

WEST BENGAL STATE ELECTRICITY DIST. CO. LTD



(A Govt. of West Bengal Enterprises)

Office of the DE & Divisional Manager

Midnapore Division,

Administrative Building (1st Floor)

Burdge Town: Paschim Medinipur, Pin-721101

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TENDER NOTICE

Tender No: - MD/ 91 (22-23)

Ref No: - DM/MD/049

Dt- 05.04.2022

To

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Sub: - Supply and delivery of High Voltage detector for Midnapore Divisional Store under Midnapore Division.

Dear Sir,

Sealed tender with firm's seal are invited Supply and delivery of different store materials at Midnapore Divisional Store under Midnapore Division as per items described below:

Tender will be received up to **18.04.2022** within **12 noon** and the same will be opened on the same date at **100 PM** in presence of attending tenderers.

Sl. No.	Description of Materials	Rate	Quantity	Total
1.	High Voltage Detector (Details of Specification attached as Annexure-A)		16 Nos.	

Terms and Conditions: -

1. Reference no of enquiry and due date of opening of the tender should prominently be written on the sealed envelope.
2. The detector should be as per prescribed specification & works flawlessly in all voltage class upto 33 KV.
3. Valid **Mobile No & E mail address** should positively be written on the offer letter for easy communications.
4. The rate to be offered should be net and firm including transportations, Excise Duty etc but exclusive of GST as applicable.
5. Price offered should remain valid for 90 days.
6. **All the materials must be tested from Zonal/Central Testing, WBSEDCL.**
6. The above materials should be delivered at **Zonal Testing** within 15 days from the date of placement of Formal Order falling which penalty will be imposed on you as per norms of WBSEDCL.
7. One Representative must be present at the time of opening of Tender.
8. **Tenderers must have valid vendor code of WBSEDCL.**
9. The Company reserves the right to reject or accept any or all tenders without assigning any reason what so ever.

Yours faithfully


(S.Saha)
DE & Divisional Manager
Midnapore Division

TECHNICAL SPECIFICATION FOR HIGH VOLTAGE DETECTOR

1.0 The High Voltage Detector (HVD) shall be suitable for detection of liveness of electrical infrastructure including overhead bare conductor distribution lines. The HVD shall start annunciation with flashing Red LED display and buzzer beeps indicating that the line / infrastructure is LIVE and not safe to earth and/or carry out any operation. Sensing distance shall have to be at least 3 M for 33 kV and 1 M for 11 kV lines and 5' for 415 V lines.

2.0 SERVICE CONDITION:

The High Voltage Detector to be supplied as per this specification shall be capable of detecting live lines on bare conductors under hot, tropical and dusty climate and shall be suitable for satisfactory operation under the following tropical conditions.

- a) Maximum Ambient Air Temperature in shade: 50°C
- b) Minimum Ambient Air Temperature: (-) 5°C
- c) Maximum Relative Humidity : 95 %(non- condensing)
- d) Minimum Relative Humidity: 10%
- e) Maximum Rainfall: 2000 mm
- f) Maximum wind Pressure: 150Kg/Sq.mm
- g) Climatic condition: Moderately hot & humid tropical climate

3.0 SYSTEM CONDITIONS:

The High Voltage Detector is intended for use in LT & HT Distribution System. Distribution System is 1Φ2W / 3Φ3W / 3Φ4W and has the following data:

System Voltage Level	Nominal System Voltage	33 kV	11 kV	415 V
	High System Voltage	36 kV	12 kV	440 V
	Line to Earth Voltage(Nominal)	19.05 kV	6.35 kV	230 V
Insulation Level (Lightning Impulse Voltage)		170 kV	95 kV	1.1 kV
Power Frequency withstand Voltage		70 kV	28 kV	NA
Rated Frequency		50 Hz		
Insulation Resistance		Greater than 100MΩ		
Sound Pressure		90dB/Metre ± 10dB/Metre		

4.0 POWER SUPPLY:

- a) Dry Battery with suitable Voltage Ratings
- b) Commercially available everywhere

- c) Current Consumption: 30 mA (maximum)
- d) Easily replaceable at field level
- e) Battery Low Indication

The High Voltage Detector shall be capable of performing complete self diagnostic check in off-line mode with buzzer & flashing LED to ensure the working of the probe before taking on site.

6.1 The HVD Probe shall conform to IS 2071(Part-I) / IEC 61243-1

6.2 The Telescopic Rod pieces shall conform to IS 13770(1993) / IEC Pub 855(1985) / IEC 61235

- 7.1 HVD shall be designed and constructed in such a way so as to avoid any danger to the operating personnel during use and under normal conditions.
- 7.2 The HVD shall sense liveness of the system in non-contact condition. However, even if the HVD comes in contact with live part, its functionalities shall remain unaltered and safety of the user shall not be affected.
- 7.3 The HVD shall intelligently sense the presence of voltage without any adjustable pot setting.
- 7.4 It shall have the capability to warn the user with audio annunciation as well as with visual indication about liveness of the system from a safe distance as per IE rule 1956.
- 7.5 A buzzer shall produce a loud beep which shall be audible even in noisy back grounds.
- 7.6 Bright high intensity Red LEDs shall provide clear visual indication even in unfavourable daylight conditions.
- 7.7 The HVD shall have self-test button to diagnose the battery and proper functioning of the HVD.
- 7.8 The HVD shall have facility of replacement of the power supply battery easily.
- 7.9 The HVD shall have universal connecting link for the attachment of the Telescopic Rod.
- 7.10 The Telescopic Rod shall be of electrically non-conducting, non-allergic, non-hygroscopic, non-ageing material of tested quality with piece to piece self-locking arrangement.
- 7.11 All insulating materials used in the construction of HVD shall be non-hygroscopic, non-ageing and of tested quality.

- 7.12 The silicon petticoat arrangement shall be fixed on rod for decrease of the flash over contact probability with the operator.
- 7.13 The detector shall not have any external accessibility to change the voltage or the sensing distance to ensure the safety of a user to avoid confusion at the site.

8.0 DETECTION INDICATION:

- 8.1 The High Voltage Detector shall give the indication with High Intensity LEDs with flashing arrangement there by providing the suitable indication in day light.
- 8.2 The High Voltage Detector shall give audible sound for the presence of live line so that it can be suitably used in populated and noisy areas for easy operation.

9.0 DIMENSIONS:

- 9.1 The High Voltage Detector probe shall have universal connecting link with suitable length for the attachment of the Telescopic Rod.
- 9.2 Length of the Telescopic Rod shall be at least 4800 mm.
- 9.3 The detachable type Telescopic Rod shall have four sections/pieces, each section/piece having maximum length of 1600 mm & minimum length of 1200 mm (including coupling) with the bottom section having locking arrangement, to reach the required distance / height.
- 9.4 The outer diameter of the bottom part of the Telescopic Rod shall not exceed 45 mm with tolerance as per IS.

10.0 SUITABLE CARRYING CASE:

The High Voltage Detector with accessories shall be supplied with the carrying case so as to be carried by the operating person easily & individually.