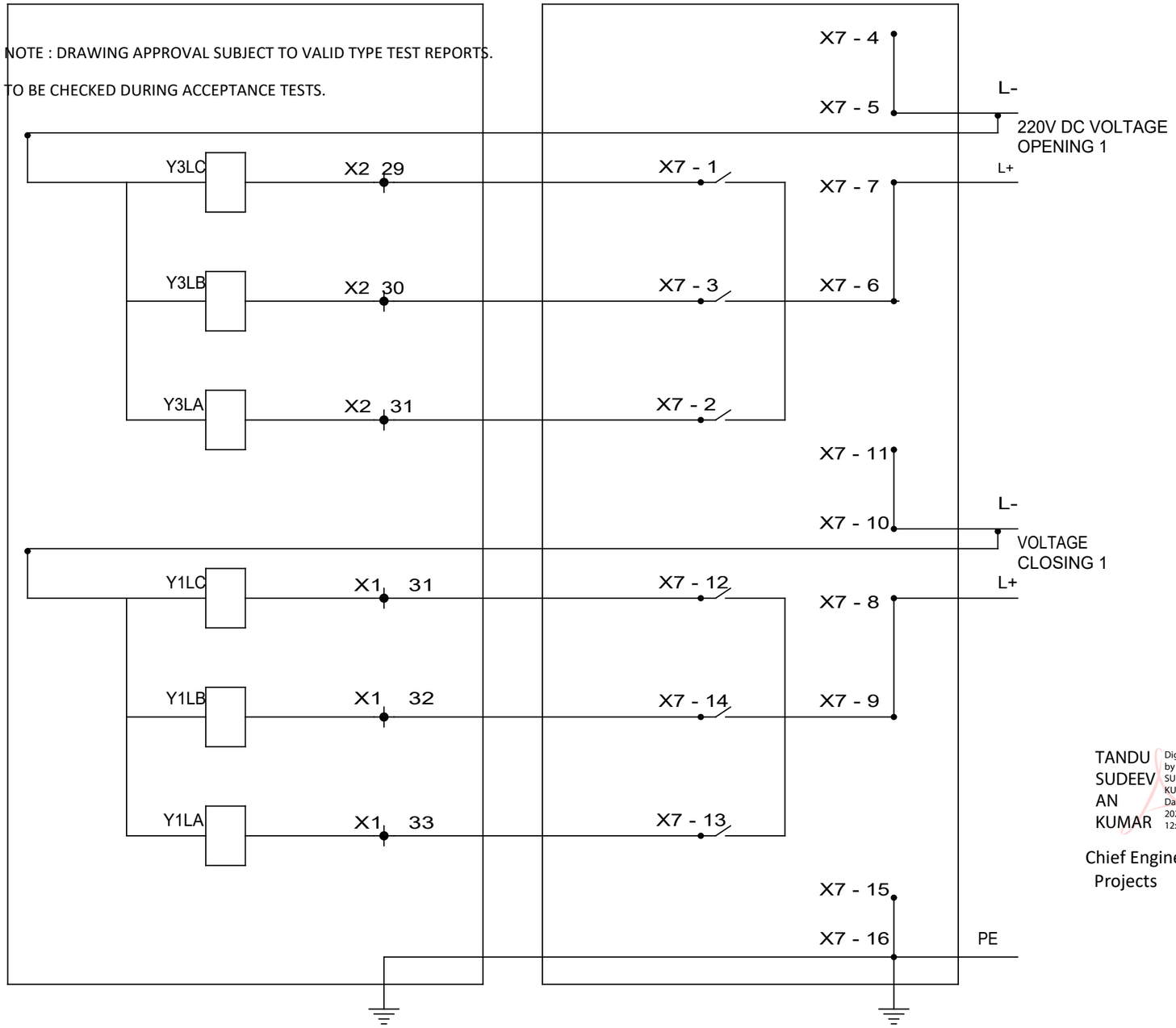
CONTROL UNIT / MECHANISM BOX

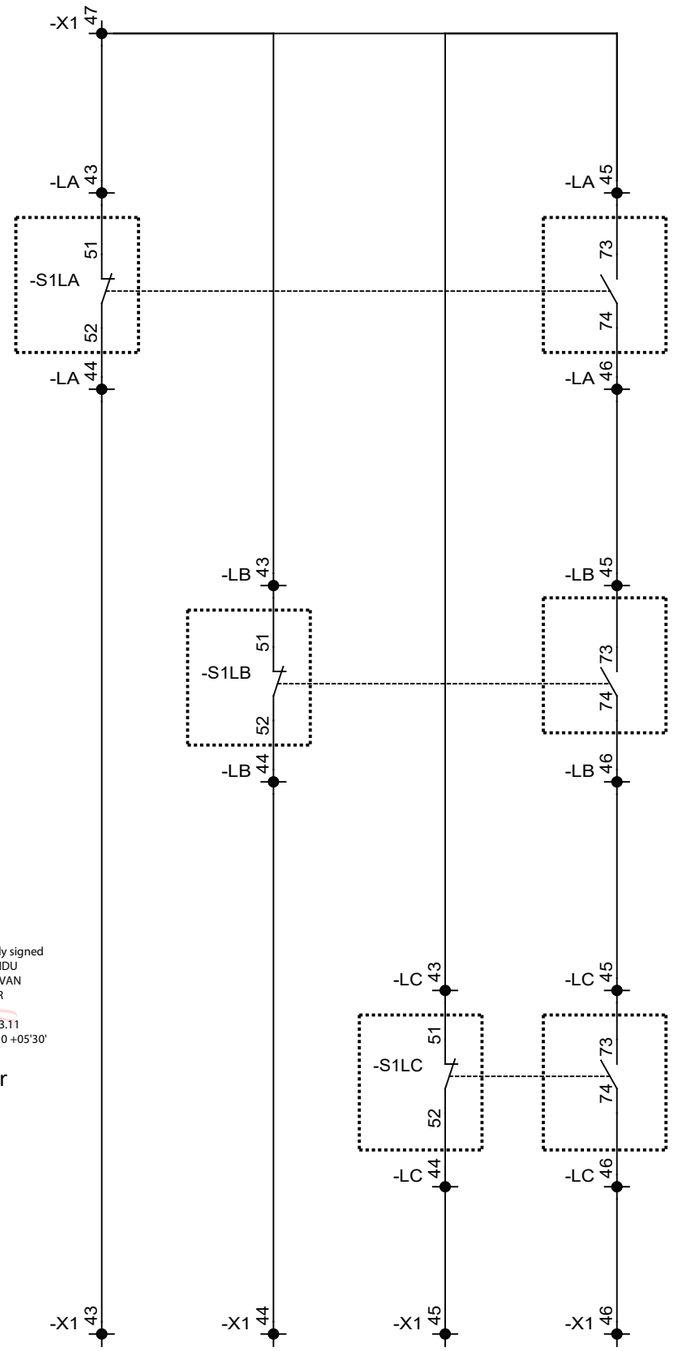
PSD02

PSD 02

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.





TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:58:10 +05'30'

Chief Engineer
Projects

Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.

Drawing approval subject to valid vendor registration

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited	SIEMENS LTD.	Descp:420kV, 63kA, 4000A-SF6-CB	SO NO: Qty: =ZZA
				Prep.	MSR	CONTRACTOR:As Applicable	Aurangabad	Type:3AP2FI	++
				Ckd.	SB	PROJECT:As Applicable PO.NO.:As Applicable		Dwg. Name:Schematic drawing	Drg No: (3)G71AHS-OA404-W0696 Sh. 10
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			14 Sh.

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

SWITCHING DEVICE INPUT CIRCUIT

REFERENCE CONTACTS / SENSOR MOUNTED ON INDIVIDUAL MECHANISM BOX FOR INDICATION OF CB ON / OFF POSITION

B X10.3 X10.4

Y X12.2 X12.1

R X10.1 X10.2

TEMPERATURE TRANSDUCER

+X14.1

-X14.2

SHIELDED TWISTED PAIR CABLE

X10-5 – OPEN COMMAND FROM CRP(Sheet No 4 A4)

X10-6

X12.3 + CIRCUIT BREAKER CLOSE COMMAND FROM CRP(Sheet No 2 A7)

X12.4 –

X12.9 MODE INPUT

X12.10

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:58:24 +05'30'
Chief Engineer Projects

X2.2

X2.1 – L-

AUXILIARY VOLTAGE

X2.3 + L+

X2.4

+

FOR PSD CONTROL

X1-46 X12 5 — LA 39 73 74 S1LA 40 LA 39 73 74 S1LB 40 LB 39 73 74 S1LC 40 LC 40

X1-45 X10 10 — LC 37 51 52 S1LC 38 LC

X1-44 X12 7 — LB 37 51 52 S1LB 38 LB

X1-47 — LA 37 51 52 S1LA 38 LA — X1-43 X10 8

AUX.BREAK CONTACT ABC X12.6

AUX.BREAK CONTACT C X10.9

AUX.BREAK CONTACT B X12.8

AUX.BREAK CONTACT C X10.9

– Signal from Common DC of CRP

PE

X2.5

X2.6

COMMON X3-11

COMMON X3-12

SERVICE X3-1

SENSOR ERROR X3-2

CB VOLTAGE ERROR X3-4

SYNCHRONOUS DATA EORROR X3-5

SYNC.OPERATION FAILED X3-7

CB IN OPEN POSITION X3-8

CB IN CLOSE POSITION X3-9

DEVICE OK X3-10

MODE INPUT: A mode input automatically selects between the two tasks (Transformer and shunt reactor) during Operation.

