



NORTH BIHAR POWER DISTRIBUTION CO. LTD.
[Office of Chief Engineer, Project-II]
(Regd. Office: Vidvut Bhawan, Bailey Road, Patna)
CIN No: U40109BR2012SGC018920

Letter No: 198
[File No: NB/P-II/RDSS]/VA/Darbhanga/56/2023]
Dated: 22/06/2023

Contact No: +91-9264437179
E-mail: cerdssnbpdc12@gmail.com

From,
Pranav Kumar
Chief Engineer (Project-II)

To,

M/s JSP Projects Limited.
Flat No.-5 2nd Floor, 3rd B-2,
Neharu Nagar, Ghaziabad (UP)- 201001
Email: contract@jspprojects.com, jkec1981@gmail.com, pathak.m1971@gmail.com

Sub: - Approval of GTP & Drawing of 11KV , 5KN Polymer Pin Insulator and 11 KV . 45 KN Polymer Disc Insulator against NIT No: 31/PR/NBPDCL/2022 for Darbhanga Circle.

- Ref:**
1. This Office NOA No: 15 & 16 dated 06.03.2023.
 2. Your Letter No- JSP/PAT/35 dated- 19.06.2023
 3. Vendor Approval vide CE (Project-II) letter no. 141 Dated 08.06.2023 .

With reference to the subject noted above, please find enclosed herewith the GTP & drawing of 11KV ,5KN Polymer Pin Insulator and 11 KV,45 KN Polymer Disc Insulator for Development of Distribution Infrastructure against NIT No: 31/PR/NBPDCL/2022 for Darbhanga Circle under Revamped Reforms-Based And Results-Linked, Distribution Sector Scheme.

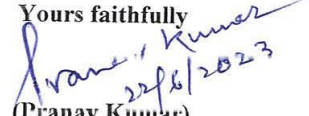
The Materials list is as follows:-

Sr. No.	Name of Items	Name of Vendor
1.	11KV , 5KN Polymer Pin Insulator	M/s Garg Cables & Silicon Pvt. Ltd. Sirsa, Haryana
2.	45 KN Polymer Disc Insulator	

The Correction wherever required in GTP/ Drawing submitted by the manufacturer 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
Please carry out the works immediately under conditions stated above.

Encl.:- As above.

Yours faithfully

(Pranav Kumar)
22/06/2023
Chief Engineer (Project-II)

Memo no. 198...../

dated 22/06/2023...../

Copy forwarded M/s NCC Limited, Hyderabad/ M/s Vindhya Telelinks Ltd., Delhi / M/s Polycab Limited, Mumbai / M/s Ashoka Buildcon Limited, Nashik/ M/s Cabcon Limited, Kolkata/ M/s Techno Power Enterprises Private Limited, Kolkata/ M/s Vaishno Associates Vidyut Projects LLP, Jaipur for information.

Pranav Kumar
22/6/2023

(Pranav Kumar)

Chief Engineer (Project-II)

Memo No. 198...../

dated 22/06/2023...../

Copy forwarded to Director (Projects)/ OSD to MD, NBPDC, Patna for kind information .

Pranav Kumar
22/6/2023

(Pranav Kumar)

Chief Engineer (Project-II)

GSTIN : 06AAGCG3063L1ZI
 PAN : AAGCG 3063 L
 UDYAM : UDYAM-HR-17-0001730

All Subject to Sirsa Jurisdiction
 CIN : U74999HR2016PTC058269

99961-05060
 78951-61234



Garg Cables & Silicones Pvt. Ltd.

An ISO 9001:2015 Certified Company

Project : Loss Reduction Scheme under RDSS	
NIT No.	31 / TR / NBPDCCL – 2022
Circle	Darbhanga
NOA No.	15 & 16 Dtd. 06-03-203
TKC	JSP Projects Pvt. Ltd., Ghaziabad
Manufacturer / Supplier	Garg Cables & Silicones Pvt. Ltd.
Discom	North Bihar Power Distribution Co. Ltd.

