

GENERAL NOTES:-

1. ALL DIMENSIONS ARE IN MM.
2. THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, FLOOR MOUNTED AND COMPARTMENTALISED.
3. THE PANEL SHALL BE SUITABLE FOR 3Ø, 4W, 415V AC, 50 HZ SUPPLY.
4. THE PANEL SHALL BE FABRICATED WITH
 - A. LOAD BEARING MEMBERS - 2.0 MM. CRCA.
 - B. NON LOAD BEARING MEMBERS - 1.6 MM. CRCA.
 - C. EQUIPMENT MOUNTING PLATE - 2.0 MM. CRCA
 - D. UNDRILLED REMOVABLE GLAND PLATE - 3.0 MM. CRCA.
5. RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
6. THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
7. BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
8. BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES - RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
9. EARTH BUS SHALL BE PROVIDED THROUGHOUT THE PANEL LENGTH.
10. CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - A. AC VOLTAGE CABLES 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - B. CURRENT CARRYING CABLES 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - C. THE RESPONSIBILITY FOR CORRECTNESS OF THE WIRING IS BLACK
 - D. GREEN DNGNER SPECIFICATION 2.5 SQ MM GREEN

Electrical Superintending Engineer
(Planning and Engineering)

Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidvut Bhawan Patna-800021

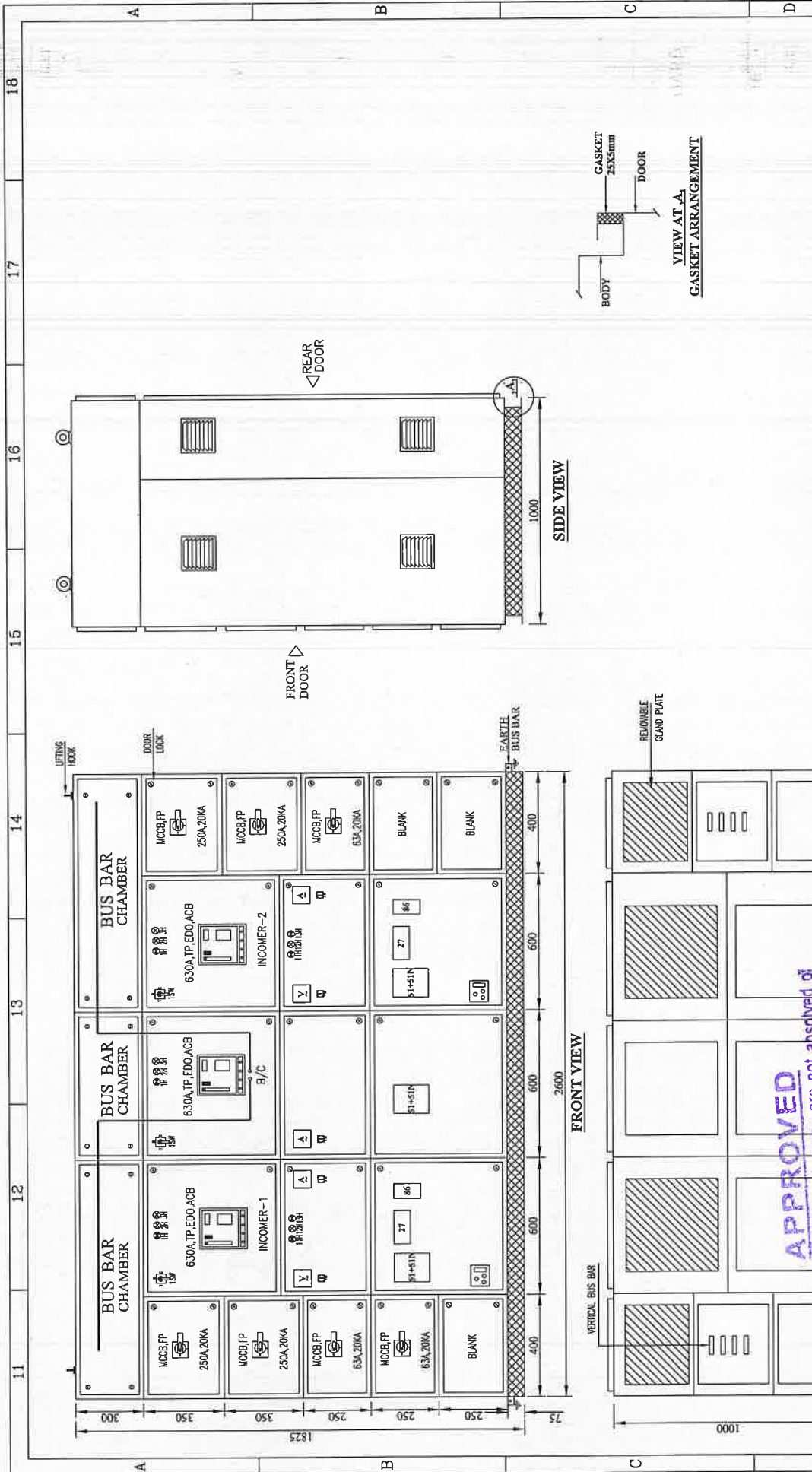
2 A JUL 2022

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11. THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
- | | |
|-----------------------------|---------|
| A. BETWEEN PHASE TO PHASE | - 25 MM |
| B. BETWEEN PHASE TO NEUTRAL | - 25 MM |
| C. BETWEEN PHASE TO EARTH | - 25 MM |
| D. BETWEEN NEUTRAL TO EARTH | - 25 MM |
12. NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
13. DANGER PLATE SHALL BE PROVIDED IN EACH BUSBAR CHAMBER, FRONT AND BACK .
14. PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
15. CABLE ENTRY AS PER G.A. DRAWING.
16. PAINT SHADE (POWDER COATED)RAL 7032

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)										
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED										
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD										
NIT No. :	13/PR/BSPTCL/2021										
ASTAN Asian Switchgear Pvt. Ltd.				MANUFACTURER :		NAME		DATE		TITLE : 415V MAIN SWITCH BOARD GENERAL NOTE	
				Asian Switchgear Pvt. Ltd. Plot No. 10, Sector - 10, Kharar (UP) Pin:515224,India Ph:91522410004, Fax: 9151522410002 www.asianswitchgear.com E-Mail: asianapp@gmail.com		DRAWN		17.05.2022			
						CHECKED		17.05.2022			
						APPROVED					
				DRAWING NUMBER : ASPL/LIPL/22076A							
				REV.01		---		REV.03		---	
REV.02		---		REV.04							
RELEASED FOR	☐ PRELIMINARY		☒ APPROVAL		☐ CONSTRUCTION		SHEET NO. 2 OF 6				

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CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)									
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED									
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD									
NIT No. :	13/PR/BSPTCL/2021									
 MANUFACTURER : Asian Switchgear Pvt. Ltd. Plot No. 13, Phase II, Industrial Area, Kharagpur (G.P.) Pin-751013, Dist. Bhubaneswar, Odisha Ph:0674-2511004, Fax: 0674-2511005 E: info@asianswitchgear.com www.asianswitchgear.com B-Block, Industry@gsatril.com ASGPA	DRAWN		NAME	DATE	TITLE : 415V MAIN SWITCH BOARD GENERAL ARRANGE DIAGRAM			SCALE N.T.S.		
	CHECKED		GANESH	17.05.2022				REV.03		
	APPROVED		GANESH	17.05.2022	REV.04					
	DRAWING NUMBER : ASPL/LIPL/22076A		REV.01		--	REV.03				
			REV.02		--	REV.04				
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APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

BOTTOM VIEW

Electrical Superintending Engineer
Bihar State Power Transmission Company Limited
Patna-800021

PHASE : 1x50x08 Sq. mm./Eq. Cu.
NEUTRAL : 1x40x05 Sq. mm./Eq. Cu.
I/C & B/C FOR 630A

8 JUL 2022

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3Ø,4W 50Hz,415V, 630A,TPN COPPER BUS BAR

FEEDER No.	1F1	1F2	1F3	1F4	2F1/2F2/2F3	3F1,3F2,3F3
FEEDER RATING	250A	250A	63A	63A	630A	630A
FEEDER DESCRIPTION	OIL FILTRATION SOCKET	415V ACDB	LIGHTING TRAFO.-1	SPARE	INCOMER-1	BUS COUPLER
CABLE SIZE IN mm2	2X3.5CX300Sqmm XLPE	2X3.5CX300Sqmm XLPE	2X3.5CX300Sqmm XLPE	2X3.5CX300Sqmm XLPE	2X3.5CX300Sqmm XLPE	2X3.5CX300Sqmm XLPE
SCHEME DRG MODULE	BC1	BC1	BC1	BC1	BC1	BC1

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 Subject to the condition that you are not to be held responsible for the correctness of the materials supplied as per specification
 Electrical Superintending Engineer
 (Planning and Engineering)
 Bihar State Power Transmission Company Limited
 Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)

CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED

PROJECT: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD

NIT No.: 13/PR/BSPTCL/2021

MANUFACTURER:
 Asian Switchgear Pvt. Ltd.
 Plot No. 13, 24/1000A, Patna-800021
 www.asianswitchgear.com
 E-Mail: asiansg@gmail.com

NAME: GANESH
 DRAWN: GANESH
 CHECKED: GANESH
 APPROVED: GANESH

DATE: 17.05.2022
 17.05.2022

TITLE :
 415V MAIN SWITCH BOARD
 SINGLE LINE DIAGRAM

DRAWING NUMBER : ASP/LIPL/22076A

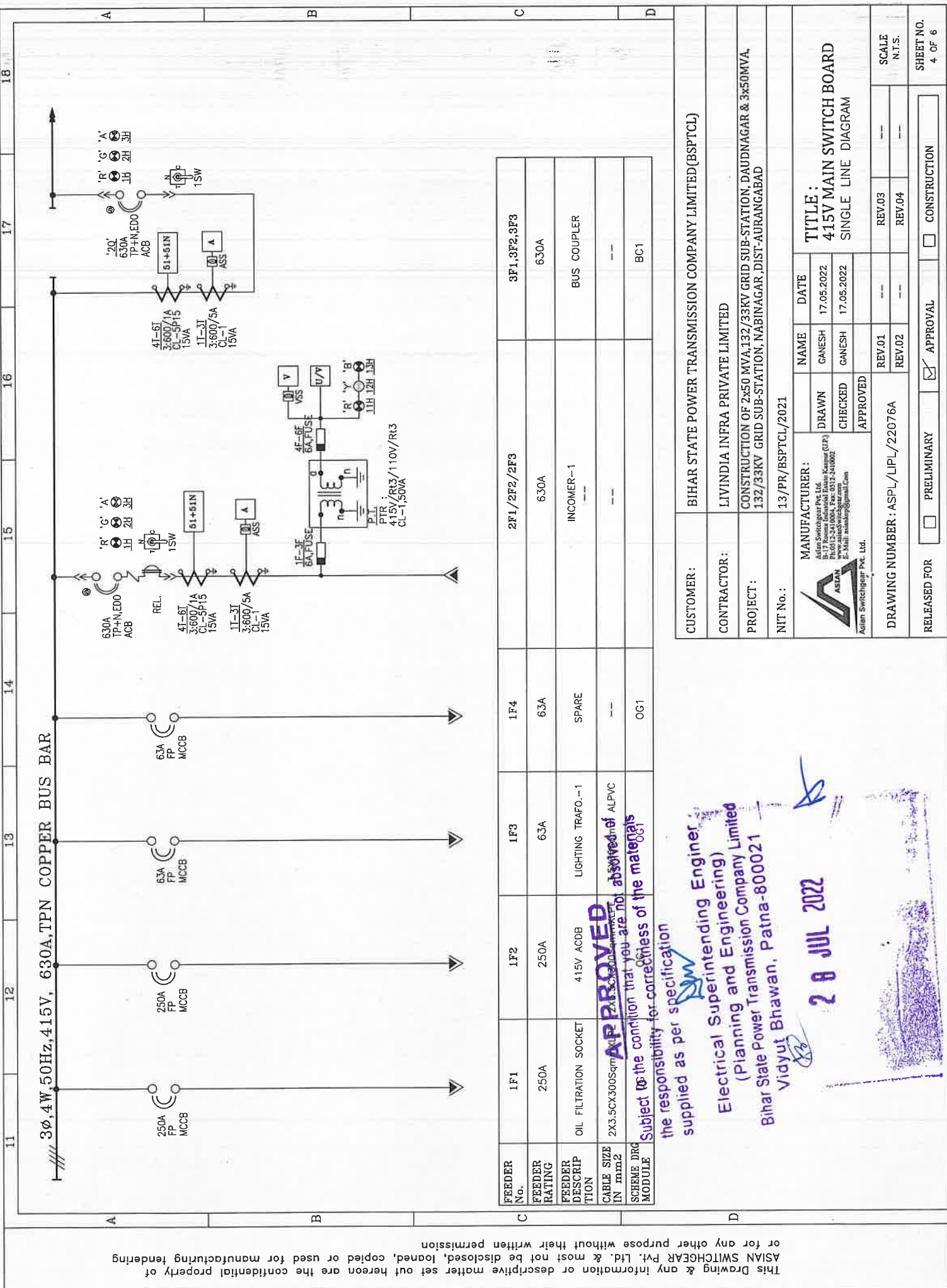
REV.01
 REV.02

REV.03
 REV.04

SCALE
 N.T.S.

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SHEET NO.
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FEEDER No.	2F1/2F2/2F3	1F1	1F2	1F3
FEEDER RATING	630A	250A	250A	63A
FEEDER DESCRIP TION	INCOMER-2	415V ACDB	SPARE	LIGHTING TRAF0.-2
CABLE SIZE IN mm2		2X3.5CX300SqmmXLPE	--	3.5X35Sqmm ALPVC
SCHEME DRG MODULE		OG1	OG1	OG1

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Patna-800021

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)									
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED									
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD									
NIT No. :	13/PR/BSPTCL/2021									
 ASLAN Switchgear Pvt. Ltd. B-179, 3rd Ring Road, Indira Nagar, Kanpur (U.P.) Tel:0512-2410004, Fax: 0512-2410002 E-mail: aslan@aslan.com Web: www.aslanindia.com			MANUFACTURER:		NAME		DATE		TITLE : 415V MAIN SWITCH BOARD SINGLE LINE DIAGRAM	
			DRAWN		GANESH		17.05.2022			
			CHECKED		GANESH		17.05.2022			
DRAWING NUMBER: ASPL/LIPL/22076A					APPROVED					
					REV.01		REV.03		SCALE	
					REV.02		REV.04		N.T.S.	
RELEASED FOR	☐ PRELIMINARY		☒ APPROVAL		☐ CONSTRUCTION		SHEET NO. 5 OF 6			

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28 JUL 2022

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

APPROVED
the responsibility for correctness of the materials
supplied as per specification

SR. NO.	ITEM DISCRPTION	QTY	UNIT	MAKE
A	INCOMING AND B/C :-			
1	ACB 630A 3P-50KA EDO O/L & S/C TM BASED RELEASE, MC-250V DC, CC-250VDC, ST-250V DC	3	NOS.	C&S/HPL
2	BREAKER CONTROL SWITCH SPRING RETURN WITH 2NO	3	NOS.	KAYCEE
3	NUMERICAL NON DIRECTIONAL 3O/C+1E/F, DRAW OUT, CTR-1/A, AUX.-250V DC	3	NOS.	C&S/JVS/REPUTED
4	NUMERICAL UNDER VOLTAGE RELAY, SENSING-110V AC, AUX.-250V DC	2	NOS.	C&S/JVS/REPUTED
5	MASTER TRIP RELAY (HAND RESET), (3NO+2NC) AUX SUPPLY 250V DC	2	NOS.	C&S/JVS/REPUTED
6	MECHANICAL LOCK FOR ACB WITH KEY-(3LOCKS+2KEY)	1	NOS.	C&S/HPL
7	AUX CONTACTOR 2NO+ 2NC 250V DC	1	NOS.	C&S/HPL
B	INCOMING METERING :-	2	SET.	
1	ANALOG AMMETER CTR-600/1A, CL-1,96*96SQ.MM. 90DEG	3	NOS.	RISHABH
2	AMP SELECTOR SWITCH 6A	3	NOS.	VAISHNO
3	ANALOG VOLTMETER, PTR-415V/RT3/110V/RT3, 0-500V, 96*96SQ.MM	2	NOS.	RISHABH
4	VOLT SELECTOR SWITCH 6A	2	NOS.	VAISHNO
5	POTENTIAL TRANSFORMER, 415V/RT3/110/RT3. CL-0.5.50VA, DRY TYPE	6	NOS.	V-CON/REPUTED
6	INDICATING LIGHT LED TYPE, 22.5MM. R.Y.B.ON/OFF	12	NOS.	VAISHNO
7	CURRENT TRANSFORMER, 600/1A CL-1 15VA, RESIN CAST	9	NOS.	AE
8	CURRENT TRANSFORMER, 600/1A CL-5P15 15VA, RESIN CAST	9	NOS.	AE
9	CONTROL FUSE BASE 20/2A HRC	20	NOS.	C&S/HPL
10	AM SELECTOR SWITCH	1	NOS.	C&S/HPL
11	ON DELAY TIMER	3	NOS.	SELEC
C	OUTGOING :-			
1	MCCB 4P 250A 20KA THERMAL MAGNETIC BASED RELEASE	4	Nos.	C&S/HPL
2	ROTARY HANDEL	4	Nos.	C&S/HPL
3	MCCB 4P 63A 20KA THERMAL MAGNETIC BASE RELEASE	3	Nos.	C&S/HPL
4	ROTARY HANDEL	3	Nos.	C&S/HPL
5	THERMOSTATE 30-110 DEGREE CET. WITH SPACE HEATER-60W	2	Nos.	ELCONE/REPUTED
6	SWITCH & SOCKET, 3PIN .6A, 230V AC	2	Nos.	ANCHOR/REPUTED
7	BULB HOLDER WITH MOUNTING	2	Nos.	ANCHOR/REPUTED
8	DOOR SWITCH	2	Nos.	REPUTED/REPUTED
9	ANCHOR TO THE CONNECTION LAMP 230V AC, 10W	2	Nos.	ANCHOR/REPUTED

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)

CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED

PROJECT: CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD

NIT No.: 13/PR/BSPTCL/2021



MANUFACTURER:
Asian Switchgear Pvt. Ltd.
Ph: 0312-2410004, Fax: 0312-2410002
www.asianswitchgear.com
E-Mail: asiansg@gmail.com

DRAWN: GANESH
CHECKED: GANESH
APPROVED: GANESH

DATE: 17.05.2022
17.05.2022

TITLE:
415V MAIN SWITCH BOARD
BILL OF MATERIALS

DRAWING NUMBER: ASPL/LIPL/22076A

REV.01
REV.02
REV.03
REV.04

SCALE
N.T.S.

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SHEET NO.:
6 OF 6



ASIAN SWITCHGEAR PVT. LTD.

B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.)
www.asianswitchgear.com
Email: asianknp@gmail.Com

Asian Switchgear Pvt. Ltd.

DRAWING FOR APPROVAL

PANEL NAME :	415V ACDB
CLIENT	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)
CONTRACTOR	LIVINDIA INFRA PRIVATE LIMITED
PROJECT.	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
AGREEMENT NO:	13 & 14 dated 24.09.2021
NIT No.	13/PR/BSPTCL/2021
QTY.	2Nos.

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. Plot No. 17, Rooma Industrial Estate Kanpur (UP) Ph:0512-2410004, Fax:0512-2410002 www.asianswitchgear.com E-Mail: asianknp@gmail.Com	DRAWN	NAME	DATE	TITLE:
	CHECKED	GANESH	17.05.2022	415V ACDB
	APPROVED	GANESH	17.05.2022	TITLE SHEET
		REV.01	---	REV.03
DRAWING NUMBER : ASPL/LIPL/22076B		REV.02	---	REV.04
RELEASED FOR		☐ PRELIMINARY ☒ APPROVAL		SCALE
		☐ CONSTRUCTION		N.I.S.
				SHEET NO.
				1 OF 10

GENERAL NOTES:-

- ALL DIMENSIONS ARE IN MM.
- THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, FLOOR MOUNTED AND COMPARTMENTALISED.
- THE PANEL SHALL BE SUITABLE FOR 3Ø, 4W, 415V AC, 50 HZ SUPPLY.
- THE PANEL SHALL BE FABRICATED WITH
 - LOAD BEARING MEMBERS - 2.0 MM. CRCA.
 - NON LOAD BEARING MEMBERS - 1.6 MM. CRCA.
 - EQUIPMENT MOUNTING PLATE - 2.0 MM. CRCA
 - UNDRILLED REMOVABLE GLAND PLATE - 3.0 MM. CRCA.
- RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
- THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
- BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
- BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
- EARTH BUS SHALL BE PROVIDED THROUGHOUT THE PANEL LENGTH.
- CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - AC VOLTAGE CIRCUIT 5 SQ MM RED, YELLOW, BLUE, BLACK
 - CURRENT CIRCUIT 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - AC CONTROL CIRCUIT 1.5 SQ MM RED, BLACK
 - GROUNDING as per specification 2.5 SQ MM GREEN

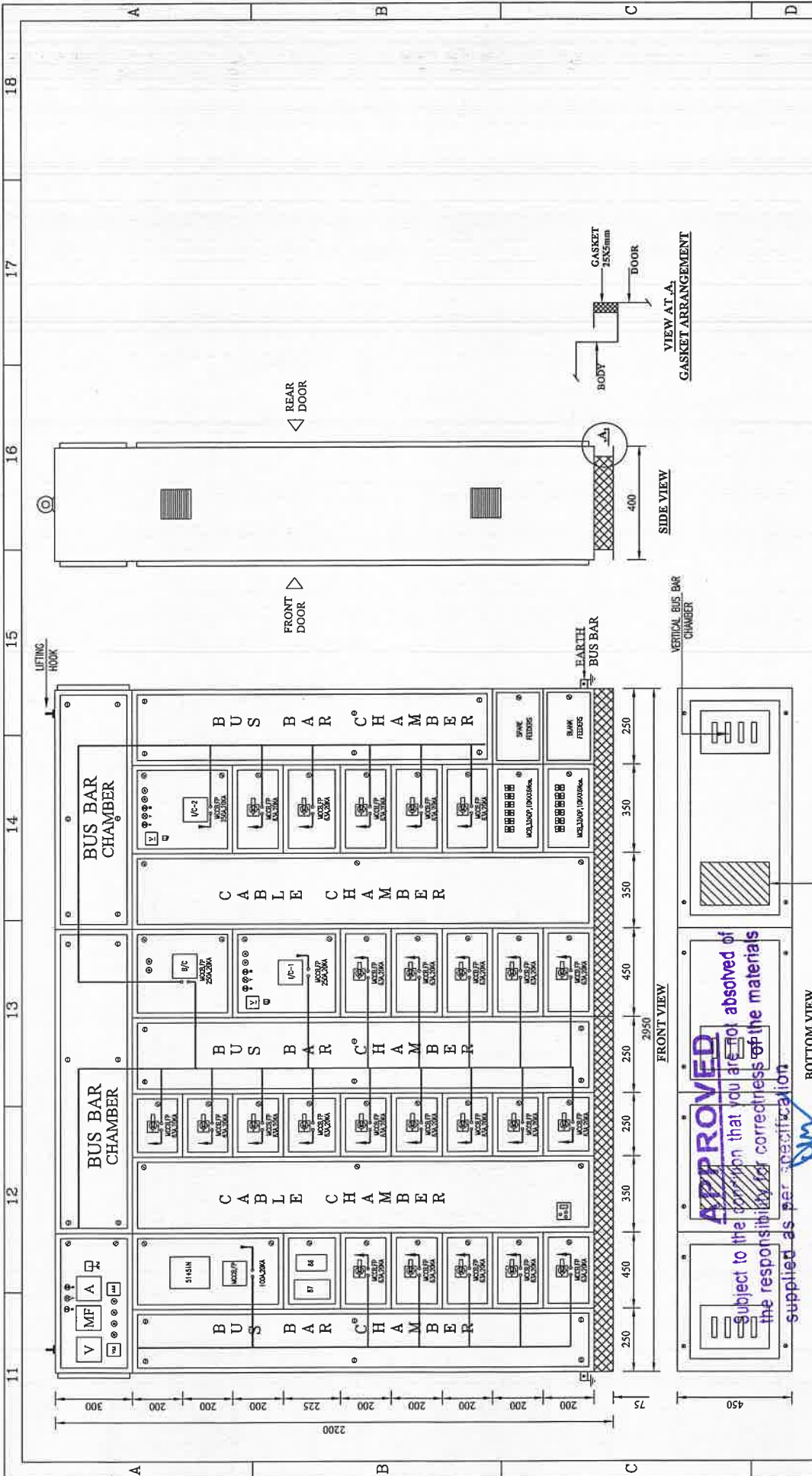
- THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
 - BETWEEN PHASE TO PHASE - 25 MM
 - BETWEEN PHASE TO NEUTRAL - 25 MM
 - BETWEEN PHASE TO EARTH - 25 MM
 - BETWEEN NEUTRAL TO EARTH - 25 MM
- NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
- DANGER PLATE SHALL BE PROVIDED IN EACH BUSBAR CHAMBER, FRONT AND BACK .
- PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
- CABLE ENTRY AS PER G.A. DRAWING.
- PAINT SHADE (POWDER COATED) RAL 7032

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
to Vidyut Bhawan, Patna-800021

20 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)				
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED				
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD				
NIT No.:	13/PR/BSPTCL/2021				
 Asian Switchgear Pvt. Ltd. B-17 Booda Industrial Estate Kharagpur (Jharkhand) Ph: 0312-2410004, Fax: 0312-2410002 E-Mail: marketing@asura.com		MANUFACTURER:	NAME	DATE	TITLE:
		DRAWN	GANESH	17.05.2022	415V ACDB
		CHECKED	GANESH	17.05.2022	GENERAL NOTE
		APPROVED			
DRAWING NUMBER : ASPL/LIPL/220768		REV.01	---	REV.03	---
		REV.02	---	REV.04	---
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					SHEET NO. 2 OF 10

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REVISIONS CAND PLATE		BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)									
CONTRACTOR:		LIVINDIA INFRA PRIVATE LIMITED									
PROJECT:		CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD									
NIT No.:		13/PR/BSPTCL/2021									
 Asian Switchgear Pvt. Ltd. Plot-512-2410004, Ex: 0512-2410001 www.asianswitchgear.com E-Mail: asianinf@asiantcl.com		MANUFACTURER:		DRAWN		NAME		DATE		TITLE:	
				CHECKED		GANESH		17.05.2022		415V ACDB	
				APPROVED						GENERAL ARRANGE DIAGRAM	
DRAWING NUMBER :		ASPL/LIPL/220768									
REV.01		REV.02		REV.03		REV.04		SCALE		N.T.S.	
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2023-07-01 10:00

Electrical Superintending Engineer
(Planning and Engineering)
Patna-800021

MAIN BUSBARS SIZE FOR 132KV

PHASE : 1x25x08 Sq. mm./Eq. Cu.