TEMPERATURE TRANSDUCER-01 No.

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 11 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

Marshelling Box

PSD 02

TEMPERATURE TRANSDUCER

SHIELDED TWISTED PAIR CABLE

X14.1

X14.2

X14.3

X14.4

X14.5

X14.6

X14.7

X14.8

PE

X8.15

X8.16

X14.16

Drawing approval subject to valid vendor registration

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:58:36 +05'30'

Chief Engineer
Projects

HV SUPPLY (BUS BAR)

L1 L2 L3

X8-1 X8-2 X8-3 X8-4 X8-5 X8-6 X8-7 X8-8

a b A B

VOLTAGE TRANSFORMER L3

VOLTAGE TRANSFORMER L1

VOLTAGE TRANSFORMER L2

VOLTAGE TRANSFORMER L3

X5-16 X5-11 X5-15 X5-7 X5-14 X5-3

P2 P1 S2 S1

CURRENT TRANSFORMER L1

CURRENT TRANSFORMER L2

CURRENT TRANSFORMER L3

TERMINALS TO BE IDENTIFIED AT SITE

NOTE :

1. INPUT TO PSD CT SHALL BE FROM METERING CORE OF BAY CURRENT TRANSFORMER.
2. INPUT TO VT TERMINAL OF PSD SHALL BE FROM METERING CORE OF BAY VOLTAGE TRANSFORMER
3. PSD IS SUITABLE FOR REACTOR & TRANSFORMER SWITCHING / SYNCHRONISING

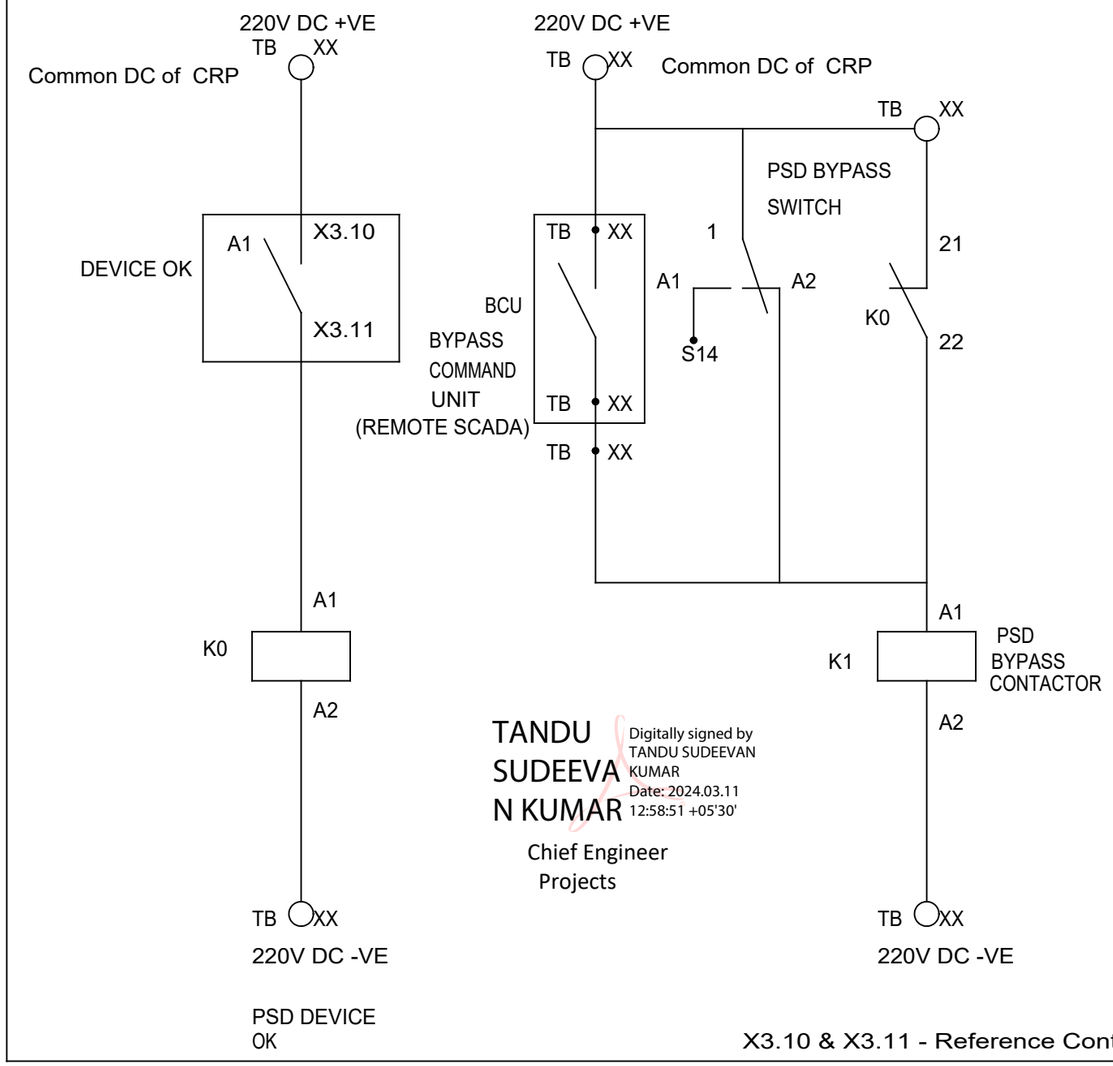
Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 12 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

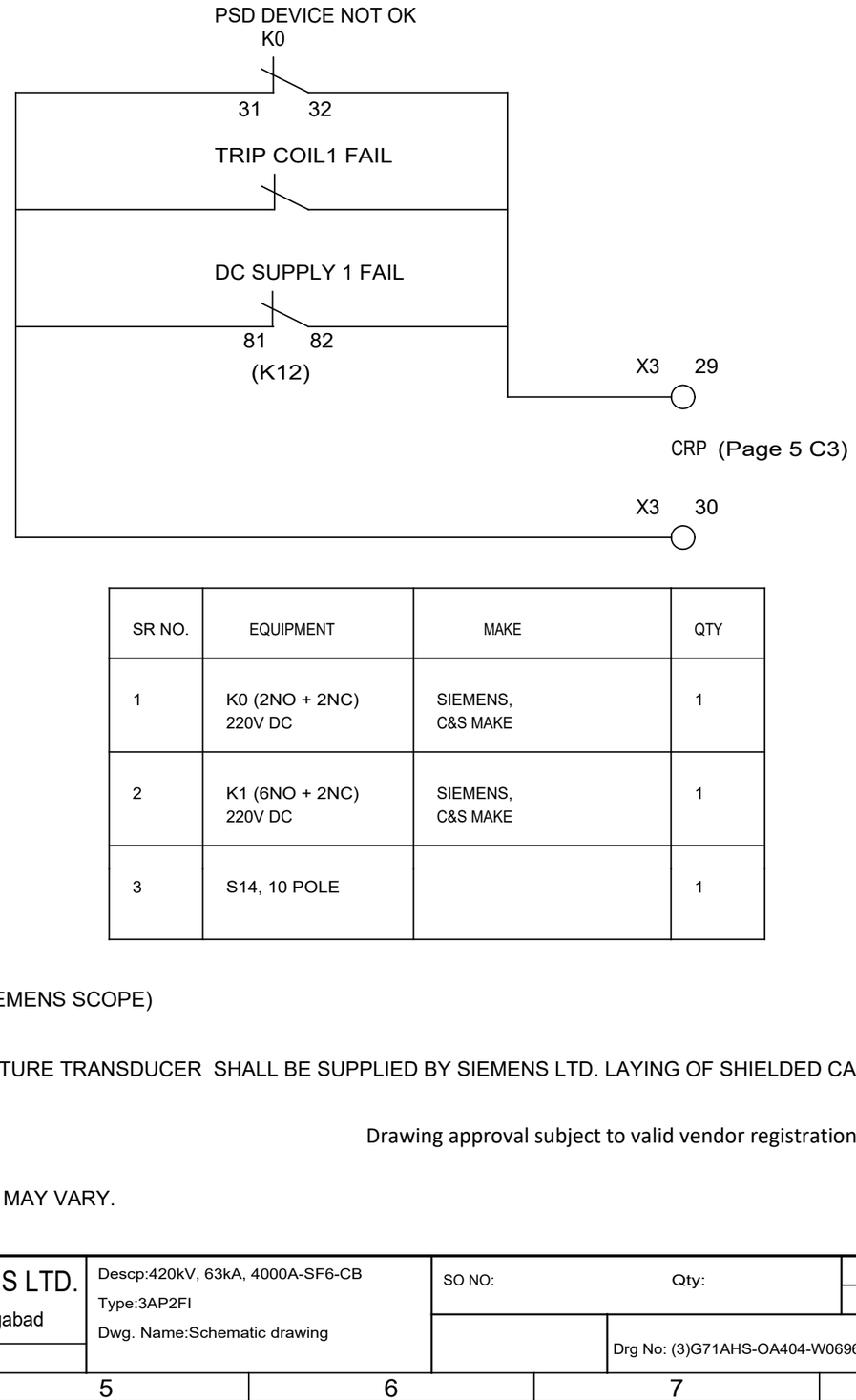
TO BE CHECKED DURING ACCEPTANCE TESTS.

