



**ODISHA POWER TRANSMISSION CORPORATION LIMITED  
(A Government of Orissa Undertaking)**

**Registered Office: Janpath, Bhubaneswar-751022**

**Telephone No. 0674-2541801**

**Fax No. 0674-2542964**

**CORRIGENDUM-1**

**Ref : e-TENDER NOTICE NO. CPC-10/2016-17 & Tender specification No. Sr.  
G.M. - CPC - Testing Equipment -10/ 2016-17**

All participating bidders of lot-XI (AC/DC EARTHFAULT TRACER/ LOCATOR) are hereby requested to refer the technical specification of the equipment as mentioned hereunder. The technical specification of the said equipment in the Common Tender document uploaded originally may please be ignored.

**LOT-XI**

**TECHNICAL SPECIFICATION OF AC/DC EARTH FAULT TRACER/ LOCATOR:**

The portable battery Ground Fault locating instrument shall be easy to use for identifying traces and locates ground faults in underground ac & dc systems – on line as well as off-line mode also. This can be used in small and large ungrounded system.

It shall work in high electrical noisy environment and the strength of the test signal can be adjusted.

The system shall consist of a line operated transmitter and a portable battery powered receiver. The transmitter can be left behind during tracing and the fault can be tracked easily using the hand held receiver and clamp-on probe.

The measurement shall be unaffected by the presence of dc current and ac ripple.

The test set shall have digital display of voltage and current signal amplitude. It shall have bridge measurement of fault resistance and system capacitors. Feature shall include soft start charging to prevent sensitive relay tripping.

The kit shall able to measure and display branch ground fault current in grounded AC system.

The Portable Earth fault evaluator set shall consists of pulse generator, hand held fault evaluator, two Clamp CTs of 20mm and 52mm diameter and accessories.

The kit shall have minimum following specification for testing at site.

- a. Earth fault location system for AC/DC 20...500 V.
- b. The response shall be at 2mA
- c. The alarm shall be in the form of LED and buzzer.
- d. The kits shall have switchable operating mode: insulation fault location/residual current measurement.
- e. It shall available with Current clamps of 52 mm
- f. The residual current measurement shall be from 5mA...10A

### **Requirements of Insulation fault test device/ Pulse transmitter**

It shall be able of generating the defined test current signal of selectable magnitude. The test current generated in should depend on value of present insulation fault and system voltage.

#### **The technical specification for Pulse transmitter shall be as follows :**

Insulation voltage according to IEC 60664-1	AC500V
Impulse voltage/Pollution degree IEC 60664-1 / 3.	4kV / 3
Nominal system voltage	AC/DC 20 ... 500V.
Injected test current magnitude.	10mA/25mA selectable.
Injected test current time period.	Max 2s test cycle and 4s idle time in each phase alternatively.

#### **Pulse receiver / Hand held Insulation fault locator.**

It shall be capable of detecting the pulse sent by the pulse transmitter and to locate the fault in online condition.

Rated Insulation voltage	50V as per IEC60664-1 / 3
Impulse voltage	0.8kV as per IEC60664-1 / 3
Power supply battery back-up	Rechargeable batteries
Hours of operation	At least 100hrs.
Insulation fault location in systems with non-insulated conductors. For portable clamp CTs.	600Volts.
Rated frequency of circuit to be measured.	DC, 42 ... 2000Hz.
Minimum measuring sensitivity	At least 2mA
Relative Uncertainty limit	+/-30% or +/- 2mA of reference value.
Display	LCD
Alarm	Selectable Alarm set-point and audio and visual indication on the measuring device with actual magnitude of measured fault test current display. And indication of phase in which fault has occurred.
Leakage current measurement.	Must be capable of measuring leakage current of grounded AC circuits also with minimum sensitivity of 5mA. With harmonic analysis of upto 8 <sup>th</sup> harmonics and THD.

#### **It shall comply with the following Product Standards :**

IEC 61557-9, IEC61557-8, DIN EN 61557-8, ASTM F1669M-96, ASTM F120

**Guaranteed technical particulars for AC/DC Earth Fault Tracer/ Locator :**

Sl No	Description	Yes/No
1	The portable battery Ground Fault locating instrument can identifying traces and locates ground faults in underground ac & dc systems – on line as well as off-line mode also. This can be used in small and large ungrounded system.	
2	It can work in high electrical noisy environment and the strength of the test signal can be adjusted.	
3	The system shall consist of a line operated transmitter and a portable battery powered receiver. The transmitter can be left behind during tracing and the fault can be tracked easily using the hand held receiver and clamp-on probe.	
4	The measurement shall be unaffected by the presence of dc current and ac ripple.	
5	The kit shall able to measure and display branch ground fault current in grounded AC system.	
6	Feature shall include soft start charging to prevent sensitive relay tripping.	
7	It can track Earth fault location system for DC 20...500 V.	
8	It can track Earth fault location system for AC 20...500 V.	
9	Injected test current magnitude is of 10mA/25mA selectable.	
10	Selectable Alarm set-point and audio and visual indication on the measuring device with actual magnitude of measured fault test current display and indication of phase in which fault has occurred.	
11	Must be capable of measuring leakage current of grounded AC circuits also with minimum sensitivity of 5mA. With harmonic analysis of up to 8th harmonics and THD.	
12	Technical data sheet, literature is enclosed along with the offer which is as per GTP	
13	Specify the Make, Model & Origin of Manufacturer of the equipment	

All other terms & conditions & technical specifications of the tender remain unaltered.

  
**SR. GENERAL MANAGER [C.P.C.]**