

# The analysis of bridge crane motion mechanism dynamics with variable-frequency drive

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*The research results of bridge crane movement regime with variable-frequency drive are covered. Dynamic mechanical characteristic of motors have been used in calculation. Basic crane work indexes (power, electrical, dynamical, kinematic) are analyzed. Rational settings of frequency invertors are established, which allow increasing efficiency of crane using. Undesirable working characteristics of crane are detected; these characteristics could not be removed by means of frequency invertors' optional settings.*

**Keywords:** *bridge crane, frequency control, dynamic of movement, numerical experiment, efficient indexes, asynchronous electromotor, flexible suspension.*

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