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compact DC overhead lines

As the need for high voltage direct current (HVDC) links with high transmission capacity is more widely recognized, rights of way for those lines become increasingly difficult to obtain. Compact overhead lines can reduce their visual and environmental impact, making regulatory approval easier and allowing their construction on narrower corridors or possibly shared with other infrastructures. But reducing the horizontal distances and heights to maximize the power transmitted on a given line's cross section can result in an increase of the corona-related parameters. Electric field, ion current density, audible noise, etc., need to be managed with the design. This brochure covers the theory for compacting DC lines, including calculation examples, mechanical aspects, as well as several case study designs from around the world. Issues like insulation coordination and live maintenance are considered in the document due to the high reliability and availability levels often required for these lines.

More Informations :

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