WIRING TO BE DONE IN CRP BY CRP SUPPLIER



WIRING TO BE DONE IN CRP

For EPC Contracts Only



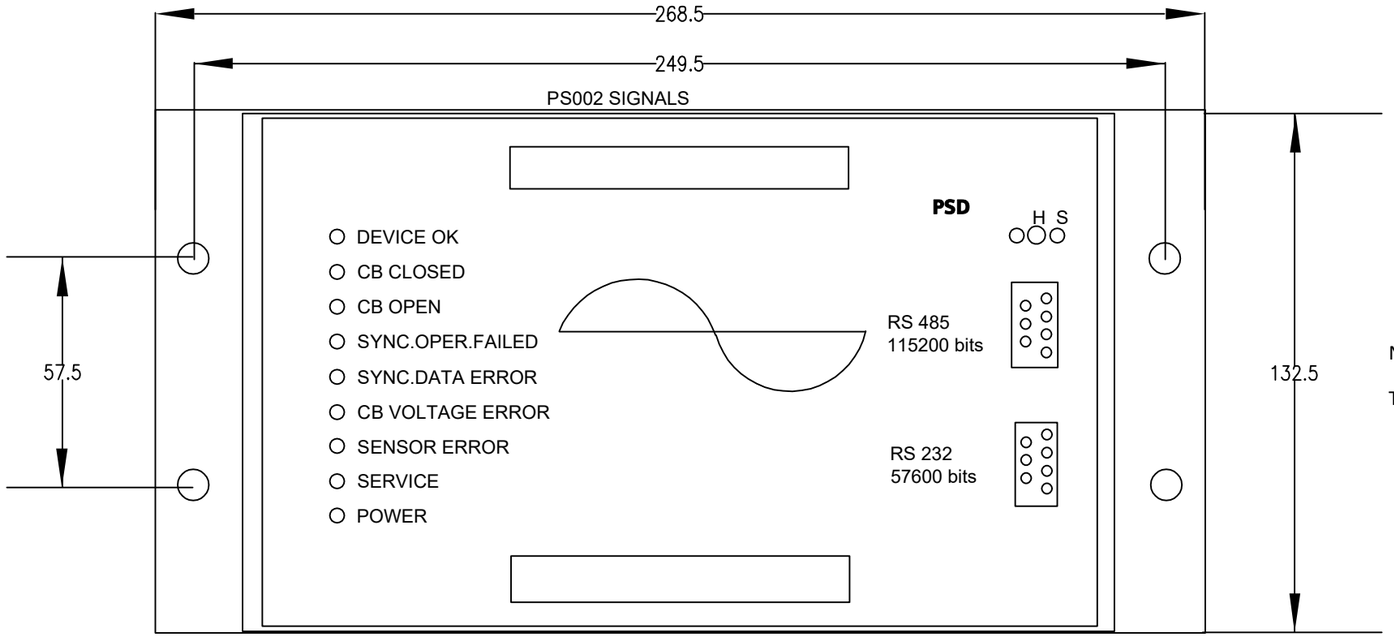
SR NO.	EQUIPMENT	MAKE	QTY
1	K0 (2NO + 2NC) 220V DC	SIEMENS, C&S MAKE	1
2	K1 (6NO + 2NC) 220V DC	SIEMENS, C&S MAKE	1
3	S14, 10 POLE		1

NOTE :

1. PSD DEVICE SHALL BE MOUNTED IN CONTROL RELAY PANEL.
2. PSD BYPASS EQUIPMENT (K0,K1 & S14) SHALL BE SUPPLIED BY RESPECTIVE EPC CONTACTOR. (NOT IN SIEMENS SCOPE)
3. PSD BYPASS SWITCH SHALL BE MOUNTED & WIRED UP IN CRP.
4. TWISTED PAIR SHIELDED CABLE (1000 mt PER CIRCUIT BREAKER) FOR REFERENCE CONTACT AND TEMPERATURE TRANSDUCER SHALL BE SUPPLIED BY SIEMENS LTD. LAYING OF SHIELDED CABLE WILL BE IN SCOPE OF EPC CONTACTOR.
5. OTHER THAN SHIELDED CABLES, FOR BALANCE WIRING CAN BE DONE BY USING 1.5 SQ.MM CABLE.
6. WIRING BETWEEN PSD AND CIRCUIT BREAKER WILL BE IN SCOPE OF EPC CONTACTOR.
7. TERMINAL SHOWN FOR PSD IN ABOVE DRAWINGS IS SHOWN FOR IDENTIFICATION. POSITION OF TERMINAL MAY VARY.
8. Terminal numbers are shown as "XX" for CRP " TB Numbers to be decided by customer"

Drawing approval subject to valid vendor registration

				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad	Descp:420kV, 63kA, 4000A-SF6-CB Type:3AP2FI Dwg. Name:Schematic drawing	SO NO: Qty: =ZZA ++
				Prep.	MSR				
				Ckd.	SB				Drg No: (3)G71AHS-OA404-W0696 Sh. 13 14 Sh.
Issue	Remarks	Date	Name			ORIGINAL/REPLACEMENT FOR/REPLACED BY:			



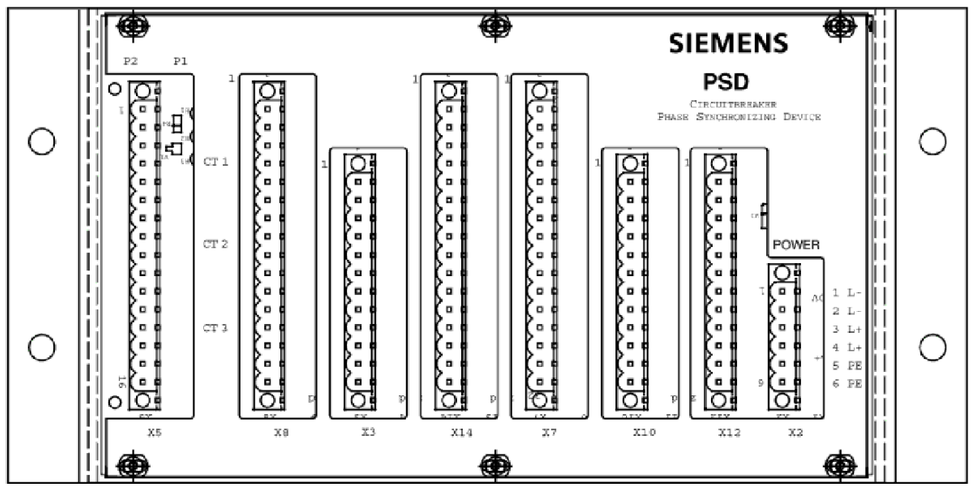
PSD General & mounting arrangement in CRP

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

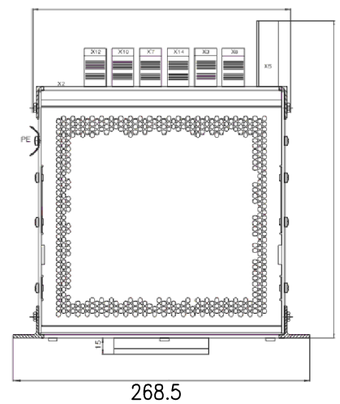
PSD Details. for CRP Manufacturer.
Length : 268.5
Heigth : 132.5
Depth : 288

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:59:05 +05'30'
Chief Engineer
Projects



Rear View for actual termination PSD.

Width -234mm



Depth in CRP
288mm

Plan View

Note :
1.Since our offered Controlled Switching Device type PSD 02 operates on SIEMENS own proprietary protocol, conformity to IEC 61850 will be achieved through a convertor, which will get MODBUS input from PSD port of RS 485 and same will be converted to IEC 61850.One no converter will be supplied with each PSD.