Guaranteed Technical Particulars For 11 kV 45 kN Polymer Disc Insulator (T&C Type)

Sl. No.	Description	11 kV, 45 kN
01.	Name of the Manufacturer	Garg Cables & Silicones Pvt. Ltd.
02.	Type of Insulator	11 kV 45 kN Polymer Disc Insulator (T&C Type)
03.	Standard	IEC-61109 with up to date amendments, IEC 60120/IS: 2486-P-II/1989.
04.	Name of Material used	Silicon Rubber
05.	Material of Core (FRP Rod)	ECR Glass Boron Content Free
06.	Material of Housing and Weather sheds Silicon content by Weight	Silicon Rubber (30% Minimum)
07.	Material of End Fitting	Hot Dip Galvanized SGC
08.	Sealing Compound for End Fittings	RTV Silicon Sealant
09.	Colour	Grey
10.	Visible Discharge	9 kV
11.	Normal System Voltage	11 kV
12.	Highest System Voltage	12 kV
13.	Dry Power Frequency Withstand Voltage	55 kV 60
14.	Wet Power Frequency Withstand Voltage	35 kV
15.	Dry Power Flashover Withstand Voltage	70 kV
16.	Wet Power Flashover Withstand Voltage	50 kV
17.	Dry Lightning Impulse Withstand Voltage Positive	75 kV
18.	Dry Lightning Impulse Withstand Voltage Negative	75 kV 80kV
19.	Dry Lightning Impulse Flashover Voltage Positive	120 kV
20.	Dry Lightning Impulse Flashover Voltage Negative	130 kV

CHECKED
 AEE(P-II) EEE(P-II) ESE(P-II)

APPROVED
 Subject to the condition that you are not absolve responsibility.

Correctness of materials
 Chief Engineer (Project-II)
 NBPDCCL

Contd....2



Regd. Office : 2nd Industrial Area, Near Garg Cotton & General Mills, Sirsa - 125055 (Haryana), India
 Phone : +91-1666-237707, E-mail : gargcablesandsilicones@gmail.com

Manufacturers of : Composite Polymer Insulators for Transmission & Distribution Lines

STIN : 06AAGCG3063L1ZI
IN : AAGCG 3063 L
UDYAM : UDYAM-HR-17-0001730

All Subject to Sirsa Jurisdiction
CIN : U74999HR2016PTC058269

99961-05060
78951-61234



Garg Cables & Silicones Pvt. Ltd.

An ISO 9001:2015 Certified Company

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21.	RIV at 1 Mhz when energized at 10 kV / 30 kV (rms) under Dry Condition	<100 Micro Volts
22.	Creepage Distance	320 MM MINIMUM
23.	Minimum Failing Load	45 kN
24.	Weight	0.550 Kgs. ± 10%
25.	Dia of FRP Rod	16 MM
26.	Dia of Weather shed	92 MM 100
27.	Length of FRP Rod	212 MM
28.	Thickness of Housing	3 MM
29.	Dry Arc Distance	165 MM
30.	Dimensioned Drawing of Insulator including Weight with Tolerances in Weight is enclosed	Yes
31.	Method of Fixing of Sheds to Housing	Injection Molding
32.	Number of Weather Sheds	3 Nos.
33.	Type of Shed Aerodynamic	Aerodynamic
34.	With under ribs	----
35.	Type of Packing	Double HDPE Bags
36.	Number of Insulators in each Bag	20 Nos.
37.	Gross Weight of Bag	11 Kgs. Approx.
38.	Tolerance	Tolerance on all Dimensions including Diameter & Length shall be as per IEC:61109

for Garg Cables & Silicones Pvt. Ltd.

Authorized Signatory



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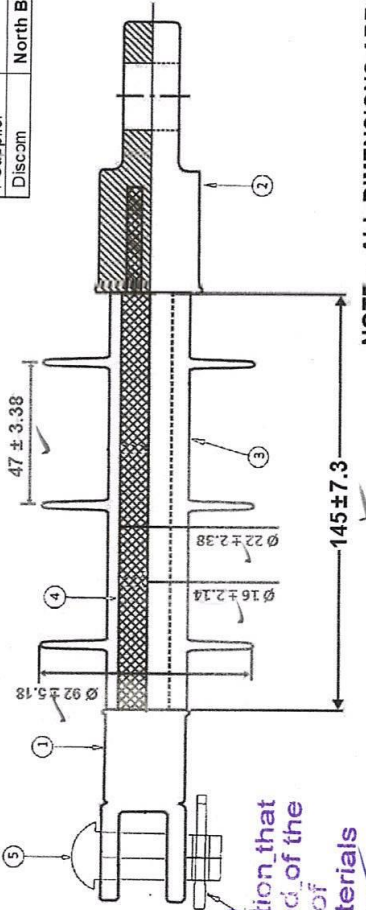
APPROVED
Subject to the condition that you are not absolve of responsibility
Correctness of materials
Ivaner Kumar
Chief Engineer (Project-II)
NBPDCL

