Abstract

This letter describes the development of a rogowski coil current and on-chip temperature sensor for evaluating the sag of conductors in high voltage transmission line. A rogowski coil has an air core instead of an iron core. The measurement show excellent linearity with practical no saturation problems. In addition, the rogowski rate highly for electrical isolation from the bus bar, and is light weight with low material cost. The uses reliably proven universal serial bus technology to energize the electronic circuitry. The data collected together with sag information will provide support for the development of an algorithm for estimation conductor sag values.

References

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Index Terms

Computer Science
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Current sensor  power measurement IC  sag  transmission line  universal serial bus cable.