



NORTH BIHAR POWER DISTRIBUTION CO. LTD.

(Regd. Office: Vidyut Bhawan, Bailey Road, Patna)

CIN No: U40109BR2012SGC018920

[Office of Chief Engineer, Project-II]

Letter No: 197
[File No: NB/P-II/RDSS/GTP&Drawing/Begusarai/18-2023]
Dated: 22/06/23

Contact No: +91-9264437179

E-mail: cerdssnbpdc12@gmail.com

From,

Pranav Kumar
Chief Engineer (Project-II)

To,

M/s Techno Power Enterprises Pvt. Ltd.
INFINITY "THINK TANK" Tower II, 10th Floor Plot No A3, Block-GP, Sector V,
Salt Lake City, Kolkata -700091 (WB)
Email: tpeplpatna@gmail.com, smurarka_1@hotmail.com, rabi@rausheenagroup.com

Sub: - Approval of GTP & Drawings of 11kV 200A AB Switch & 11kV 200A HG Fuse against NIT No: 34/PR/NBPDCL/2022 for Begusarai Circle.

Ref: 1. This Office NOA No: 21 & 22 dated 06.03.2023.
2. This office letter no.- 182 dated 20.06.2023.
3. Your Letter No- TPEPL/NBPDCL-Approval/2023-24/053 dated- 19.06.2023.

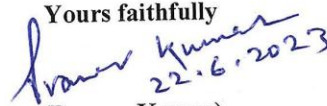
With reference to the subject noted above, kindly find the copy of GTP & drawing of 11kV 200A AB Switch & 11kV 200A HG Fuse for Development of Distribution Infrastructure against NIT No: 34/PR/NBPDCL/2022 for Begusarai Circle under Revamped Reforms-Based And Results-Linked, Distribution Sector Scheme.

Sl. No.	Name of Item	Vendor Name
1	11kV 200A AB Switch	M/s Panchkari Kayal & Co., Balitikuri, Surkumill, Howrah- 711113, West Bengal
	11kV 200A HG Fuse	

The correction wherever required in GTP/ Drawing submitted by you has been done. However, these Drawings shall be subject to correctness as per technical specifications of the tender document and the entire responsibility of the correctness of the drawing as per the specifications as well as supply of material according to the technical specifications of the contract agreement shall be responsibility of the contractor.

In case of any conflict or contradiction between GTP / Drawings & Technical Specifications, the decision of C.E. (Project-II) shall be final and binding on both the parties. Contractor shall have to replace the material to the entire satisfaction of the owner in case the material is found unsuitable for use in the project, at any stage. This approval is up to validity of valid type test certificate. In case any problem/ issue arises with regard to material/ vendor at any stage, NBPDC reserves the right to withdraw the approval of vendor as well as ask you to replace the materials at your own cost.


Encl.:- As above.

Yours faithfully

(Pranav Kumar)
Chief Engineer (Project-II)

Memo No 197

Dated 22/06/23

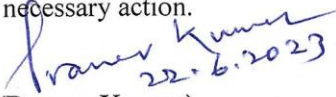
Copy forwarded to M/s Vindhya Telelinks Ltd., Delhi / M/s Cabcon Limited, Kolkata/ M/s JSP Projects Limited, Ghaziabad / M/s Vaishno Associates Vidyut Projects LLP, Jaipur for kind information & necessary action.


(Pranav Kumar)
Chief Engineer, Project-II

Memo No 197

Dated 22/06/23

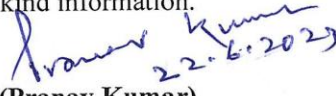
Copy forwarded to Chief Engineer, Project-I (Urban) for kind information & necessary action.


(Pranav Kumar)
Chief Engineer, Project II

Memo No 197

Dated 22/06/23

Copy forwarded to Director Projects, NBPDCCL / OSD to MD, NBPDCCL for kind information.


(Pranav Kumar)
Chief Engineer, Project-II



PANCHKARI KAYAL & CO.