Regd. Office : 2nd Industrial Area, Near Garg Cotton & General Mills, Sirsa – 125055 (Haryana), India
Phone : +91-1666-237707, E-mail : gargcablesandsilicones@gmail.com

Manufacturers of : Composite Polymer Insulators for Transmission & Distribution Lines

Project : Loss Reduction Scheme under RDSS

NIT No.	31 / TR / NBPDC L - 2022
Circle	Darbhanga
NOA No.	15 & 16 Ltd 06-03-2023
TKC	JSP Projects Pvt. Ltd., Ghaziabad
Manufacturer / Supplier	Garg Cables & Silicones Pvt. Ltd.
Discom	North Bihar Power Distribution Co. Ltd.



NOTE :- ALL DIMENSIONS ARE IN 'MM'

SL. NO.	DESCRIPTION	MATERIAL	QTY.
1	TONGUE FITTING	S.G.C.I. IRON	1
2	CLEVIS FITTING	S.G.C.I. IRON	1
3	HOUSING	SILICONE RUBBER	--
4	CORE	FRP RCD	1
5	COTTOR PIN	FORGED	1
6	SPLIT PIN	S.S.	1

GARG CABLES & SILICONES PRIVATE LIMITED
 2ND INDUSTRIAL AREA, NEAR GARG COTTON MILL,
 SIRSA - 125055 (HARYANA)

Title :-	
11 kV 45 kN POLYMER DISC INSULATOR (T&C)	
DRG NO.	GCSL / 11 kV 45 kN / T&C
GENERAL TOLERANCE ± 10%	
SCALE : NTS	EDITION NO.: 01

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

Chief Engineer (Project-II)
TECHNICAL PARTICULARS

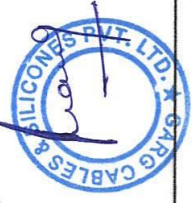
TOLERANCE ON ALL DIMENSIONS INCLUDING DIAMETER & LENGTH SHALL BE AS PER IEC:61109

(I) MECHANICAL CHARACTERISTICS

1. MINIMUM FAILING LOAD - 45 kN ✓

(II) ELECTRICAL CHARACTERISTICS

1. DRY ONE MINUTE POWER FREQUENCY WITHSTAND VOLTAGE - 55 kV (RMS) ✓
2. WET ONE MINUTE POWER FREQUENCY WITHSTAND VOLTAGE - 35 kV (RMS) ✓
3. DRY LIGHTNING IMPULSE WITHSTAND VOLTAGE - 75 kV (+VE) ✓
4. CREEPAGE DISTANCE - 320 MM (Minimum) ✓
5. DRY ARC DISTANCE - 165 mm ✓
6. HIGHEST SYSTEM VOLTAGE - 12 kV (RMS) ✓
7. VISIBLE DISCHARGE TEST VOLTAGE - 9 kV (RMS) ✓
8. STANDARD - IEC : 61109 ✓
9. MARKING - ~~60SL~~ As per GTR/TS 188 ✓



GSTIN : 06AAGCG3063L1ZI
 PAN : AAGCG 3063 L
 UDYAM : UDYAM-HR-17-0001730

All Subject to Sirsa Jurisdiction
 CIN : U74999HR2016PTC058269

99961-05060
 78951-61234



Garg Cables & Silicones Pvt. Ltd.

An ISO 9001:2015 Certified Company

Project : Loss Reduction Scheme under RDSS	
NIT No.	31 / TR / NBPDCCL – 2022
Circle	Darbhangha
NOA No.	15 & 16 Dtd. 06-03-203
TKC	JSP Projects Pvt. Ltd., Ghaziabad
Manufacturer / Supplier	Garg Cables & Silicones Pvt. Ltd.
Discom	North Bihar Power Distribution Co. Ltd.

