

BHARAT HEAVY ELECTRICALS LIMITED, JHANSI

**Technical Specification for 5kV Insulation Resistance Tester
(ANNEXURE-1)**

SL No.	DESCRIPTION	Remarks/ Bidder to specify
1	The instrument should be fully automatic and suitable for measurement of Insulation resistance of oil filled power transformers (upto 165 MVA), OIP/RIP bushings (upto 420 kV class).	Bidder to confirm
2	Offer should include 1 set of insulation resistance measurement kit and test leads provided with the kit and price should be quoted accordingly.	Bidder to confirm
3	The test set should be able to give direct readings of the insulation resistance of test object automatically.	Bidder to confirm
4	The instrument should perform automatic tests and measure Insulation Resistance. It should have provision for displaying insulation resistance, test voltage, test time.	Bidder to specify
5	Display: The display shall be sun-light visible.	Bidder to confirm
6	Voltage selection – 500V to 5kV in defined steps. With Enable Voltage Lock Option.	
7	Instrument should display direct reading of voltage across the test piece when the test is in progress.	Bidder to confirm
8	Input power supply : 100-250 V, 50 Hz Single phase	Bidder to confirm
9	Real Time Clock should be provided.	Bidder to confirm
10	Environmental conditions: Operating Temperature: 0°C to 50°C Storage Temperature: 0°C to 65°C Humidity: 90% non-condensing, Ambient Temperature: 0 °C to 50 °C	Bidder to confirm
Protection: Instrument should be protected against following		
11	Instrument should have Breakdown or 'Burn' mode.	Bidder to confirm
12	The test kit shall meet all the relevant safety specifications / Standards.	Bidder to confirm
13	Environmental Protection Instrument should be rated to IP55	Bidder to confirm
14	Instrument should have compliance to Safety standards.	Bidder to confirm
The ranges of the test set for different parameters should be at least as per the pts mentioned below		
15	Insulation Resistance Range: 1MΩ to 1 TΩ or better	Bidder to confirm
16	Resolution: 1MΩ	Bidder to confirm
17	Accuracy: ±5% of reading or better	Bidder to confirm
18	Test time should be selectable from 10 secs to 50 minutes	Bidder to confirm
The test equipment shall be offered complete with the items mentioned below:		
19	Power supply cord & test leads. The length of test leads shall be minimum 15 mtrs. If supplier is supplying test lead length of less than 15 mtrs, then test lead extension are also to be provided to make the lead length upto 15 mtrs.	Bidder to confirm and submit along with supply.
20	Two sets of operating / maintenance manuals in English language.	Bidder to confirm and submit along with supply.
21	Two sets of calibration reports from NABL accredited Lab with essential data. Traceability details of standard used for calibration. All documents should be endorsed by authorized signature.	Bidder to confirm and submit along with supply.
	SPARES-	

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22	Bidder to ensure availability of all spares item with OEM for at least 5 years of operation.	Bidder to confirm
	PACKING:	
23	Packing for all items of complete system, all accessories and other supplied items to avoid any damage/loss in transit.	Bidder to confirm.
	GUARANTEE/WARRANTY :	
24	Warranty Certificate & Acceptance: 24 months from date of supply or 18 months from date of commissioning whichever is later.	Bidder to confirm.
25	Warranty replacement: The system shall be guaranteed for satisfactory operation and against the defects in design, materials & workmanship for above guarantee period. The commissioning date shall be the date from which the equipment is in satisfactory operation. Any replacement during warranty period shall be provided on F.O.R. BHEL Jhansi / Customer Site.	Bidder to confirm.