(18)

GUARANTEED TECHNICAL PARTICULARS OF 11 KV 200 AMP AIR BREAK SWITCH

PROJECT	Development of Distribution Infrastructure at Begusarai Electric Supply Circle (Begusarai and Khagaria Districts) of Bihar under- Revamped Reforms-Based and Results-Linked Distribution Sector Scheme against NIT No. 34/PR/NBPDCL/2022 invited through National Competitive Bidding.
OWNER	North Bihar Power Distribution Company Limited, Patna
CONTRACTOR	M/S. Techno Power Enterprises Pvt. Ltd.
NOA No.	21 & 22 Dated 06.03.2023
FILL No.	NB/P-II/RDSS/Tender/25/2022
MANUFACTURER	Panchkari Kayal & Co. (WB)

Sl. No.	Description	Offered Value
A.	Name of manufacturer	Panchkari Kayal & Co., Balitikuri Surkimill Howrah-711113 (WB)
B.	Particulars for Air Break Switch	
1.	Nominal system voltage KV (rms)	11
2.	Highest system voltage KV (rms)	12 ✓
3.	Current Rating	200 Amp ✓
4.	Rated short circuit current rating	10K Amp ✓
5.	Rated peak short circuit current	25K Amp ✓ <i>for 3 seconds</i>
6.	Phase to Phase Spacing	750 mm
7.	Details of Post Insulator	3 Nos. 11 kV Post Insulator per pole <i>(3 stack)</i>
a.	Properties of Post Insulator	IS: 2544 with latest amended, <i>WISC-60168</i>
b.	Minimum creepage distance of Insulator	320 mm ✓
8.	Standard impulse withstand voltage (positive & negative polarity kV (Peak)	
a.	Across the Isolating distance	85 kV ✓
b.	To earth & between poles	75 kV ✓
9.	One minute power frequency withstand voltage kV (rms)	
a.	Across the Isolating distance	32 kV ✓
b.	To earth & between poles	28 kV ✓
10.	Temperature rise of the following at the full rated current in degree (centigrade)	Temperature rise limit as per IS: 9921 (Part-2)
i)	Terminals	65°C + Air Temperature ✓
ii)	Contracts	65°C + Air Temperature ✓
11.	Details of Moving and Fixed Contacts	
a.	Materials	Hard Drawn Electrolytic Copper / Brass
12.	Details of Flexible Copper Braided tape	
a.	Materials of Flexible Braided tape	Copper
13.	Operating Pipe (GI) <i>ISI mark</i>	Length 5500 mm , dia 25 mm (Medium) ✓ ISI mark ✓

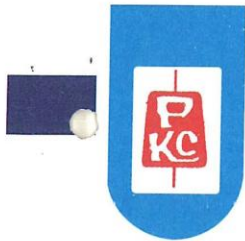
APPROVED
Subject to the condition that you are not absolved of the responsibility of correctness of materials

[Signature]
Chief Engineer (Project-II)
NBPDCL

*Power frequency withstand voltage day/night - 35KV
Flash over voltage day/night as per IS*

CHECKED





PROJECT	Development of Distribution Infrastructure at Begusarai Electric Supply Circle (Begusarai and Khagaria Districts) of Bihar under- Revamped Reforms-Based and Results-Linked Distribution Sector Scheme against NIT No. 34/PR/NBPDCL/2022 invited through National Competitive Bidding.
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CONTRACTOR	M/S. Techno Power Enterprises Pvt. Ltd.
NOA No.	21 & 22 Dated 06.03.2023
FILL No.	NB/P-II/RDSS/Tender/25/2022
MANUFACTURER	Panchkari Kayal & Co. (WB)