Guaranteed Technical Particulars For 11 kV 5 kN Polymer Pin Insulator

Sl. No.	Description	11 kV, 5 kN
01.	Name of the Manufacturer	Garg Cables & Silicones Pvt. Ltd.
02.	Type of Insulator	11 kV 5 kN Polymer Pin Insulator
03.	Standard <i>(IEC 60120/IS-2486-Part II/1989)</i>	IEC-61109 with up to date amendment
04.	Name of Material used	Silicon Rubber
05.	Material of Core (FRP Rod)	ECR Glass Boron Content Free
06.	Material of Housing and Weather sheds Silicon content by Weight	Silicone Rubber (30% Minimum) CHECKED
07.	Material of End Fitting	Hot Dip Galvanized SGCI
08.	Sealing Compound for End Fittings	RTV Silicon Sealant
09.	Colour	Grey <i>SEE(P-II) EEE(P-II) ESE(P-II)</i>
10.	Visible Discharge	9 kV
11.	Normal System Voltage	11 kV
12.	Highest System Voltage	12 kV
13.	Dry Power Frequency Withstand Voltage	55 kV <i>60kV</i> APPROVED
14.	Wet Power Frequency Withstand Voltage	35 kV <i>Subject to the condition that you are not absolved of the responsibility of correctness of materials</i>
15.	Dry Power Flashover Withstand Voltage	70 kV <i>75 kV</i>
16.	Wet Power Flashover Withstand Voltage	50 kV <i>45 kV</i>
17.	Dry Lightning Impulse Withstand Voltage Positive	75 kV <i>80 kV</i>
18.	Dry Lightning Impulse Withstand Voltage negative	75 kV <i>80 kV</i>
19.	Dry Lightning Impulse Flashover Voltage Positive	120 kV <i>95 kV</i>
20.	Dry Lightning Impulse Flashover Voltage negative	130 kV <i>100 kV</i> Chief Engineer (Project-II) NBPDCCL

Contd....2



Regd. Office : 2nd Industrial Area, Near Garg Cotton & General Mills, Sirsa – 125055 (Haryana), India
 Phone : +91-1666-237707, E-mail : gargcablesandsilicones@gmail.com

Manufacturers of : Composite Polymer Insulators for Transmission & Distribution Lines

GSTIN : 06AAGCG3063L1ZI
 PAN : AAGCG 3063 L
 UDYAM : UDYAM-HR-17-0001730

All Subject to Sirsa Jurisdiction
 CIN : U74999HR2016PTC058269

99961-05060
 78951-61234



Garg Cables & Silicones Pvt. Ltd.

An ISO 9001:2015 Certified Company

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21.	RIV at 1 Mhz when energized at 10 kV / 30 kV (rms) under Dry Condition	<100 Micro Volts < 50 Microvolt
22.	Creepage Distance	320 MM Minimum ✓
23.	Minimum Failing Load	5 kN ✓
24.	Weight	0.8 Kgs. ± 10%
25.	Dia of FRP Rod	24 MM ✓
26.	Dia of Weather shed	102 MM ✓
27.	Length of FRP Rod	190 MM ✓
28.	Thickness of Housing from Center of the Shed	3 MM (Minimum) ✓
29.	Dry Arc Distance	165 MM ✓
30.	Dimensioned Drawing of Insulator including Weight with Tolerances in Weight is enclosed	Yes ✓
31.	Method of Fixing of Sheds to Housing	Injection Molding ✓
32.	Number of Weather Sheds	3 Nos. ✓
33.	Type of Shed Aerodynamic	Aerodynamic ✓
34.	With under ribs	----
35.	Type of Packing	Double HDPE Bags Wooden/Corrugated Box
36.	Number of Insulator in each Bag	20 Nos.
37.	Gross Weight of Bag	16 Kgs. Approx.
38.	Tolerance	Tolerance on all Dimensions including Diameter & Length shall be as per IEC:61109

for Garg Cables & Silicones Pvt. Ltd.

Authorized Signatory



* Each Insulators shall be legibly and indelibly marked with the following detail as per IEC-61109.

