



### (Vyas Group Of Companies)

- NSIC CRISIL RATTING : SE 3 B
- NSIC ICRA RATTING : SE 3 B
- C E MARKED PRODUCT

- MANUFACTURERS, EXPORTER & ENGINEERS
- \* Load Break Switch \* Overhead Line Material
- \* Hightension Switchgears \* Earthing Materials
- \* Sub-Station Equipments, \* Street Light Pole

Regd. Office : Administration Office: 33, Satyam Bunglows, Opp. Karnavati Club, S.G. High "National House" 1885, Pada Pole, Gandhi Road, Ah : Plot No.8/1, Sanket Industrial Estate, Village-Moraiya, Dist-Ahmedabad-382213. Gujarat, (India) Ph. 02717-29Factory (2) Tele/Fax: 34/45, Sonal Industrial Estate, At & Post-Khoda, Nr. TAT : 079-22139725-22169725Mobile E-mail Website: Jayant : +91 9879559725• Kaushik : +91 987952972: jayant1885@gmail.com, national9725@gmail.com, kgv : www.electoverhead.com, www.nationalpower.in	medabad-380001. Gujarat (India) (Changodar)Sarkhej-Bawla Highway, TalSanand, 97827 TA Nano, Tal. Sanand. Pin. 382170. Gujarat, India 5
Substation Equipments :	
GOAB Switches, Load Break Switche (LBS), Isolator, Single Phase Switch, Disco	nnecting Switch, Drop Out Fuses, Horn Gap Fuses,
Operating Rod, Discharging Rod, Lightening Arresters, Fuse Elements.	
TRANSMISSION LINE MATERIAL :	
ACSR-AAAC Conductor, Tension / Suspension Hardware, Stay Sets, Stay Wire,	G.I. Wire, Earthwire, Shackle Straps, Nut Bolts and
Spindle, PG Clamps and Connectors etc.	
Porcelain Insulators / Bushing:	
HT and LT Porcelain Insulators, Disc, Pin, Shakle, Reel, Epoxy Insulators, crain I Composite Insulators (Up to 400Kv) :	nsulators, Busbar Supportors.
(silicon-Polymers) - Suspension - Pillar - Pin - Post	
<ul> <li>Earthing Material (G. I. &amp; Copper):</li> </ul>	
Plates, Pipes, Strips, Funnel, Covers & Maintenance Free Electrode	
<ul> <li>Cable Jointing Kit &amp; Accessories :</li> </ul>	
Heat Shrinkable type, Resin Cast, Push on type, Tapex type and Compounds	
Safety Products :	
Rubbers Sheets, Hand Gloves, Shoes, Caution Board, Shock Treatment Charts	, Safety Belt, Fire Bucket, Fire Stand, First Aid Box,
Fire extinguisher, Jacket.	
LT and HT types of Taps :	
Cotton, PVC, Fibre, Empire, Mastic, Rubber, Self Amalgamating, Taflon, Black M	illion
Street Light Pole :	
Steel Tubuler Pole, High Must Pole, Decorative Lamp Pole, Solar Pole	
Transformer :	
Distribution, Power, Oil Cooled, Dry, Furnace, Rectifier, Earthing, Welding, Boos	ter, Isolation and any other special Type.

➢ 11 / 22 / 33 KV. CT. PT. Metering Sets :

We have been awarded with the 7 National and 3 International award for Best Quality and Management

 $\star$   $\star$   $\star$   $\star$   $\star$ 





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: 33, Satyam Bunglows, Opp. Karnavati Club, S.G. Highway, Ahmedabad-380 015. Gujarat, (India) **Regd. Office :** Administration Office : "National House" 1885, Pada Pole, Gandhi Road, Ahmedabad-380001. Gujarat (India) Factory (1) : Plot No.8/1, Sanket Industrial Estate, Village-Moraiya, (Changodar)Sarkhej-Bawla Highway, Tal.-Sanand,

