

Digital Earth Resistance Tester

Technical Specification

1.0 DIGITAL EARTH TESTER

1.1 The Digital Earth Tester is required for the measurement Resistance of Earth under the following conditions.

- a) Measurement of earth resistance in difficult situations, where noise is present in the earth.
- b) Measurement of Earth Resistance for large complex earthing systems.
- c) Accurate measurement of Earth Resistance in sub-station site where variation of soil resistivity values will be large.

2.0 Constructional features:

- a) Digital Earth Tester shall be robust, compact instrument designed for measuring electrode resistance. The instrument should have facility to measure Ground Resistance by standard Fall of Potential method using 3 terminal method by Current and Potential spikes. The equipment must also enable to measure the 2 terminal measurement.
- b) The instrument also includes a voltmeter to allow you to measure the ground voltage.
- c) To allow accurate testing in noisy environments the instrument should be capable of rejecting noise.

2.1 Instrument should automatically check and display the battery status Indication

2.2 The equipment must be compact and must come with caring case for spike & wire and other measuring accessories.

3.0 The main technical parameter and features shall be as follows:

Sr. No.	Particular	Parameter
1	Earth resistance range :	0 ohm to 500 ohm
2	Resolution	0.01 ohm
3	Resistance Accuracy :	2% \pm 2 digits
4	Voltage Measurement :	0 to 100V a.c.
5	Power supply :	Suitable Internal standard battery

6	Environmental Protection :	The instrument should be waterproof to IP54
7	Safety Standard :	IEC-1010 (EN 01010) or equivalent standard
8	Operating Temperature :	0 to + 50°C
9	Voltage Withstand :	In the event of a system fault, the instrument Will withstand 240 V a.c. applied between any two terminals.

4.0 The equipment must be supplied along with the below:

- Hard carrying case
- Stakes and wire kit & all accessories for Digital Earth Resistance instrument

5.0 TESTING AND CALIBRATION:

Each Digital Earth Resistance Tester shall be supplied duly tested /calibrated from the NABL accredited government laboratory. Certificate of such lab should be supplied with each Digital Earth Resistance Tester.

6.0 SAMPLE:

The supplier shall have to submit sample with manual and complete Accessories of Digital Earth Resistance Tester along with bid documents. Sample verification for Technical requirement will be carried out at Hi-Tech Lab, PGVCL, Rajkot before opening of price bid.

The manufacturer must have at least 3 authorized service centers in India with proper setup and audited operations since past 3 years.