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Heat Loss Analysis-based Design of a 12 MW Wind Power Generator Module having an HTS Flux Pump Exciter

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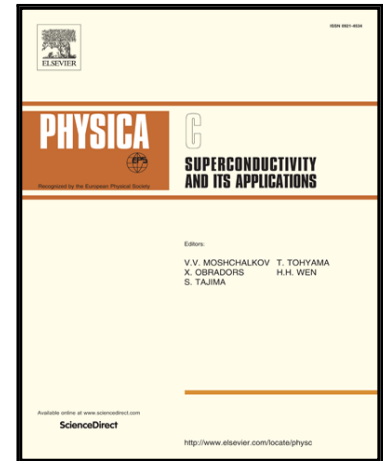
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Highlights

- A large-scale HTS generator module has been suggested to avoid issues such as a huge vacuum vessel and higher reliability.
- The challenging heat loss analysis of a large-scale HTS generator has successfully been performed, enabling the design of an optimal support structure having a total heat loss of 43 W/400 kW.
- The results prove the potential of a large-scale superconducting wind-power generator to operate efficiently, and support further development of the concept.

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