14.	Phase coupling square shaft (GI) hollow section <i>ISI mark</i>	25x25 mm, length 1800 mm ✓
15.	Hot dip galvanized Operating handle (GI)	1 No. ✓
16.	Arching Horn	Made of MS HDG, dia 6 mm
17.	Tolerance on dimension	±5% <i>+5%</i>
18.	MS Channel	<i>450x</i> 75x40 mm MS HDG
19.	Post Insulator (Porcelain type) :	
a.	Height of Post insulator <i>(Post shell)</i>	254 mm ✓
b.	Make	RRI/RR/SUN or any reputed make
c.	Color	Brown Glaze
20.	Fixed contact assembly	
a.	Base	165x36x8 mm ✓
b.	Contact	70x30x4 mm ✓
c.	GI Cover	110x44 mm ✓
d.	Spring	6 Nos. ✓
21.	Moving Contact Assembly	
a.	Base Assembly	135x25x8 mm ✓
b.	Moving	180x25x6 mm <i>180x25x8 mm</i>
c.	Bush	2 Nos. <i>Bronze Metal</i>
22.	Terminal Connector <i>(60x50x8) mm (Moving and fixed/both)</i>	Alu. alloy connector with bi-metallic suitable for ACSR Raccoon/ Dog conductor

d.) Thickness of groove - 7mm

** The material must comply technical specifications of RDS and relevant IS.*

** Manufacturer must have valid type tested report as per IS of RDS.*



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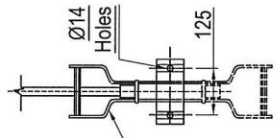
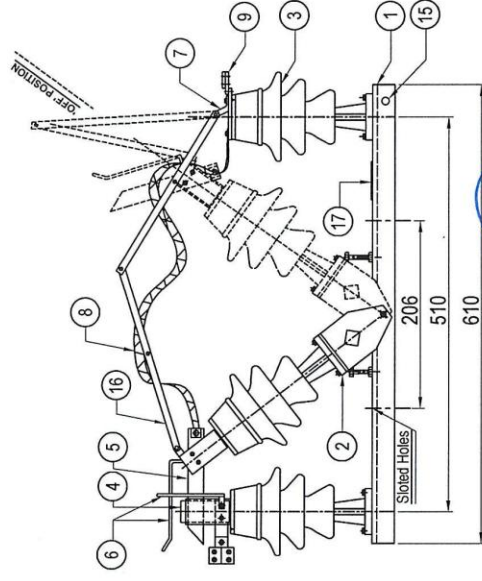
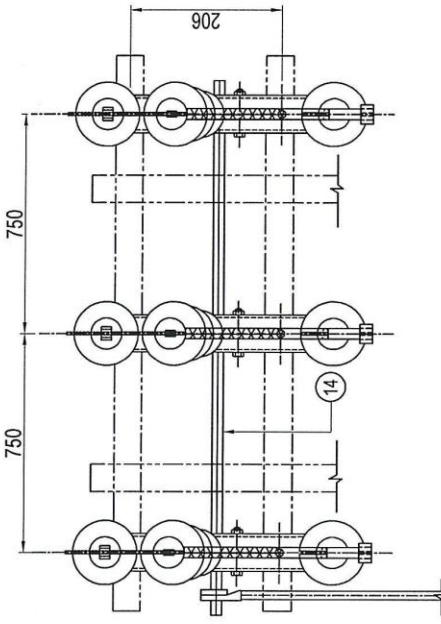
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Subject to the condition that you are not absolved of the responsibility of correctness of materials

[Signature]
Chief Engineer (District)





- NOTES :-
1. ALL DIMENSIONS ARE IN MM.
 2. ALL TOLERANCE $\pm 5\%$ ~~+5%~~
 3. ALL FERROUS PARTS SHALL BE HOT-DIP GALVD.
 4. FIXED & MOVING CONTACTS ARE SILVER PLATED.
 5. MOUNTING ARRANGEMENT - VERTICAL TYPE. ✓

