

Format for Technical Pre-Bid Queries

Tender No TPCODL/P&S/100000568/2023-24

Package Name Rate Contract for Supply of Different Testing Equipment

Sr. No.	Detailed Reference to TPCODL Technical Document. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	TPCODL Response
1	2	3	4	5
1	SPECIFICATION FOR AC Clamp Meter SI No. 7.	SI No. 7. Temperature: -20 deg. C to 1000 deg. C, Resolution 1 deg. C.	EXemption required	
	SPECIFICATION FOR AC Clamp Meter SI No. 18	18. Safety Standard : IEC/EN 61010-1:2010 (3 Edition); IEC/EN 61010-2-032:2002 (2 Edition) Bidder has to provide the type Test certificate of the quoted equipment.	EXemption required	CAT4 600V & CAT1000V required
2	STP FOR INSULATION TESTER MEGGER DIGITAL. Clause: 4.6	Advanced Features Dielectric Discharge Step Voltage Test Automated polarization index calculations Automated dielectric absorption ratio Programmable pass fail test. Switchable filter to remove external noise interference.	Advanced Features Dielectric Discharge Step Voltage Test Automated polarization index calculations Automated dielectric absorption ratio Switchable filter to remove external noise interference.	Accepted
	STP FOR INSULATION TESTER MEGGER DIGITAL. Clause: 5	The digital insulation meter shall be able to perform insulation resistance measurements with test voltage programmable up to 5KV DC & wide range of measurement up to 1 T Ohms. Three different function modes shall be available on the meter for FIX, ADJUST & RAMP modes. The equipment shall be able to measure PI (polarization index) & DAR (Di electric Absorption Ratio). The insulation tester shall have the provisions to be powered by rechargeable battery & 220 V AC mains. It shall have an internal memory for saving up to 100 test results & RS 232 or USB interface for connection & data transfer to PC/ Laptop. All structure shall be fitted in portable hard plastic carrying case with cover & must ensure safety.	The digital insulation meter shall be able to perform insulation resistance measurements with test voltage programmable up to 5KV DC & wide range of measurement up to 1 T Ohms. The equipment shall be able to measure PI (polarization index) & DAR (Di electric Absorption Ratio). The insulation tester shall have the provisions to be powered by rechargeable battery & 220 V AC mains. It shall have an internal memory for saving up to 100 test results & RS 232 or USB interface for connection & data transfer to PC/ Laptop. All structure shall be fitted in portable hard plastic carrying case with cover & must ensure safety.We Provide SV Test as equivalent to RAMP test.	Fix & Adjust has to be there but RAMP Mode can be exempted
3	Digital Multimeter Sr No. 1	Temperature Measurement : -200.0°C - 1000°C excluding Probe:	EXemption required	As Per TS
3	Standard Technical particulars for Transformer winding resistance meter. Clause 1.	The instrument should be suitable for offline measurement of DC winding resistance of transformer (including OLTC), reactors, motors, generator etc. up to 765KV class, in live switchyards environment up to 765KV level, as per applicable standards / testing procedure.	The instrument should be suitable for offline measurement of DC winding resistance of transformer (including OLTC), reactors, motors, generator etc. up to 220KV/400KV class, in live switchyards environment up to 220KV/400KV, as per applicable standards / testing procedure.	Accepted
	Standard Technical particulars for Transformer winding resistance meter. Clause 3.4	Accuracy: Value of 0.05% (+/-) 1 digit	minimum accuracy +/-0.1 % +/- 5 Counts	Accepted
	Standard Technical particulars for Transformer winding resistance meter. Clause 3.7	Display: Color LCD viewable in bright daylight	Backlite LCD display	Accepted
	Standard Technical particulars for Transformer winding resistance meter. Clause 3.11	Housing: Rugged with wheels & retractable extension handle	Complied in Pelican Box	Box with Wheels, provision with handle for easy carrying is required
4	Meter for measurement of Contact Resistance of circuit breakers, isolators, bus bar joints, welded joints etc. Clause 3.9	Dimensions and Weight Lightweight not exceeding 10 kg's. And for portable use	Dimensions and Weight Lightweight should be approx 10 - 15 kg's. And for portable use	As Per TS
	Meter for measurement of Contact Resistance of circuit breakers, isolators, bus bar joints, welded joints etc. Clause 3.11	Safety feature: □ Auto trip provision with alarm signal in case of occurrence of body leakage for safety purpose	Dual Grounding is Externally provided & case is completely insulated. Internal grounding also provided for kit safety so there is no need of auto trip provision	Accepted
	Meter for measurement of Contact Resistance of circuit breakers, isolators, bus bar joints, welded joints etc. Clause 3.13	IEC 62271 / IS 13118 Dry Heat Test under IEC 60068-2-2, Steady State Damp Heat Test under IEC 60068-2-78, Cyclic Test under IEC 60068-2-14, Vibration Test under IEC 60068-2-6, Bump Test under IEC 60068-2-29, Mechanical Shock Test under IEC 60068-2-27, Safety Test under IEC 61010-1	Dry Heat Test under IEC 60068-2-2, Steady State Damp Heat Test under IEC 60068-2-78, Cyclic Test under IEC 60068-2-14, Vibration Test under IEC 60068-2-6, Bump Test under IEC 60068-2-29, Mechanical Shock Test under IEC 60068-2-27, Safety Test under IEC 61010-1	As Per TS, & Standards relevant to CB testing is accepted
Specification for Transformer Turns Ratio Meter General Technical Parameters Clause 4.2	Temperature Range : Operating: -20° C to 55° C (-5° F to 130° F) Storage: -40° C to 60° C (-55° F to 140° F)	Temperature Range : Operating: -0° C to 55° C Storage: -10° C to 60° C		Accepted

