Scope:

This specification outlines the essential characteristics of a professional-grade clamp meter capable of both AC and DC current measurements, intended for versatile field and lab usage.

Specification for Clamp meter

- The instrument should have the capability to measure AC and DC current up to 1000 A with a resolution of 0.1 A or better and accuracy of ±(2.5% of measured value + 5 to 8 digits).
- The instrument should have AC voltage measuring capability up to 1000 V with a resolution of 0.001 V or better, with accuracy of ±(1.5% + 5 digits) for AC voltage.
- The instrument should have DC voltage measuring capability up to 1000 V with a resolution of 0.001 V or better, with accuracy of ±(0.5% + 5 digits) for DC voltage.
- The instrument should have a low-impedance voltage measurement (Low Z) function up to 300 V to eliminate ghost voltage effects, with accuracy of ±(3.0% + 40 digits).
- The instrument should have resistance measurement up to 60 MΩ with accuracy of ±(1.0% + 4 digits).
- The instrument should have capacitance measurement range up to 100 mF with a resolution from 0.01 nF and accuracy of ±(3.0% + 5 digits).
- The instrument should have frequency measurement capability up to 99.99 kHz with a resolution of 0.001 Hz and accuracy of ±(1.2% + 5 digits).
- The instrument should have duty cycle measurement function in the range of 10.0% to 90.0% with an accuracy of ±(1.2% + 2 digits).
- The instrument should have temperature measurement capability in the range of -20°C to +1000°C with an accuracy of ±(3% + 5°C or 9°F).
- Instrument should have diode and continuity test functionality.
- Instrument should have a True RMS feature for accurate measurements of non-linear signals.
- Instrument should have inrush current measurement, peak MIN/MAX capture, and relative measurement (REL) functions.
- Instrument should have a non-contact voltage detection (NCV) sensor for quick voltage presence identification.
- Instrument should have a 6000-count segment-based LCD display with manual backlight and data hold function.
- Instrument should have an automatic ranging function for user convenience.
- Instrument should have a rugged, compact design with a rubberized housing for shock protection and an integrated flashlight for working in poorly lit environments.
- Instrument should have a slim clamp head design to ensure access in tight and hard-to-reach places.
- Instrument should have safety ratings of CAT IV 600 V and CAT III 1000 V in accordance with EN 61010 standards.
- Instrument should have an ingress protection rating of IP30 or better.
- Instrument should have an operational temperature range of 5°C to 40°C and storage temperature range of -20°C to +60°C.
- Instrument should have power supply via standard 3 x 1.5 V AAA batteries.
- The instrument should have optional compatibility to increase the DC voltage up to 3000 V with additional accessories.

- Instrument should have a standard accessory set including test leads, temperature probe, and carrying case.

Service After Sale:

- Bidder will have to submit the documentary evidence of having established a mechanism for prompt services as & when required.