- Dist-Ahmedabad-382213. Gujarat, (India) Ph. 02717-297827
- Factory (2) : 34/45, Sonal Industrial Estate, At & Post-Khoda, Nr. TATA Nano, Tal. Sanand. Pin. 382170. Gujarat, India **Tele/Fax** : 079-22139725-22169725 Mobile : Jayant : +91 9879559725 • Kaushik : +91 9879529725 : jayant1885@gmail.com, national9725@gmail.com, kgvyas33@gmail.com
- E-mail Website
  - - : www.electoverhead.com, www.nationalpower.in









11/22/33 KV Outdoor triple pole Three insulator per pole tilting type, Gang Operated Air Break Switch Suitable for horizontal / vertical mounting with complete operating mechanism. Test as per IS-9920 / 1985



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11/22/33 KV Outdoor triple pole Three insulator per pole tilting type, Gang Operated Change Over Switch Suitable for horizontal / vertical mounting with complete operating mechanism. Test as per IS-9920 / 1985



I I/22/33 KV Outdoor triple pole Two insulator per pole tilting type, Gang Operated Air Break Switch Suitable for horizontal / vertical mounting with complete operating mechanism. Test as per IS-9920 / 1985



I I/22/33 KV Outdoor triple pole Two insulator per pole tilting type, Disconnecting Switch Suitable for horizontal / vertical mounting. Test as per IS-9920 / 1985











33 KV Outdoor triple pole Three Solidcore insulator per pole Rotating type, Isolator Suitable for horizontal mounting with complete operating mechanism. Test as per IS-9920 / 1985



22/33 KV Outdoor triple pole Tilting type, Gang Operated Air Break Switch with Double Stack of Insulator Suitable for horizontal / vertical mounting with complete operating mechanism. Test as per IS-9920 / 1985



I I/22/33 KV Outdoor triple pole Three insulator per pole Rotating type, Gang Operated Air Break Switch Suitable for horizontal mounting with complete operating mechanism. Test as per IS-9920 / 1985



22/33 KV Outdoor triple pole Six insulator per pole Rotating type, Isolator Double Stack of Insulator Suitable for horizontal mounting with complete operating mechanism. Test as per IS-9920 / 1985









I I/22/33 KV Outdoor Expulsion type Drop Out Fuse with channel Base. Test as per IS-9385/1983



I I/22/33 KV Outdoor Expulsion type Drop Out Fuse with channel Base. Test as per IS-9385/1983



22/33 KV Outdoor Expulsion type Drop Out Fuse with Double Stack of Insulators with channel Base. Test as per IS-9385/1983



22/33 KV Outdoor Expulsion type Drop Out Fuse Solidcore Insulators with channel Base. Test as per IS-9385/1983



I I KV Outdoor Expulsion type Drop Out Fuse with Solidcore Insulators Test as per IS-9385/1983



11/22/33 KV Outdoor Horn Gap Type Fuse with channel Base. Test as per IS-9385/1983









I I KV Disc Insulator



11/22/33 KV Pin Insulator



I I/22/33 KV Post Insulator



Lightening Arrester up to 400kv Class.

"NATIONAL" The Name of Quality

FRP Operating Rod up to 440 kv.





















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Website	: www.electoverhead.com, www.nationalpower.in		

## 11 kv / 22 kv / 33 kv GOAB Switch, Disconnecting Switch, Isolator & Drop Out Fuse Horngapfuse with Silicone Rubber (Polymer) Insulator









## Silicone (Polymer) - Advantage

The silicone version of insulators offers distinct advantages over conventional porcelain insulators as follows :

- Light weight, compact and tower structures can be lighter resulting in economy.
- Hydrophobic & high pollution resistant.
- Fire retardant; Impact & vandal resistant.
- Un-breakable & reduces the risk of transport damages.
- Resistant to earthquake shocks.
- Reliable & safe mechanical performance.