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5	Specification for Transformer Turns Ratio Meter General Technical Parameters Clause 4.5	Measuring time : Less than 5sec	Measuring time : 30 Sec Approx. (1Phase) 60 Sec Approx. (3Phase)	Accepted
	Specification for Transformer Turns Ratio Meter General Technical Parameters Clause: 4.18.	Battery life operation: Up to 12 hours of field operation	Mains Operated Only	As Per TS
6	TAN DELTA TEST KIT, Clause 4	Test Frequency Range: 45-70 Hz (12 kV) 15-400 Hz (4 kV) 1-505 Hz (250V) 0.0001 Hz maximum resolution	Test Frequency Range: 45-70 Hz (12 kV) 15-400 Hz (4 kV) 0.0001 Hz maximum resolution	As Per TS
	TAN DELTA TEST KIT, Clause 4	Capacitance Measurement Range: 0 to 100 µF Resolution: 0.01 µF Accuracy: 0.5% of rdg.	Range: 0 to 1.1mFd Resolution: 0.01 µF Accuracy: 0.5% of rdg.	As Per TS
7	Technical specification for AC clamp meter	GTP for thermal camera is erroneously published in point no 19	Please remove point no 19	
2	Technical specification for insulation tester. Clause 6	Vendor has to provide calibration facility from NABL accredited Lab for the guarantee period.	Vendor has to provide calibration facility from NABL accredited or NABL traceable lab for the guarantee period.	Accepted
3	Technical specification for Digital multimeter	Vendor to provide Calibration certificate and Test reports at the time of shipment. All the tests shall be conducted by NABL accredited lab as per the relevant standards.	Vendor to provide Calibration certificate and Test reports at the time of shipment. All the tests shall be conducted by NABL accredited lab or NABL traceable lab as per the relevant standards.	Accepted
4	Technical specification for AC leakage current meter. Clause 10 Packing	All the material shall be packed in aluminium canister of 500 ml or higher.	All the material shall be packed safely.	Accepted
5	Technical specification for Digital Lux meter Clause 10 Packing	All the material shall be packed in aluminium canister of 500 ml or higher.	All the material shall be packed safely.	Accepted
6	Technical specification for Digital Lux meter Clause 10 Packing	Vendor has to provide calibration facility from NABL accredited Lab for the guarantee period.	Vendor has to provide calibration facility from NABL accredited or NABL traceable lab for the guarantee period. Only if there is a lab having calibration facility for Lux meter.	Accepted
7	Technical specification for Online phase comparator 6.0 Calibration & Test	All the tests shall be conducted at NABL/NPL accredited lab as per the relevant standards	All the tests shall be conducted at NABL/NPL accredited lab or NABL traceable lab as per the relevant standards. International test reports is also acceptable.	Accepted
8	Infrared Thermo Scanning Camera			
8.1	Clause 6 Marking	The body of the camera shall be appropriately marked with "PROPERTY OF TPCL, ODIHSA" such that it is permanent.	The body of the camera shall be appropriately marked with "PROPERTY OF TPCL, ODIHSA" such that it is permanent or with a sticker.	Customized marking for a small batch of equipment is not offered by OEMs for Infrared thermos-scanning camera
8.2	Technical specification for Infrared Thermo Scanning camera. Clause 2 Thermal sensitivity/NETD	< 70 mK / < 80 mK	< 70 mK	NETD < 70 mK / < 80 mK is contradictory. NETD value is an indicator of how well the camera detector is able to distinguish between very small temperature differences in a thermal radiation. Hence it is a very important camera parameter and lower the NETD value, it is better. As per industry standard, for compact cameras, 80mK NETD is a poor value.
8.3	Clause 15 Touch screen	Yes; capacitive / joystick controller	Yes; capacitive	Keeping both Capacitive & joystick controller is contradictory; when a touch screen is asked, it means all points and corners of the screen can be accessed using touch of a finger. Only when a manufacturer cannot provide touch screen technology, it offers external devices like joy stick to control and move the cursor. Joy stick is an inferior device compared to touch screen and downgrades the camera quality
8.4	Clause 16 Display technology	IPS / TFT	IPS	IPS displays have better clarity of color and higher contrast than TFT displays. IPS also has much faster response time compared to TFT which is very important for fast image scanning; the TFT is an old technology and globally being replaced by IPS
8.5	Built-in digital camera	Not mentioned	SMP built-in digital camera with video lamp	Image modes like picture in picture has been asked for in the spec, but without integral digital camera, picture in picture cannot be achieved
8.6	Display Aspect ratio	Not mentioned		Following industry norms and ergonomic design standards, displays are preferred to have 4:3 aspect ratio; displays should not be out of proportions and create hindrance in operator's day to day handling