SL. NO.	NAME P-ATE	DESCRIPTION	QTY.	MATERIAL
17	ALU. SHEET			
16	PENTOGRAPH ASSLY.		3	M.E. HDG
15	EARTH TERMINAL		3	M.E. HDG
14	PHASE COUPLING SQ. SHAFT 25x25 MM, 1800 MM LG.		1	M.E. HDG
13	INTERMEDIATE GUIDE		1	M.E. HDG
12	PAD LOCKING ARRANGEMENT		1	M.E. HDG
11	OPERATING HANDLE		1	M.E. HDG
10	OPERATING DOWN PIPE Ø25 MMx5 MTRS. LG.		1	G.I PIPE
9	CONNECTOR SUITABLE FOR ACSR 'DOG' CONDUCTOR		6	ALU. ALLOY
8	FLEXIBLE BRAID TAPE		3	COPPER
7	PENTOGRAPH HOLDER		3	M.E. HDG
6	FIXED / MOVING ARCING HORN Ø6 MM 5 mm		3/3	M.E. HDG
5	MOVING CONTACT 180x25x6 MM 18 CV 25A 9 21/27		3	COPPERBRASS
4	FIXED CONTACT 70x30x4 MM		3	COPPERBRASS
3	INSULATOR 11 KV POST TYPE 320 CD.		9	POCELAIN
2	ROCKER ASSLY. 452		3	M.E. HDG
1	BASE CHANNEL 75x40x610 MM LG.		3	M.E. HDG

BILL OF MATERIALS

Panchkari Kayal & Co.
 Balitkuri, Surkhill, Howrah- 711113
 West Bengal

SCALE: N.T.S.
 TITLE: GENERAL ARRANGEMENT OF 11 KV 200A AIR BREAK SWITCH

DRAWING NO.: PKC-070014



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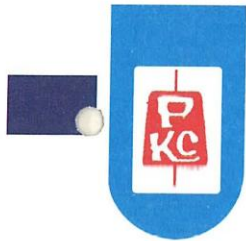
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Chief Engineer (Project-II)



PROJECT	Development of Distribution Infrastructure at Begusarai Electric Supply Circle (Begusarai and Khagaria Districts) of Bihar under- Revamped-Based and Results-Linked Distribution Sector Scheme against NIT No. 34/PR/BNP/DCI/2022 invited through Competitive Bidding.
OWNER	NORTH BIHAR POWER DISTRIBUTION COMPANY LIMITED, PATNA
CONTRACTOR	M/S. TECHNO POWER ENTERPRISES PVT. LTD.
NOA NO.	21 & 22 Dated 06.03.2023
FILL NO.	NBP-I/ROSS/TENDER/25/2022



GUARANTEED TECHNICAL PARTICULARS OF 11 kV, 200AMP HORN GAP FUSE UNITS

PROJECT	Development of Distribution Infrastructure at Begusarai Electric Supply Circle (Begusarai and Khagaria Districts) of Bihar under- Revamped Reforms-Based and Results-Linked Distribution Sector Scheme against NIT No. 34/PR/NBPDCL/2022 invited through National Competitive Bidding.
OWNER	North Bihar Power Distribution Company Limited, Patna
CONTRACTOR	M/S. Techno Power Enterprises Pvt. Ltd.
NOA No.	21 & 22 Dated 06.03.2023
FILE No.	NB/P-II/RDSS/Tender/25/2022
MANUFACTURER	Panchkari Kayal & Co. (WB)

Sl. No.	Particulars	Offered Value
A.	Name of Manufacturer	M/s. Panchkari Kayal & Co., Balitikuri, Surkimill, Howrah-711113 (WB)
B.	Particular of HG Fuse	
1.	Applicable Standard for HG Fuse	IS: 9385/80 / 2018 (latest amendment)
a.	For Insulator	IS: 731/1971
b.	For Galvanization	IS: 2629
2.	Nominal System Voltage	11 kV ✓
3.	Rated System voltage	12 kV ✓
4.	Continuous current rating	200A ✓
5.	Dry Power Frequency withstand voltage test	
a.	Between Poles & Earth	28 kV ✓
b.	Across the Isolating distance	32 kV ✓
6.	Impulse withstand voltage	
a.	To earth and between poles	75 kV rms ✓
b.	Across the isolating distance	85 kV rms ✓
7.	Arching horn (Aluminium Strip)	Alu. strip 30x6 mm
8.	MS Channel	HDG 75x40x3.5x480mm
9.	Particulars of Insulator:	75x40x500mm X 3/5
a.	Rated Voltage	11 kV ✓
b.	Type	Pin type ✓
c.	Make	RRI/RR/SUN or any reputed make.
d.	Creepage distance	320 mm (min) ✓
e.	Height	As per IS:
f.	Color	Brown Glaze ✓
g.	No. of Insulator per set	6 Nos. ✓
h.	Mechanical Load	540 Kg. ✓
10.	Tolerance on dimension	±2% +5% ✓