Drawing approval subject to valid vendor registration

				Date	19.02.2024	CLIENT:Transmission Corporation of Andhra Pradesh Limited	Siemens Ltd. AURANGABAD.	Descr : 420kV, 63kA, 4000A-SF6-CB	SO No : Qty:
				Prep	MSR	CONTRACTOR: As Applicable PROJECT: As Applicable		Work : 3AP2FI	
				Ckd.	SB	PO.NO.: As Applicable		Details : WIRING DRAWING	Drg. No:- (3)G71AHS-OA404-W0696 Sh. 14 14 Sh.
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-			

HO/ESD-Coord/9E 03-90

8566476/2024/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
	45xSTH3	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	-X1	34	A	O	1	STH3	K15A	-K75LA	21	
										K114	-Y1LA	A2		O	2	STH3	K114	-LB	2	A
										K15A	-X1	34	A	O	3	STH3	K15A	-S1LA	63	
											-K75LA	13								
										K125	-S1LA	64		O	4	STH3	K123A	-K75LA	A1	
										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	-LB	21	B
																	K304	-K10A	13	
										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
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 1
21 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

8566476/2024/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
	45xSTH3	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			
										K231	-S1LA	92		O	31	STH3	K231	-K16	A1	
																	K231	-LB	31	B
										K51	-LB	32	A	O	32	STH3	K51	-S1LA	193	
											-X3	26								
										K329	-S1LA	194		O	33	STH3				
										K329	-LB	34	A	O	34	STH3	K329	-S1LA	211	
										K331	-S1LA	212		O	35	STH3	K331	-K16A	A1	
																	K331	-LB	35	B
										H15A	-K9LA	14		O	36	STH3	H15A	-M LA	1	
										H16A	-M LA	2		O	37	STH3	H74A	-K9LA	43	
														O	38	STH3	H19	-R1LA	1	
																	H19	-LB	38	B
										H13	-R1LA	2		O	39	STH3				
											-LB	39								
										H13	-LB	40	A	O	40	STH3	H13	-F11LA	1	
											-X20	P								
										H13	-E2LA	2		O	41	STH3	H74	-LB	41	B
																	H13	-X20	N	
										K199A	-K75LA	32		O	42		K199A	-S1LA	42	
											-X1	47	B	O	43	STH3		-S1LA	51	
											-S1LA	52		O	44	STH3		-X1	43	A
											-LC	43	A	O	45	STH3		-S1LA	73	
											-X1	47	A							
											-S1LA	74		O	46	STH3		-LB	45	A
											-LB	DC5	A	O	DC5			-PTLA	1	
											-POWER SUPPLY									
											-PTLA	2		O	DC6					
														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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 2
21 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
	45xSTH3	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	-X1	35	A		O	1	STH3	K15A	-K75LB	21	
										K114	-Y1LB	A2			O	2	STH3	K114	-LC	2	B
											-LA	2						K114	-K9ALC	14	
										K15A	-X1	35	A		O	3	STH3	K15A	-S1LB	63	
											-K75LB	13									
										K125	-S1LB	64			O	4	STH3	K123B	-K75LB	A1	
										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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 3
21 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
	45xSTH3	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	-K9LB	14			O	36	STH3	H15B	-M LB	1		
										H16B	-M LB	2			O	37	STH3	H74B	-K9LB	43		
										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	8	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		
											-X1	47	A		O	43	STH3		-S1LB	51		
											-S1LB	52			O	44	STH3		-X1	44	A	
											-LA	46	B		O	45	STH3		-S1LB	73		
											-S1LB	74			O	46	STH3		-LC	45	A	
											-LA	DC5	A		O	DC5			-PTLB	1		
											-LC	DC5										
											-PTLB	2			O	DC6					
															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	19.02.2024	
Prep.	MSR	
Ckd.	SB	

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

Drg No: (3)G71AHS-OA404-T0696

Sh. 4
21 Sh.

8566476/2024/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
	45xSTH3	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	-X1	36	A		O	1	STH3	K15A	-K75LC	21	
										K114	-Y1LC	A2			O	2	STH3	K114	-LB	2	B
										K15A	-X1	36	A		O	3	STH3	K15A	-S1LC	63	
											-K75LC	13									
										K125	-S1LC	64			O	4	STH3	K123C	-K75LC	A1	
										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	19.02.2024
Prep.	MSR
Ckd.	SB

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

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 5
21 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
	45xSTH3	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			
										K329	-S1LC	194			O	33	STH3				
										K329	-LB	34	A		O	34	STH3	K329	-S1LC	211	
										K331	-S1LC	212			O	35	STH3	K331	-LB	35	B
										H55C	-K9LC	14			O	36	STH3	H15C	-M LC	1	
										H16C	-M LC	2			O	37	STH3	H74C	-K9LC	43	
										H19	-LB	38	A		O	38	STH3	H19	-R1	1	
											-B1	2						H19	-R1LC	1	
										H13	-R1LC	2			O	39	STH3	H13	-LB	39	B
										H13	-LB	40	A		O	40	STH3	H13	-F11LC	1	
											-X5	9									
										H13	-E2LC	2			O	41	STH3	H13	-E2	2	
																		H13	-LB	41	B
										K119C	-K75LC	32			O	42		K119C	-S1LC	42	
											-LA	45	A		O	43	STH3		-S1LC	51	
											-S1LC	52			O	44	STH3		-X1	45	A
											-LB	46	B		O	45	STH3		-S1LC	73	
											-S1LC	74			O	46	STH3		-X1	46	A
											-LB	DC5	A		O	DC5			-PTLC	1	
											-PTLC	2			O	DC6					

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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 6 / 21 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
	6xSTH3	1) EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION					TERMINAL STRIP -X0 LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION				
											-X2	29	B		O	1	STH3		-D1	1	
										K23A	-D1	2			O	2	STH3	K23A	-X2	12	A
											-X2	30	B		O	3	STH3		-D2	1	
										K23B	-D2	2			O	4	STH3	K23B	-X2	13	A
											-X2	31	B		O	5	STH3		-D3	1	
										K23C	-D3	2			O	6	STH3	K23C	-X2	14	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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 7 / 21 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)
	45xSTH3	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	-X1	30	A
										K12	-K10A	54			O	13	STH3	K12	-F22	4	
										K12	-K75LB	A2			O	14	STH3	K12	-K9LA	A2	
										K15A	-X1	12	B		O	30	STH3				
															O	31	STH3	K15A	-X1	34	B
										K15A	-X1	35	B		O	32	STH3				
															O	33	STH3	K15A	-X1	36	B
										K15A	-LA	3	A		O	34	STH3	K15A	-X1	31	B
										K15A	-LA	1	A								
										K15A	-LB	3	A		O	35	STH3	K15A	-X1	32	A
										K15A	-LB	1	A								
										K15A	-LC	3	A		O	36	STH3	K15A	-X1	33	B
										K15A	-LC	1	A								
											-POWER SUPPLY				O	37	STH3		-X1	38	A
											-X1	37	B		O	38	STH3		-X1	39	A
											-X1	38	B		O	39	STH3				
															O	41	STH3				
															O	42	STH3				
											-LA	44	B		O	43	STH3				
											-LB	44	B		O	44	STH3				
											-LC	44	B		O	45	STH3				
											-LC	46	B		O	46	STH3				
											-LB	43	A		O	47	STH3		-LA	43	A
											-LA	45	A								
															O	48	STH3				
															O	49	STH3				
															O	50	STH3				

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 19.02.2024
Prep. MSR
Ckd. SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 8
21 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
	2xCSTSN5U	1)
	45xSTH3	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
												O		51	STH3	
												O		52	STH3	
												O		53	STH3	
												O		54	STH3	
												O		55	STH3	
												O		56	STH3	
												O		57	STH3	
												O		58	STH3	
												O		59	STH3	
												O		60	STH3	
												O		61	STH3	
												O		62	STH3	
												O		63	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

				Date	19.02.2024
				Prep.	MSR
				Ckd.	SB
Issue	Remarks	Date	Name		

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty:
=ZZA
++
Drg No: (3)G71AHS-OA404-T0696
Sh. 9
21 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
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
INSERTABLE JUMPER
INSULATING WASHER
SHORT CIRCIUT LINK
SECTION INSULATING WASHER
COVER

Issue	Remarks	Date	Name

Date	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 10
21 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

8566476/2024/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 -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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 11
21 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	19.02.2024
Prep.	MSR
Ckd.	SB

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

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 12 21 Sh.

8566476/2024/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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 13
21 Sh.