NEUTRAL : 1x20x05 Sq. mm./Eq. Cu.

EARTH : 1x320x06 Sq. mm./Eq. Cu.

28 JUL 2022

Electrical Superintending Engineer
(Planning and Engineering)
MAIN BUSBAR SIZE FOR Transmission Company Limited
Patna-800021

PHASE : 1x25x08 Sq. mm./Eq. Cu.
NEUTRAL : 1x20x05 Sq. mm./Eq. Cu.
EARTH : 1x20x05 Sq. mm./Eq. Cu.

28 JUL 2022

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Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

[illegible]

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidvut Bhawan Patna-800021

12

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPCTL)										
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED										
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD										
NIT No. :	13/PR/BSPCTL/2021										
 MANUFACTURER : Asian Switchgear Pvt. Ltd. Plot No 12-2-241/004, K. Kharwar (I.P.3) Plot No 12-2-241/004A, Fec. 0511-2410002. www.asianswitchgear.com E-Mail : marketing@aspl.com	DRAWN		NAME		DATE		TITLE : 415V ACDB SINGLE LINE DIAGRAM				
	CHECKED		GANESH		17.05.2022						
	APPROVED		GANESH		17.05.2022						
	DRAWING NUMBER : ASPL/LIPL/22076B						REV.01		REV.03		SCALE
							REV.02		REV.04		N.T.S.
RELEASED FOR	☐ PRELIMINARY		☒ APPROVAL		☐ CONSTRUCTION		SHEET NO. 4 OF 10				

DRAWING NUMBER : ASPL/LIPL/22076B		REV.01	REV.03	SCALE N.T.S.
		REV.02	REV.04	
RELEASED FOR		☐ PRELIMINARY ☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 4 OF 10

[illegible]

29 JUL 2022

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)													
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED													
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD													
NIT No. :	13/PR/BSPTCL/2021													
 Asian Switchgear Pvt. Ltd.	MANUFACTURER :		NAME		DATE		TITLE :			SINGLE LINE DIAGRAM				
	Asian Switchgear Pvt. Ltd. B-13, Karama Industrial Estate, Karama (L.P.) Ph:012-2410004, Fax: 012-2410002 E-Mail: marketing@asgindia.com		DRAWN		17.05.2022		415V ACDB							
			CHECKED		17.05.2022									
			APPROVED											
DRAWING NUMBER : ASPL/LIPL/220769							REV.01		--		REV.03		--	
							REV.02		--		REV.04		--	
											SCALE		N.T.S.	
RELEASED FOR	☐ PRELIMINARY		☒ APPROVAL					CONSTRUCTION		SHEET NO.		5 OF 10		

This Drawing & any information or descriptive matter set out herein are the confidential property of ASIAN SWITCHGEAR PVT. LTD. & must not be disclosed, loaned, copied or used for manufacturing tendering or for any other purpose without their written permission

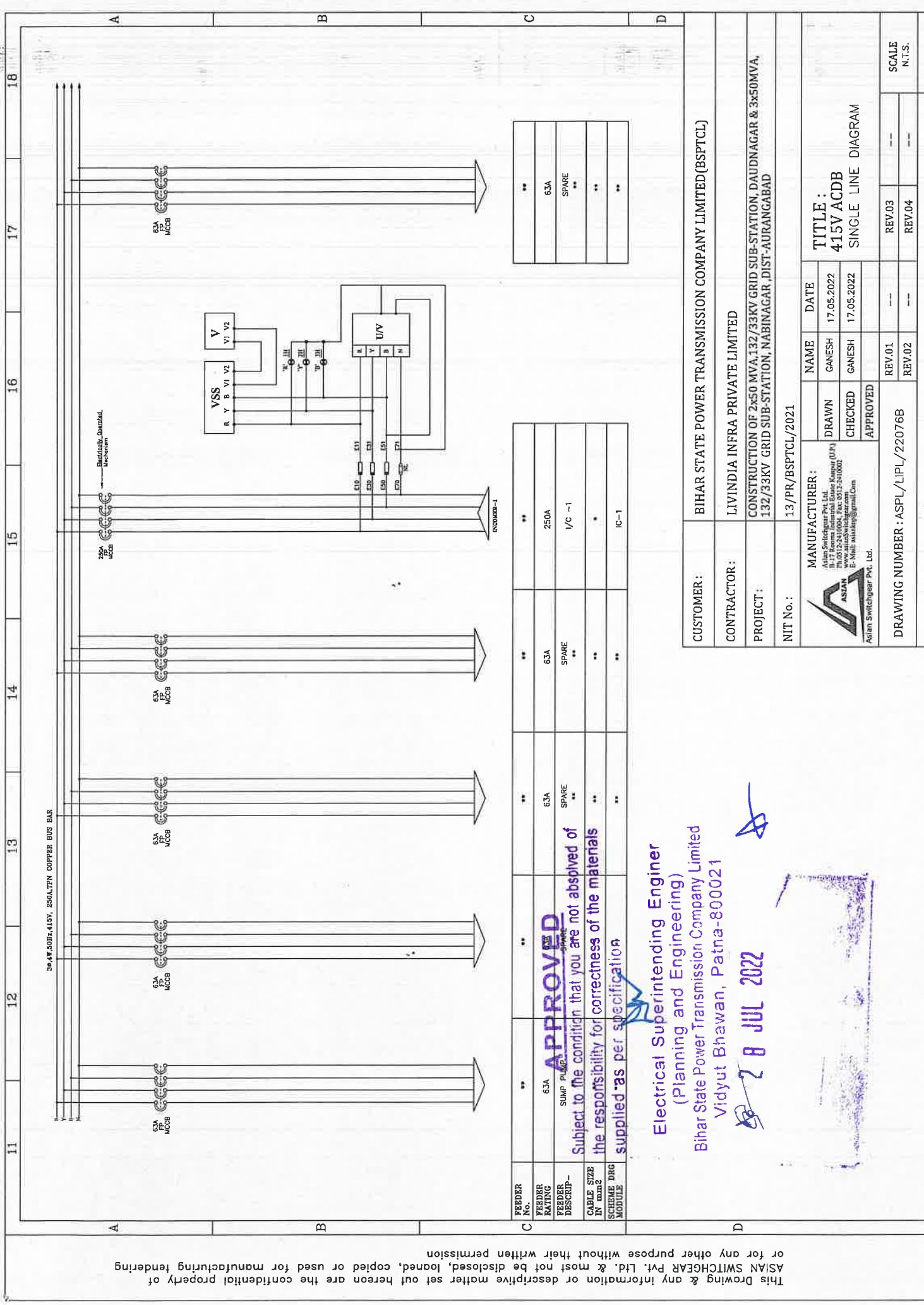
FEEDER No.	**	**	**	**	**
FEEDER RATING	63A	63A	63A	63A	63A
FEEDER DESCRIP-	SUMP PUMP	SPARE	SPARE	SPARE	SPARE
CABLE SIZE IN mm ²	**	**	**	**	**
SCHEME DRG MODULE	**	**	**	**	**

APPROVED
Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

20 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD
NIT No.:	13/PR/BSPTCL/2021
MANUFACTURER:	ASIAN SWITCHGEAR PVT. LTD. B-171, Switchgear Park, Ind. Estate, Kankar, Patna-800021 Ph: 0512-2410004, Fax: 0512-2410002 www.asianswitchgear.com E-Mail: asianinfo@gmail.com
NAME	GANESH
DATE	17.05.2022
DRAWN	GANESH
CHECKED	GANESH
APPROVED	
TITLE:	415V ACDB SINGLE LINE DIAGRAM
REV.01	---
REV.02	---
REV.03	---
REV.04	---
DRAWING NUMBER:	ASPL/LIPL/22076B
SCALE	N.T.S.



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FEEDER No.	11	12	13	14	15	16	17	18
FEEDER RATING	63A	63A	63A	63A	250A	63A	63A	63A
FEEDER DESCRIP-	SUMP PUMP	SPARE	SPARE	SPARE	I/C -1	SPARE	SPARE	SPARE
CABLE SIZE IN mm2	16	16	16	16	16	16	16	16
SCHEME DRG MODULE	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

28 JUL 2022

ASIAN

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)

CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED

PROJECT: CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD

NIT No.: 13/PR/BSPTCL/2021

MANUFACTURER:
Asian Switchgear Pvt. Ltd.
B-171, Switchgear Park, Ind. Estate, Kankar Bagh, Patna-800021
Ph: 0512-2410004, Fax: 0512-2410002
www.asianswitchgear.com
E-Mail: asianinfo@gmail.com

NAME: GANESH
DATE: 17.05.2022
DRAWN: GANESH
CHECKED: GANESH
APPROVED: GANESH

TITLE:
415V ACDB
SINGLE LINE DIAGRAM

DRAWING NUMBER: ASPL/LIPL/22076B

REV.01
REV.02
REV.03
REV.04

SCALE
N.T.S.

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FEEDER No.	11	12	13	14	15	16	17	18
FEEDER RATING	63A	63A	63A	63A	250A	63A	63A	63A
FEEDER DESCRIP-	SUMP PUMP	SPARE	SPARE	SPARE	I/C -1	SPARE	SPARE	SPARE
CABLE SIZE IN mm2	16	16	16	16	16	16	16	16
SCHEME DRG MODULE	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

28 JUL 2022

ASIAN

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)

CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED

PROJECT: CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD

NIT No.: 13/PR/BSPTCL/2021

MANUFACTURER:

ASIAN
Asian Switchgear Pvt. Ltd.
B-171, Switchgear Park, Indraprastha, New Delhi-110028
Ph: 011-26110004, Fax: 011-26110002
www.asianswitchgear.com
E-Mail: asian@asianswitchgear.com

NAME

DATE

TITLE:

415V ACDB

SINGLE LINE DIAGRAM

DRAWING NUMBER: ASPL/LIPL/22076B

SCALE
N.T.S.

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FEEDER No.	11	12	13	14	15	16	17	18
FEEDER RATING	63A	63A	63A	63A	250A	63A	63A	63A
FEEDER DESCRIP-	SUMP PUMP	SPARE	SPARE	SPARE	I/C -1	SPARE	SPARE	SPARE
CABLE SIZE IN mm2	16	16	16	16	16	16	16	16
SCHEME DRG MODULE	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)

CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED

PROJECT: CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD

NIT No.: 13/PR/BSPTCL/2021

MANUFACTURER:
ASIAN SWITCHGEAR PVT. LTD.
B-171, Switchgear Park, Indraprastha, New Delhi-110028
Ph: 011-26110004, Fax: 011-26110002
www.asianswitchgear.com
E-Mail: asian@asianswitchgear.com

NAME: GANESH
DATE: 17.05.2022
DRAWN: GANESH
CHECKED: GANESH
APPROVED: GANESH

TITLE:
415V ACDB
SINGLE LINE DIAGRAM

DRAWING NUMBER: ASPL/LIPL/22076B

SCALE
N.T.S.

REV.01
REV.02
REV.03
REV.04

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FEEDER No.	11	12	13	14	15	16	17	18
FEEDER RATING	63A	63A	63A	63A	250A	63A	63A	63A
FEEDER DESCRIP-	SUMP PUMP	SPARE	SPARE	SPARE	I/C -1	SPARE	SPARE	SPARE
CABLE SIZE IN mm2	16	16	16	16	16	16	16	16
SCHEME DRG MODULE	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1	IC-1

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)

CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED

PROJECT: CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD

NIT No.: 13/PR/BSPTCL/2021

MANUFACTURER:

ASIAN
Asian Switchgear Pvt. Ltd.
B-171, Switchgear Park, Ind. Estate, Kankar, Patna (U.P.)
Ph: 0512-2410004, Fax: 0512-2410002
www.asianswitchgear.com
E-Mail: asian@asianswitchgear.com

NAME

DATE

TITLE:

415V ACDB

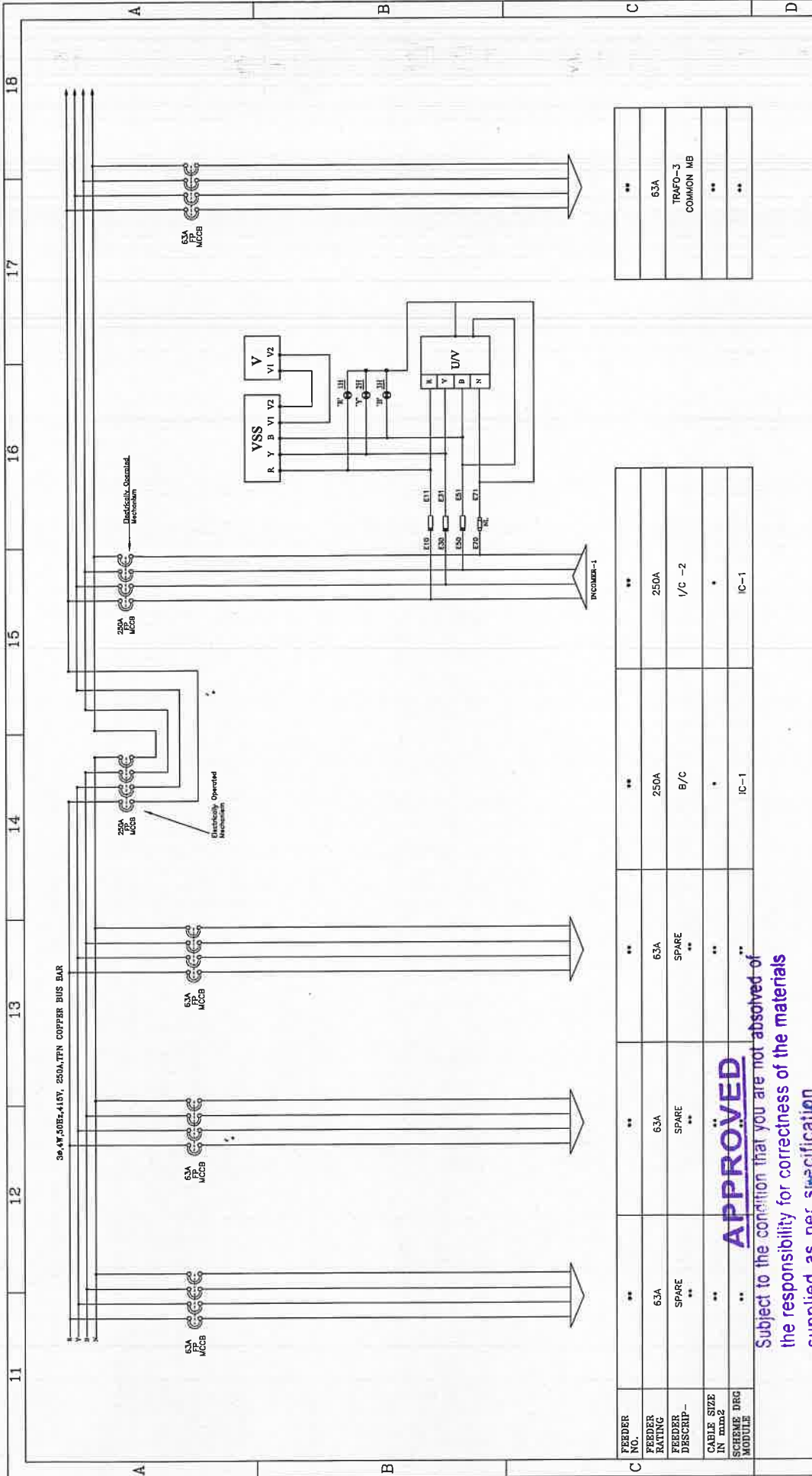
SINGLE LINE DIAGRAM

DRAWING NUMBER: ASPL/LIPL/22076B

SCALE

N.T.S.

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FEEDER NO.	**	**	**	**	**
FEEDER RATING	63A	63A	250A	250A	250A
FEEDER DESCRIP-	SPARE	SPARE	B/C	1/C -2	IC-1
CABLE SIZE IN mm2	**	**	*	*	IC-1
SCHEME DRG MODULE	**	**	IC-1	IC-1	IC-1

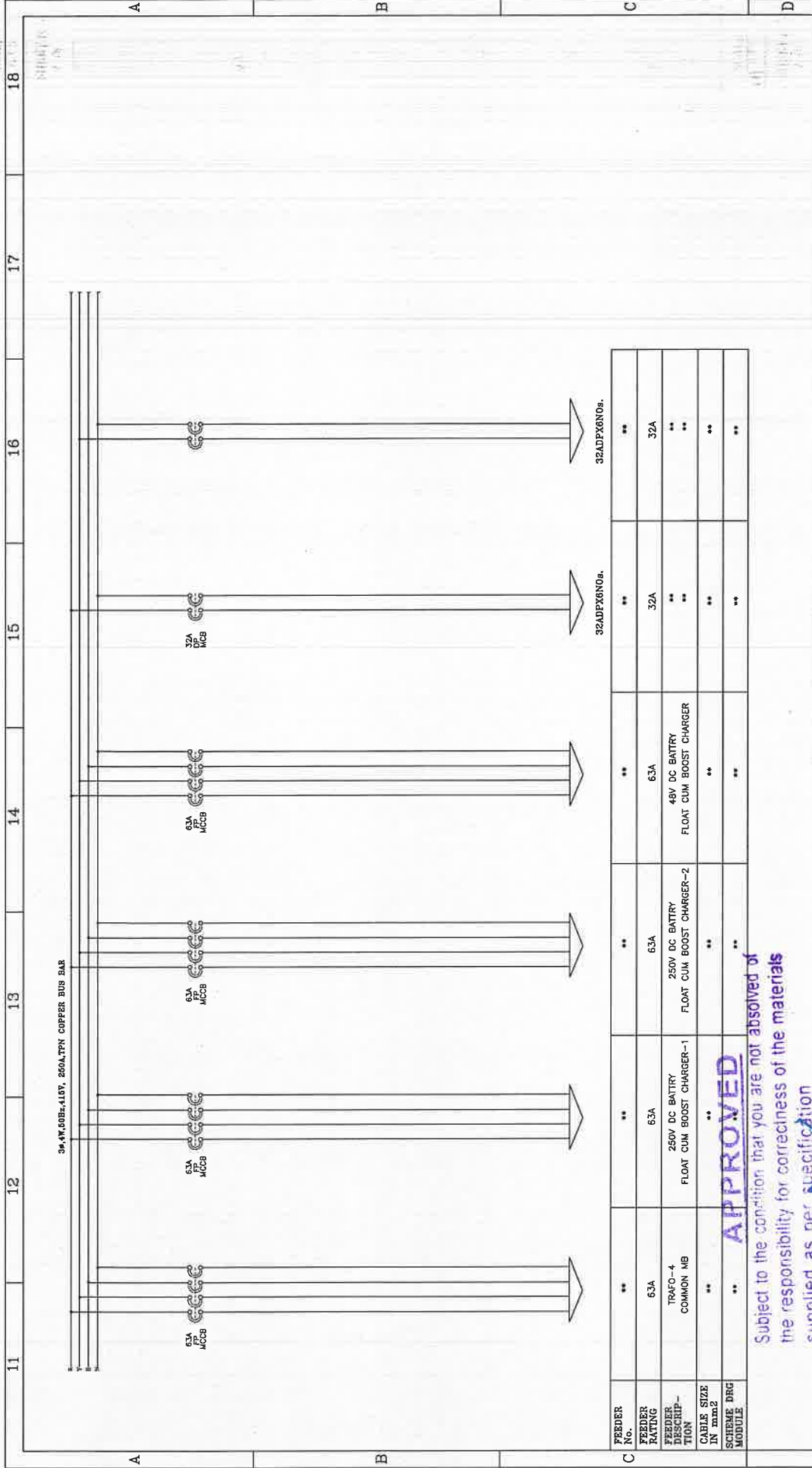
Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		NAME	DATE	TITLE:
Asian Switchgear Pvt. Ltd. B-17 Poonma Industrial Estate Kanpur (UP) Ph: 0512-2410004, Fax: 0512-2410002 E-Mail: asiainf@rediffmail.com		GANESH	17.05.2022	415V ACDB
DRAWN		CHECKED	APPROVED	SINGLE LINE DIAGRAM
ASIAN		ASIAN	ASIAN	
DRAWING NUMBER: ASPL/LIPL/22076B		REV.01	REV.02	REV.03
				REV.04
				SCALE
				NT.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO.
				7 OF 10

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Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
		MANUFACTURER:		DATE
		DRAWN	NAME	17.05.2022
		CHECKED	GANESH	17.05.2022
		APPROVED		
DRAWING NUMBER : ASP/LIPL/22076B		REV.01	REV.02	REV.03
		---	---	---
RELEASED FOR		APPROVAL		CONSTRUCTION
				SCALE N.T.S.
				SHEET NO. 8 OF 10

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SR. NO.	ITEM DESCRIPTION	QTY	UNIT	MAKE
A	INCOMING :-			
1	MCCB 100A FP 20KA THERMAL MAGNETIC RELEASE	1	NO.	C&S
2	MOTOR OPERATOR 250V DC	1	NO.	C&S
3	MCCB 250A FP 20KA THERMAL MAGNETIC RELEASE I/C AND B/C	3	NOS.	C&S
4	MOTOR OPERATOR 250V DC	3	NO.	C&S
5	SHUNT TRIP COILE FOR MCCB	2	NO.	C&S
6	AUX CONTACT FOR MCCB	4	NO.	C&S
7	NUMERICAL NON DIRECTIONAL 30/C+1E/F ,DRAW OUT, CTR/1A, AUX-250V DC	1	NO.	C&S/VS/REPUTED
8	TRIPLE POLE STATIC HIGH IMPEDENCE DIFFERENTIAL RELAY CTR/1A, AUX-250V DC	1	NO.	C&S/VS/REPUTED
9	UNDER VOLTAGE RELAY(BASE MOUNTED) SENSING-415V AC	2	NOS.	MINILEC/L&T/REPUTED
10	UNDER VOLTAGE RELAY(BASE MOUNTED), SENSING-110V AC	1	NOS.	MINILEC/L&T/REPUTED
11	MASTER TRIP RELAY (HAND RESET), (3NO+2NC) AUX SUPPLY 250V DC	1	NOS.	C&S/VS/REPUTED
B	INCOMING METERING :-			
1	ANALOG AMMETER CTR-100/1A, CL-1,96*96SQ.MM. 90DEG	1	NO.	SET,
2	AMP SELECTOR SWITCH 6A	1	NO.	AE
3	ANALOG VOLT METER, CL-1, 415V AC, 0-500V, 96*96SQ.MM. 90DEG	2	NO.	VAISHNO
4	ANALOG VOLT METER, PTR-415V/RT3/110V/RT3, 0-500V, 96*96SQ.MM	1	NO.	AE
5	VOLT SELECTOR SWITCH 6A	3	NO.	VAISHNO
6	MULTIFUNCTION METER, 3PH 4W, CTR/1A, 110V AC FLUSH MOUNTED,96*96SQ.MM	1	NO.	AE/RISHABH
7	TIMER MULTI FUNCTION	1	NO.	L&T/REP.
8	POTENTIAL TRANSFORMER, 415V/RT3/110/RT3. CL-0.5,50VA , DRY TYPE	3	NOS.	V-CONV/REPUTED
9	CURRENT TRANSFORMER , 100/1A CL-1 15VA, RESIN CAST	3	NOS.	AE
10	CURRENT TRANSFORMER , 100/1A CL-5P15 15VA, RESIN CAST	3	NOS.	AE
11	CURRENT TRANSFORMER , 100/1A CL-PS RESIN CAST	3	NOS.	AE
12	CONTROL FUSE 20/2A HRC	15	NOS.	C&S/HPL
13	PANEL ILLUMINATION LAMP LED TYPE 230V AC, 10W	1	NOS.	REPUTED
14	ILLUMINATION PUSH BUTTON WITH ELEMENT 250V DC (RED/GREEN)	8	NOS.	VAISHNO/C&S
15	PUSH BUTTON WITH ELEMENT (RED/GREEN)	2	NOS.	VAISHNO/C&S
16	SELECTOR SWITCH JP2 WAY 6A	1	NOS.	VAISHNO/C&S
17	AUX CONT. 4NO 250V DC WITH ADD ON BLOCK 4NC	6	NOS.	C&S/HPL

