



Research Article

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Thermal irregularity of connection joints in modular and block-modular enclosing structures

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Keywords:

Thermal Irregularity; Connection Joints; Modular Structures; Block-Modular Structures; Building Envelope; Numerical Modeling; Temperature Fields; Heat Losses; Thermal Protection; Energy Efficiency

Abstract:

The object of research is the thermal irregularity (non-uniformity) of connection joints in modular and block-modular enclosing structures of buildings. **Method.** The research involved numerical modeling of temperature fields in the connection joints using modern software complexes. A methodology for the quantitative assessment of thermal characteristics and the calculation of thermal irregularities was developed and applied. **Results.** The analysis of heat losses at the junctions of structural elements was conducted. The main factors affecting the thermal protection properties of the joints were identified. Practical recommendations for optimizing these joints and improving the thermal insulation characteristics of buildings were developed based on the modeling results.

1 Introduction

2 Materials and Methods

3 Results and Discussion

4 Conclusions

5 Fundings

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References

References must meet the requirements <https://unistroy.spbstu.ru/en/references/>.