8566476/2024/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 -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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 14
21 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

8566476/2024/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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 15
21 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)
	29xSTH3	EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION					TERMINAL STRIP -X2 LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
										J21	-F19	1			O	1	CSTSN5U				
										J22	-F19	3			O	2	CSTSN5U				
										K21	-F19	2			O	3	STH3				
										K22	-F19	4			O	4	STH3				
															O	5	STH3	K21	-F19	2	
															O	6	STH3	K21	-S21	13	
										K21	-K61	13			O	7	STH3	K21	-X2	26	B
											-K77	13									
															O	8	STH3	K21	-K77	13	
																		K21	-K61	23	
															O	9	STH3	K21	-K61	33	
																		K21	-K77	23	
															O	10	STH3	K21	-S22	21	
																		K21	-K77	33	
															O	11	STH3	K25R	-S13	B2	
										K23A	-K77	14			O	12	STH3				
										K23A	-X0	2	B								
										K23B	-K77	24			O	13	STH3				
										K23B	-X0	4	B								
															O	14	STH3	K23C	-K77	34	
																		K23C	-X0	6	B
										K27A	-LA	14	A		O	15	STH3				
										K23A	-K61	14			O	16	STH3				
										K27B	-LB	14	B		O	17	STH3				
										K23B	-K61	24			O	18	STH3				
										K27C	-LC	14	A		O	19	STH3				
										K23C	-K61	34			O	20	STH3				
										K22	-K77	A2			O	21	STH3	K22	-K12	A2	
										K22	-K10	14			O	22	STH3	K22	-X2	23	B
											-S22	14									
										K22	-K16	A2			O	23	STH3	K22	-X2	22	B
										K225	-LC	18	B		O	24	STH3	K225	-K10	A1	
										K219	-LK1	2			O	25	STH3	K219	-CTD1	5	
										K21	-LA	28	A		O	26	STH3	K21	-X2	7	B
											-K16	18									
											-S13	2			O	27	STH3				
															O	28	STH3		-K77	A1	
															O	29	STH3		-X0	1	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	19.02.2024
Prep.	MSR
Ckd.	SB

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

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 16
21 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)
	29xSTH3	EQUIPMENTWIRING

1	2	3	4	5	6	7	8	9	10	TERMINATION A/C DESTINATION/ITEM DESIGNATION		TERMINAL STRIP -X2 LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION
												O	30	STH3	-X0 3 A
												O	31	STH3	-X0 5 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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 17
21 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

8566476/2024/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)
	27xSTH3	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									
														O		27					
														O		28	STH3				
											-S13	3		O		29	STH3				
														O		30	STH3		-K88	A1	
														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 19.02.2024
Prep. MSR
Ckd. SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 18
21 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
	2xCSTSN5U	1)
	13xSTH3	EQUIPMENTWIRING

TERMINAL STRIP -X4

TERMINATION A/C DESTINATION/ITEM DESIGNATION				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		fixed link (4–5)	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	19.02.2024
				Prep.	MSR
				Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty:
=ZZA
++
Drg No: (3)G71AHS-OA404-T0696
Sh. 19
21 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
	5xCSTSN5U	1)
	6xSTH3	EQUIPMENTWIRING

TERMINAL STRIP -X5

TERMINATION A/C DESTINATION/ITEM DESIGNATION				LINK	NO.	TYPE	TERMINATION B/D DESTINATION/ITEM DESIGNATION			
					1	CSTSN5U	H11A	-F16	1	
					2	CSTSN5U	H31B	-F16	3	
H3	-X5	5	B		3	CSTSN5U	H51C	-F16	5	
					4	CSTSN5U	H71	-F16	N	
H51C	-F20	1			5	CSTSN5U	H3	-X5	3	A
H12 H72	-K9LA -F16	44 N1			6	STH3				
					7	STH3	H72 H12	-F20 -K9LC	3 44	
H13 H13	-X20 -LB	N 39	 B		8	STH3	H74 H13	-F20 -R1	4 2	
H51	-F11	1			9	STH3	H13	-LC	40	A
	-POWER SUPPLY	L			10	STH3				
	-POWER SUPPLY	N			11	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	19.02.2024
				Prep.	MSR
				Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696 Sh. 20 / 21 Sh.

8566476/2024/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
	40xSTH3	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	21			O	1	STH3				
										U2	-K10	22			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	83	
										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	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

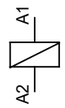
Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Terminal Plan

SO NO: Qty: =ZZA ++

Drg No: (3)G71AHS-OA404-T0696

Sh. 21
21 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	3.00			 NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS. TO BE CHECKED DURING ACCEPTANCE TESTS.
		=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
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
RESISTOR 100WATT 230VAC GIRISH EGO/VELICO/Eq	4.00			
		=ZZA++-R1	SPACE 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

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:59:32 +05'30'

Chief Engineer
Projects

Issue	Remarks	Date	Name		
				Date	19.02.2024
				Prep.	MSR
				Ckd.	SB

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

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

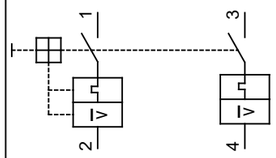
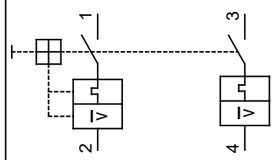
SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 1
10 Sh.

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
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
INDICATING LAMP 220 VDC AMBER SIEMENS/TEKNIC/LAPTRON/Eq	2.00		
		=ZZA++-H5 CTD 1 HEALTHY INDICATION	=WD&EFS/4.7
		=ZZA++-H6 CTD 2 HEALTHY INDICATION	=WD&EFS/5.7

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

For EPC Contracts Only

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 12:59:50 +05'30'

Chief Engineer
Projects

Drawing approval subject to valid vendor registration

Issue	Remarks	Date	Name		
				Date	19.02.2024
				Prep.	MSR
				Ckd.	SB

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

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

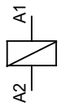
SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 2
10 Sh.

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
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
COIL 220VDC 1300W INSPROSS/SUBHNEEL/Eq	6.00		
		=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
IMPULSE COUNTER 220VDC 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

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

For EPC Contracts Only

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:00:04 +05'30'

Chief Engineer
Projects

Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.

Issue	Remarks	Date	Name		
				Date	19.02.2024
				Prep.	MSR
				Ckd.	SB

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

SIEMENS LTD.
Aurangabad

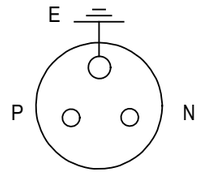
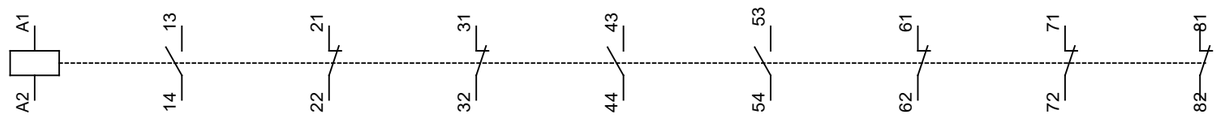
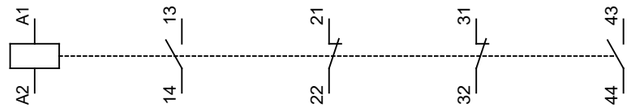
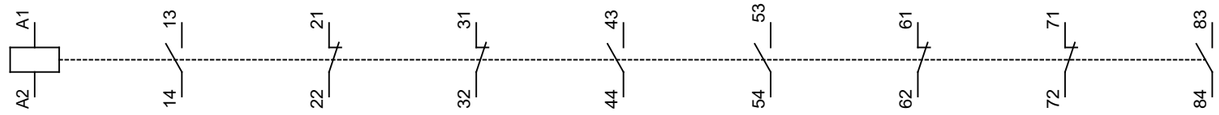
Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 3
10 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
SOCKET 240V 5A ANCHOR/MDS//Eq	1.00		
		=ZZA++-X20 SOCKET	=WD&EFS/8.7
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/7.3 =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 SUPPLY 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	5.00		
		=ZZA++-K10 GENERAL LOCKOUT	=WD&EFS/4.8 =WD&EFS/4.3 =WD&EFS/6.5 =WD&EFS/4.7 =WD&EFS/2.2 =WD&EFS/7.1 =WD&EFS/7.2
		=ZZA++-K10A GENERAL LOCKOUT	=WD&EFS/5.8 =WD&EFS/5.3 =WD&EFS/6.5 =WD&EFS/5.7 =WD&EFS/2.2 =WD&EFS/7.1 =WD&EFS/7.2
		=ZZA++-K75LA ANTI PUMPING DEVICE	=WD&EFS/2.5 =WD&EFS/2.6 =WD&EFS/2.3 =WD&EFS/2.3
		=ZZA++-K75LB ANTI PUMPING DEVICE	=WD&EFS/2.6 =WD&EFS/2.6 =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

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:00:23 +05'30'

Chief Engineer
Projects

Drawing approval subject to valid vendor registration

Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.

Issue	Remarks	Date	Name

Date 19.02.2024
Prep. MSR
Ckd. SB

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

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

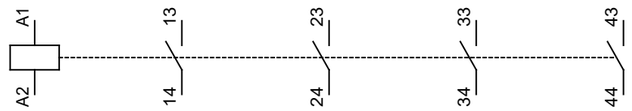
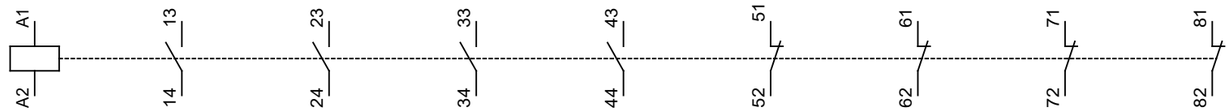
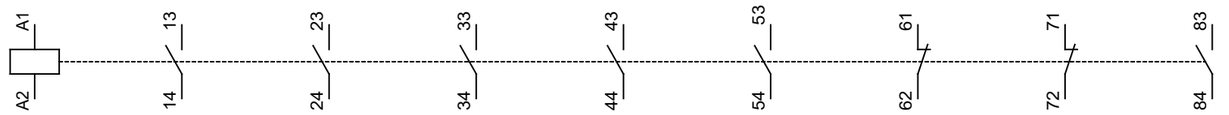
SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 4
10 Sh.