Subject to the condition that you shall hold us harmless the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited

Mayaut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)

CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED

PROJECT: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD

NIT No.: 13/PR/BSPTCL/2021

 MANUFACTURER : Asian Switchgear Pvt. Ltd. B-17 Roona Industrial Estate Kapur (U.K.) Ph:012-23410004, Fax: 012-23410002 E-Mail: asianpvt@gmail.com					
	DRAWN	GANESH	17.05.2022		
	CHECKED	GANESH	17.05.2022		
	APPROVED				
TITLE: 415V ACDB BILL OF MATERIALS					

ATTENTION:
Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Vidyut Bhawan, Patna-800021

[illegible]

11	12	13	14	15	16	17	18
A	B	C	D				

C	OUTGOING :-						
1	MCCB 63A FP THERMAL MAGNETIC BASE RELEASE	24	NOS.			HPL/C&S	
2	ROTARY HANDLE	24	NOS.			HPL/C&S	
3	MCB 32A DP C CURVE	12	NOS.			HPL/C&S	
4	CONNECTOR	27	NOS.			REPUTED	
5	THERMOSTATE 30-110 DEGREE CET. WITH SPACE HEATER 60W	3	NOS.			REPUTED	
6	SWITCH & SOCKET 3 PIN 6A 230V AC	1	NOS.			REPUTED	
7	CONTROL FUSE BASE 20A	23	NOS.			HPL/C&S	
8	HRC FUSE 10A/6A	23	NOS.			HPL/C&S	
9	DOOR SWITCH	1	NOS.			REPUTED	
10	BULB HOLDER	1	NOS.			REPUTED	
11	AUX RELAY 14PIN(4C/O) WITH BASE 230V AC	2	NOS.			REPUTED	

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering) Limited
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
 MANUFACTURER: Astan Switchgear Pvt. Ltd. Plot No. 13, Phase II, Kumbhariya, Patna-800021 Tel: 0512-2418004, Fax: 0512-2418005 www.astanswitchgear.com E-Mail: astanbpo@gmail.com	NAME	DATE	TITLE :	
	DRAWN	17.05.2022	415V ACDB	
	CHECKED	17.05.2022	BILL OF MATERIALS	
	APPROVED			
DRAWING NUMBER : ASP/LIPL/22076B		REV.01	REV.03	SCALE
		REV.02	REV.04	N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 10 OF 10

or for any other purpose without their written permission

ASIAN SWITCHGEAR Pvt. Ltd. & most not be disclosed, loaned, copied or used for manufacturing tendering of This Drawing & any information or descriptive matter set out hereon are the confidential property of

11	12	13	14	15	16	17	18
A	B	C	D				

C	OUTGOING :-						
1	MCCB 63A FP THERMAL MAGNETIC BASE RELEASE	24	NOS.			HPL/C&S	
2	ROTARY HANDLE	24	NOS.			HPL/C&S	
3	MCB 32A DP C CURVE	12	NOS.			HPL/C&S	
4	CONNECTOR	27	NOS.			REPUTED	
5	THERMOSTATE 30-110 DEGREE CET. WITH SPACE HEATER 60W	3	NOS.			REPUTED	
6	SWITCH & SOCKET 3 PIN 6A 230V AC	1	NOS.			REPUTED	
7	CONTROL FUSE BASE 20A	23	NOS.			HPL/C&S	
8	HRC FUSE 10A/6A	23	NOS.			HPL/C&S	
9	DOOR SWITCH	1	NOS.			REPUTED	
10	BULB HOLDER	1	NOS.			REPUTED	
11	AUX RELAY 14PIN(4C/O) WITH BASE 230V AC	2	NOS.			REPUTED	

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering) Limited
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)		
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED		
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD		
NIT No.:	13/PR/BSPTCL/2021		
 MANUFACTURER: Astan Switchgear Pvt. Ltd. Plot No. 13, Phase II, Kumbhariya, Patna-800021 Tel: 0512-2418004, Fax: 0512-2418005 www.astanswitchgear.com E-Mail: astanbpo@gmail.com		NAME GANESH GANESH APPROVED	DATE 17.05.2022 17.05.2022
DRAWING NUMBER : ASP/LIPL/22076B		REV.01 REV.02	REV.03 REV.04
TITLE : 415V ACDB BILL OF MATERIALS		SCALE N.T.S.	
RELEASED FOR ☐ PRELIMINARY ☒ APPROVAL ☐ CONSTRUCTION	SHEET NO. 10 OF 10		

1112131415161718																																																																																																																																																																	
 ASIAN Switchgear Pvt. Ltd. ASIAN SWITCHGEAR PVT. LTD. B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.) www.asianswitchgear.com Email: asianknp@gmail.Com																																																																																																																																																																	
DRAWING FOR APPROVAL																																																																																																																																																																	
PANEL NAME		415V MLDB																																																																																																																																																															
CLIENT		 BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)																																																																																																																																																															
CONTRACTOR		 LIVINDIA INFRA PRIVATE LIMITED Building India																																																																																																																																																															
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AGREEMENT NO:		13 & 14 dated 24.09.2021																																																																																																																																																															
NIT No.		13/PR/BSPTCL/2021																																																																																																																																																															
QTY.		2Nos.																																																																																																																																																															
APPROVED Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification Electrical Superintending Engineer (Planning and Engineering) Bihar State Power Transmission Company Limited Viduyt Bhawan, Patna-800021 12 8 JUL 2022																																																																																																																																																																	
<table><tr><td>CUSTOMER:</td><td colspan="17">BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)</td></tr><tr><td>CONTRACTOR:</td><td colspan="17">LIVINDIA INFRA PRIVATE LIMITED</td></tr><tr><td>PROJECT:</td><td colspan="17">CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD</td></tr><tr><td>NIT No.:</td><td colspan="17">13/PR/BSPTCL/2021</td></tr><tr><td colspan="4">  MANUFACTURER: Asian Switchgear Pvt. Ltd. B-17 Rooma Industrial Estate Kanpur (U.P.) Ph:0512-2410004, Fax: 0512-2410002 www.asianswitchgear.com E-Mail: asianknp@gmail.Com </td><td colspan="2">DRAWN</td><td colspan="2">GANESH</td><td colspan="2">DATE</td><td colspan="2">17.05.2022</td><td colspan="2">TITLE :</td><td colspan="6">415V MLDB TITLE SHEET</td></tr><tr><td colspan="4">CHECKED</td><td colspan="2">GANESH</td><td colspan="2">APPROVED</td><td colspan="2">REV.01</td><td colspan="2">REV.03</td><td colspan="2">SCALE</td><td colspan="2">N.T.S.</td></tr><tr><td colspan="4">DRAWING NUMBER : ASP/LIPL/22076C</td><td colspan="2">REV.02</td><td colspan="2">REV.04</td><td colspan="2">CONSTRUCTION</td><td colspan="8">SHEET NO. 1 OF 6</td></tr><tr><td colspan="4">RELEASED FOR</td><td colspan="2">PRELIMINARY</td><td colspan="2">APPROVAL</td><td colspan="10"></td></tr></table>																		CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)																	CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED																	PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD																	NIT No.:	13/PR/BSPTCL/2021																	 MANUFACTURER: Asian Switchgear Pvt. Ltd. B-17 Rooma Industrial Estate Kanpur (U.P.) Ph:0512-2410004, Fax: 0512-2410002 www.asianswitchgear.com E-Mail: asianknp@gmail.Com				DRAWN		GANESH		DATE		17.05.2022		TITLE :		415V MLDB TITLE SHEET						CHECKED				GANESH		APPROVED		REV.01		REV.03		SCALE		N.T.S.		DRAWING NUMBER : ASP/LIPL/22076C				REV.02		REV.04		CONSTRUCTION		SHEET NO. 1 OF 6								RELEASED FOR				PRELIMINARY		APPROVAL											
CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)																																																																																																																																																																
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CHECKED				GANESH		APPROVED		REV.01		REV.03		SCALE		N.T.S.																																																																																																																																																			
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RELEASED FOR				PRELIMINARY		APPROVAL																																																																																																																																																											

GENERAL NOTES:-

1. ALL DIMENSIONS ARE IN MM.
2. THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, FLOOR MOUNTED AND COMPARTMENTALISED.
3. THE PANEL SHALL BE SUITABLE FOR 3Ø, 4W, 415V AC, 50 HZ SUPPLY.
4. THE PANEL SHALL BE FABRICATED WITH
 - A. LOAD BEARING MEMBERS - 2.0 MM. CRCA.
 - B. NON LOAD BEARING MEMBERS - 1.6 MM. CRCA.
 - C. EQUIPMENT MOUNTING PLATE - 2.0 MM. CRCA
 - D. UNDRILLED REMOVABLE GLAND PLATE - 3.0 MM. CRCA.
5. RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
6. THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
7. BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
8. BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
9. EARTH BUS SHALL BE PROVIDED THROUGHOUT THE PANEL LENGTH.
10. CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - A. AC VOLTAGE CIRCUIT - 1.5 SQ MM RED, YELLOW, BLUE, BLACK
 - B. CURRENT CIRCUIT - 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - C. AC CONTROL CKT. - 1.5 SQ MM RED, BLACK
 - D. GROUNDING - 2.5 SQ MM GREEN

was specified as per: specification

Electrical Superintending Engineer
(Electricity and Engineering)

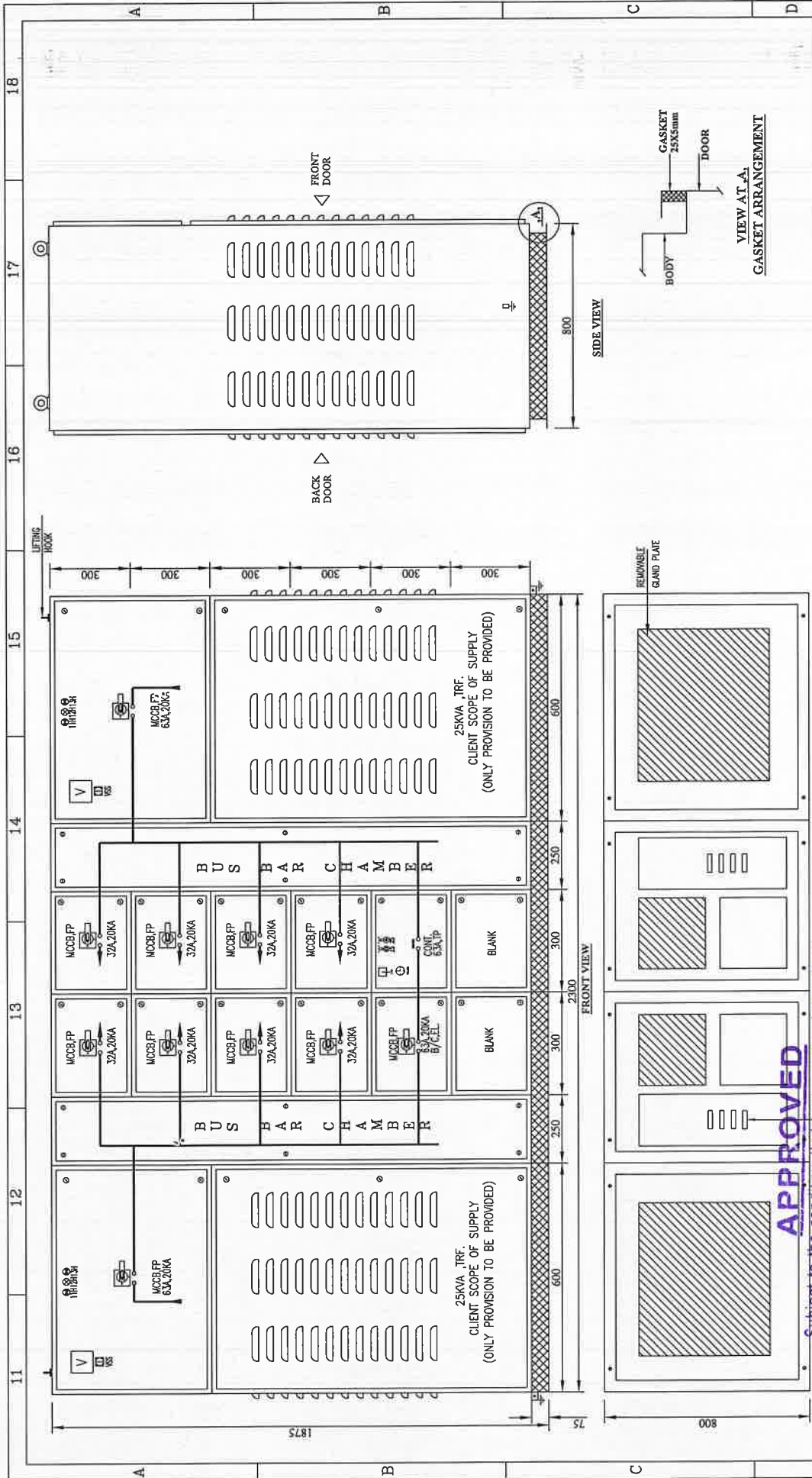
Great State Power Transmission Company Limited
(Planning and Engineering)
Vishnu Bhawan Patna-800021

29 JUL 2022

11. THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
 - A. BETWEEN PHASE TO PHASE - 25 MM
 - B. BETWEEN PHASE TO NEUTRAL - 25 MM
 - C. BETWEEN PHASE TO EARTH - 25 MM
 - D. BETWEEN NEUTRAL TO EARTH - 25 MM
12. NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
13. DANGER PLATE SHALL BE PROVIDED IN EACH BUSBAR CHAMBER, FRONT AND BACK .
14. PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
15. CABLE ENTRY AS PER G.A. DRAWING.
16. PAINT SHADE (POWDER COATED) RAL 7032

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPCTL)										
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED										
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD										
NIT No.:	13/PR/BSPCTL/2021										
MANUFACTURER : Asian Switchgear Pvt. Ltd. Plot No. 10, Industrial Area, Phase - IV, Kalyani (B.P.) P.O. - Kalyani, Dist. - Murshidabad, West Bengal - 741005 Tel: 033-24410004, Fax: 033-24410003 www.asianswitchgear.com E-Mail: asianrep@gmail.com				NAME		DATE		TITLE : 415V MLDB GENERAL NOTE			
DRAWN		GANESH		17.05.2022							
CHECKED		GANESH		17.05.2022							
APPROVED											
DRAWING NUMBER : ASPL/LPL/22076C								REV.01		REV.03	
								REV.02		REV.04	
SCALE N.T.S.											
RELEASED FOR	☐ PRELIMINARY		☒ APPROVAL		☐ CONSTRUCTION		SHEET NO. 2 OF 6				

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CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)									
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED									
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD									
NIT No. :	13/PR/BSPTCL/2021									
 Asian Switchgear Pvt. Ltd. B-17, Room Industrial Estate Kharagpur (L.P.) Ph:06712-2410004, Fax: 06712-2410002 E-Mail: asiainfo@gmail.com	MANUFACTURER :		NAME	DATE	TITLE :		415V MLDB GENERAL ARRANGE DIAGRAM			
	DRAWN		GANESH	17.05.2022						
	CHECKED		GANESH	17.05.2022						
	APPROVED									
DRAWING NUMBER : ASPL/LIPL/22076C			REV.01	---	REV.03	---	SCALE		N.T.S.	
			REV.02	---	REV.04	---				
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 3 OF 6						

Subject to the condition that you are not absolved of the responsibility of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidut Bhawan, Patna-800021

28 JUL 2022

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

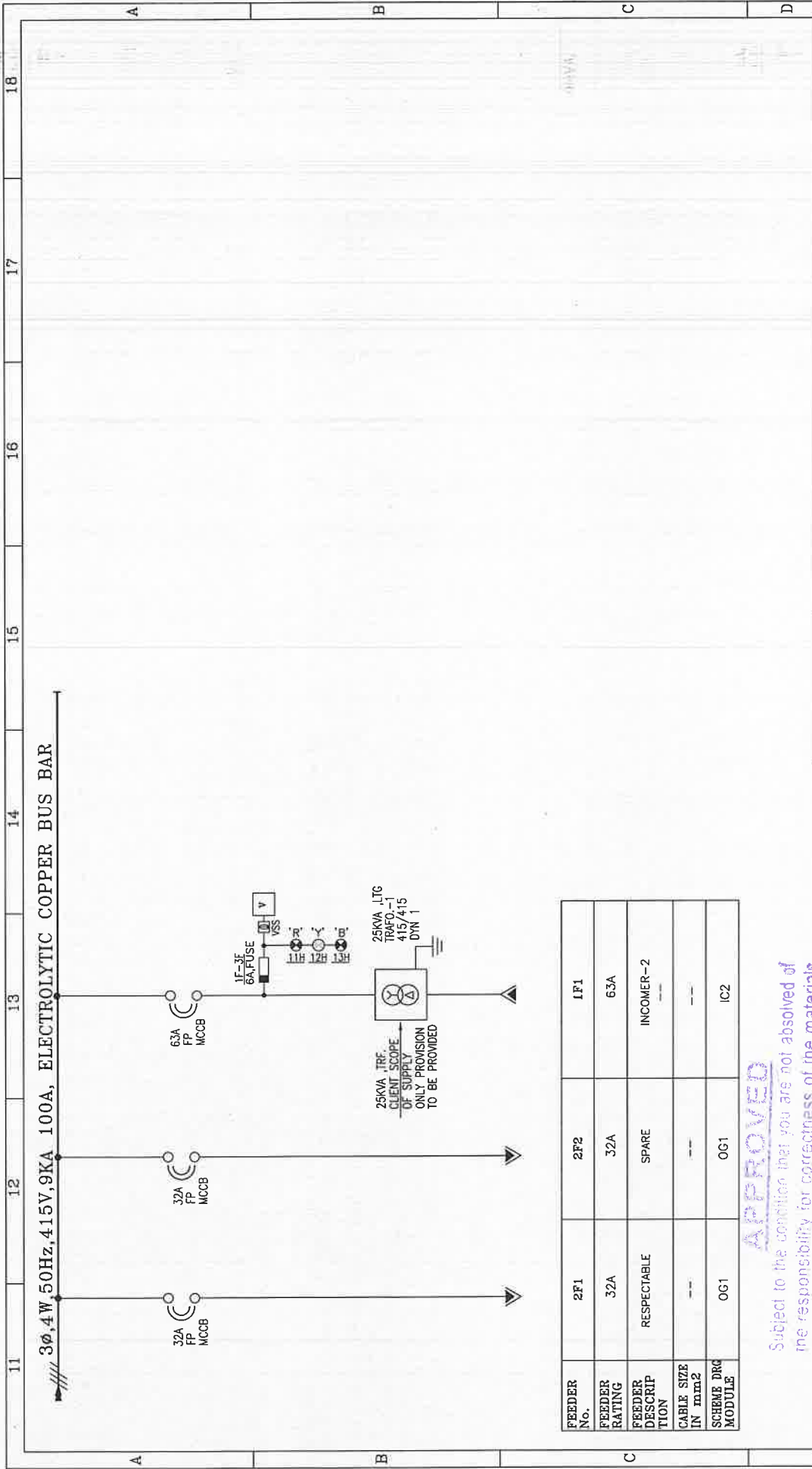
Electrical Superintending Engineer
(Planning and Engineering)
Sihar State Power Transmission Company Limited
Viduyat Bhawan Patna-800021

Vidyut Bhawan, Patna-800021

29 JUL 2022

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)														
CONTRACTOR :	LIVINDIA INPRA PRIVATE LIMITED														
PROJECT :	CONSTRUCTION OF 2x50 MVA/132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD														
NIT No. :	13/PR/BSPTCL/2021														
 MANUFACTURER : Asian Switchgear Pvt. Ltd. B-17, Roosts, Industrial Estate, Karpur (UP) Ph:0512-2410004, Fax: 0512-2410002 E-Mail: asiansw@gmail.com Asian Switchgear Pvt. Ltd.			DRAWN		NAME		DATE		TITLE : 415V MLDB SINGLE LINE DIAGRAM						
			CHECKED		GANESH		17.05.2022								
			APPROVED		GANESH		17.05.2022								
DRAWING NUMBER : ASPL/LIPL/22076C										REV.01		REV.03		SCALE	
										REV.02		REV.04		N.T.S.	
RELEASED FOR	☐	PRELIMINARY	☒	APPROVAL	☐	CONSTRUCTION	SHEET NO.				4 OF 6				

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FEEDER No.	2F1	2F2	1F1
FEEDER RATING	32A	32A	63A
FEEDER DESCRIPTION	RESPECTABLE	SPARE	INCOMER-2
CABLE SIZE IN mm ²	--	--	--
SCHEME DRG MODULE	OG1	OG1	IC2

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidvut Bhawan, Patna-800021
20 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:	ASIAN SWITCHGEAR PVT. LTD.	NAME	DATE	TITLE:
	Asian Switchgear Pvt. Ltd. Plot No. 12-2410004, Patna-800021 www.asian-switchgear.com E-Mail: asian@sgmail.com	DRAWN	17.05.2022	415V MLDB
		CHECKED	17.05.2022	SINGLE LINE DIAGRAM
		APPROVED		
DRAWING NUMBER:	ASPL/LIPL/22076C	REV.01	REV.02	REV.03
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SCALE
				N.T.S.
				SHEET NO.
				5 OF 6

Sr. No.	ITEM DESCRIPTION	QTY	UNIT	MAKE
a	INCOMING:- (2 IC + 1 BC)			
1	MCCB 63A 4P WITH ADJUSTABLE THERMAL AND FIXED MAGNETIC	4	NOS.	HPL/C&S
2	ROTARY HANDLE	4	NOS.	HPL/C&S
3	AUX CONTACT 1C/O FOR MCCB	1	NOS.	HPL/C&S
4	POWER CONTACTOR 65A, TP, AUX-230V AC, AC-1, WITH 1NO+1NC AUX CONTACT	1	NO.	HPL/C&S
b	OUTGOING:-			
1	MCCB 32A 4P WITH ADJUSTABLE THERMAL AND FIXED MAGNETIC	8	NOS.	HPL/C&S
2	ROTARY HANDLE	8	NOS.	HPL/C&S
5	POWER CONNECTOR	8	NOS.	POWERMAT/REPUTED SET.
c	INCOMING METERING :-			
1	ANALOG VOLT METER, CL-1, 415V AC, 0-500V, 96*96SQ.MM. 90DEG	2	NOS.	AE/RISHABH
2	VOLT SELECTOR SWITCH	2	NOS.	VAISHNO
3	INDICATING LIGHT LED TYPE, 22.5MM, 240V AC R,Y,B,	6	NOS.	VAISHNO
4	SELECTOR SWITCH ROTARY TYPE 1P-2 WAY 6A WITH OFF	1	NO.	VAISHNO
5	ILLUMINATED PUSH BUTTON LED TYPE, WITH ELEMENT (RED, GREEN) 22.5MM, 230V AC	2	NOS.	VAISHNO
6	CONTROL FUSE WITH HRC	8	NOS.	HPL/C&S
7	SPACE HEATER WITH THERMOSTATE	1	NO.	REPUTED
8	FAN	1	NO.	REPUTED

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyt Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. B-17, Roopa Industrial Estate Kamur (UP) Ph: 0512-2410004, Fax: 0512-2410007 www.asianswitchgear.com E-Mail: sales@switchgear.com		NAME GANESH GANESH APPROVED	DATE 17.05.2022 17.05.2022	TITLE: 415V MLDB BILL OF MATERIALS
DRAWING NUMBER: ASP/LIPL/22076C		REV.01	REV.02	REV.03
RELEASED FOR		PRELIMINARY	APPROVAL	CONSTRUCTION
		SCALE	N.T.S.	SHEET NO. 6 OF 6

11	12	13	14	15	16	17	18
 ASIAN Switchgear Pvt. Ltd. ASIAN SWITCHGEAR PVT. LTD. B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.) www.asianswitchgear.com Email: asianknp@gmail.Com							
DRAWING FOR APPROVAL							
PANEL NAME	415V EMERGENCY LDB						
CLIENT	 BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)						
CONTRACTOR	 LIVINDIA INFRA PRIVATE LIMITED						
PROJECT.	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD						
AGREEMENT NO:	13 & 14 dated 24.09.2021						
NIT No.	13/PR/BSPTCL/2021						
QTY.	2Nos.						
APPROVED Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification Electrical Superintending Engineer (Planning and Engineering) Bihar State Power Transmission Company Limited Vidyal Bhawan, Patna-800021 28 JUL 2022							
CUSTOMER:		BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)					
CONTRACTOR:		LIVINDIA INFRA PRIVATE LIMITED					
PROJECT:		CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD					
NIT No.:		13/PR/BSPTCL/2021					
 MANUFACTURER: Asian Switchgear Pvt. Ltd. B-17 Rooma Industrial Estate Kanpur (U.P.) Pin-201125-10004, Fax: 0512-2410002 E-Mail: asianknp@gmail.Com		DRAWN GANESH	CHECKED GANESH	APPROVED	NAME GANESH	DATE 17.05.2022	TITLE: 415V EMERGENCY LDB TITLE SHEET
DRAWING NUMBER : ASPL/LIPL/220760		REV.01	REV.02	REV.03	REV.04	SCALE N.T.S.	
RELEASED FOR		☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION		SHEET NO. 1 OF 5	