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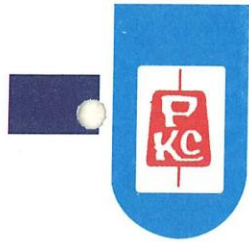
Chief Engineer (Project-II)
NBPDCL

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* Minimum frequency withstand voltage dry/wet - 35kV
 * Flash over voltage dry/wet as per IS.
 * All ferrous parts of Insulators of HG Fuse shall be Hot dip galvanized as per IS: 2629
 * The material must comply technical specification of RDSS and relevant IS.





GUARANTEED TECHNICAL PARTICULARS OF 11 kV, 200AMP HORN GAP FUSE UNITS

PROJECT	Development of Distribution Infrastructure at Begusarai Electric Supply Circle (Begusarai and Khagaria Districts) of Bihar under- Revamped Reforms-Based and Results-Linked Distribution Sector Scheme against NIT No. 34/PR/NBPDCL/2022 invited through National Competitive Bidding.
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CONTRACTOR	M/S. Techno Power Enterprises Pvt. Ltd.
NOA No.	21 & 22 Dated 06.03.2023
FILL No.	NB/P-II/RDSS/Tender/25/2022
MANUFACTURER	Panchkari Kayal & Co. (WB)

Sl. No.	Particulars	Offered Value
A.	Name of Manufacturer	M/s. Panchkari Kayal & Co., Balitikuri, Surkimill, Howrah-711113 (WB)
B.	Particular of HG Fuse	
1.	Applicable Standard for HG Fuse	IS: 9385/80 / 2018 (latest amendment)
a.	For Insulator	IS: 731/1971
b.	For Galvanization	IS: 2629
2.	Nominal System Voltage	11 kV ✓
3.	Rated System voltage	12 kV ✓
4.	Continuous current rating	200A ✓
5.	Dry Power Frequency withstand voltage test	
a.	Between Poles & Earth	28 kV ✓
b.	Across the Isolating distance	32 kV ✓
6.	Impulse withstand voltage	
a.	To earth and between poles	75 kV rms ✓
b.	Across the isolating distance	85 kV rms ✓
7.	Arching horn (Aluminium Strip)	Alu. strip 30x6 mm ✓
8.	MS Channel	HDG 75x40x3.5x480mm ✓
9.	Particulars of Insulator:	75x40 x 500mm x 8.5
a.	Rated Voltage	11 kV ✓
b.	Type	Pin type ✓
c.	Make	RRI/RR/SUN or any reputed make.
d.	Creepage distance	320 mm (min) ✓
e.	Height	As per IS: ✓
f.	Color	Brown Glaze ✓
g.	No. of Insulator per set	6 Nos. ✓
h.	Mechanical Load	540 Kg. ✓
10.	Tolerance on dimension	±5% ✓

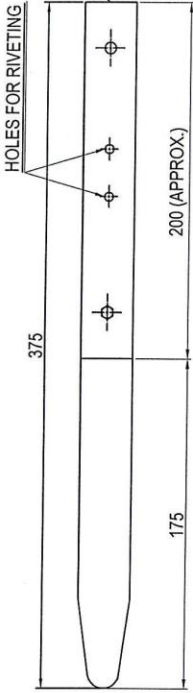
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[Signature]
Chief Engineer (Project-II)
NBPDCL

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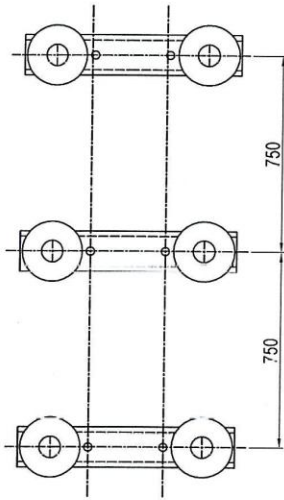
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* Power frequency withstand voltage dry/set - 35kv.
* Flash over voltage dry/set as per IS
* All porcelain parts of insulators of HG Fuse shall be hot dip galvanized as per IS: 2629.
* The material must comply technical specification of RDSS and relevant IS.