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
AUXILIARY CONTACTOR 4NO 220V DC SIEMENS/C&S/Eq	7.00		 NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS. TO BE CHECKED DURING ACCEPTANCE TESTS.
		=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
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/7.2 =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/7.2 =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/7.2 =WD&EFS/7.4 =WD&EFS/7.4 =WD&EFS/7.2
AUXILIARY CONTACTOR 4NO & ADD ON 2NO+2NC 220V DC SIEMENS/C&S	2.00		
		=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

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:00:38 +05'30'

Chief Engineer
Projects

Since the supply of terminal connectors is not in the scope of manufacturer as mentioned in the drawings, the EPC contractors shall be instructed to supply the same in line with CT/IVT/CVT requirement and compatibility.

Issue	Remarks	Date	Name		
				Date	19.02.2024
				Prep.	MSR
				Ckd.	SB

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

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

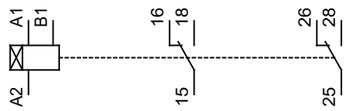
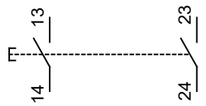
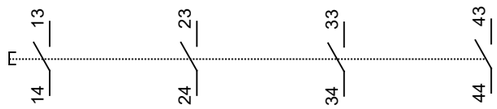
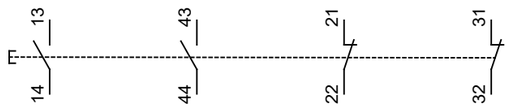
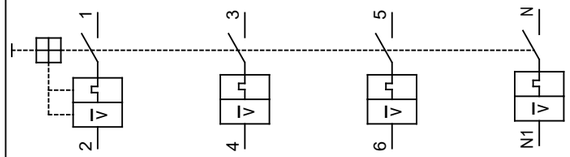
SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 5
10 Sh.

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
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/7.5
		=ZZA++-K16A ON DELAY TIMER	=WD&EFS/6.4 =WD&EFS/6.3 =WD&EFS/7.6
PUSH BUTTON RED 2NO SIEMENS/TEKNIC/LAPTRON	1.00		
		=ZZA++-S20 CLOSING	=WD&EFS/2.2
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

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:00:52 +05'30'

Chief Engineer
Projects

Drawing approval subject to valid vendor registration

Issue	Remarks	Date	Name		
				Date	19.02.2024
				Prep.	MSR
				Ckd.	SB

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

SIEMENS LTD.
Aurangabad

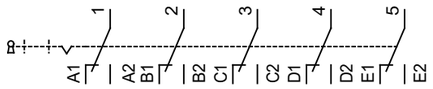
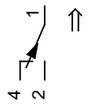
Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 6
10 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION / FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
SWITCH (LOCAL/REMOTE CONTROL) 5 POLE 2 WAY NON-LOCKABLE 16A 440VAC/DC Switron/Eq	1.00		 NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS. TO BE CHECKED DURING ACCEPTANCE TESTS.
		=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
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

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:01:07 +05'30'
Chief Engineer Projects

Issue	Remarks	Date	Name				
				Date	19.02.2024	Customer: Transmission Corporation of Andhra Pradesh Limited CONTRACTOR:As Applicable PROJECT:As Applicable PO.NO.:As Applicable	SIEMENS LTD. Aurangabad
				Prep.	MSR		
				Ckd.	SB		
						ORIGINAL/REPLACEMENT FOR/REPLACED BY:	

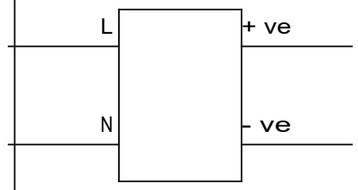
Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 7
10 Sh.

8566476/2024/EEMRT-ENE51

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION	FUNCTIONS	TOTAl ITEM REPRESENTATION AND OTHER TECHNICAL DATA
ILLUMINATION LAMP LED 240VAC 9W HAVELLS/PHILIPS/Eq	4.00			 NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS. TO BE CHECKED DURING ACCEPTANCE TESTS.
		=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
DIODE DSEC30-06A IXYS Make Dual Common Cathode ON SEMICONDUCTOR	3.00			
		=ZZA++-D1	DIODE FOR PSD	=WD&EFS/4.4
		=ZZA++-D2	DIODE FOR PSD	=WD&EFS/4.6
		=ZZA++-D3	DIODE FOR PSD	=WD&EFS/4.7
VOLTAGE ADAPTOR PSB2/24/24/1 230VAC/24VDC CONNECTWELL/Eq	1.00			
		=ZZA++-POWER SUPPLY	VOLTAGE ADAPTER	=WD&EFS/8.5

TANDU SUDEEVAN N KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:01:22 +05'30'
Chief Engineer
Projects

Drawing approval subject to valid vendor registration

Issue	Remarks	Date	Name		
				Date	19.02.2024
				Prep.	MSR
				Ckd.	SB

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

SIEMENS LTD.
Aurangabad

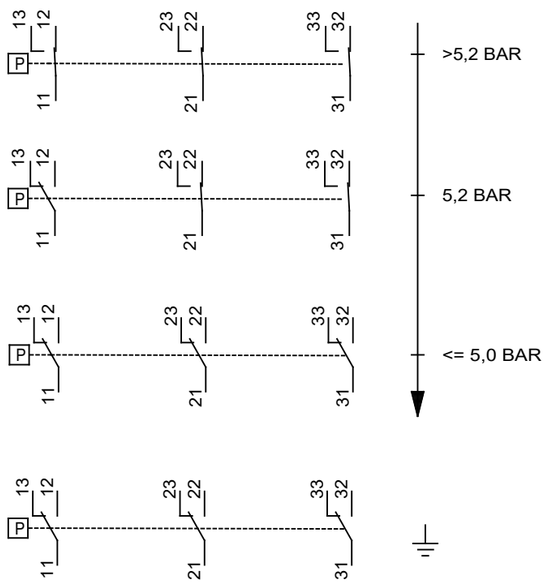
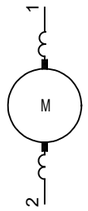
ORIGINAL/REPLACEMENT FOR/REPLACED BY:

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 8
10 Sh.

DESIGNATION / TECHNICAL DATA	QTY.	ITEM DESIGNATION	FUNCTIONS	TOTAI ITEM REPRESENTATION AND OTHER TECHNICAL DATA
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
MOTOR UNIVERSAL 1PH 220VDC/AC 500W KPT/AGNI/Eq	3.00			 Drawing approval subject to valid vendor registration
		=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

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

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:01:39 +05'30'

Chief Engineer
Projects

Issue	Remarks	Date	Name		
				Date	19.02.2024
				Prep.	MSR
				Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 9
10 Sh.

ORIGINAL/REPLACEMENT FOR/REPLACED BY:

DESIGNATION / TECHNICAL DATA ITEM DESIGNATION FUNCTIONS	QTY.	TOTAI ITEM REPRESENTATION AND OTHER TECHNICAL DATA
AUXILIARY SWITCH 20NO+19NC+4Wi IMAX/SHIRKE	3.00	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/10.6 =WD&EFS/2.3 =WD&EFS/2.5 =WD&EFS/9.6 =WD&EFS/10.8 =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/10.7 =WD&EFS/2.4 =WD&EFS/2.6 =WD&EFS/9.6 =WD&EFS/10.8 =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/10.7 =WD&EFS/2.5 =WD&EFS/2.7 =WD&EFS/9.6 =WD&EFS/10.8 =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/9.2 =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

For EPC Contracts Only

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR

Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:01:55 +05'30'