GENERAL NOTES:-

- ALL DIMENSIONS ARE IN MM.
- THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, FLOOR MOUNTED AND COMPARTMENTALISED.
- THE PANEL SHALL BE SUITABLE FOR 3Ø, 4W, 415V AC, 50 HZ SUPPLY.
- THE PANEL SHALL BE FABRICATED WITH
 - LOAD BEARING MEMBERS - 2.0 MM. CRCA.
 - NON LOAD BEARING MEMBERS - 1.6 MM. CRCA.
 - EQUIPMENT MOUNTING PLATE - 2.0 MM. CRCA
 - UNDRIILLED REMOVABLE GLAND PLATE - 3.0 MM. CRCA.
- RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
- THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
- BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
- BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
- EARTH BUS SHALL BE PROVIDED THROUGHOUT THE PANEL LENGTH.
- CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - AC VOLTAGE CIRCUIT - 1.5 SQ MM RED, YELLOW, BLUE, BLACK
 - CURRENT CIRCUIT - 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - AC CONTROL CIRCUIT - 1.5 SQ MM RED, BLACK
 - GROUNDING the condition that - 2.5 SQ MM GREENED of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited

Vidya Bhawan, Patna-800021

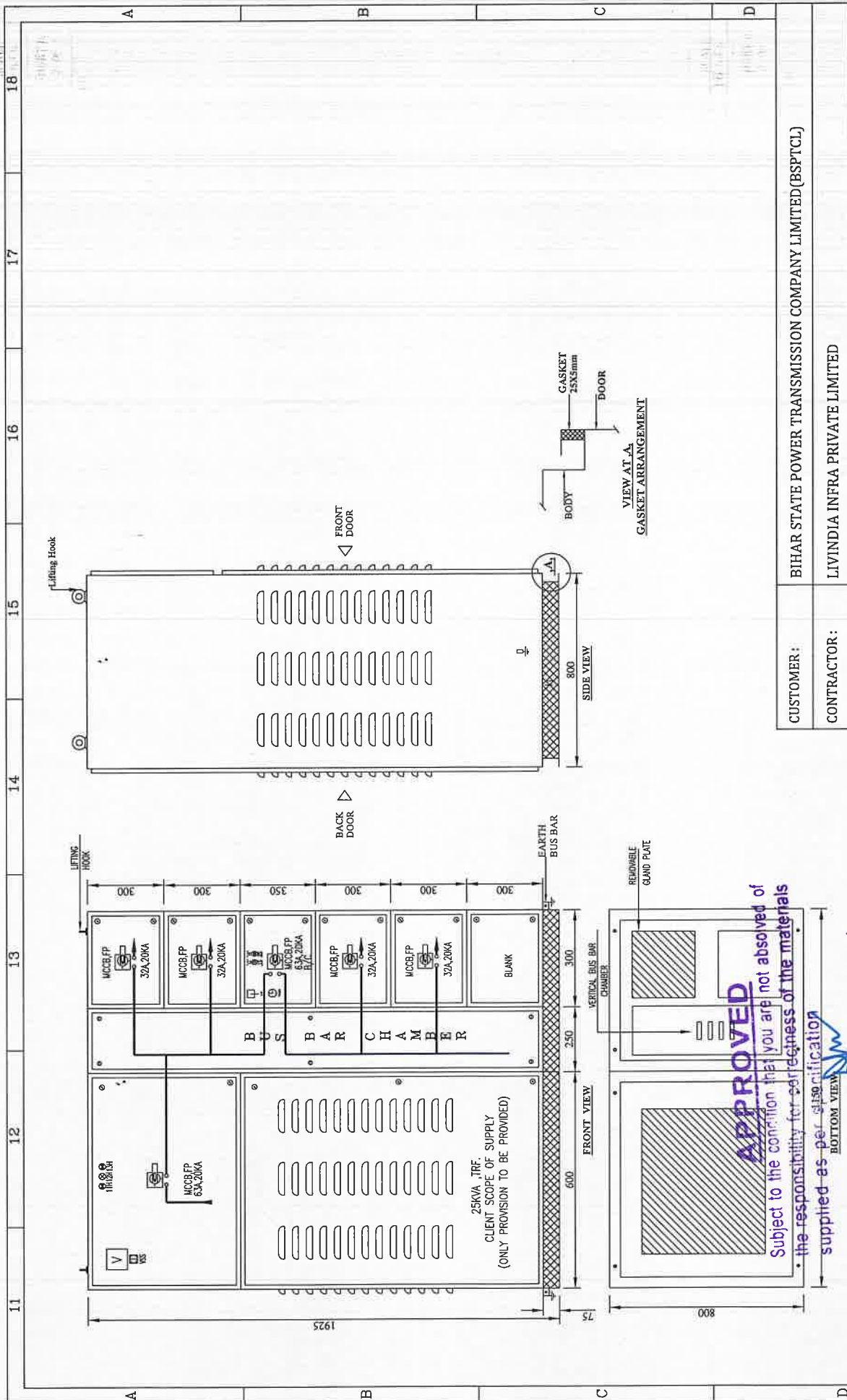
28 JUL 2022

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- THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
 - BETWEEN PHASE TO PHASE - 25 MM
 - BETWEEN PHASE TO NEUTRAL - 25 MM
 - BETWEEN PHASE TO EARTH - 25 MM
 - BETWEEN NEUTRAL TO EARTH - 25 MM
- NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
- DANGER PLATE SHALL BE PROVIDED IN EACH BUSBAR CHAMBER, FRONT AND BACK.
- PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
- CABLE ENTRY AS PER G.A. DRAWING.
- PAINT SHADE (POWDER COATED) RAL 7032

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		NAME	DATE	TITLE:
 Asian Switchgear Pvt. Ltd. B-17 Royna Industrial Estate Kanger (Jharkhand) Pin-831004, Fax: 0652-249002 E-Mail: mktg@asianswitchgear.com		DRAWN	17.05.2022	415V EMERGENCY LDB GENERAL NOTE
		CHECKED	17.05.2022	
		APPROVED		
DRAWING NUMBER : ASPL/LIPL/22076D		REV.01	--	REV.03
		REV.02	--	REV.04
				SCALE N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 2 OF 5

This Drawing & any information or descriptive matter set out hereon are the confidential property of ASIAN SWITCHGEAR PVT. Ltd. & must not be disclosed, loaned, copied or used for manufacturing tendering or for any other purpose without their written permission



CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		NAME	DATE	TITLE:
Asian Switchgear Pvt. Ltd.		GANESH	17.05.2022	415V EMERGENCY LDB
B-17, Room Industrial Estate Kanpur (UP)		CHECKED	17.05.2022	GENERAL ARRANGE DIAGRAM
Ph: 0512-2410004, Fax: 0512-2410001		APPROVED		
E-Mail: india@asiansg.com		REV.01	REV.03	SCALE
Asian Switchgear Pvt. Ltd.		REV.02	REV.04	N.T.S.
DRAWING NUMBER : ASPL/LIPL/220760				SHEET NO.
RELEASED FOR		☐ PRELIMINARY	☒ APPROVAL	3 OF 5

FEDER No.	1P1	2F1	2F2	2F3	2F4	2F5
FEDER RATING	63A	32A	32A	63A	32A	32A
FEDER DESCRIPTION	INCOMER-1	LIGHTING PANEL-1	LIGHTING PANEL-2	BUS COUPLER	LIGHTING PANEL-2	SPARE
CABLE SIZE IN mm ²	---	---	---	---	---	---
SCHEME DRG MODULE	IC1	OG1	OG1	BC1	OG1	OG1

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan Patna-800021

28 JUL 2022

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)									
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED									
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD									
NIT No. :	13/PR/BSPTCL/2021									
 Asian Switchgear Pvt. Ltd.	MANUFACTURER :			NAME	DATE	TITLE : 415V EMERGENCY LDB SINGLE LINE DIAGRAM				
	Adina Switchgear Pvt. Ltd. B-17 Rozena Industrial Estate, Kasapur (UP) Ph:0512-2410094, Fax: 0512-2410082 E-Mail: asian@asgindia.com			DRAWN	17.05.2022					
				CHECKED	GANESH	17.05.2022				
				APPROVED						
DRAWING NUMBER : ASPL/LIPL/22076D						REV.01	--	REV.03	--	SCALE
						REV.02	--	REV.04	--	N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 4 OF 5						

SR. NO.	ITEM DISCRPTION	QTY	UNIT	MAKE
A	INCOMING (1 IC + 1 BC) :-			
1	MCCB 4P 63A 20KA THERMAL MAGNETIC BASE RELEASE	2	NOS.	HPL/C&S
2	ROTARY HANDEL	2	NOS.	HPL/C&S
3	Aux contact 2C/O	1	NOS.	HPL/C&S
4	POWER CONTACTOR 65A, TP, AUX-230V AC, AC-1, WITH INO+INC AUX CONTACT	1	NOS.	HPL/C&S
B	OUTGOING :-			
1	MCCB 4P 32A 20KA THERMAL MAGNETIC BASE RELEASE	4	NOS.	HPL/C&S
2	ROTARY HANDEL	4	NOS.	HPL/C&S
5	Power Connector	4	NOS.	REPUTED
C	METERING :-			SET.
1	ANALOG VOLT METER, CL-1, 415V AC, 0-500V, 96*96SQ.MM. 90DEG	1	NO.	AE/RISHABH
2	VOLT SELECTOR SWITCH 6A	1	NO.	VAISHNO
3	INDICATING LIGHT LED TYPE, 22.5MM, 240V AC (R, Y, B.)	3	NOS.	VAISHNO
4	SELECTOR SWITCH ROTARY TYPE 1P-2 WAY 6A WITH OFF	1	NO.	VAISHNO
5	ILLUMINATED PUSH BUTTON LED TYPE, 22.5MM, 230V AC- RED, GREEN (ON, OFF)	2	NOS.	VAISHNO
6	CONTROL FUSE BASE WITH HRC	4	NOS.	HPL/C&S
7	SPACE HEATER WITH THERMO STATE	1	NO.	REPUTED
8	COLLING FAN	1	NO.	REPUTED

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. Plot No. 13, Phase II, Kumbhariya, Patna-800013 Ph: 051-2341000, Fax: 051-2341002 E-Mail: sales@asianswitchgear.com		NAME GANESH GANESH APPROVED	DATE 17.05.2022 17.05.2022	TITLE: 415V EMERGENCY LDB BILL OF MATERIALS
DRAWING NUMBER: ASPL/LIPL/22076D		REV.01	REV.02	REV.03
RELEASED FOR		APPROVAL		CONSTRUCTION
SCALE		N.T.S.		SHEET NO.
5 OF 5				



ASIAN SWITCHGEAR PVT. LTD.

B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.)

www.asianswitchgear.com

Email: asianknp@gmail.Com

Asian Switchgear Pvt. Ltd.

DRAWING FOR APPROVAL

PANEL NAME	250V DC DISTRIBUTION BOARD
CLIENT	 BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)
CONTRACTOR	 LIVINDIA INFRA PRIVATE LIMITED
PROJECT.	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
AGREEMENT NO:	13 & 14 dated 24.09.2021
NIT No.	13/PR/BSPTCL/2021
QTY.	2Nos.

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)									
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED									
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD									
NIT No. :	13/PR/BSPTCL/2021									
 ASIAN Switchgear Pvt. Ltd.	MANUFACTURER :		NAME		DATE					
	Asian Switchgear Pvt. Ltd. B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.) Pin:012-2410004, Fax: 0512-2410007 www.asianswitchgear.com E-Mail: asianknp@gmail.com		DRAWN		17.05.2022					
			CHECKED		17.05.2022					
			APPROVED							
			REV.01		---		REV.03		---	
		REV.02		---		REV.04		---		
DRAWING NUMBER : ASPL/LIPL/22076E										
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION							
TITLE :							250V DC DISTRIBUTION BOARD			
							TITLE SHEET			
SCALE							SCALE			
N.T.S.							N.T.S.			
SHEET NO.							SHEET NO.			
1 OF 6							1 OF 6			

GENERAL NOTES:-

- ALL DIMENSIONS ARE IN MM.
- THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, FLOOR MOUNTED AND COMPARTMENTALISED.
- THE PANEL SHALL BE SUITABLE FOR 250V DC SUPPLY.
- THE PANEL SHALL BE FABRICATED WITH
 - LOAD BEARING MEMBERS - 2.0 MM. CRCA.
 - NON LOAD BEARING MEMBERS - 1.6 MM. CRCA.
 - EQUIPMENT MOUNTING PLATE - 2.0 MM. CRCA
 - UNDRILLED REMOVABLE GLAND PLATE - 3.0 MM. CRCA.
- RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
- THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
- BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
- BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
- EARTH BUS SHALL BE PROVIDED THROUGHOUT THE PANEL LENGTH.
- CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - DC VOLTAGE CIRCUIT - 1.5 SQ MM. GREY
 - DC CURRENT CIRCUIT - 2.5 SQ MM. GREY

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

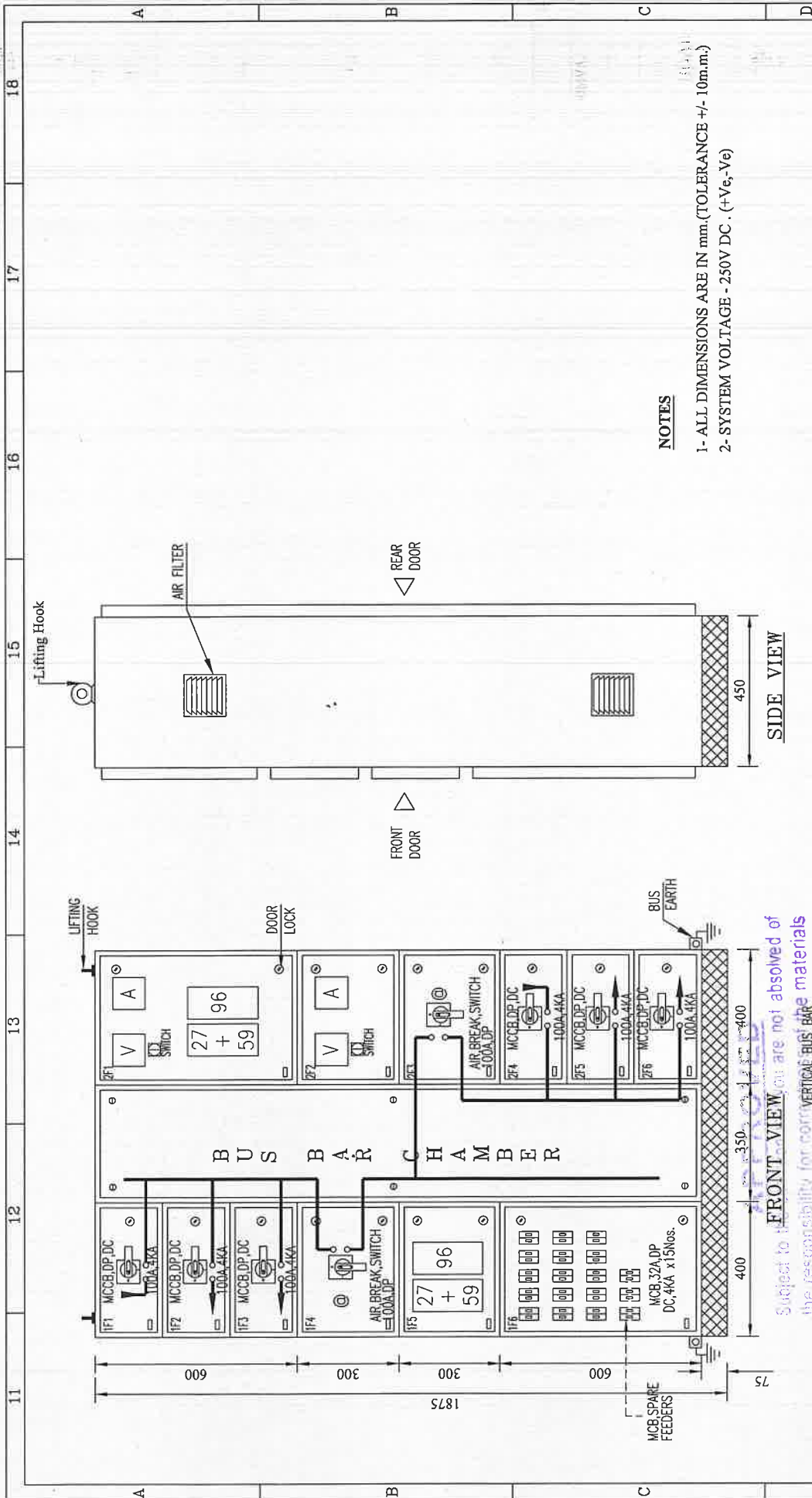
28 JUL 2022

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- THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
 - BETWEEN +VE TO -VE - 20 MM
 - BETWEEN -VE TO EARTH - 20 MM
 - BETWEEN +VE TO EARTH - 20 MM
- NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
- DANGER PLATE SHALL BE PROVIDED IN EACH BUSBAR CHAMBER, FRONT AND BACK .
- PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
- CABLE ENTRY AS PER G.A. DRAWING.
- PAINT SHADE (POWDER COATED) RAL 7032

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)				
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED				
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD				
NIT No.:	13/PR/BSPTCL/2021				
MANUFACTURER:		NAME	DATE	TITLE :	
 Asian Switchgear Pvt. Ltd. Plot No. 12-24/10004, Phase 1, Kumaar (UP) Pin-201324, India. Fax: 91-512-2410003 E-Mail: info@asianswitchgear.com Asian Switchgear Pvt. Ltd.		DRAWN	GANESH	17.05.2022	250V DC DISTRIBUTION BOARD GENERAL NOTE
		CHECKED	GANESH	17.05.2022	
		APPROVED			
DRAWING NUMBER : ASPL/LIPL/22076E		REV.01	REV.02	REV.03	SCALE N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION		SHEET NO. 2 OF 6

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CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)									
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED									
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD									
NIT No.:	13/PR/BSPTCL/2021									
 Asian Switchgear Pvt. Ltd. Plot No. 12, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000										
	MANUFACTURER :		NAME		DATE		TITLE :			
	DRAWN		GANESH		17.05.2022		250V DC DISTRIBUTION BOARD			
	CHECKED		GANESH		17.05.2022		GENERAL ARRANGE DIAGRAM			
	APPROVED									
	REV.01						REV.03			
REV.02						REV.04				
DRAWING NUMBER : ASPL/LIPL/22076E						SCALE		N.T.S.		
RELEASED FOR	☐	PRELIMINARY	☒	APPROVAL	☐	CONSTRUCTION		SHEET NO. 3 OF 6		

©: - MECHANICALLY INTERLOCKED

28 JUL 2022 VIEW



250V 100A,4KA COPPER BUS BAR

FEEDER RATING	FEEDER DESCRIPTION	CABLE SIZE IN mm ²	SCHEME DRG MODULE
100A	INCOMER-1	*	*
100A	BATTERY	*	*
100A	BATTERY CHARGE FEEDER	*	*
100A	LOADBREAK SWITCH	*	*
32A	LINE PROTECTION BAY-1	*	*
32A	LINE PROTECTION BAY-2	*	*
32A	LINE PROTECTION BAY-3	*	*
32A	TF-1	*	*
32A	TF-2	*	*
32A	DC SUPPLY LT	*	*
32A	DC SUPPLY RTCC	*	*

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification.

**Electrical Superintending Engineer
(Planning and Engineering)**
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

TITLE :
250V DC DISTRIBUTION BOARD
SINGLE LINE DIAGRAM

CUSTOMER : BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)
CONTRACTOR : LIVINDIA INFRA PRIVATE LIMITED
PROJECT : CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
NIT No. : 13/PR/BSPTCL/2021

MANUFACTURER:
Asian Switchgear Pvt. Ltd.
Plot No. 23-24/100K, Far. 6812-24/100K,
www.asianswitchgear.com
E-Mail: asian@asianswitchgear.com

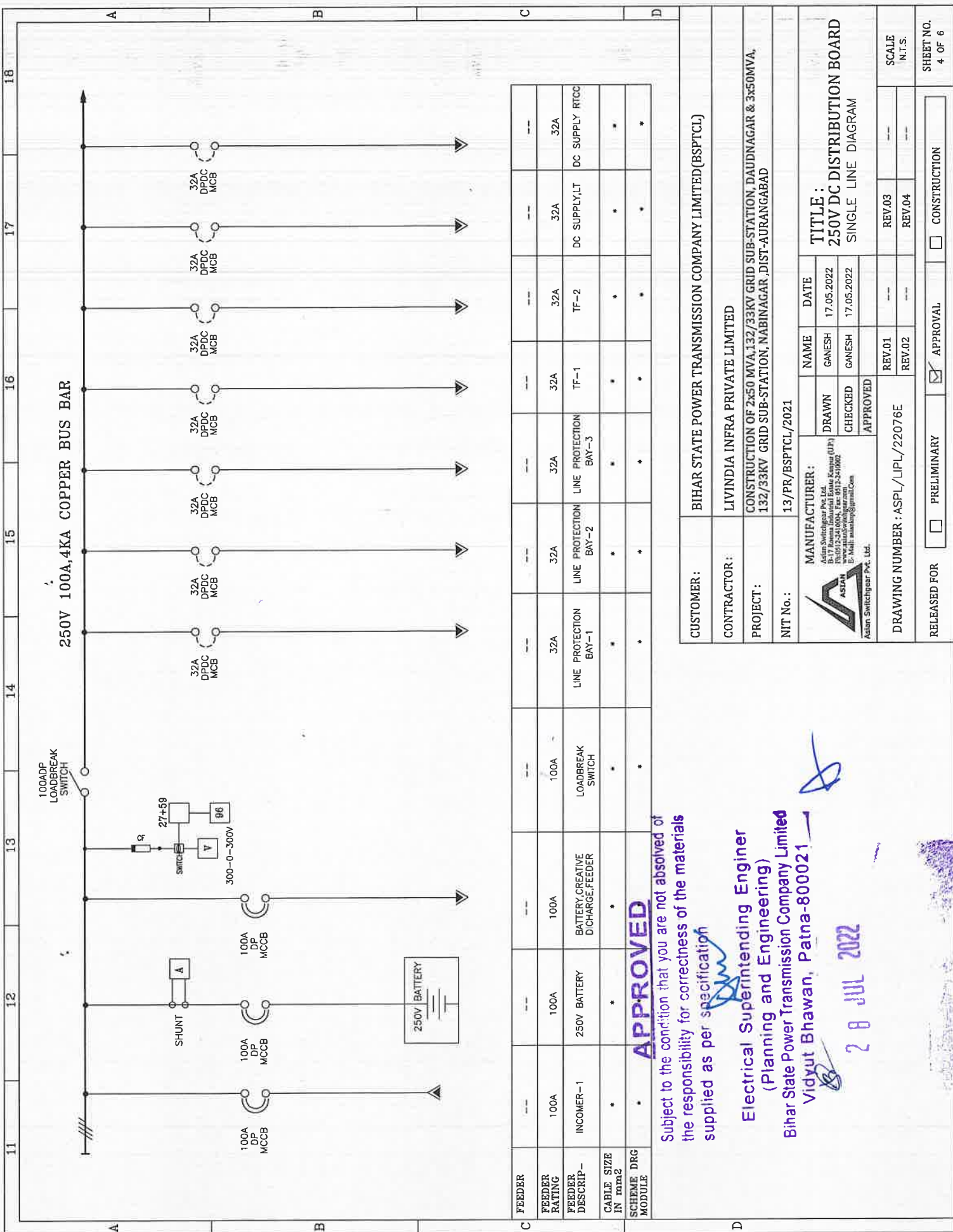
DRAWN GANESH 17.05.2022
CHECKED GANESH 17.05.2022
APPROVED

DRAWING NUMBER : ASPL/LIPL/22076E
REV.01 REV.02
REV.03 REV.04

RELEASED FOR PRELIMINARY APPROVAL CONSTRUCTION

SCALE N.T.S.

