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IMPROVEMENT OF 1PHASE FAULT LOCATION METHOD AT RAIL TRANSPORT SYSTEMS' SIGNALLING CONTROL LINES

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Abstract

Fault location method at rail transport systems' signaling overhead control lines has been described. Complications of this method's usage due to dynamic changes of line's mode parameters which lead to inaccuracies have been indicated. Experience of combining in one method 3 algorithms for different phases of a line has been presented. To increase this method's accuracy it has been suggested to determine 1ph voltage vector between power source and location of the fault. It has been proved to use rated sinusoidal fundamental signals as input parameters for this method. Experiments have been carried out to supplement this method. Research to determine capacity values between each phase and earth has been carried out to lessen electromagnetic interference from contact system. References 8, figures 2, tables 4.

Key words: fault location, experimental study, mathematical modelling, refinement of method, accuracy.

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