

PROCUREMENT PROCEDURE OF CPRI (NON WORKS)

Revision No. : 04
 Dt of Revision : 27.08.2020
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 Section : Formats
 Topic : Technical Specifications format

Issue No : 2
 Issue Dt. : 30.06.2003
 Issued by : P A
 Documents : PPM
 FORMAT NO.:CPRI/PUR/eTBID/GTP

Section IV T -Technical Specification

CENTRAL POWER RESEARCH INSTITUTE, BENGALURU/BHOPAL Web: www.cpri.in

Tender Enquiry No : CPRI/BLR22UHVRL09C1001

Description of the Equipment/Goods/Services : Capacitance and Dielectric dissipation meter

Note : 1) The technical bid submitted in other than this format is liable to be rejected.

2) All blue fields are mandatorily to be filled in.

Name and address of the bidder

Quotation Number and Date

Sl.No.	Technical Specifications/Parameters	Qty	To be completed by the Bidder		
			Details of guaranteed technical parameters offered by the bidder	Guaranteed Technical Particulars (GTP) <small>Mention Complied/Not Complied</small>	Deviations from GTP
Fully Automatic Capacitance and Dielectric Dissipation Factor Measuring Instrument					
1	Scope: Supply, transit insurance, calibration and demonstration of functionality of Capacitance and Dielectric dissipation factor meter	01 Number			
2	Description: Capacitance and Dielectric dissipation factor measuring instrument suitable for measurement of capacitance and dielectric dissipation factor of three/single phase transformer windings, instrument transformers, bushings as per IEC 60076-1, IEC 61869-1 and IEC 60137 standards in UST, GST and GST with guard modes				
3	Application: The equipment is mainly used for measurement of capacitance and dielectric dissipation factor of single/ three phase distribution & power transformers, Instrument transformers and bushings as per IEC 60076-1, IEC 61869-1 and IEC 60137 standards respectively				
4	Operating Conditions at site: Ambient temperature: 10°C to 45 °C Relative humidity: 45 % to 85% RH Mean height of site above sea level: 542 meters				
5	Rated input voltage: 230 V, 50 Hz				

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6	High Voltage test source				
6.1	Output voltage: 100 V to 12 kV				
6.2	Test current : up to 300 mA (continuous current)				
6.3	Total Harmonic Distortion (THD) : < 2%				
6.4	Duty cycle : continuous				
6.5	Test frequency : 45 Hz to 65 Hz				
6.6	Test voltage accuracy: $\pm 0.5\%$ Rdg $\pm 1V$				
6.7	Standard Capacitor : Inbuilt standard capacitor shall be provided				
6.8	Measured parameters: Automatic measurement of capacitance, dissipation factor and Power factor in GST , GST with Guard and UST modes				
7	Capacitance				
7.1	Capacitance measurement range: 10 pF to 1 μ F @ 12 kV at 50 Hz				
7.2	Accuracy of capacitance : $\pm 0.1\%$ Rdg ± 1 pF				
7.3	Resolution of capacitance: 0.01 pF or 5 digits				
8	Dielectric Dissipation factor				
8.1	Dissipation factor: 0 to 1				
8.2	Accuracy of dissipation factor: $\pm 0.5\%$ Rdg $\pm 1e-4$				
8.3	Resolution of Dissipation factor: $1e-4$				
9	Arrangement: The meter shall have built in standard capacitor, microprocessor based control and measuring system				
10	Storage: It shall have the internal storage facility for storage of test results (minimum 1000 results)				
11	Indication: Suitable test result display unit along with keyword to control the test source.				

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12	Equipment shall be provided with suitable in built printer option to print the test				
13	Accessories: One set of power cable, measurement and connecting cables of length 20 meters with double screened with hooks & clamps, Grounding cable - 20 Meters with clips				
14	Safety requirement: HV source shall be provide with features for zero start, Interlocking system, emergency stop button , Open ground, over current, over voltage etc				
15	Suitable carrying case with trolley for bridge & HV source shall be provided				
16	Calibration: The equipment shall be supplied along with calibration certificate for test voltage, test frequency , capacitance and dielectric factor parameters for its full range operation from any laboratory accredited as per ISO/IEC 17025:2017 standard.				
17	Demonstration/Training: One day hands on training shall be provided on following aspects of equipment to CPRI officials at Commissioning site 1. Safety aspects 2. Functionality of equipment 3. Hands on training in operation, maintenance and troubleshooting options 4. Interfacing to PC for further analysis of test results 5. Selection of test parameters and printing option etc.				
18	Technical information to be provided: The following technical information shall be provided during supply: • Calibration certificates • Operational manual and Maintenance manual in triplicate : these manuals shall include specific instruction relevant to the handling, installation, troubles shooting and servicing. All documents shall be issued in English language and provided both on paper and				
19	Warranty: The equipment shall be guaranteed for period of 12 months from the date of successful commissioning at site				

PN: 1) Mere statement of "Complied" do not suffice the requirement. The details of technical parameters in proof of CPRI requirements shall be furnished along with technical write-up, catalogues, brochures, literatures, phamplates, or any other documents shall be submitted in hard copy along with technical bid.
 2) Calibration reports/certificates, factory test reports/certificates from an laboratory accredited as per ISO/IEC 17025:2017 /facilites shall be submitted wherever applicable.
 3) CPRI reserves the rights to conduct "predispatch inspection" prior to dispatch at the works of the supplier and the expenditure towards PDI shall be borne by CPRI. However information regarding the rediness of the equipment/machinary for the PDI shall be communicated in writing atleast 60 days in advance.