SHEET NO. 4 OF 6

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CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)										
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED										
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD										
NIT No. :	13/PR/BSPTCL/2021										
 MANUFACTURER : Asian Switchgear Pvt. Ltd. B-17 Brooma Industrial Estate Knapar (UP) Ph:0512-2410004, Fax: 0512-2410002 E-Mail: asiansg@gmail.com			NAME	DATE	TITLE : 250V DC DISTRIBUTION BOARD SINGLE LINE DIAGRAM				SCALE N.T.S.		
			DRAWN	GANESH							17.05.2022
			CHECKED	GANESH							17.05.2022
			APPROVED								
DRAWING NUMBER : ASPL/LIPL/22076E			REV.01	---	REV.03	---	SHEET NO. 5 OF 6				
			REV.02	---	REV.04	---					
RELEASED FOR	☐	PRELIMINARY	☒	APPROVAL	☐	CONSTRUCTION					

11 12 13 14 15 16 17 18										
ASIAN SWITCHGEAR PVT. LTD. B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.) www.asianswitchgear.com Email: asianknp@gmail.com										
DRAWING FOR APPROVAL										
PANEL NAME 48V DC DISTRIBUTION BOARD										
CLIENT BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)										
CONTRACTOR LIVINDIA INFRA PRIVATE LIMITED										
CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD										
AGREEMENT NO: 13 & 14 dated 24.09.2021										
NIT No. 13/PR/BSPTCL/2021										
QTY. 2Nos.										
APPROVED Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification										
Electrical Superintending Engineer (Planning and Engineering) Bihar State Power Transmission Company Limited Vidut Bhawan, Patna-800021										
20 JUL 2022										
ASIAN SWITCHGEAR PVT. LTD. & most not be disclosed, loaned, copied or used for manufacturing property of or for any other purpose without their written permission										
CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)										
CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED										
PROJECT: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD										
NIT No.: 13/PR/BSPTCL/2021										
MANUFACTURER: Asian Switchgear Pvt. Ltd. B-17 Rooma Industrial Estate Kanpur (U.P.) Ph: 0512-2410004, Fax: 0512-2410002 E-Mail: asianknp@gmail.com										
TITLE: 48V DC DISTRIBUTION BOARD TITLE SHEET										
DRAWING NUMBER: ASP/LIPL/22076F										
RELEASED FOR: ☐ PRELIMINARY ☒ APPROVAL ☐ CONSTRUCTION										
SHEET NO. 1 OF 5										

GENERAL NOTES:-

- ALL DIMENSIONS ARE IN MM.
- THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, FLOOR MOUNTED AND COMPARTMENTALISED.
- THE PANEL SHALL BE SUITABLE FOR 48V DC SUPPLY.
- THE PANEL SHALL BE FABRICATED WITH
 - LOAD BEARING MEMBERS - 2.0 MM. CRCA.
 - NON LOAD BEARING MEMBERS - 1.6 MM. CRCA.
 - EQUIPMENT MOUNTING PLATE - 2.0 MM. CRCA
 - UNDRILLED REMOVABLE GLAND PLATE - 3.0 MM. CRCA.
- RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
- THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
- BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
- BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
- EARTH BUS SHALL BE PROVIDED THROUGHOUT THE PANEL LENGTH.
- CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - DC VOLTAGE CIRCUIT - 1.5 SQ MM. GREY
 - DC CURRENT CIRCUIT - 2.5 SQ MM. GREY

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

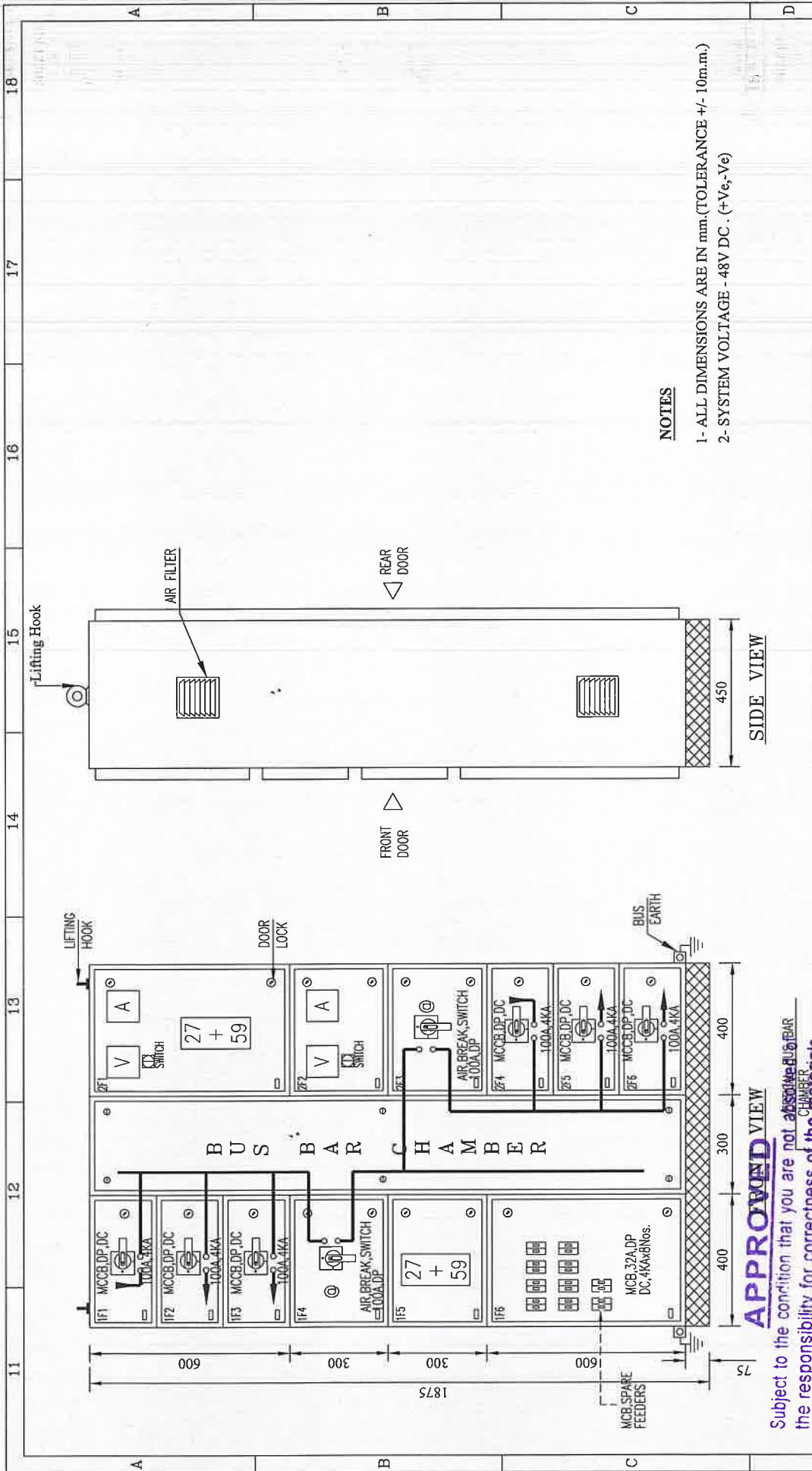
28 JUL 2022

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- THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
 - BETWEEN +VE TO -VE - 20 MM
 - BETWEEN -VE TO EARTH - 20 MM
 - BETWEEN +VE TO EARTH - 20 MM
- NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
- DANGER PLATE SHALL BE PROVIDED IN EACH BUSBAR CHAMBER, FRONT AND BACK .
- PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
- CABLE ENTRY AS PER G.A. DRAWING.
- PAINT SHADE (POWDER COATED) RAL 7032

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)				
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED				
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD				
NIT No.:	13/PR/BSPTCL/2021				
MANUFACTURER:		DRAWN	NAME	DATE	TITLE :
Asian Switchgear Pvt. Ltd. B-17, Tropic Industrial Estate Kanpur (UP) PIN-201224, INDIA. Tel: 0512-2410004, Fax: 0512-2410002 E-Mail: sales@asianswitchgear.com		CHECKED	GANESH	17.05.2022	48V DC DISTRIBUTION BOARD GENERAL NOTE
Asian Switchgear Pvt. Ltd.		APPROVED	GANESH	17.05.2022	
DRAWING NUMBER : ASPL/LIPL/22076F		REV.01	REV.02	REV.03	SCALE
				REV.04	N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	CONSTRUCTION		SHEET NO.
					2 OF 5

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NOTES

- 1- ALL DIMENSIONS ARE IN mm.(TOLERANCE +/- 10mm.)
- 2- SYSTEM VOLTAGE - 48V DC . (+Ve,-Ve)

SIDE VIEW

APPROVED VIEW

Subject to the condition that you are not to be responsible for the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidut Bhrwan, Patna-800021

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)									
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED									
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD									
NIT No.:	13/PR/BSPTCL/2021									
 ASIAN Asian Switchgear Pvt. Ltd.	MANUFACTURER :			NAME	DATE	TITLE : 48V DC DISTRIBUTION BOARD GENERAL ARRANGE DIAGRAM				
	Asian Switchgear Pvt. Ltd. B-1/3 Roostia Industrial Estate Kamur (LP) Ph:0512-2410004, Fax: 0512-2410002 E-Mail: marketing@asgpl.com		DRAWN	GANESH	17.05.2022					
			CHECKED	GANESH	17.05.2022					
			APPROVED							
	DRAWING NUMBER : ASPL/LIPL/22076F		REV.01	--	--	REV.03	--	SCALE N.T.S.		
		REV.02	--	--	REV.04	--				
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 3 OF 5						

©:- MECHANICALLY INTERLOCKED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidvut Bhawan, Patna-800021

29 JUL 2022

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)									
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED									
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD									
NIT No. :	13/PR/BSPTCL/2021									
 ASIAN Asian Switchgear Pvt. Ltd.	MANUFACTURER :			NAME	DATE	TITLE : 48V DC DISTRIBUTION BOARD SINGLE LINE DIAGRAM				
	Asian Switchgear Pvt. Ltd. Plot No. 13, Sector - 10, Knowledge Park (I) Phase - II, Gurgaon (HR) Tb-012-2-2410064, Fax: 091-12-2410002 www.asianswitchgear.com E-Mail: saunayp@gmail.com			DRAWN	17.05.2022					
				CHECKED	17.05.2022					
				APPROVED						
DRAWING NUMBER : ASPL/LIPL/22076F						REV.01	--	REV.03	--	SCALE
						REV.02	--	REV.04	--	N.T.S.
RELEASED FOR	☐	PRELIMINARY	☒	APPROVAL	☐	CONSTRUCTION	SHEET NO. 4 OF 5			

SR NO.	ITEM DISCRIPTION	QTY	UNIT	MAKE
A	Incoming :-			
1	MCCB 100A DP DC 4KA THERMAL	2	NO.	HPL/C&S
2	ROTARY OPERATING HANDLE	2	NO.	HPL/C&S
3	SWITCH DISCONNECTOR(LOAD BREAK SWITCH) 3P 125A	2	NO.	HPL/C&S
B	Incoming Metering :-	1		SET.
1	ANALOG DC AMMETER, 0-100A WITH SHUNT			
	75MV , 96*96SQ.MM, 90DEG	2	NO.	AE/RISHABH
3	ANALOG DC VOLTMEETER, 0-300V ,			
	96*96SQ.MM, 90DEG	2	NO.	AE/RISHABH
4	ON/OFF SELECTOR SWITCH	2	NO.	VAISHNO
5	NUMERICAL DC UNDER & OVER VOLTAGE RELAY SENSING 10-400V DC, AUX.16-360V DC	2	NO.	C&S/JVS/REPUTED
7	SPACE HEATER WITH THERMOSTATE	1	NO.	REPUTED
8	CONTROL FUSE BASE WITH HRC	4	NOS.	HPL/C&S
C	Outgoing :-			
1	MCCB 100A DP DC 4KA THERMAL	4	NOS.	HPL/C&S
2	ROTARY OPERATING HANDLE	4	NOS.	HPL/C&S
1	MCB 32A DP DC 4 KA	8	NOS.	HPL/C&S
2	CONNECTOR	4	NOS.	REPUTED

APPROVED

Subject to the condition that you are not absolved of
the responsibility for correctness of the materials
supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidya Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA/132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		DRAWN	NAME	DATE
Asian Switchgear Pvt. Ltd. B-17, 1st Floor, Kankar Bagh, Patna-800021 Ph:0612-2410004, Fax: 0612-2410002 www.asianswitchgear.com E-Mail: sales@asianswitchgear.com		CHECKED	GANESH	17.05.2022
Asian Switchgear Pvt. Ltd.		APPROVED	GANESH	17.05.2022
DRAWING NUMBER : ASP/LIPL/22076F		REV.01	REV.02	REV.03
		REV.02	REV.03	REV.04
RELEASED FOR		PRELIMINARY		CONSTRUCTION
		SCALE		SHEET NO.
		N.T.S.		5 OF 5

TITLE :
48V DC DISTRIBUTION BOARD
BILL OF MATERIALS



ASIAN SWITCHGEAR PVT. LTD.

B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.)

www.asianSwitchgear.com

Email: asianknp@gmail.Com

Asian Switchgear Pvt. Ltd.

DRAWING FOR APPROVAL

PANEL NAME	BMK-132KV
CLIENT	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)
CONTRACTOR	LIVINDIA INFRA PRIVATE LIMITED
PROJECT.	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
AGREEMENT NO:	13 & 14 dated 24.09.2021
NIT No.	13/PR/BSPTCL/2021
QTY.	11Nos.

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited

Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		DRAWN	CHECKED	APPROVED
Asian Switchgear Pvt. Ltd. Bihar State Power Transmission Company Limited Plot No. 17, Rooma Industrial Estate, Kanpur (U.P.) Ph:0512-2410004, Fax: 0512-2410002 E-Mail: asianknp@gmail.Com		GANESH	GANESH	
		NAME	DATE	TITLE:
			17.05.2022	BMK-132KV
			17.05.2022	TITLE SHEET
DRAWING NUMBER : ASPL/LIPL/22076G		REV.01	REV.02	REV.03
RELEASED FOR		PRELIMINARY		APPROVAL
				CONSTRUCTION
				SCALE
				N.T.S.
				SHEET NO.
				1 OF 6

GENERAL NOTES :-

- ALL DIMENSIONS ARE IN MM.
- THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, FLOOR MOUNTED AND NONCOMPARTMENTALIZED.
- THE PANEL SHALL BE SUITABLE FOR 3Ø, 4W, 415V AC, 50 HZ SUPPLY.
- THE PANEL SHALL BE FABRICATED WITH - 2.0/1.6 MM. CRCA.
- RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
- THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
- BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
- BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
- EARTH BUS SHALL BE PROVIDED.
- CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - AC VOLTAGE CIRCUIT - 1.5 SQ MM RED, YELLOW, BLUE, BLACK
 - CURRENT CIRCUIT - 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - AC CONTROL CKT. - 1.5 SQ MM RED, BLACK
 - GROUNDING - 2.5 SQ MM GREEN

APPROVED

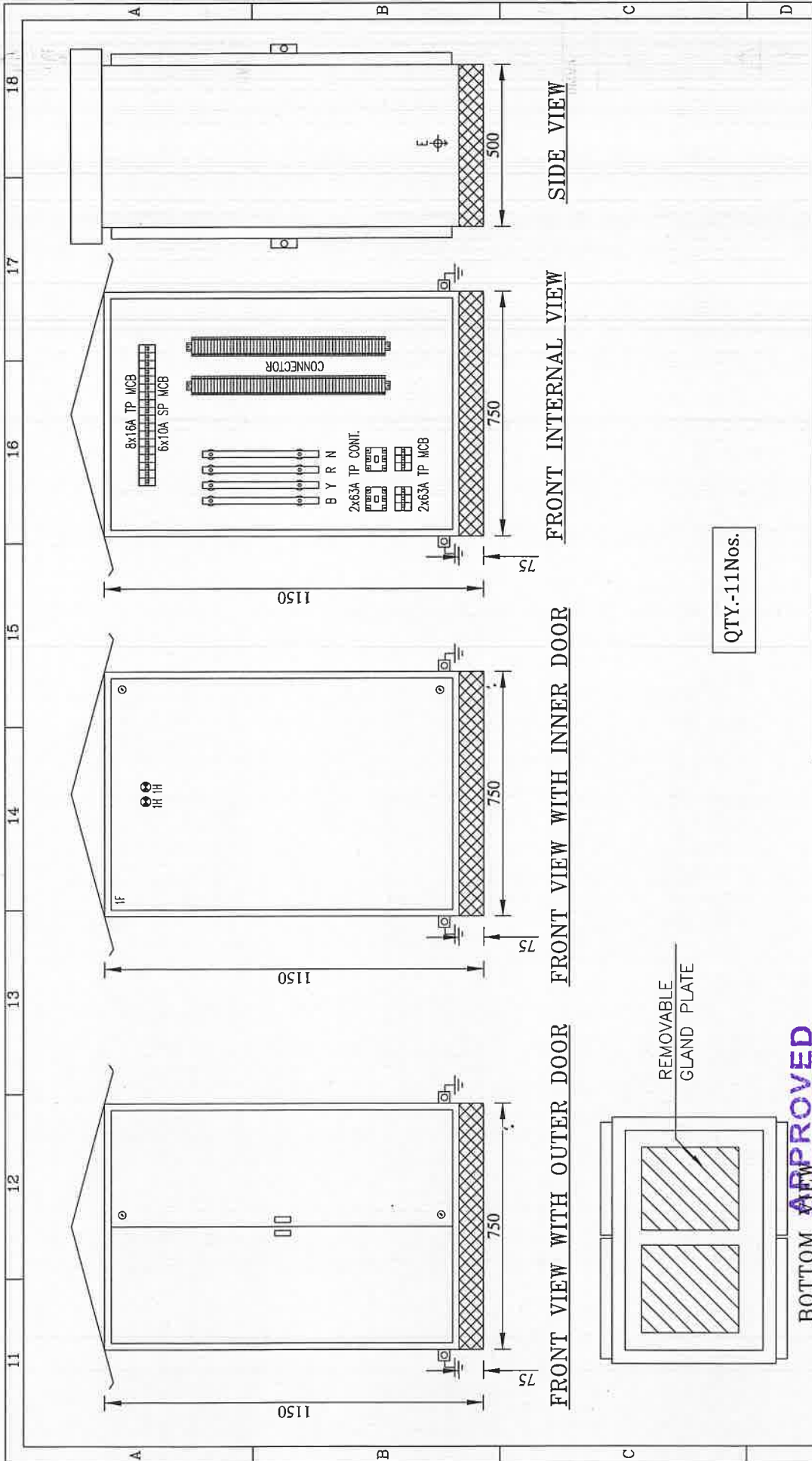
Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

20 JUL 2022

- THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
 - BETWEEN PHASE TO PHASE - 20 MM
 - BETWEEN PHASE TO NEUTRAL - 20 MM
 - BETWEEN PHASE TO EARTH - 20 MM
 - BETWEEN NEUTRAL TO EARTH - 20 MM
- NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
- PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
- CABLE ENTRY AS PER G.A. DRAWING.
- PAINT SHADE -RAL-7032

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:	ASIAN SWITCHGEAR PVT. LTD. Plot No.12-2410004, Ex. 0512-2410002 www.asianswitchgear.com E-Mail: asiansw@rediffmail.com	DRAWN CHECKED APPROVED	NAME GANESH GANESH	DATE 17.05.2022 17.05.2022
DRAWING NUMBER : ASPL/LIPL/22076G		REV.01 REV.02	REV.03 REV.04	SCALE N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	
SHEET NO. 2 OF 6				



QTY.-11Nos.

BOTTOM APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

20 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)		
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED		
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD		
NIT No.:	13/PR/BSPTCL/2021		
MANUFACTURER:		NAME	DATE
Asian Switchgear Pvt. Ltd. Plot No. 12-241/10004, Phase: 05-12-241/10004 Vidhyut Bhawan, Patna-800021 www.asianswitchgear.com E-Mail: asiansup@asiansup.com		DRAWN	17.05.2022
		CHECKED	17.05.2022
		APPROVED	
DRAWING NUMBER: ASPL/LIPL/22076G		REV.01	REV.03
		REV.02	REV.04
RELEASED FOR		PRELIMINARY	CONSTRUCTION
		SCALE	N.T.S.
		SHEET NO.	3 OF 6

TITLE:
BMK-132KV
GENERAL ARRANGE DIAGRAM

3 ϕ , 4W, 50Hz, 415V, TPN CU. BUSBAR

FEEDER NO.	FEEDER RATING	FEEDER DESCRIPTION	CABLE SIZE IN mm ²
1F	63A	INCOMER-1 (STAND BY)	**
1F	63A	INCOMER-1 (MANS)	**
1F	16A	OUTGOING	**
1F	16A	OUTGOING	**
1F	16A	OUTGOING	**
1F	16A	OUTGOING	**

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPCL)
CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED
PROJECT: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
NIT No.: 13/PR/BSPCL/2021

MANUFACTURER:
ASIAN Switchgear Pvt. Ltd.
 B-17 Ikon Industrial Estate Kanger (UP)
 Lucknow - 226002
 www.asianswitchgear.com
 E-Mail: sales@asianswitchgear.com

TITLE:
BMK-132KV
SINGLE LINE DIAGRAM

DRAWING NUMBER: ASPL/LIPL/22076G

REV.01 **REV.02** **REV.03** **REV.04**

SCALE
N.T.S.

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

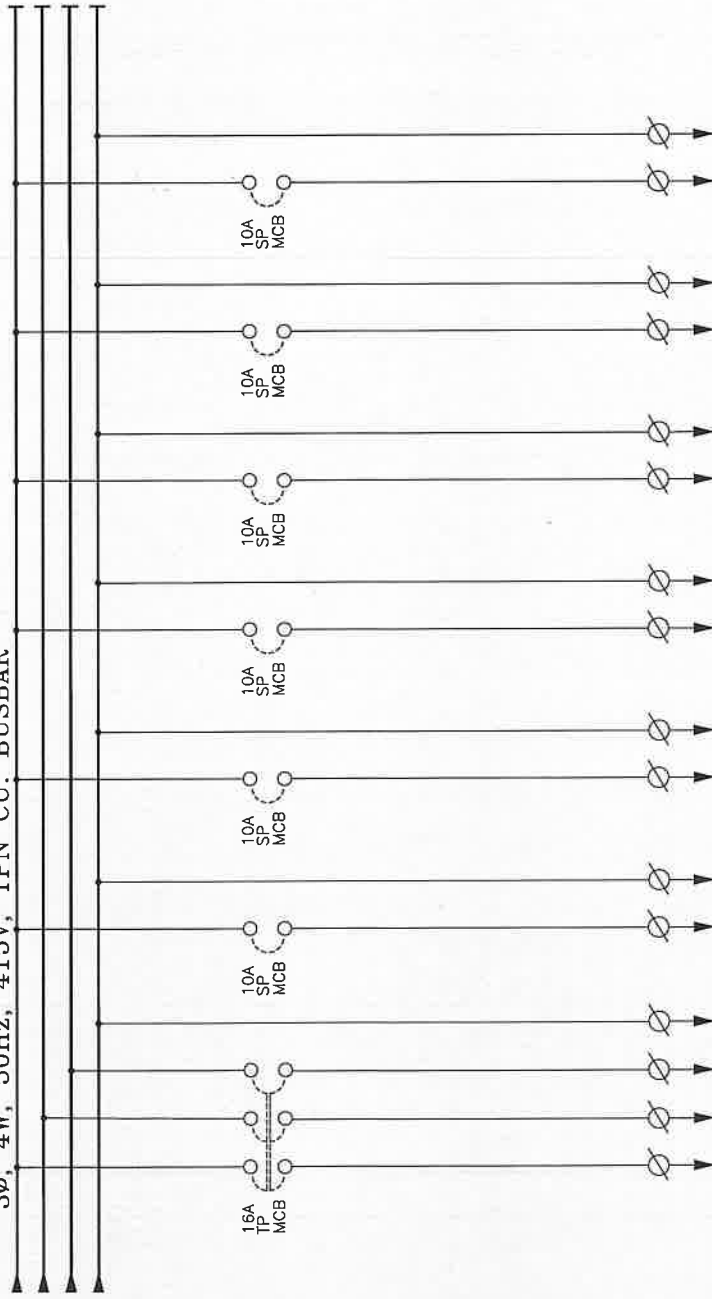
Bihar State Power Transmission Company Limited
Vidnaut Bihawan Patna-800021

2000

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)										
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED										
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD										
NIT No. :	13/PR/BSPTCL/2021										
ASPL MANUFACTURER : Aelam Switchgear Pvt. Ltd. Bt-17, Rooma, Industrial Estate, Kalamir (L.P.) Ph:0512-2410004, Fax: 0513-2410002 E-Mail: aelamswitchgear.com E-Mail: marketing@aelam.com				NAME	DATE	TITLE : BMK-132KV SINGLE LINE DIAGRAM				SCALE N.T.S.	
DRAWN	GANESH	17.05.2022									
CHECKED	GANESH	17.05.2022									
APPROVED											
DRAWING NUMBER : ASPL/LIPL/22076G Aelam Switchgear Pvt. Ltd.				REV.01	--	REV.03	--				
				REV.02	--	REV.04	--				
RELEASED FOR	☐	PRELIMINARY	☒	APPROVAL	☐	CONSTRUCTION	SHEET NO. 4 OF 6				

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ASIAN SWITCHGEAR PVT. LTD. & must not be disclosed, loaned, copied or used for manufacturing tendering
or for any other purpose without their written permission

3 ϕ , 4W, 50Hz, 415V, TPN CU. BUSBAR



FEEDER	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F	1F
FEEDER RATING	16A	10A	10A	10A	10A	10A	10A	10A	10A	10A	10A
FEEDER DESCRIPTION	OUTGOING	OUTGOING	OUTGOING	OUTGOING	OUTGOING	OUTGOING	OUTGOING	OUTGOING	OUTGOING	OUTGOING	OUTGOING
CABLE SIZE IN mm2	**	**	**	**	**	**	**	**	**	**	**

Subjct to the condition that you are not absolved of
the responsibility for correctness of the materials
supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			

 MANUFACTURER : Asian Switchgear Pvt. Ltd. B-17 Boomer Industrial Estate, Kanyur (UP) Ph:0512-2410004, Fax: 0512-2410002 www.asianswitchgear.com E-Mail: asiansales@gmail.com		NAME	DATE	TITLE : BMK-132KV SINGLE LINE DIAGRAM	
	DRAWN	GANESH	17.05.2022		
	CHECKED	GANESH	17.05.2022		
	APPROVED				
DRAWING NUMBER : ASPL/LIPL/22076G					
	REV.01	--		REV.03	--
	REV.02	--		REV.04	--
SCALE N.T.S.					
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION		SHEET NO. 5 OF 6

Sr. No.	Item Description	Cat No.	Qty	Make
	Incoming :-			
1	MCB 63A TP		2	C&S/HPL
2	MCB 16A TP		4	C&S/HPL
3	MCB 10A SP		6	C&S/HPL
4	Contactor 63A TP 220V AC Coil AC-3 Duty		2	C&S/HPL
5	On-delay Timer 230V AC		1	Selec
6	Indicating Lamp LED Type R 220 V AC		2	Vaishno
7	HRC Fuse with Base		3	C&S/HPL
8	Thermostate 30' -110°C		1	Rep.
9	Space Heater 60/75 W		1	Rep.
10	Bulb Holder with door Switch		1	Anchor/Rep.
11	Terminal I/C 35 sq mm		8	Elmex/Connectwell/Rep.
12	Terminal O/G 6 sq mm		50	Elmex/Connectwell/Rep.
13	Terminal O/G 6 sq mm		100	Elmex/Connectwell/Rep.