Chief Engineer
Projects

Issue	Remarks	Date	Name

Date	19.02.2024
Prep.	MSR
Ckd.	SB

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

SIEMENS LTD.
Aurangabad

Descp:420kV, 63kA, 4000A-SF6-CB
Type:3AP2FI
Dwg. Name:Equipment List

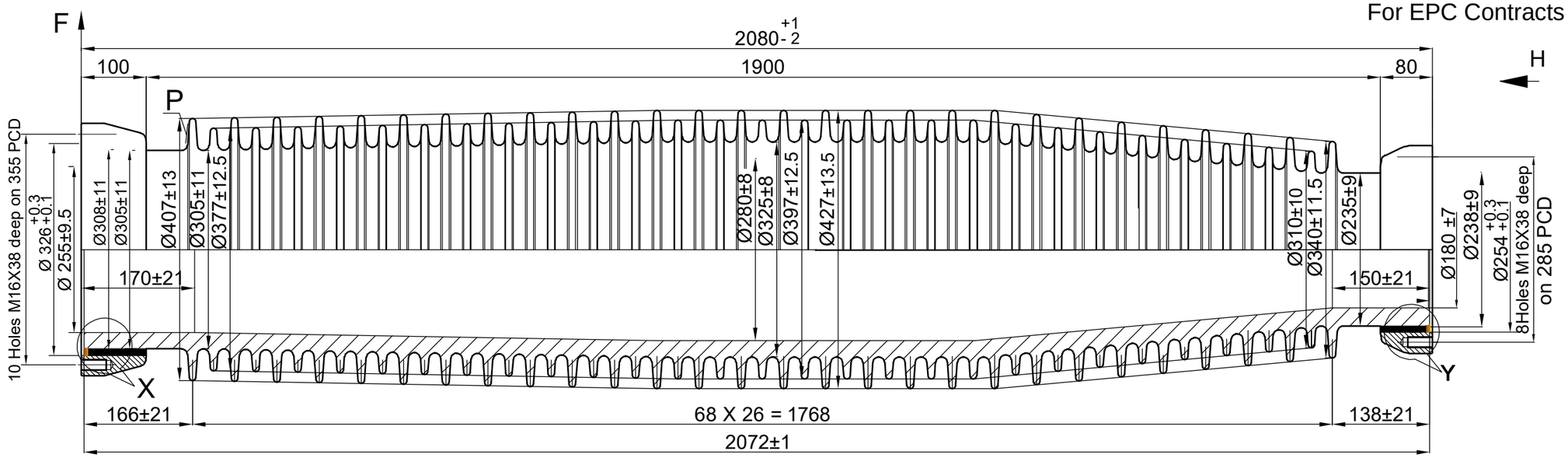
SO NO: Qty:

Drg No: (3)G71AHS-OA404-E0696

Sh. 10
10 Sh.

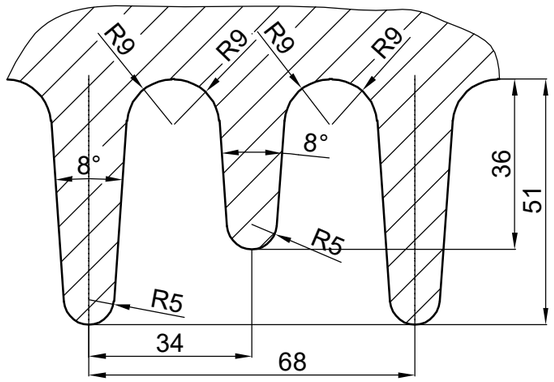
ORIGINAL/REPLACEMENT FOR/REPLACED BY:

For EPC Contracts Only



NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.



Shed Profile

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:02:11 +05'30'

Chief Engineer
Projects

Ground clearance of 8000 mm shall be maintained during erection. Plinth height of 300 mm shall be maintained

MECHANICAL CHARACTERISTICS:

1. Mechanical routine test: Pressure test 30 bar for 1 min
2. Design pressure 10 bar
3. 4 way bend test F = 8440N for 10 sec/90 deg.
4. Min. bending breaking load F > 12058N for 1 min.

ELECTRICAL PARAMETERS FOR COMPLETE CB:

1. 1 MIN. P.F. withstand voltage = 610 kV
2. Lightning Impluse withstand voltage =1425 kVp

Min. creepage distance : 5450 mm
All unspecified dimensional tolerances are as per IEC 62155

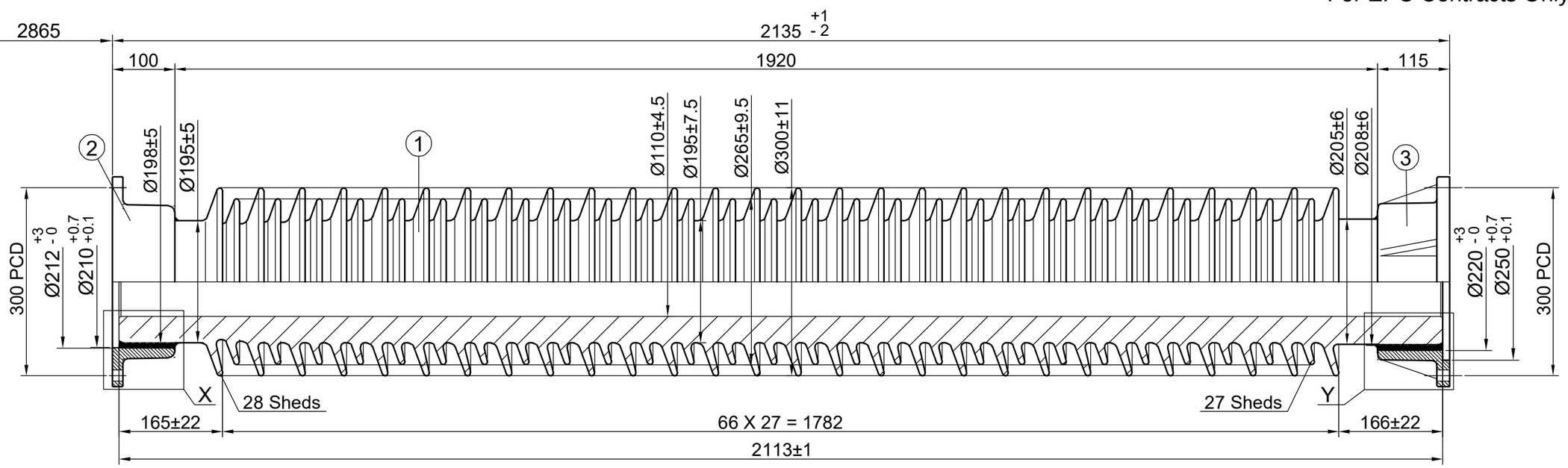
Drawing approval subject to valid vendor registration

For Reference

				Date	19.02.2024	CLIENT:Transmission Corporation of Andhra Pradesh Limited CONTRACTOR: As Applicable PROJECT: As Applicable PO.NO.: As Applicable	SIEMENS AURANGABAD	Descr : 420kV Circuit Breaker Type : 3AP2FI Details : CHAMBER INSULATOR(25mm/kV)	SO No : Qty:
				Prep	MSR				
				Ckd.	SB				Drg. No:- (3)G71AHS-OA404-C0696- Sh. 1 3 Sh.
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-			

HO/ESD-Coord/9E 03-90

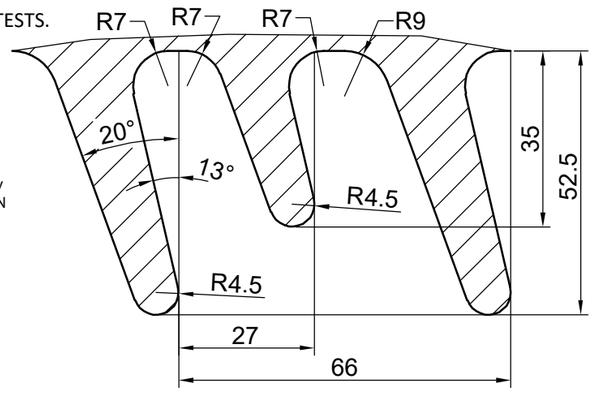
For EPC Contracts Only



NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:02:38 +05'30'
Chief Engineer
Projects



Shed Profile

Ground clearance of 8000 mm shall be maintained during erection. Plinth height of 300 mm shall be maintained

MECHANICAL CHARACTERISTICS:
1. Mechanical routine test: Pressure test 30 bar / 1 min
2. Design pressure 10 bar
3. 4 way bend test F = 4900N for 10 sec./90 deg.
4. Min. bending breaking load F - 7000N for 1 min.

