# Article information:

Energies | Free Full-Text | Thermal Assessment of Power Cables and Impacts on Cable Current Rating: An Overview  
<https://www.mdpi.com/1996-1073/13/20/5319>

# Article summary:

1. Thermal phenomena are at the basis of power cable current rating, and the temperature reached during operation determines the cable lifetime.

2. The determination of the current rating requires formulating a heat transfer problem, in which the thermal properties of materials, heat sources inside and outside the cable, and mechanisms of heat dissipation are modelled and evaluated.

3. This paper reviews the thermal models of underground cables by indicating evolutions from basic models with general hypotheses to more detailed specifications.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article is generally reliable and trustworthy as it provides an overview on thermal assessment of power cables and its impacts on cable current rating. It is well-structured and provides a comprehensive review on different aspects related to this topic such as soil modelling, thermal assessment models, current rating calculations, advanced effects of electrical quantities on the cable rating, etc. The article also cites relevant literature to support its claims.

However, there are some potential biases that should be noted in this article. For instance, it does not provide any counterarguments or explore any alternative perspectives on this topic which could have been beneficial for readers to gain a better understanding of this issue. Additionally, there is no mention of possible risks associated with power cables which could have been included in order to provide a more balanced view on this topic. Furthermore, some claims made in the article are not supported by evidence which could lead to confusion among readers who may not be familiar with this subject matter.

In conclusion, while this article provides an overview on thermal assessment of power cables and its impacts on cable current rating, it should be read critically due to potential biases mentioned above that could lead to misunderstanding or misinterpretation among readers who may not be familiar with this subject matter.

# Topics for further research:

* Power cable current rating risks
* Alternative perspectives on thermal assessment
* Electrical quantities and cable rating
* Soil modelling for power cables
* Thermal assessment models for power cables
* Advanced effects of thermal assessment on power cables

# Report location:

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