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)											
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED											
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD											
NIT No. :	13/PR/BSPTCL/2021											
 MANUFACTURER : Asian Switchgear Pvt. Ltd. Plot No. 12-34,10004, Faridkot, Punjab (India) Ph:0181-2-3410004, Fax: 0181-2-3410002 www.asian-switchgear.com E-Mail: asianinfo@gmail.com	DRAWN		NAME		DATE		TITLE : BMK-132KV BILL OF MATERIALS					
	CHECKED		GANESH		17.05.2022							
	APPROVED		GANESH		17.05.2022							
DRAWING NUMBER : ASPL/LIPL/22076G							REV.01		--	REV.03	--	SCALE
							REV.02		--	REV.04	--	N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 6 OF 6								

11 12 13 14 15 16 17 18																	
ASIAN SWITCHGEAR PVT. LTD. B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.) www.asianSwitchgear.com Email: asianknp@gmail.Com																	
DRAWING FOR APPROVAL																	
PANEL NAME: BMK-33KV																	
CLIENT: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)																	
CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED																	
PROJECT: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD																	
AGREEMENT NO: 13 & 14 dated 24.09.2021																	
NIT No. 13/PR/BSPTCL/2021																	
QTY. 11Nos.																	
APPROVED Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification Electrical Superintending Engineer (Planning and Engineering) Bihar State Power Transmission Company Limited Viduyut Bhawan, Patna-800021 12 JUL 2022																	
CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)																	
CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED																	
PROJECT: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD																	
NIT No.: 13/PR/BSPTCL/2021																	
MANUFACTURER: Asian Switchgear Pvt. Ltd. Plot No. 13/241000A, Phase I, Kanpur (UP) Pin: 208013, India Tel: 0512-241000A, Fax: 0512-241000B E-Mail: asianknp@gmail.Com																	
DRAWING NUMBER: ASPL/LIPL/22076H																	
RELEASED FOR: ☐ PRELIMINARY ☒ APPROVAL ☐ CONSTRUCTION																	
SHEET NO. 1 OF 6																	

GENERAL NOTES :-

- ALL DIMENSIONS ARE IN MM.
- THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, FLOOR MOUNTED AND NONCOMPARTMENTALIZED.
- THE PANEL SHALL BE SUITABLE FOR 3Ø, 4W, 415V AC, 50 HZ SUPPLY.
- THE PANEL SHALL BE FABRICATED WITH - 2.0/1.6 MM. CRCA.
- RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
- THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
- BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
- BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
- EARTH BUS SHALL BE PROVIDED.
- CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - AC VOLTAGE CIRCUIT - 1.5 SQ MM RED, YELLOW, BLUE, BLACK
 - CURRENT CIRCUIT - 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - AC CONTROL CKT. - 1.5 SQ MM RED, BLACK
 - GROUNDING : - 2.5 SQ MM GREEN

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

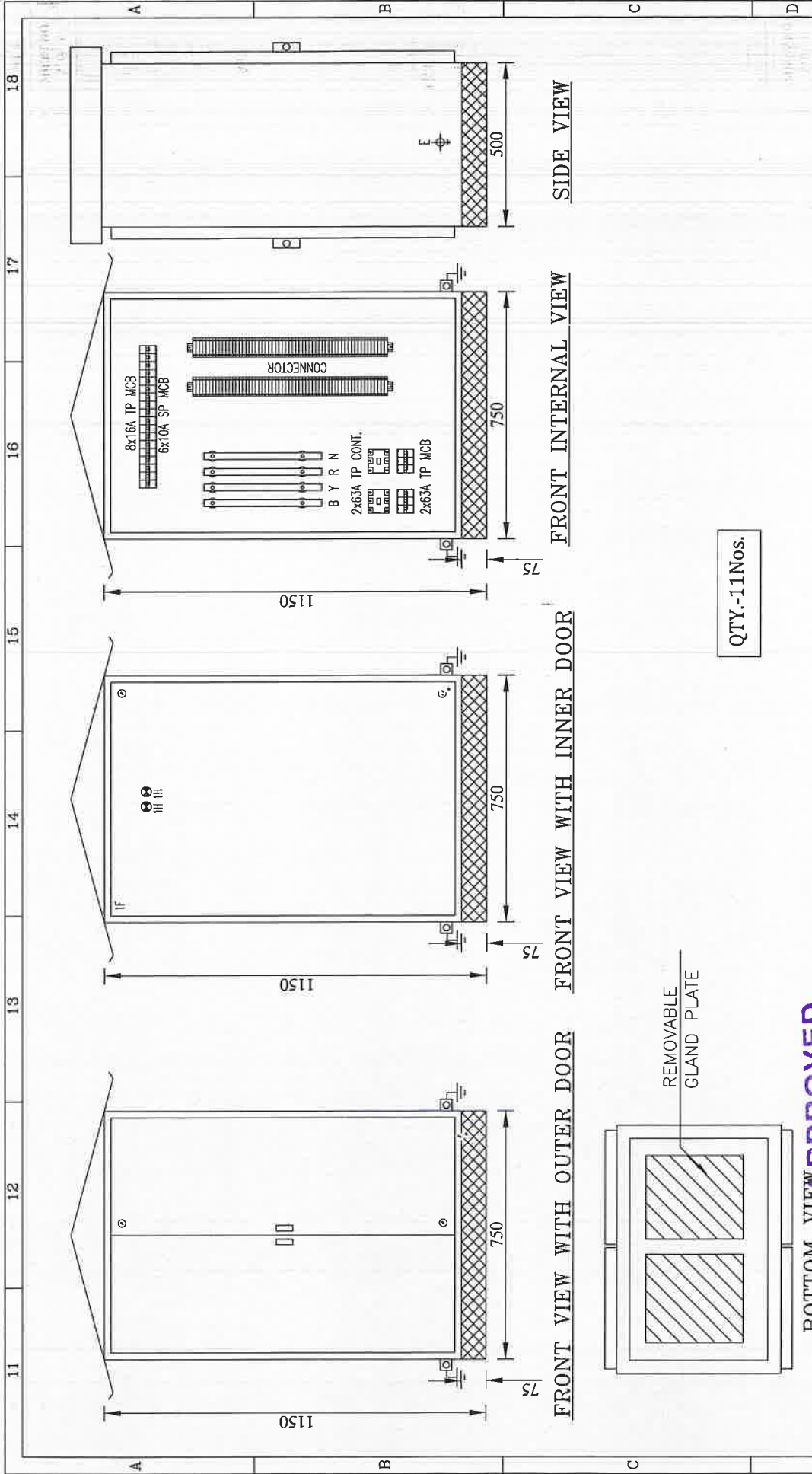
28 JUL 2022

- THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
 - BETWEEN PHASE TO PHASE - 20 MM
 - BETWEEN PHASE TO NEUTRAL - 20 MM
 - BETWEEN PHASE TO EARTH - 20 MM
 - BETWEEN NEUTRAL TO EARTH - 20 MM
- NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
- PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
- CABLE ENTRY AS PER G.A. DRAWING.
- PAINT SHADE -RAL-7032

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CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD			
NIT No.:	13 /PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. Plot No. 13, Sector 13, Phase 1, Industrial Area, Patna-800021 Ph: 0812-2410004, Fax: 0812-2410002 www.asianswitchgear.com E-Mail: asianinfo@gmail.com		DRAWN GANESH	CHECKED GANESH	APPROVED GANESH
		NAME GANESH	DATE 17.05.2022	TITLE : BMK-33KV GENERAL NOTE
DRAWING NUMBER : ASP/LIPL/22076H		REV.01 ---	REV.02 ---	REV.03 ---
DRAWING NUMBER : ASP/LIPL/22076H		REV.01 ---	REV.02 ---	REV.03 ---
RELEASED FOR ☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION		SCALE N.T.S.
SHEET NO. 2 OF 6				

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APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		NAME	DATE	TITLE:
 Asian Switchgear Pvt. Ltd. Alpha Switchgear Pvt. Ltd. B-17, Roosts Industrial Estate, Kanpur (UP) Ph: 0512-2410004, Fax: 0512-2410002 E-Mail: sales@asianswitchgear.com		DRAWN	17.05.2022	BMK-33KV GENERAL ARRANGE DIAGRAM
		CHECKED	17.05.2022	
		APPROVED		
DRAWING NUMBER: ASPL/LIPL/22076H		REV.01	REV.02	REV.03
RELEASED FOR		PRELIMINARY	APPROVAL	CONSTRUCTION
				SCALE N.T.S.
				SHEET NO. 3 OF 6

[illegible]

3 ϕ , 4W, 50Hz, 415V, TPN CU. BUSBAR

FEEDER NO.	1F	1F	1F	1F	1F
FEEDER RATING	63A	16A	16A	16A	16A
FEEDER DESCRIPTION	INCOMER-1(MAINS)	OUTGOING	OUTGOING	OUTGOING	OUTGOING
CABLE SIZE IN mm2	**	**	**	**	**

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

**Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021**

28 JUL 2022

Customer: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPPTCL)

Contractor: LIVINDIA INFRA PRIVATE LIMITED

Project: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD

NIT No.: 13/PR/BSPPTCL/2021

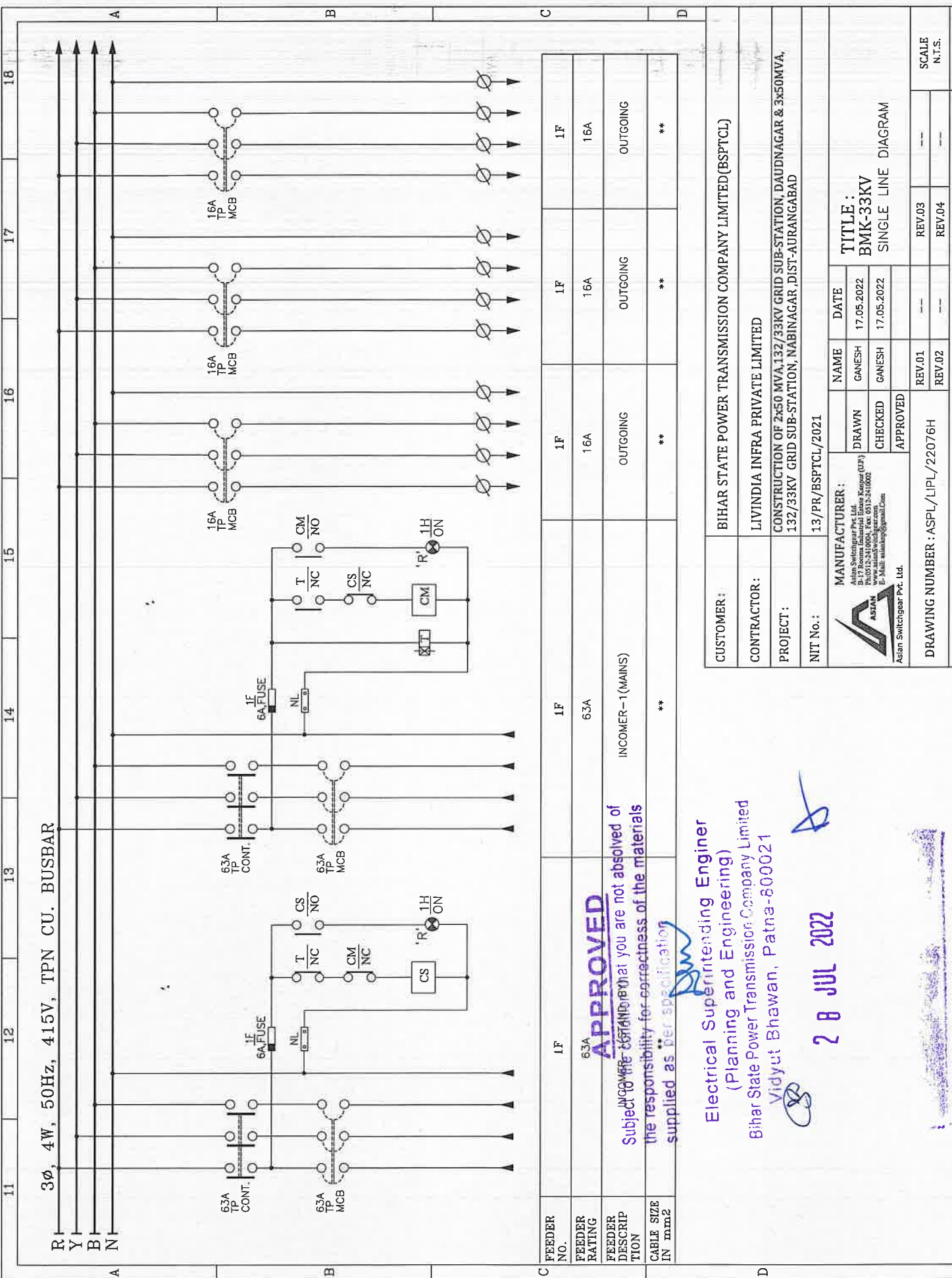
MANUFACTURER: Asian Switchgear Pvt. Ltd.
B-17 Sector-16 Industrial Estate Engage (UP) Gurgaon Haryana India-122002
www.asianswitchgear.com
E-Mail : asiandesign@gmail.com

TITLE: BMK-33KV SINGLE LINE DIAGRAM

DRAWING NUMBER : ASPL/LIPL/22076H

REV.01 **REV.02** **REV.03** **REV.04**

SCALE N.T.S.



3 ϕ , 4W, 50Hz, 415V, TPN CU. BUSBAR

FEEDER NO.	1F	1F	1F	1F	1F
FEEDER RATING	63A	16A	16A	16A	16A
FEEDER DESCRIPTION	INCOMER-1(MAINS)	OUTGOING	OUTGOING	OUTGOING	OUTGOING
CABLE SIZE IN mm2	**	**	**	**	**

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

**Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021**

28 JUL 2022

Customer: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPPTCL)

Contractor: LIVINDIA INFRA PRIVATE LIMITED

Project: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD

NIT No.: 13/PR/BSPPTCL/2021

MANUFACTURER: Asian Switchgear Pvt. Ltd.
B-17 Sector Industrial Estate Engage (UP)
Lucknow - 226005
www.asianswitchgear.com
E-Mail : asianup@gmail.com

TITLE: BMK-33KV SINGLE LINE DIAGRAM

DRAWING NUMBER : ASPL/LIPL/22076H

REV.01 **REV.02** **REV.03** **REV.04**

SCALE N.T.S.

[illegible]

3 ϕ , 4W, 50Hz, 415V, TPN CU. BUSBAR

FEEDER NO.	1F	1F	1F	1F	1F
FEEDER RATING	63A	63A	63A	63A	63A
FEEDER DESCRIPTION	INCOMER-1(MAINS)	OUTGOING	OUTGOING	OUTGOING	OUTGOING
CABLE SIZE IN mm2	**	**	**	**	**

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Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

**Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021**

28 JUL 2022

**TITLE :
BMK-33KV
SINGLE LINE DIAGRAM**

CUSTOMER : BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPPTCL)
CONTRACTOR : LIVINDIA INFRA PRIVATE LIMITED
PROJECT : CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
NIT No. : 13/PR/BSPPTCL/2021

MANUFACTURER :
Asian Switchgear Pvt. Ltd.
B-17 Sector Industrial Estate Engage (UP)
Lucknow - 226016
www.asianswitchgear.com
E-Mail : asianup@gmail.com

DRAWN : GANESH
CHECKED : GANESH
APPROVED :

REVISIONS :

REV	DATE	DESCRIPTION
REV.01	17.05.2022	
REV.02	17.05.2022	
REV.03		
REV.04		

SCALE : N.T.S.

3 ϕ , 4W, 50Hz, 415V, TPN CU. BUSBAR

FEEDER NO.	1F	1F	1F	1F	1F
FEEDER RATING	63A	16A	16A	16A	16A
FEEDER DESCRIPTION	INCOMER-1(MAINS)	OUTGOING	OUTGOING	OUTGOING	OUTGOING
CABLE SIZE IN mm2	**	**	**	**	**

APPROVED

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**Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021**

28 JUL 2022

**TITLE :
BMK-33KV
SINGLE LINE DIAGRAM**

CUSTOMER : BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPPTCL)
CONTRACTOR : LIVINDIA INFRA PRIVATE LIMITED
PROJECT : CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
NIT No. : 13/PR/BSPPTCL/2021

MANUFACTURER :
Asian Switchgear Pvt. Ltd.
B-17 Sector Industrial Estate Engage (UP)
Lucknow - 226018
www.asianswitchgear.com
E-Mail : asianup@gmail.com

DRAWN : GANESH
CHECKED : GANESH
APPROVED :

REVISIONS :

REV	DATE	DESCRIPTION
REV.01	17.05.2022	
REV.02	17.05.2022	
REV.03		
REV.04		

SCALE : N.T.S.

3 ϕ , 4W, 50Hz, 415V, TPN CU. BUSBAR

FEEDER NO.	1F	1F	1F	1F	1F
63A TP CONT.	63A	16A	16A	16A	16A
INCOMER-1(MAINS)	**	**	**	**	**
CABLE SIZE IN mm2	**	**	**	**	**

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**Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021**

28 JUL 2022

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPCTL)
CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED
PROJECT: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
NIT No.: 13/PR/BSPCTL/2021

MANUFACTURER:
Asian Switchgear Pvt. Ltd.
B-17 Sector Industrial Estate Engage (UP)
GATEWAY INDUSTRIAL ESTATE
www.asianswitchgear.com
E-Mail: asianup@gmail.com

TITLE:
BMK-33KV
SINGLE LINE DIAGRAM

DRAWING NUMBER : ASPL/LIPL/22076H

REV.01 **REV.02** **REV.03** **REV.04**

SCALE
N.T.S.

Sr. No.	Item Description	Cat No.	Qty	Make
	Incoming :-			
1	MCB 63A TP		2	C&S/HPL
2	MCB 16A TP		4	C&S/HPL
3	MCB 10A SP		6	C&S/HPL
4	Contactor 63A TP 220V AC Coil AC-3 Duty		2	C&S/HPL
5	On-delay Timer 230V AC		1	Selec
6	Indicating Lamp LED Type R 220 V AC		2	Vaishno
7	HRC Fuse with Base		3	C&S/HPL
8	Thermostate 30' -110'C		1	Rep.
9	Space Heater 60/75 W		1	Rep.
10	Bulb Holder with door Switch		1	Anchor/Rep.
11	Terminal I/C 35 sq mm		8	Elmex/Connectwel/Rep.
12	Terminal O/G 6 sq mm		50	Elmex/Connectwel/Rep.
13	Terminal O/G 6 sq mm		100	Elmex/Connectwel/Rep.

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Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA/132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. Plot No. 13, Industrial Estate, Kumbhariya, Patna-800021 Tel: 051-2411004, Fax: 051-2411005 www.asian-switchgear.com E-Mail: asianesp@gnmt.com	DRAWN	NAME	DATE	TITLE:
	CHECKED	GANESH	17.05.2022	BMK-33KV
	APPROVED	GANESH	17.05.2022	BILL OF MATERIALS
	DRAWING NUMBER : ASPL/LIPL/22076H	REV.01	---	REV.03
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	REV.02	REV.04
DRAWING NUMBER : ASPL/LIPL/22076H		SCALE	N.T.S.	SHEET NO. 6 OF 6

 ASIAN SWITCHGEAR PVT. LTD. B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.) www.asianSwitchgear.com Email: asianknp@gmail.Com																	
DRAWING FOR APPROVAL																	
PANEL NAME																	
LIGHTING PANEL(INDOOR) TYPE ACP-1																	
CLIENT																	
BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)																	
CONTRACTOR																	
LIVINDIA INFRA PRIVATE LIMITED																	
PROJECT.																	
CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD																	
AGREEMENT NO:																	
13 & 14 dated 24.09.2021																	
NIT No.																	
13/PR/BSPTCL/2021																	
QTY.																	
8Nos.																	
APPROVED																	
Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification																	
Electrical Superintending Engineer (Planning and Engineering) Bihar State Power Transmission Company Limited Vidyut Bhawan, Patna-800021																	
28 JUL 2022																	
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CUSTOMER:				BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:				LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:				CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD			
NIT No.:				13/PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. Plot No. 17, Rooma Estate, Kanpur (U.P.) Tel: 0512-2418004, Fax: 0512-2418002 www.asianSwitchgear.com E-Mail: asianknp@gmail.Com				NAME GANESH GANESH APPROVED		DATE 17.05.2022 17.05.2022 ---	
TITLE: LIGHTING PANEL(INDOOR) TYPE ACP-1 TITLE SHEET				REV.01 ---		REV.03 ---	
DRAWING NUMBER: ASPL/LIPL/220761				REV.02 ---		REV.04 ---	
RELEASED FOR				☐ PRELIMINARY		☒ APPROVAL	
CONSTRUCTION				☐ CONSTRUCTION		SHEET NO. 1 OF 6	

GENERAL NOTES :-

- ALL DIMENSIONS ARE IN MM.
- THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, WALL MOUNTED
- THE PANEL SHALL BE SUITABLE FOR 3Ø, 4W, 415V AC, 50 HZ SUPPLY.
- THE PANEL SHALL BE FABRICATED WITH - 2.0/1.6 MM. CRCA.
- RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
- THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
- BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
- BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
- EARTH STUD SHALL BE PROVIDED.
- CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - AC VOLTAGE CIRCUIT - 1.5 SQ MM RED, YELLOW, BLUE, BLACK
 - CURRENT CIRCUIT : - 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - AC CONTROL CKT. - 1.5 SQ MM RED, BLACK
 - GROUNDING - 2.5 SQ MM GREEN

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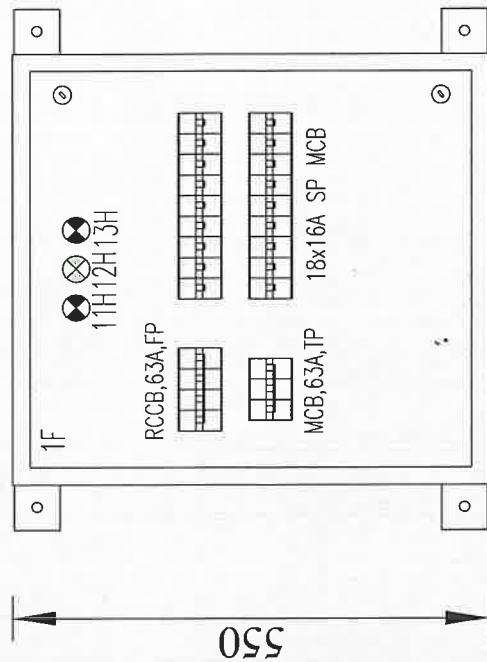
Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Viduyut Bhawan, Patna-800021

28 JUL 2022

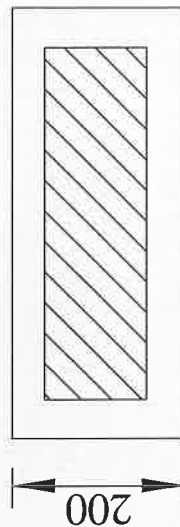
- THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
 - BETWEEN PHASE TO PHASE - 20 MM
 - BETWEEN PHASE TO NEUTRAL - 20 MM
 - BETWEEN PHASE TO EARTH - 20 MM
 - BETWEEN NEUTRAL TO EARTH - 20 MM
- NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
- PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
- CABLE ENTRY AS PER G.A. DRAWING.
- PAINT SHADE -RAL-7032

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. B-17 Roza Industrial Estate Kharagpur (J.P.) Pin-751004, Fax: 0672-2410002 E-Mail: asianinfo@gmail.com		DRAWN GANESH	NAME GANESH	DATE 17.05.2022
		CHECKED GANESH	NAME GANESH	DATE 17.05.2022
		APPROVED		
DRAWING NUMBER : ASPL/LIPL/220761		REV.01	REV.03	SCALE N.T.S.
		REV.02	REV.04	
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 2 OF 6

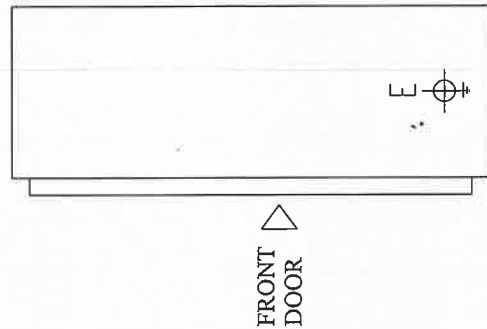
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500
FRONT VIEW



200
BOTTOM VIEW



200
SIDE VIEW

QTY.-8Nos.