ELECTRICAL PARAMETERS FOR COMPLETE CB:
1. 1 MIN. P.F. withstand voltage = 610 kV
2. Lightning Impluse withstand voltage = 1425 kVp

Min. creepage distance : 5889 mm
All unspecified dimensional tolerances are as per IEC 62155

Drawing approval subject to valid vendor registration

For Reference

Issue	Remarks	Date	Name			
				Date	09.05.2023	
				Prep	MSR	
				Ckd.	SB	
				Norm.		Original / Replacement for /Replaced by :-

SIEMENS
AURANGABAD

Descr : 420kV Circuit Breaker
Type : 3AP2FI - W/O PIR
Details : TOP SUPPORT INSULATOR(25mm/kV)

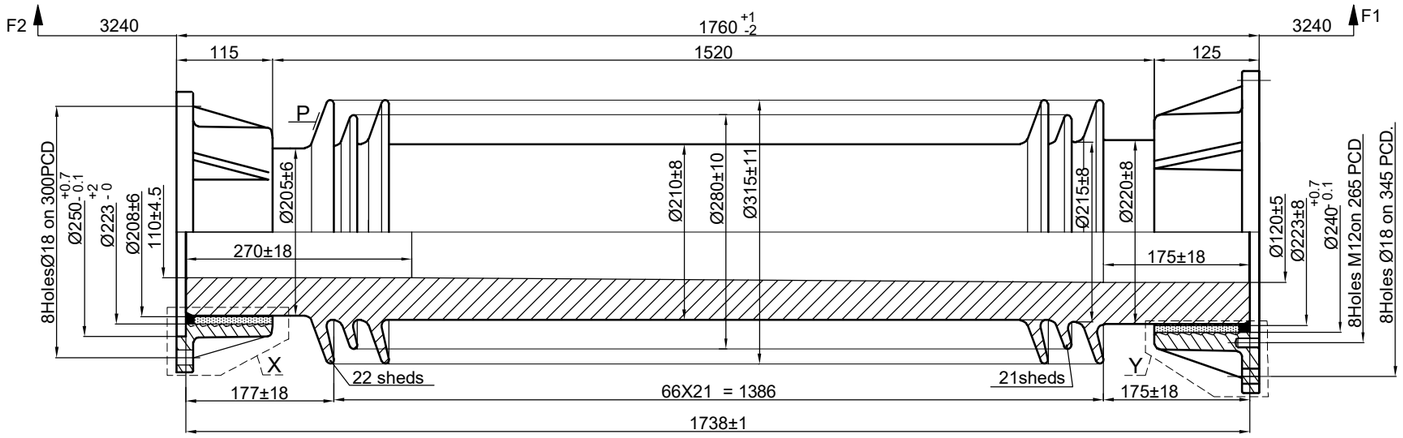
SO No : Qty:

Drg. No:- (3)G71AHS-OA404-C0696-

Sh. 2
3 Sh.

HQ/ESD-Coord/9E 03-90

For EPC Contracts Only



MECHANICAL CHARACTERISTICS:

1. Mechanical routine test: Pressure test 30 bar / 1 min
2. Design pressure 10 bar
3. 4 way bend test F1 = 4900Nm for 10 sec.
4. 4 way bend test F2 = 6300Nm for 10 sec.
5. Min. bending breaking load F1 - 7000N for 1 min.
6. Min. bending breaking load F2 - 9000N for 1 min.

ELECTRICAL PARAMETERS FOR COMPLETE CB:

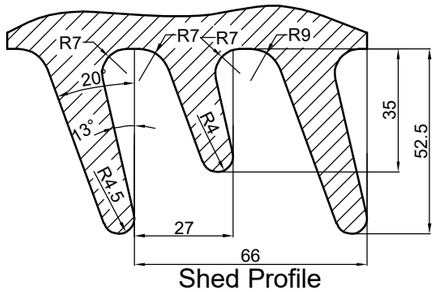
1. 1 MIN. P.F. withstand voltage = 610 kV
2. Lightning Impluse withstand voltage = 1425 kVp

Min. creepage distance : 4769 mm

All unspecified dimensional tolerances are as per IEC 62155

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.



Shed Profile

TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:02:55 +05'30'
Chief Engineer
Projects

Ground clearance of 8000 mm shall be maintained during erection. Plinth height of 300 mm shall be maintained

For Reference

Issue	Remarks	Date	Name			
				Date	09.05.2023	
				Prep	MSR	
				Ckd.	SB	
				Norm.		Original / Replacement for /Replaced by :-

SIEMENS
AURANGABAD

Descr : 420kV Circuit Breaker
Type : 3AP2FI - W/O PIR
Details : BOTTOM SUPPORT INSULATOR(25mm/kV)

SO No : Qty:

Drg. No:- (3)G71AHS-OA404-C0696-

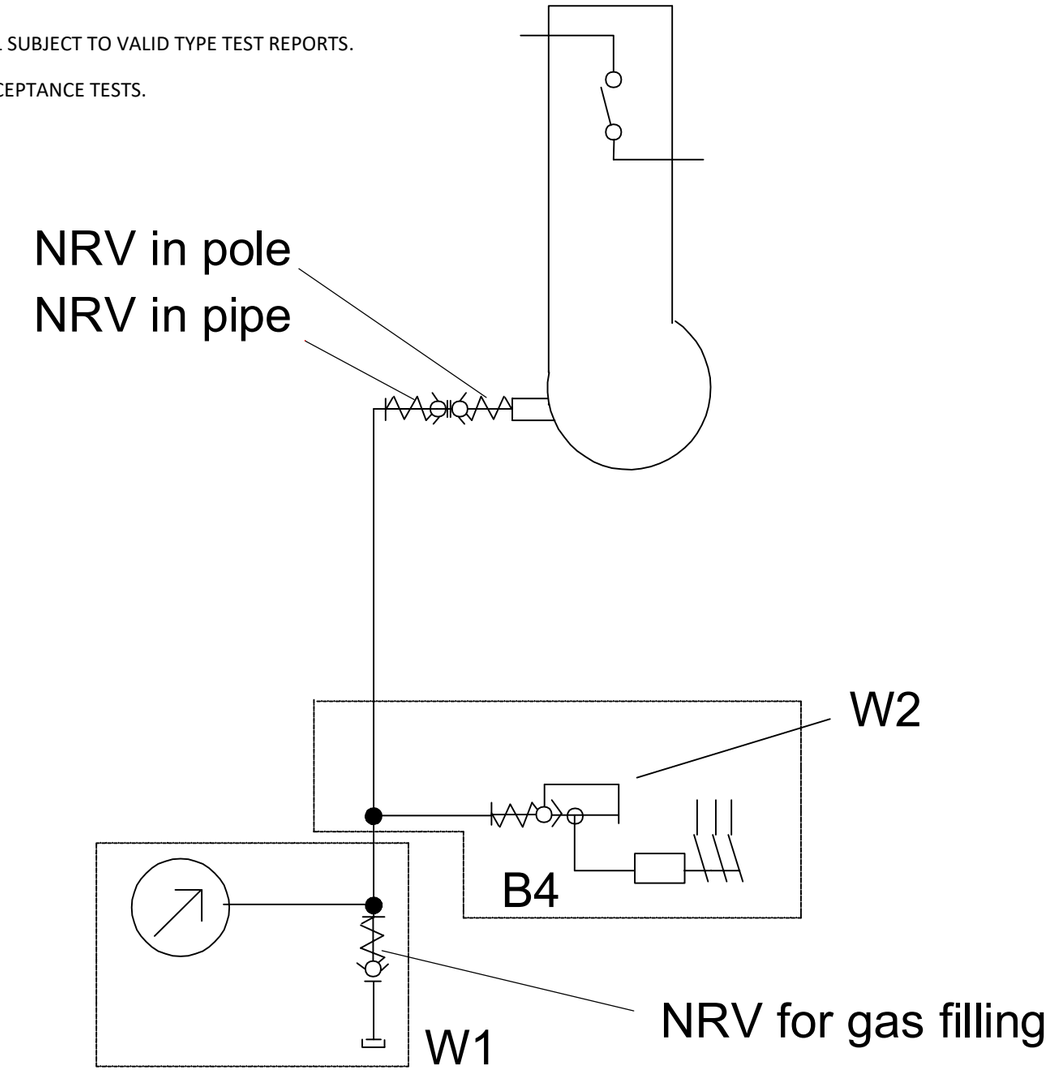
Sh. 3
3 Sh.

HO/ESD-Coord/9E 03-90

NOTE : DRAWING APPROVAL SUBJECT TO VALID TYPE TEST REPORTS.

TO BE CHECKED DURING ACCEPTANCE TESTS.

For EPC Contracts Only



TANDU SUDEEVAN KUMAR
Digitally signed by TANDU SUDEEVAN KUMAR
Date: 2024.03.11 13:03:13 +05'30'
Chief Engineer
Projects

Drawing approval subject to valid vendor registration

B4 SF6 DENSITY MONITOR (RED/GREEN BAND)
(AMBIENT TEMPERATURE COMPENSATED)

W1 FILLING FLANGE

W2 TEST CONNECTION (OPTIONAL)

MA PRESSURE GAUGE (BARS ABSOLUTE)
(TEMPERATURE COMPENSATED)

Ground clearance of 8000 mm shall be maintained during erection. Plinth height of 300 mm shall be maintained

				Date	19.02.2024	CLIENT:Transmission Corporation of Andhra Pradesh Limited	Siemens Ltd.	Descr : 420kV, 63kA, 4000A-SF6-CB	SO No : Qty:
				Prep	MSR	CONTRACTOR: As Applicable		Type : 3AP2FI-W/O PIR	
				Ckd.	SB	PROJECT: As Applicable PO.NO.: As Applicable	AURANGABAD	Details : SF6 GAS LINE DIAGRAM	Drg. No:- (3)G71AHS-OA404-S0696 Sh. 1 1 Sh.
Issue	Remarks	Date	Name	Norm.		Original / Replacement for /Replaced by :-			

HO/ESD-Coord/9E 03-90