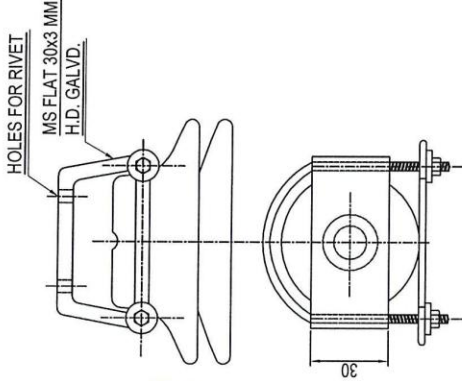




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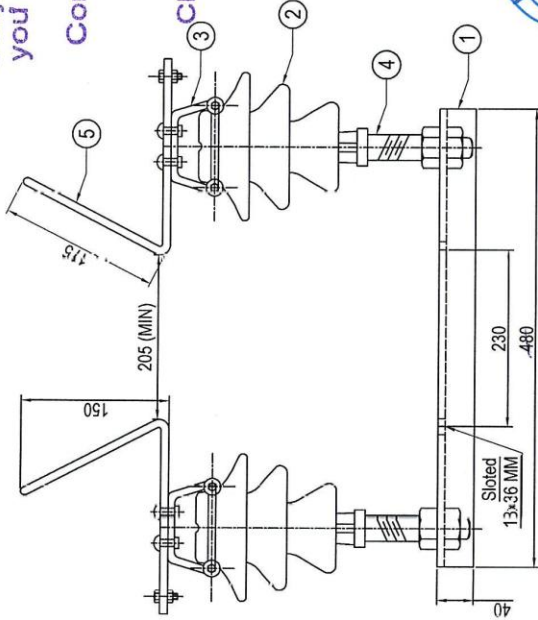
FLAN VIEW



ELEVATION

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Chief Engineer (Project-I)
 NBPDCCL



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SL. NO.	DESCRIPTION	QTY.	MATERIAL
5	ARKING HORN 396x375 MM LG.	6	ALU. FLAT P.O.
4	GI PIN 11 KV	6	M.S. HDG
3	MS CLAMP	6	M.S. HDG
2	PIN INSULATOR 11 KV (CD-320 MM)	6	PORCELAIN
1	BASE C-RANNEL 75x40x3.5x480MM LG.	3	M.S. HDG

BILL OF MATERIALS

Panchkari Kayal & Co.
 Balitkuri, Surkhilli, Howrah - 711113
 West Bengal

SCALE: N.T.S.

TITLE: 11 KV 200A HORN GAP FUSE

PKC- 070018

PROJECT: Development of Distribution Infrastructure at Begusarai Electric Supply Circle (Begusarai and Khagaria Districts) of Bihar under Revamped-Base and Results-Linked Distribution Sector Scheme against NIT No. 34/PRI/NBPDCCL/2022 Invited through Competitive Bidding.

OWNER: NORTH BIHAR POWER DISTRIBUTION COMPANY LIMITED, PATNA

CONTRACTOR: M/S. TECHNOC POWER ENTERPRISES PVT. LTD.

NOA NO. 21 & 22 Dated: 05.03.2023

FILL NO. NBP-NRDS-TENDER/25/2022

- NOTES :-**
1. ALL DIMENSIONS ARE IN MM.
 2. ALL FERROUS PARTS SHALL BE HOT DIP GALVD.
 3. ALL BOLTS, NUTS ARE ELECTRO-GALVD.
 4. INSULATORS CONFORM TO IS: 731/1971.
 5. TOLERANCE ± 5%.