# AB CABLE HARDWARE

# LINE HARDWARE

### SUBSTATION CLAMP & CONNECTORS











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ISO 9001 : 2008 CERTIFIED COMPANY					
Leading Innovation NATIONAL POWER INDUSTRIES (Vyas Group Of Companies)					
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NSIC - ICRA RATTING : SE 3 B	* Load Break Switch     * Overhead Line Material     * Hightopoion Switchgoorn     * Earthing Materials				
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EARTHING	ELECTRODE				
National SAFE EARTHING ELECTRODE	TRADITIONAL EARTHING SYSTEM				
Pipe-in-pipe technology, two mild steel pipes one inside the other, hot dip galvanized, filled with high conductive and corrosion resistance crystalline mixture and backfill compound around electrode	Copper plate earthing inclusive of MS pipe, 50 mm dia, 2.75 meter long, copper plate 450 X 450 X 3 mm with copper strip 25 X 3 (6 bags) plus charcoal and salt around electrode. Oxidation takes place. Resistance todissipation increase when corrosion starts.				
Two models available: 50mm dia 3 meters is used in place of the conventional GI pipe earthing. 76mm dia, 3 meter is used in the place of the conventional copper plate earthing	Gi pipe electrode earthing: 5 to 10 micron galvanization size: 65mm or 38 mm X 2.75 m long plus charcoal & salt etc. Pipe corrodes fast over a period of 3 years causing high resistance to smooth dissipation of current				
Backfill compound is used as in fill material. BFC retains moisture and enhances conduction around electrode	Charcoal & salt are used in the pit as in fill material. Common salt hastens corrosion of GI/CI electrodes and the resistance value goes over a period of time.				
Watering around the earth pit is required for about 3 days after installation and for a few days in peak summer when water tables go down	Watering of pit required regularly to enhance conductivity around the electrode				
Ohmic value always within safe limits	Ohmic value fluctuates resulting in frequent maintenance of costly machinery and appliances and dangerto human life				
Maintenance of pit is not required in normal soil conditions	Sometimes fails to activate safety devices.				
Low enough impedance to activate fault relays. Due to high conductive soil around the electrode, charge dissipation through electrode is very high, current density across electrode is very low, which results in very high fault current enough to tripfault relays	Distribution of short circuit is less in terms of charge dissipation and therefore generates high potential at the pit resulting in low fault current, insufficient to trip fault protection relays.				
Always provide safe discharge path to fault current and lightning current	Some times fails to provide safedischarge path forfault current				
Requires less space and time for installation	Requires large space and time for installation				
Practically no need to change during life time	GI pipe earthing needs to be changed every three years and copper plate earthing every 12 years due to corrosion aatcks				
Backfill Compound (BFC) is not soluble in water. It is an excellent ground enhancer	Salt as in fill materials is washed away during season				
Very Safes Stable Palatform for electronic machinery, equipment and appliance.	Not a stable platform for sensitive electronic equipment and appliances				
Can easily cope with the earthing demands of the new generation electrical/electronic machine	Can't cope with theearthingdemandsofthenewgeneration machines				
Cost effective investment	The cost of maintenance over a 15 plus year period will be about three times more than the one time cost of Electroearth's Safe Earthing Electrode				





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## EARTHING ELECTRODE

### PURPOSE:

To eliminate electrostatic discharge to save sensitive equipments and to avoid disturbance in Power supply by providing effective earthing-the most important aspect in electrical industry.

### BENEFITS :

Earthing electode is easily installed with less space required as compared to conventional earthing and yet has a longer life. Earthing powder which surrounds earthing electrode is hygroscopic and conductive which helps the longer period of effective earthing. Earthing powder has the quality of absorbing and retaining moisture contents for a very long period. Very low resistance value ensures safe and sound earthing.