* Din mounted phase indication
Lamps shall be provided,
mounted along side of the MCB

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Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

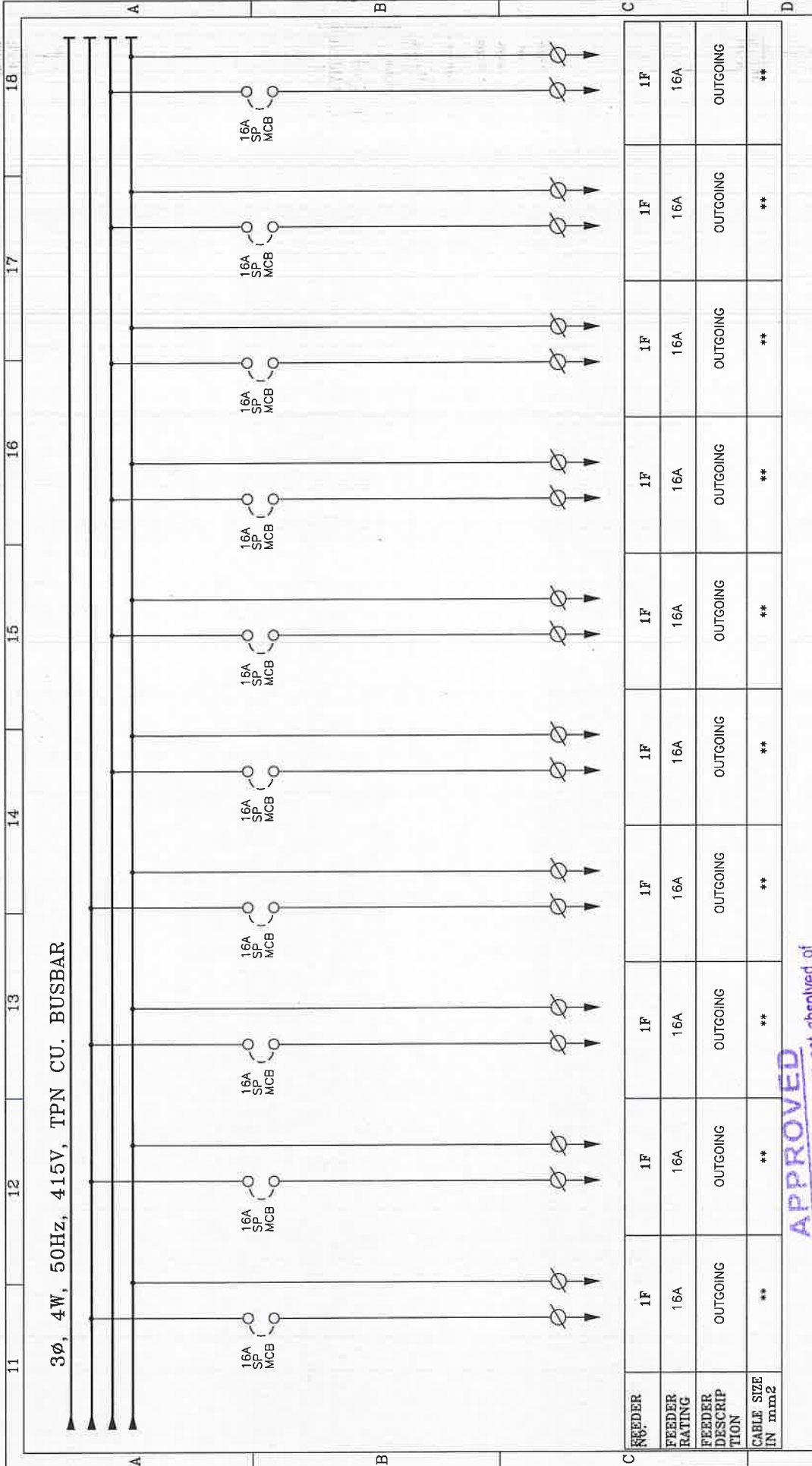
CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)												
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED												
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD												
NIT No. :	13/PR/BSPTCL/2021												
 MANUFACTURER : Asian Switchgear Pvt. Ltd., D-17 Roopa Industrial Estate, Kanger (UP) Pin-201324, Dist-Prayagraj, U.P. www.asianswitchgear.com E-Mail: asiankg@gmail.com				NAME		DATE		TITLE : LIGHTING PANEL(INDOOR) TYPE ACP-1 GENERAL ARRANGE DIAGRAM					
				DRAWN		17.05.2022							
				CHECKED		17.05.2022							
				APPROVED									
DRAWING NUMBER : ASPL/LIPL/220761								REV.01		REV.03		SCALE	
								REV.02		REV.04		N.T.S.	
RELEASED FOR	☐ PRELIMINARY		☒ APPROVAL		☐ CONSTRUCTION		SHEET NO. 3 OF 6						

[illegible]

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**Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Viduyut Bhawan, Patna-800021**

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)										
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED										
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD										
NIT No. :	13/PR/BSPTCL/2021										
MANUFACTURER : Aslstar Switchgear Pvt. Ltd. Plot No 132-2-410004, E-sec-03/2-410002 www.aslstarswitchgear.com E-Mail: aslstarip@gmail.com				NAME	DATE	TITLE : LIGHTING PANEL(INDOOR) TYPE ACP-1 SINGLE LINE DIAGRAM					
				DRAWN	GANESH					17.05.2022	
				CHECKED	GANESH					17.05.2022	
				APPROVED							
DRAWING NUMBER : ASPL/LIPL/220761						REV.01	--	REV.03	--	SCALE	N.T.S.
						REV.02	--	REV.04	--		
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 4 OF 6							



CUSTOMER:		BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)									
CONTRACTOR:		LIVINDIA INFRA PRIVATE LIMITED									
PROJECT:		CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD									
NIT No.:		13/PR/BSPTCL/2021									
MANUFACTURER:		 Asian Switchgear Pvt. Ltd. B-17, Roona Industrial Estate, Kharagpur (G.P.) Pin-751013, Dist. Khurda, Odisha-751013 E-Mail: sales@asianswitchgear.com									
DRAWING NUMBER:		ASPL/LIPL/22076I									
RELEASED FOR:		☐ PRELIMINARY ☒ APPROVAL ☐ CONSTRUCTION									
TITLE:		LIGHTING PANEL (INDOOR) TYPE ACP-1 SINGLE LINE DIAGRAM									
DATE		17.05.2022 17.05.2022									
NAME		GANESH GANESH									
REV.01		---									
REV.02		---									
REV.03		---									
REV.04		---									
SCALE		N.T.S.									
SHEET NO.		5 OF 6									

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APPROVED
 Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification
 Electrical Superintending Engineer
 (Planning and Engineering)
 Bihar State Power Transmission Company Limited
 Vidyut Bhawan, Patna-800021
 28 JUL 2022

Sr. No.	Item Description	Cat No.	Qty	Make
Incoming :-				
1	63A TP MCB 10KA	1	1	C&S/HPL
2	63A FP RCCB 30mA		1	C&S/HPL
3	Phase indicating Lamp RYB 22.5SQ MM1 set		1	Vaishno
4	HRC Fuse with Base		3	C&S/HPL
5	16A SP MCB 10KA		18	C&S/HPL
6	Power Terminal 16 Sqmm		4	Elmex/Connectwell/Rep.
7	Power Terminal 6 Sqmm		36	Elmex/Connectwell/Rep.

APPROVED

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 the responsibility for correctness of the materials
 supplied as per specification

Electrical Superintending Engineer
 (Planning and Engineering)
 Bihar State Power Transmission Company Limited
 Vidyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)										
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED										
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD										
NIT No.:	13/PR/BSPTCL/2021										
 ASIAN Switchgear MANUFACTURER : Asian Switchgear Pvt. Ltd. Plot No. 13, Industrial Area, Phase II, Kumbhariya (UP) Pin: 201312, India. Fax: 0512-2410001 www.asianswitchgear.com E-Mail: asian@asianswitchgear.com Asian Switchgear Pvt. Ltd.	DRAWN		NAME		DATE		TITLE : LIGHTING PANEL(INDOOR) TYPE ACP-1 BILL OF MATERIALS				
	CHECKED		GANESH		17.05.2022						
	APPROVED										
	DRAWING NUMBER : ASPL/LIPL/220761						REV.01		REV.03		SCALE N.T.S.
						REV.02		REV.04			
RELEASED FOR	☐ PRELIMINARY		☒ APPROVAL		☐ CONSTRUCTION		SHEET NO. 6 OF 6				

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 ASIAN SWITCHGEAR PVT. LTD. B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.) www.asianswitchgear.com Email: asianknp@gmail.com DRAWING FOR APPROVAL PANEL NAME LIGHTING PANEL(OUTDOOR) TYPE ACP-2 CLIENT  BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL) CONTRACTOR  LIVINDIA INFRA PRIVATE LIMITED Building India PROJECT. CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD AGREEMENT NO: 13 & 14 dated 24.09.2021 NIT No. 13/PR/BSPTCL/2021 QTY. 16Nos.																																										
APPROVED Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification  Electrical Superintending Engineer (Planning and Engineering) Bihar State Power Transmission Company Limited Miyot Bhawan, Patna-800021 20 JUL 2022 CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL) CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED PROJECT: CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD NIT No.: 13/PR/BSPTCL/2021 MANUFACTURER:  Asian Switchgear Pvt. Ltd. Plot No. 13-241/0004, Ex: 0512-241/0002 www.asianswitchgear.com E-Mail: asianknp@gmail.com <table><thead><tr><th>DRAWN</th><th>CHECKED</th><th>APPROVED</th><th>NAME</th><th>DATE</th></tr></thead><tbody><tr><td></td><td></td><td></td><td>GANESH</td><td>17.05.2022</td></tr><tr><td></td><td></td><td></td><td>GANESH</td><td>17.05.2022</td></tr><tr><td colspan="3">DRAWING NUMBER : ASPL/LIPL/22076J</td><td>REV.01</td><td>REV.03</td></tr><tr><td colspan="3"></td><td>REV.02</td><td>REV.04</td></tr></tbody></table> TITLE : LIGHTING PANEL(OUTDOOR) TYPE ACP-2 TITLE SHEET DRAWING NUMBER : ASPL/LIPL/22076J RELEASED FOR ☐ PRELIMINARY ☒ APPROVAL ☐ CONSTRUCTION SHEET NO. 1 OF 6 SCALE N.T.S.																		DRAWN	CHECKED	APPROVED	NAME	DATE				GANESH	17.05.2022				GANESH	17.05.2022	DRAWING NUMBER : ASPL/LIPL/22076J			REV.01	REV.03				REV.02	REV.04
DRAWN	CHECKED	APPROVED	NAME	DATE																																						
			GANESH	17.05.2022																																						
			GANESH	17.05.2022																																						
DRAWING NUMBER : ASPL/LIPL/22076J			REV.01	REV.03																																						
			REV.02	REV.04																																						

GENERAL NOTES :-

- ALL DIMENSIONS ARE IN MM.
- THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, WALL MOUNTED
- THE PANEL SHALL BE SUITABLE FOR 3Ø, 4W, 415V AC, 50 HZ SUPPLY.
- THE PANEL SHALL BE FABRICATED WITH - 2.0/1.6 MM. CRCA.
- RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
- THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
- BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
- BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
- EARTH STUD SHALL BE PROVIDED.
- CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - AC VOLTAGE CIRCUIT - 1.5 SQ MM RED, YELLOW, BLUE, BLACK
 - CURRENT CIRCUIT - 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - AC CONTROL CKT. - 1.5 SQ MM RED, BLACK
 - GROUNDING - 2.5 SQ MM GREEN

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

20 JUL 2022

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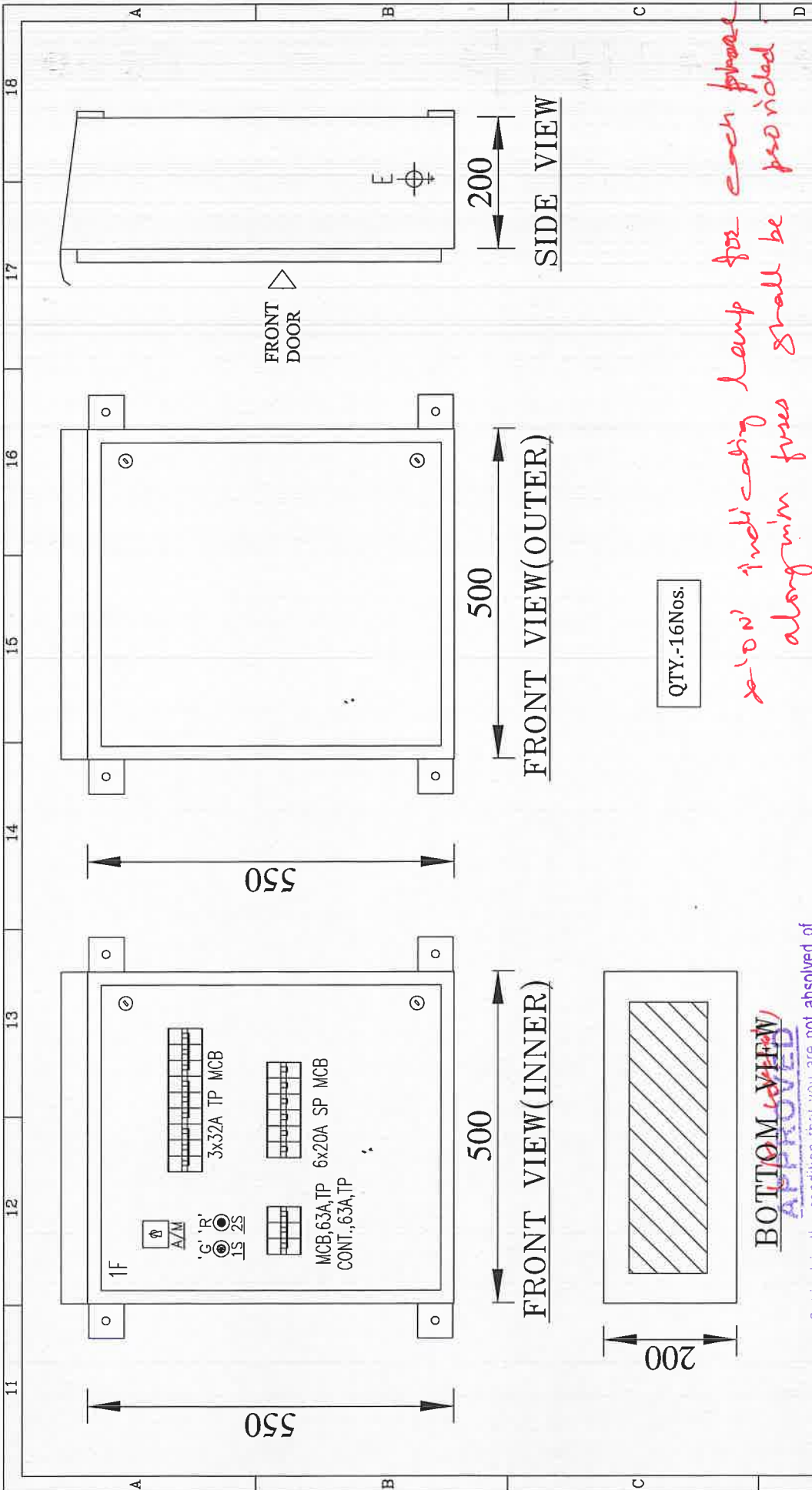
11.THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS

- FOLLOWS:
- BETWEEN PHASE TO PHASE - 20 MM
 - BETWEEN PHASE TO NEUTRAL - 20 MM
 - BETWEEN PHASE TO EARTH - 20 MM
 - BETWEEN NEUTRAL TO EARTH - 20 MM

- NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
- PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
- CABLE ENTRY AS PER G.A. DRAWING.
- PAINT SHADE -RAL-7032

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		NAME	DATE	TITLE:
 Asian Switchgear Pvt. Ltd. Plot No. 12-2410004, Phase: 03/12-2410002 www.asianswitchgear.com E-Mail: marketing@asian.com		DRAWN	17.05.2022	LIGHTING PANEL(OUTDOOR) TYPE ACP-2 GENERAL NOTE
		CHECKED	17.05.2022	
		APPROVED		
DRAWING NUMBER : ASPL/LIPL/22076J		REV.01	REV.03	SCALE
		REV.02	REV.04	N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 2 OF 6

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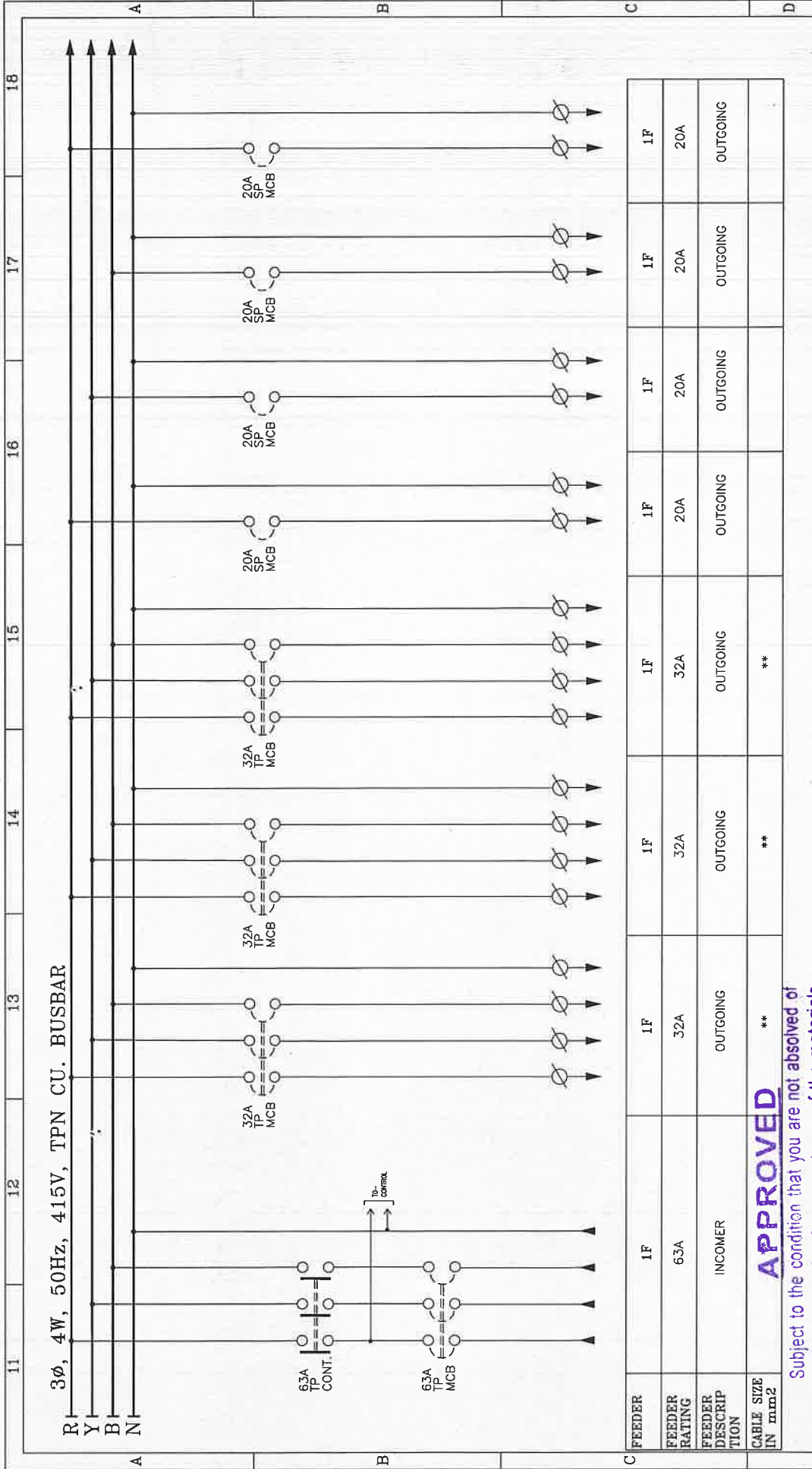


CUSTOMER::	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)										
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED										
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD										
NIT No.:	13/PR/BSPTCL/2021										
 MANUFACTURER : Asian Switchgear Pvt. Ltd. B-17, Buzona Industrial Estate, Kanpur (UP) Ph:0512-2410004, Fax: 0512-2410002 E-Mail: asian@sgmail.com				NAME		DATE		TITLE : LIGHTING PANEL(OUTDOOR) TYPE ACP-2 GENERAL ARRANGE DIAGRAM			
DRAWN				GANESH		17.05.2022					
CHECKED				GANESH		17.05.2022					
APPROVED											
DRAWING NUMBER : ASPL/LIPL/22076J				REV.01		---		REV.03		---	
				REV.02		---		REV.04		---	
SCALE		N.T.S.									
RELEASED FOR	☐	PRELIMINARY		☒	APPROVAL		☐	CONSTRUCTION		SHEET NO. 3 OF 6	

BOTTOM VIEW
APPROVED
Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification
Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

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Electrical Superintending Engineer,
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidyt Bhawan, Patna-800021

28 JUL 2022

CUSTOMER: BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)

CONTRACTOR: LIVINDIA INFRA PRIVATE LIMITED

PROJECT: CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD

NIT No.: 13/PR/BSPTCL/2021



MANUFACTURER:
Asian Switchgear Pvt. Ltd.
B-17, Poonam Industrial Estate, Kharajpur (UP)
Pin: 201312-241004, Fax: 0512-241002
E: sales@asianswitchgear.com
Asian Switchgear Pvt. Ltd.

DRAWN: GANESH
CHECKED: GANESH
APPROVED: GANESH

DATE: 17.05.2022

17.05.2022

TITLE: LIGHTING PANEL (OUTDOOR) TYPE ACP-2
SINGLE LINE DIAGRAM

DRAWING NUMBER: ASPL/LIPL/22076J

REV.01
REV.02
REV.03
REV.04

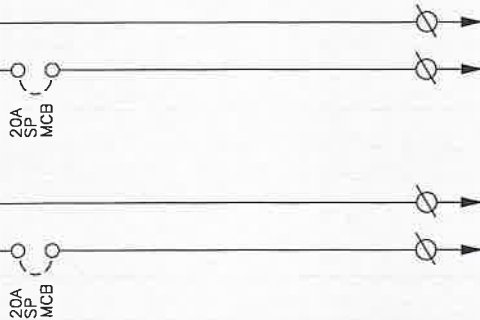
SCALE
N.T.S.

RELEASED FOR: ☐ PRELIMINARY ☒ APPROVAL ☐ CONSTRUCTION

SHEET NO.
4 OF 6

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3 ϕ , 4W, 50Hz, 415V, TPN CU. BUSBAR



FEEDER	1F	1F
FEEDER RATING	20A	20A
FEEDER DESCRIPTION	OUTGOING	OUTGOING
CABLE SIZE IN mm2	**	**

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidyt Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. Plot No. 23, Kauria (B.P.) Ph: 051-2410004, Fax: 051-2410002 www.asianswitchgear.com E-Mail: asian@asianswitchgear.com	DRAWN	NAME	DATE	TITLE:
	CHECKED	GANESH	17.05.2022	LIGHTING PANEL (OUTDOOR) TYPE ACP-2
	APPROVED	GANESH	17.05.2022	SINGLE LINE DIAGRAM
DRAWING NUMBER: ASPL/LIPL/22076J		REV.01	---	SCALE
		REV.02	---	N.T.S.
		REV.03	---	
		REV.04	---	
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 5 OF 6

Sr. No.	Item Description	Cat No.	Qty	Make
Incoming :-				
1	MCB 63A TP		1	C&S/HPL
2	Contactor 63A TP 220V AC Coil AC-3 Duty		1	C&S/HPL
3	MCB 32A TP		3	C&S/HPL
4	MCB 20A SP		6	C&S/HPL
5	Time Switch-240V Ac		1	L&T
6	Push button Red and Green		2	Vaishno
7	HRC Fuse with Base		1	C&S
8	A/M selector switch		1	Vaishno
9	Terminal O/G 16 sq mm		4	Elmex/Connectwell/Rep.
10	Terminal O/G 10 sq mm		24	Elmex/Connectwell/Rep.

