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Correction dynamic properties of differential protection of long transmission lines.

The purpose of the article is to investigate the dynamic properties of longitudinal differential protection of the power line with compensation of the charging power and to develop recommendations for increasing the sensitivity of protection.

As a result of the research it was established that in order to ensure selective operation, the minimum tripping current of the protection is inadmissible due to the condition of sensitivity when OHL is switched over to non-load mode. Therefore, in order to achieve the required sensitivity and speed, an increase in the main braking signal is necessary.

The article presents the results of an evaluation of the effectiveness of the methods proposed earlier for improving the efficiency of protection. The use of additional braking due to compensation of unbalance currents due to distributed capacitance, OL allows to significantly increase the sensitivity of protection.

Keywords: electric transmission line, current transformer, dynamic properties, differential protection, restricted signal, correction of sensitivity.