### FEATURES :

Hot dipped galvanised strip in G. I. Pipe where G. I. Strip is primary and G. I. Pipe is outer and Secondery electrode. G. I. Strip helps smooth flow of current. The space between G. I. strip and G. I. pipe is filled with the powder which has conductive and non - corrosive elements which helps longer life of electrode. Earthing terminal is provided directly with primary electrode of G. I. strip which ensures proper earthing. Strip earthing is better than pipe earthing or plate earthing. We have benefits of both strip earthing and pipe earthing.

### Available Size in Ready Stock.

Diameter : 32mm, 40mm, 50mm, 65mm, 80mm Length : 1mtr., 2mtr., 3mtr.

MAINTANANCE

FREE





"NATIONAL" The Name of Quality

EARTHING

LONG LIFE



# EARTHING ELECTRODE



CODE	G. I. Pipe O. D. & Length Approx.	Flate size in M.M.	Pipe Thickness	Total Weight Approx	Cross Sectional Primary Conducting Area in Sq. M.M.	Surface Area In M.M. For 3 Mtrs.	Suggested Load Approx
N-502	50mm x 2Mtr.	32 x 10	3 mm	15 Kg.	320	3,80,000	100 KVA
N-503	50mm x 3Mtr.	32 x 10	3 mm	22 Kg.	320	3,80,000	250 KVA
N-802	80mm X 2Mtr.	50 x 10	3 mm	24 Kg.	500	5,60,000	500 KVA
N-803	80mm x 3Mtr.	50 x 10	3 mm	35 Kg.	500	5,60,000	1000 KVA

# Earthing Electrode

As Per IS 3043 - 1987





**Website** 



# NATIONAL POWER INDUSTRIES

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11/22/33 KV Load Break Switch

### STRUCTURE **REPLACE WITH** LBS



LBS Panels V/S DP Structure

Disadvantages of DP Structure (Only Outdoor)	Advantage of LBS Panel (Indoor as well as outdoor versions available)
Live parts are exposed to sun and rain leading to corrosion	LBS Panels are mounted in Metal Clad Enclosure. No Exposure to Sun and rain-No corrosion.
Rusting of moving parts leading to jamming	No rusting
Drop in insulation values of Insulators due to moisture	Immune to atmospheric conditions.
Loosening of Jumps leading to heat dissipation	No cable / Conductor joints. Complete bus bar system.
Manual operation	Manual / Motorized operation.
No Trip mechanism on fault	Trip Mechanism with back-up HRC Fuses.
Ugly structures within beautiful campus	Elegant Panel
Occupies precious floor space.	Compact in construction. No Land Wastage.
High Maintenance	Zero Maintenance.



# Load Break Switch Panel

### 11 KV HT LBS PANEL(INDOOR / OUTDOOR)

- Load break switch 630A, 26.3KA. IS 9920/IEC 60265
- HT HRC fuses of suitable rating
- The insulation level is 12/28/85KV
- Auxiliary switch In Built
- Earth & Fuse Trip In Built
- Shunt trip coil In Built
- Tamper proof

eading Innovation

# Metering & Switching Panel



CE



### 11 KV HT METERING & SWITICHING PANEL(INDOOR/ OUTDOOR) IS3427/1997 RA2007 IEC62271-100/2001

- Load break switch 630A.26.3KA
- HT HRC fuses of suitable rating (access to the HT fuse chamber is possible only after switching OFF the LBS)
- The Instrumental Current Transformer (resin cast) CL : 0.5 confirms to IS : 2705. The insulation level IS 15/35/95kv.
- The Potential Transformer (resin cast) CI: 0.5 confirms to IS : 3156. The insulation level IS 15/35/95KV.
- The Electronic Trivector Meter CL 0.5
- The Terminal Block 3ph. 3wire front connection
- Sealing facility provided as per EB Rules.
- Tamper proof.

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## Load Break Switch Panel







# (Composite Insulator) (Suspension - Pillar - Pin - Post)









































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		Cable Jo	tinting Kit

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