- (i) Name or Trademark of the Manufacturer
- (ii) voltage & type
- (iii) Month and year of manufacturing
- (iv) Min. failing load / guaranteed mechanical strength in KN
- (v) RDS S NRPDCL

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APPROVED

Subject to the condition that you are not absolver of responsibility

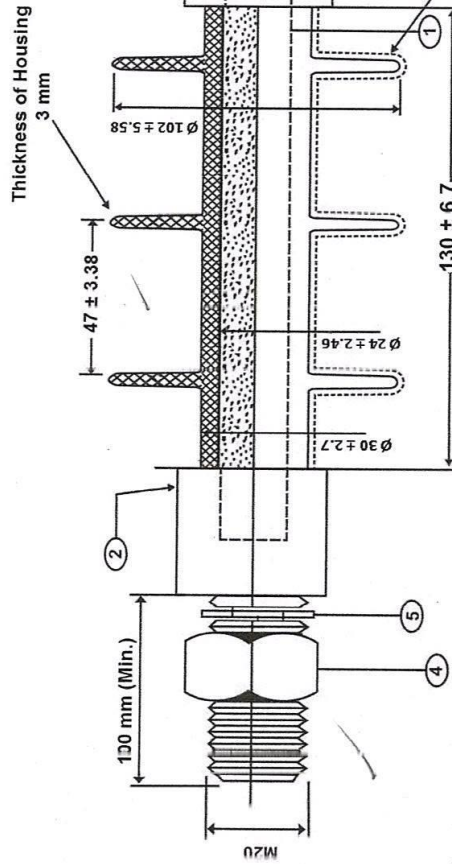
Correctness of materials

Handwritten signature and blue stamp of NRPDCL

Regd. Office : 2nd Industrial Area, Near Garg Cotton & General Mills, Sirsa - 125055 (Haryana), India
 Phone : +91-1666-237707, E-mail : gargcablesandsilicones@gmail.com

Manufacturers of : Composite Polymer Insulators for Transmission & Distribution Lines

Project : Loss Reduction Scheme under RDSS	
NIT No.	31 / TR / NBPDCCL - 2022
Circle	Dart hanga
NOA No.	15 & 16 Dtd. 06-03-2023
TKC	JSP Projects Pvt. Ltd., Ghaziabad
Man. / Supplier	Garç Cables & Silicones Pvt. Ltd.
Disc. no.	North Bihar Power Distribution Co. Ltd.



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APPROVED

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

[Signature]

Chief Engineer (Project)

NOTE :- ALL DIMENSIONS ARE IN MM

5	WASHER	
4	NUT	
3	TOP ASSEMBLY	S.G.C.I. IRON
2	PIN FITTING	S.G.C.I. IRON
1	FRP FOD	FIBRE REINFORCED PLASTIC
S. NO	DESCRIPTION	MATERIAL
GARG CABLES & SILICONES PRIVATE LIMITED		
2 nd INDUSTRIAL AREA, NEAR GARG COTTON MILL, SIRSA - 125055 (HARYANA)		
TITLE : 11 KV 5 KN POLYMER FIN INSULATOR		
SCALE : NTS		DRAWING SIZE : A4
DATE		
DRAWING NO. : GCCL / 11 KV FIN / 24 MM		GENERAL TOLERANCE ± 10%

TECHNICAL PARTICULARS

TO-LERANCE ON ALL DIMENSIONS INCLUDING DIAMETER & LENGTH SHALL BE AS PER IEC:61109

(I) MECHANICAL CHARACTERISTICS

1. MINIMUM FAILING LOAD - 5 kN

(II) ELECTRICAL CHARACTERISTICS

1. DRY ONE MINUTE POWER FREQUENCY WITHSTAND VOLTAGE - 55 KV (RMS)
2. WET ONE MINUTE POWER FREQUENCY WITHSTAND VOLTAGE - 35 KV (RMS)
3. DRY LIGHTNING IMPULSE WITHSTAND VOLTAGE - 75 KV (+VE)
4. CREEPAGE DISTANCE - 320 MM (Minimum)
5. DRY ARC DISTANCE - 165 mm
6. HIGHEST SYSTEM VOLTAGE - 12 KV (RMS)
7. VISIBLE D-CHARGE TEST VOLTAGE - 9 KV (RMS)
8. STANDARD - IEC : 61109
9. MARKING - GCCL - AS per G/T/TS/15/20/21/22