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[Signature]

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

20 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. B-17 Roona Industrial Estate Kanpur (UP) Ph:0512-2410004, Fax: 0512-2410002 E-Mail: asiansg@asiansg.com		NAME GANESH GANESH APPROVED	DATE 17.05.2022 17.05.2022	TITLE: LIGHTING PANEL(OUTDOOR) TYPE ACP-2 BILL OF MATERIALS
DRAWING NUMBER: ASP/LIPL/22076J		REV.01 REV.02	REV.03 REV.04	SCALE N.T.S.
RELEASED FOR ☐ PRELIMINARY ☒ CONSTRUCTION	SHEET NO. 6 OF 6			



ASIAN SWITCHGEAR PVT. LTD.

B-17 ROOMA INDUSTRIAL ESTATE KANPUR (U.P.)

www.asianSwitchgear.com

Email: asianknp@gmail.Com

Asian Switchgear Pvt. Ltd.

DRAWING FOR APPROVAL

PANEL NAME	LIGHTING PANEL(OUTDOOR) TYPE ACP-3
CLIENT	 BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)
CONTRACTOR	 LIVINDIA INFRA PRIVATE LIMITED Building India
PROJECT.	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
AGREEMENT NO:	13 & 14 dated 24.09.2021
NIT No.	13/PR/BSPTCL/2021
QTY.	6Nos.

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

DM
Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Viduyt Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
 MANUFACTURER: Asian Switchgear Pvt. Ltd. Rooma Industrial Estate Kanpur (U.P.) Ph:0512-241004, Fax: 0512-241002 www.asianSwitchgear.com E-Mail: asianknp@gmail.Com	DRAWN	NAME	DATE	TITLE:
	CHECKED	GANESH	17.05.2022	LIGHTING PANEL(OUTDOOR) TYPE ACP-3
	APPROVED	GANESH	17.05.2022	TITLE SHEET
DRAWING NUMBER : ASPL/LIPL/22076K		REV.01	---	REV.03
		REV.02	---	REV.04
RELEASED FOR		☐ PRELIMINARY ☒ APPROVAL		SCALE N.T.S.
		☐ CONSTRUCTION		SHEET NO. 1 OF 5

GENERAL NOTES :-

- ALL DIMENSIONS ARE IN MM.
- THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, WALL MOUNTED
- THE PANEL SHALL BE SUITABLE FOR 3Ø, 4W, 415V AC, 50 HZ SUPPLY.
- THE PANEL SHALL BE FABRICATED WITH - 2.0/1.6 MM. CRCA.
- RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF.
- THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS.
- BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS.
- BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, YELLOW, BLUE AND BLACK FOR IDENTIFICATION.
- EARTH STUD SHALL BE PROVIDED.
- CONTROL WIRING SHALL BE; CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD.
 - AC VOLTAGE CIRCUIT - 1.5 SQ MM RED, YELLOW, BLUE, BLACK
 - CURRENT CIRCUIT - 2.5 SQ MM RED, YELLOW, BLUE, BLACK
 - AC CONTROL CKT. - 1.5 SQ MM RED, BLACK
 - GROUNDING - 2.5 SQ MM GREEN

APPROVED

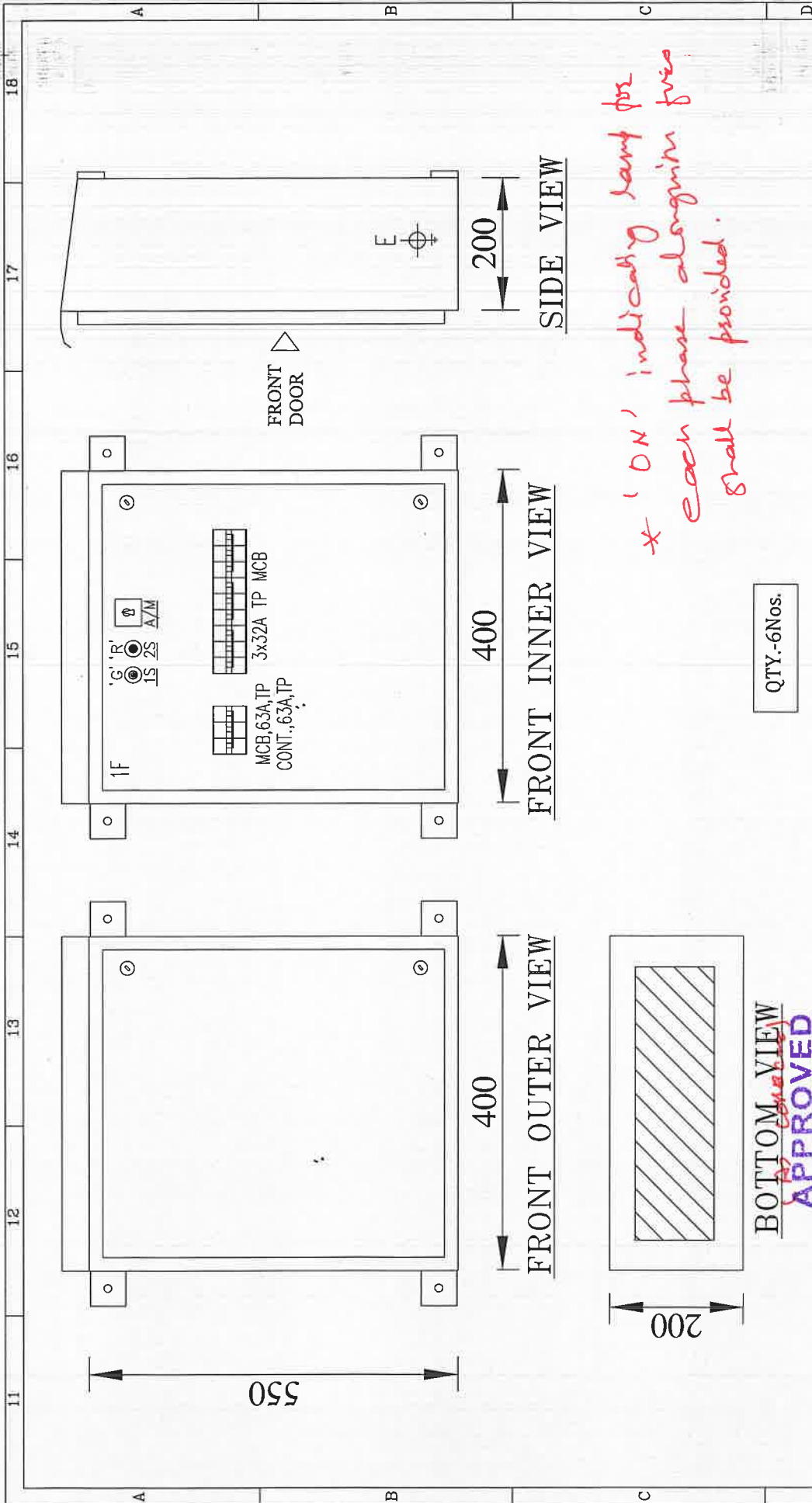
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Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Viduyat Bhawan, Patna-800021

12 08 JUL 2022

- THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS:
 - BETWEEN PHASE TO PHASE - 20 MM
 - BETWEEN PHASE TO NEUTRAL - 20 MM
 - BETWEEN PHASE TO EARTH - 20 MM
 - BETWEEN NEUTRAL TO EARTH - 20 MM
- NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL.
- PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR.
- CABLE ENTRY AS PER G.A. DRAWING.
- PAINT SHADE -RAL-7032

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:  Asian Switchgear Pvt. Ltd. B-17, Karam Industrial Estate Kamour (UP) Pin-012-2410003, Fax: 0513-2410001 E-Mail: sales@asianswitchgear.com		DRAWN CHECKED APPROVED	NAME GANESH GANESH	DATE 17.05.2022 17.05.2022
DRAWING NUMBER : ASP/LIPL/22076K		REV.01 REV.02	REV.03 REV.04	SCALE N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	
TITLE : LIGHTING PANEL(OUTDOOR) TYPE ACP-3 GENERAL NOTE				
SHEET NO. 2 OF 5				



CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		NAME	DATE	TITLE:
 Asian Switchgear Pvt. Ltd. B-17 Roma Industrial Estate Kamur (UP) Ph: 0512-2410004, Fax: 0512-2410002 E-Mail: sales@asianindia.com		DRAWN	17.05.2022	LIGHTING PANEL(OUTDOOR) TYPE ACP-3 GENERAL ARRANGE DIAGRAM
		CHECKED	17.05.2022	
		APPROVED		
DRAWING NUMBER : ASPL/LIPL/22076K		REV.01	REV.02	REV.03
				REV.04
				SCALE N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 3 OF 5

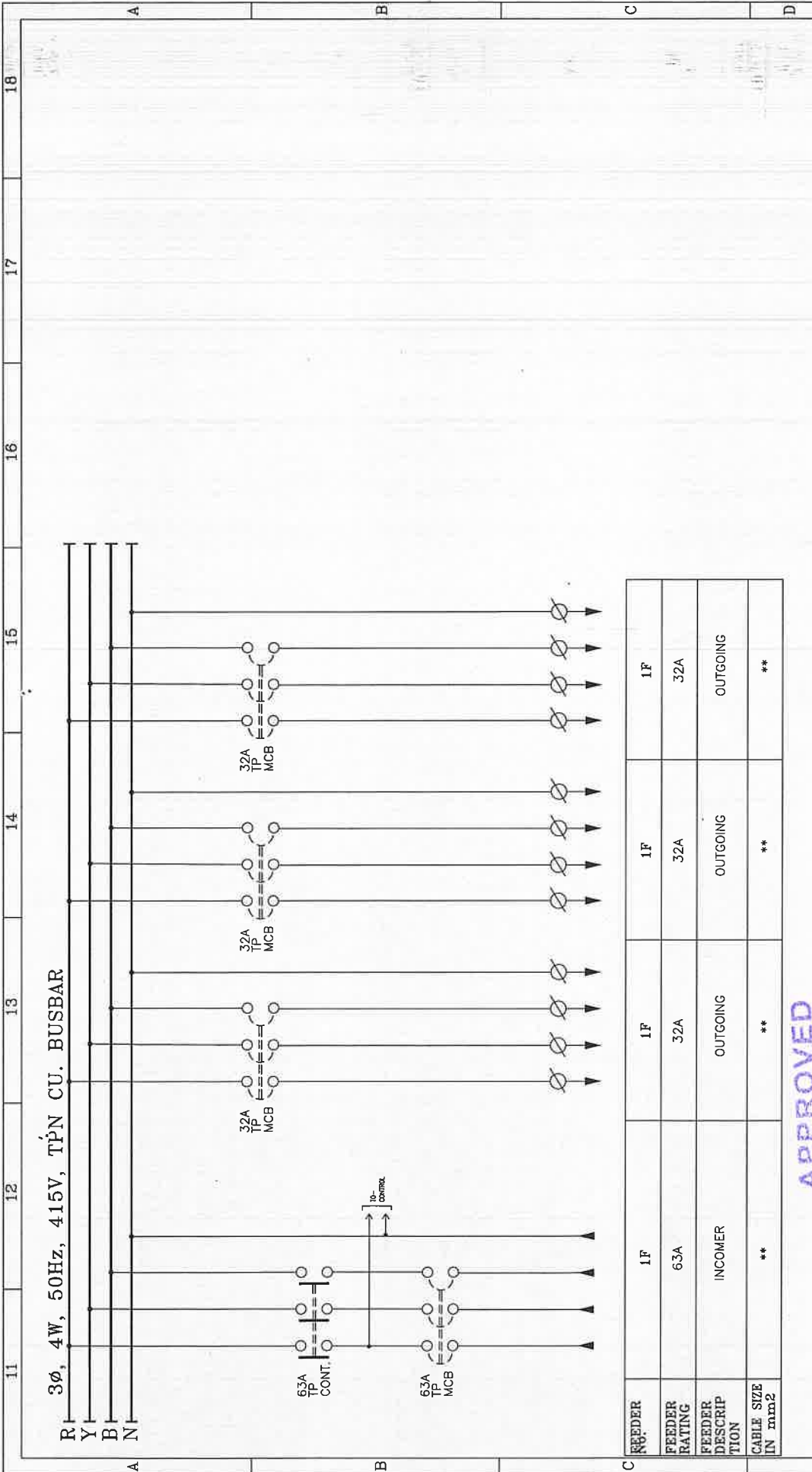
APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidhut Bhawan, Patna-800021

28 JUL 2022



FEEDER	1F	1F	1F	1F
FEEDER RATING	63A	32A	32A	32A
FEEDER DESCRIPTION	INCOMER	OUTGOING	OUTGOING	OUTGOING
CABLE SIZE IN mm2	**	**	**	**

APPROVED

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer,
(Planning and Engineering)

Bihar State Power Transmission Company Limited
Vidut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		NAME	DATE	TITLE:
 Asian Switchgear Pvt. Ltd. B-17, Industrial Estate, Kanger (UP) Pin: 201324, India. Fax: 0512-2416002 www.asianswitchgear.com E-Mail: enquiry@asians.com		DRAWN	17.05.2022	LIGHTING PANEL (OUTDOOR) TYPE ACP-3 SINGLE LINE DIAGRAM
		CHECKED	17.05.2022	
		APPROVED		
DRAWING NUMBER: ASPL/LIPL/22076K		REV.01	REV.03	SCALE
		REV.02	REV.04	N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 4 OF 5

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11	12	13	14	15	16	17	18																																																							
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APPROVED Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification. Electrical Superintending Engineer (Planning and Engineering) Bihar State Power Transmission Company Limited Viduyut Bhawan, Patna-800021 28 JUL 2022																																																														
ASIAN SWITCHGEAR PVT. LTD. B-17 Kuma Industrial Estate Kanpur (U.P.) Ph: 0512-2410004, Fax: 0512-2410002 E-Mail: asian@sigmail.com																																																														
MANUFACTURER : Asian Switchgear Pvt. Ltd. B-17 Kuma Industrial Estate Kanpur (U.P.) Ph: 0512-2410004, Fax: 0512-2410002 E-Mail: asian@sigmail.com																																																														
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CUSTOMER : BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)																																																														
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ASIAN SWITCHGEAR PVT. LTD.

B-17 ROOMA INDUSTRIAL ES
www.asianSwitchgear.com
EMail: asianknp@gmail.Com

DRAWING FOR APPROVAL

PANEL NAME	LIGHTING PANEL(INDOOR) TYPE DCP
CLIENT	 BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPTCL)
CONTRACTOR	 LIVINDIA LIVINDIA INFRA PRIVATE LIMITED
PROJECT.	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA,132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD
AGREEMENT NO:	13 & 14 dated 24.09.2021
NIT No.	13/PR/BSPTCL/2021
QTY.	2Nos.

APPROVED

APPROVE
Subject to the condition that you are not absolved of
the responsibility for correctness of the materials
supplied as per specification.

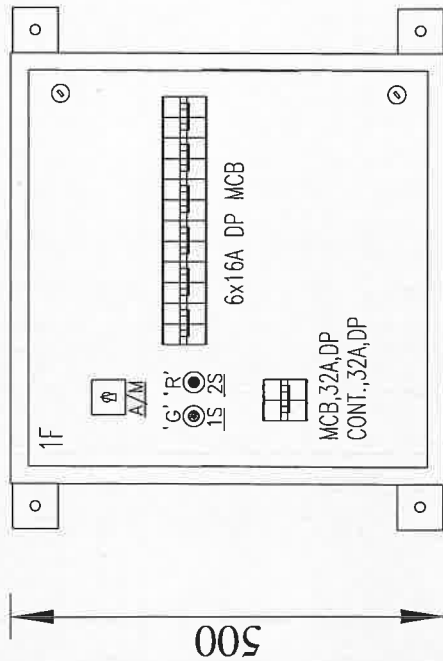
**Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhan Sabha Bhawan Patna-800021**

2018

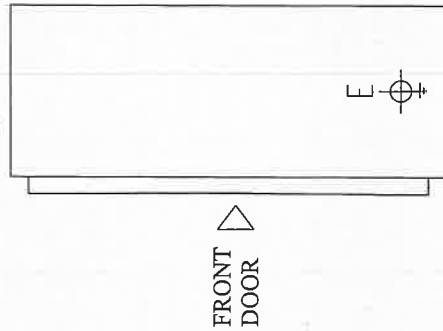
CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED(BSPPTCL)									
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED									
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR ,DIST-AURANGABAD									
NIT No. :	13/PR/BSPPTCL/2021									
 AS2M Aseam Switchgear Pvt. Ltd. Plot No. 12, 3rd Floor, Kankar (UP) INDUSTRIAL ESTATE, KANKAR (UP) Pin: 512-2419004, Fax: 513-2410002 www.aseamswitchgear.com E-Mail: aseaminfo@gmail.com				MANUFACTURER :		NAME	DATE	TITLE : LIGHTING PANEL(INDOOR) TYPE DCP TITLE SHEET		
				DRAWN		GANESH	17.05.2022			
				CHECKED		GANESH	17.05.2022			
				APPROVED						
Aseam Switchgear Pvt. Ltd.				REV.01	---	---	REV.03	---	SCALE	SHEET NO. 1 OF 5
				REV.02	---	---	REV.04	---	N.T.S.	
DRAWING NUMBER : ASPL/LIPL/22076L				APPROVAL			☒ PRELIMINARY		☐ CONSTRUCTION	
RELEASED FOR				☐						

11	12	13	14	15	16	17	18
GENERAL NOTES :- 1. ALL DIMENSIONS ARE IN MM. 2. THE PANELS SHALL BE DUST & VERMIN PROOF, FREE STANDING, WALL MOUNTED 3. THE PANEL SHALL BE SUITABLE FOR 220V DC SUPPLY 4. THE PANEL SHALL BE FABRICATED WITH - 2.0/1.6 MM. CRCA. 5. RUBBER GASKET SHALL BE PROVIDED INSIDE THE DOORS TO MAKE THE PANEL DUST AND VERMIN PROOF. 6. THE PANEL SHALL BE PAINTED WITH ELECTROSTATIC POWDER COATING PAINT AFTER 9 TANK PROCESS. 7. BUS BAR SHALL BE OF ELECTROLYTIC GRADE COPPER SUPPORTED ON NON HYGROSCOPIC, NON CARBONISING, CORROSION RESISTANCE, SMC/DMC INSULATORS. 8. BUS BAR SHALL BE INSULATED HEAT SHRINKABLE COLOURED PVC SLEEVES RED, AND BLACK FOR IDENTIFICATION. 9. EARTH BUS SHALL BE PROVIDED. 10. CONTROL WIRING SHALL BE CARRIED OUT WITH 1100V GRADE PVC INSULATED COPPER FLEXIBLE WIRE AND FOLLOWING COLOUR STANDARD. A. DC VOLTAGE CIRCUIT - 1.5 SQ MM GRAY B. GROUNDING - 2.5 SQ MM GREEN APPROVED Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification Electrical Superintending Engineer (Planning and Engineering) Bihar State Power Transmission Company Limited Viduyit Bhawan, Patna-800021 20 JUL 2022							
11. THE MINIMUM CLEARANCE IN MAIN BUSBARS SHALL BE AS FOLLOWS: A. BETWEEN +VE TO -VE - 20 MM 12. NAME PLATE SHALL BE PROVIDED ON EACH FEEDER AND PANEL. 13. PANEL DOOR LOCK SHALL BE PROVIDED ON EACH DOOR. 14. CABLE ENTRY AS PER G.A. DRAWING. 15. PAINT SHADE -RAL-7032							

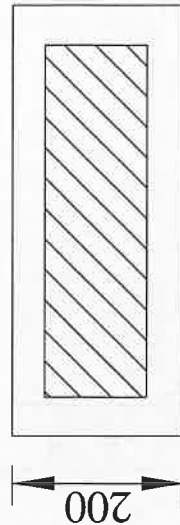
CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)							
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED							
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD							
NIT No.:	13/PR/BSPTCL/2021							
 MANUFACTURER: Astan Switchgear Pvt. Ltd. Plot No. 13, Industrial Area, Phase II, Kumbhariya, Patna-800013 Tel: 051-2411004, Fax: 051-2411005 www.astanswitchgear.com E-Mail: astan@astan.com		NAME	DATE	TITLE:				
		DRAWN	GANESH	17.05.2022	LIGHTING PANEL (INDOOR) TYPE DCP			
		CHECKED	GANESH	17.05.2022	GENERAL NOTE			
		APPROVED						
DRAWING NUMBER : ASPL/LIPL/22076L		REV.01	---	REV.03	---	SCALE		
		REV.02	---	REV.04	---	N.T.S.		
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION		SHEET NO.			2 OF 5



FRONT VIEW



SIDE VIEW



BOTTOM VIEW

* Din mounted phase indicator lamp shall be provided, mounted along side of the MCB

QTY.-2Nos.

Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification

Electrical Superintending Engineer
(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidhyut Bhawan, Patna-800021

28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)			
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED			
PROJECT:	CONSTRUCTION OF 2x50 MVA, 132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD			
NIT No.:	13/PR/BSPTCL/2021			
MANUFACTURER:		NAME	DATE	TITLE :
 Asian Switchgear Pvt. Ltd. B-177, 7th Floor, Industrial Estate, Kankar (Jalpa) Patna-800021, Bihar, India E-Mail: asian@asianswitchgear.com		DRAWN	17.05.2022	LIGHTING PANEL (INDOOR) TYPE DCP GENERAL ARRANGE DIAGRAM
		CHECKED	17.05.2022	
		APPROVED		
DRAWING NUMBER : ASPL/LIPL/22076L		REV.01	---	SCALE
		REV.02	---	N.T.S.
		REV.03	---	SHEET NO. 3 OF 5
		REV.04	---	
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	

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supplied as per specification

**Electrical Superintending Engineer
(Planning and Engineering)**

(Planning and Engineering)
Bihar State Power Transmission Company Limited
Vidyt Bhawan, Patna-800021

28 JUL 2022

CUSTOMER :	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)											
CONTRACTOR :	LIVINDIA INFRA PRIVATE LIMITED											
PROJECT :	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD											
NIT No. :	13/PR/BSPTCL/2021											
ASLAN Aslan Switchgear Pvt. Ltd. B-17 Brooma Industrial Estate Kurla (C.P.) Ph:011-2410094, Fax: 011-2410002 E-Mail: aslanpvt@gmail.com				MANUFACTURER :		NAME	DATE	TITLE : LIGHTING PANEL(INDOOR) TYPE DCP SINGLE LINE DIAGRAM				
				DRAWN	17.05.2022							
				CHECKED	17.05.2022							
				APPROVED								
DRAWING NUMBER : ASPL/LIPL/22076L								REV.01	--	REV.03	--	SCALE N.T.S.
								REV.02	--	REV.04	--	
RELEASED FOR	☐	PRELIMINARY	☒	APPROVAL	☐	CONSTRUCTION	SHEET NO. 4 OF 5					

Sr. No.	Item Description	Cat No.	Qty	Make
1	Incoming :-	1		
2	32A DP (DC) MCB		1	C&S/HPL
3	Contact 32A DP coil 220 VDC		1	C&S/HPL
4	Push button Red and Green		2	VAISHNO
5	HRC Fuse with Base		2	C&S/HPL
6	AM selector switch		1	VAISHNO
7	16A DP (DC) MCB		6	C&S/HPL
8	Power Terminal 16 Sqmm		2	Elmex/Connectwell/Rep.
9	Power Terminal 6 Sqmm		12	Elmex/Connectwell/Rep.

APPROVED
 Subject to the condition that you are not absolved of the responsibility for correctness of the materials supplied as per specification
 Electrical Superintending Engineer
 (Planning and Engineering)
 Bihar State Power Transmission Company Limited
 Vidhyut Bhawan, Patna-800021
 28 JUL 2022

CUSTOMER:	BIHAR STATE POWER TRANSMISSION COMPANY LIMITED (BSPTCL)										
CONTRACTOR:	LIVINDIA INFRA PRIVATE LIMITED										
PROJECT:	CONSTRUCTION OF 2x50 MVA,132/33KV GRID SUB-STATION, DAUDNAGAR & 3x50MVA, 132/33KV GRID SUB-STATION, NABINAGAR, DIST-AURANGABAD										
NIT No.:	13/PR/BSPTCL/2021										
 MANUFACTURER: Asian Switchgear Pvt. Ltd. B-17 Kankar Industrial Estate, Kanpur (U.P.) Ph:0512-2410004, Fax: 0512-2410002 E-Mail: asiansgpl@gmail.com	DRAWN		NAME		DATE		TITLE : LIGHTING PANEL (INDOOR) TYPE DCP BILL OF MATERIALS				
	CHECKED		GANESH		17.05.2022						
	APPROVED		GANESH		17.05.2022						
	DRAWING NUMBER : ASPL/LIPL/22076L						REV.01		REV.03		SCALE
							REV.02		REV.04		N.T.S.
RELEASED FOR	☐ PRELIMINARY	☒ APPROVAL	☐ CONSTRUCTION	SHEET NO. 5 OF 5							